

U. S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No: 50-220

Report No: 50-220/98-03 (OL)

Licensee: Niagara Mohawk Power Corporation

Facility: Nine Mile Point Nuclear Station, Unit 1
Syracuse, New York 13212

Dates: January 20-23, 1998

Chief Examiner: C. Sisco, Operations Engineer

Approved By: Richard J. Conte, Chief
Operator Licensing and
Human Performance Branch
Division of Reactor Safety

7.

EXAMINATION SUMMARY

Operations:

An assessment review of the initial examination submittal of November 19, 1997 consisting of the written, job performance measures and operating tests found that the submittal was inadequate. NRC staff concerns were noted in a letter dated December 2, 1997 and the examination was postponed until the week of January 20, 1998. A revised examination was resubmitted and another assessment indicated that the submittal did not require additional modifications. NRC inspection report 50-410/97-08 (OL) documented significant areas of difficulty identified by NRC staff of an NMP-2 initial license written examination submittal of April 7, 1997. There was apparent ineffective corrective actions to improve the quality of initial examination submittals that resulted again in the postponement of the examination.

The inspectors determined the applicants were well prepared for the examination and met all regulatory eligibility requirements.



Report Details

I. Operations

O5. Operator Training and Qualifications

O5.1 Operator Initial Examinations

a. Scope

Initial license examinations were administered to four Senior Reactor Operator (SRO) instant applicants. The examination was developed, administered and graded in accordance with NUREG-1021, "Examiner Standards," Revision 8.

b. Examination Results

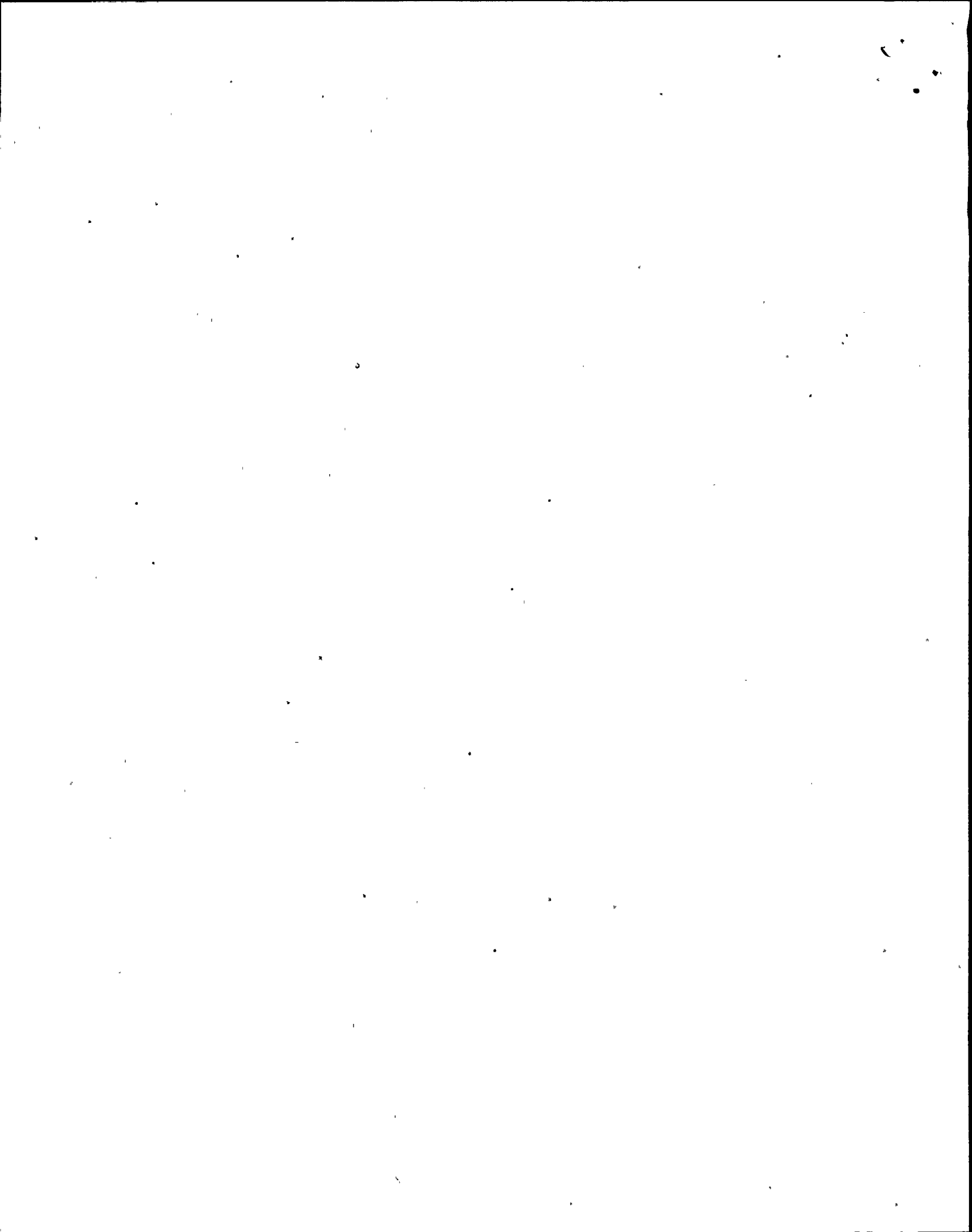
The applicants passed all portions of the examination and were granted SRO licenses. Isolated instances of individual weaknesses were identified, however, generic weaknesses were not identified. The applicants were well prepared for the examination.

c. Examination Preparation

An assessment review of the initial examination submittal of November 19, 1997 identified that the sample plan was adequate, however, major areas of difficulty were identified on both the written and operating tests. Specifically, on the written test item construction, there were: implausible distractors, distractors not consistent with the stem of the question and a low level of knowledge and/or difficulty tested. Although some test items were reviewed as acceptable, all questions on the written test reflected one or more of the identified problems. As a consequence, the written examination was found to be inadequate.

In addition, on the operating test, the expected performance standards were not specified as part of the job performance measures and as a consequence were found to be inadequate. Also, the scenarios did not provide adequate details concerning the expected operator actions and were found to be inadequate. The results of the assessment review was discussed with NMP-1 personnel in the regional office on December 3, 1997. Each of the major areas of difficulty with the submitted examination was discussed in detail. NRC staff concerns were noted in a letter dated December 2, 1997 and the examination was postponed until the week of January 20, 1998.

A revised examination was resubmitted and an assessment reviewed indicated that the submittal did not require additional modifications. A copy of the final examination is attached. The NMP-1 training staff administered the written examination on January 18, 1998. NMP-1 training staff were under a security agreements to assure examination integrity. NRC grading of the written examination was consistent with NMP-1 grading.



NRC inspection report 50-410/97-08 (OL) documented significant areas of difficulty identified by NRC staff of an NMP-2 initial license written examination submittal of April 7, 1997. The areas of difficulty were poorly structured questions, distractors not plausible, duplicate question areas, simplistic questions, distractors not consistent with the area of the stem of the question and imbalance in wording of the distractors and correct answer. The administration of the examination was delayed to allow sufficient time for NMP-2 to develop and submit an acceptable to examination for NRC staff review. There was apparent ineffective corrective actions to improve the quality of initial examination submittals that resulted again in the postponement of the examination.

d. Additional Findings

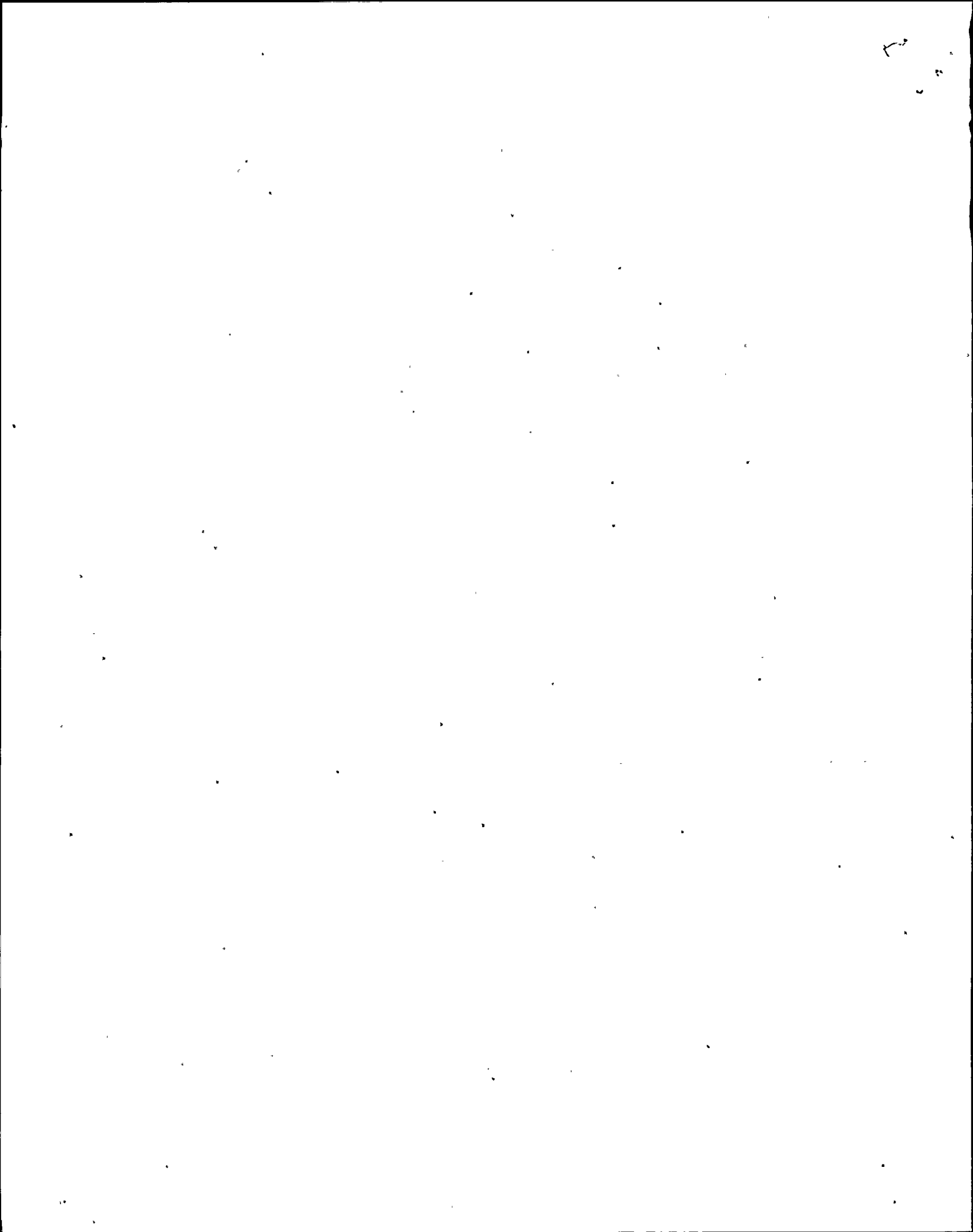
The on site preparations of the examination was conducted in a professional manner by NMP-1 staff. Access into the station was uneventful and security badging was conducted in an efficient manner. As a result of the in-plant portion of the examination, station procedure N1-OP-13 "Emergency Cooling System" was revised to more clearly specify the noun identifiers of two valves.

The inspectors reviewed the eligibility documentation of the applicants that were examined. Based on the review of the documentation, the inspectors determined that the applicants met all regulatory eligibility requirements.

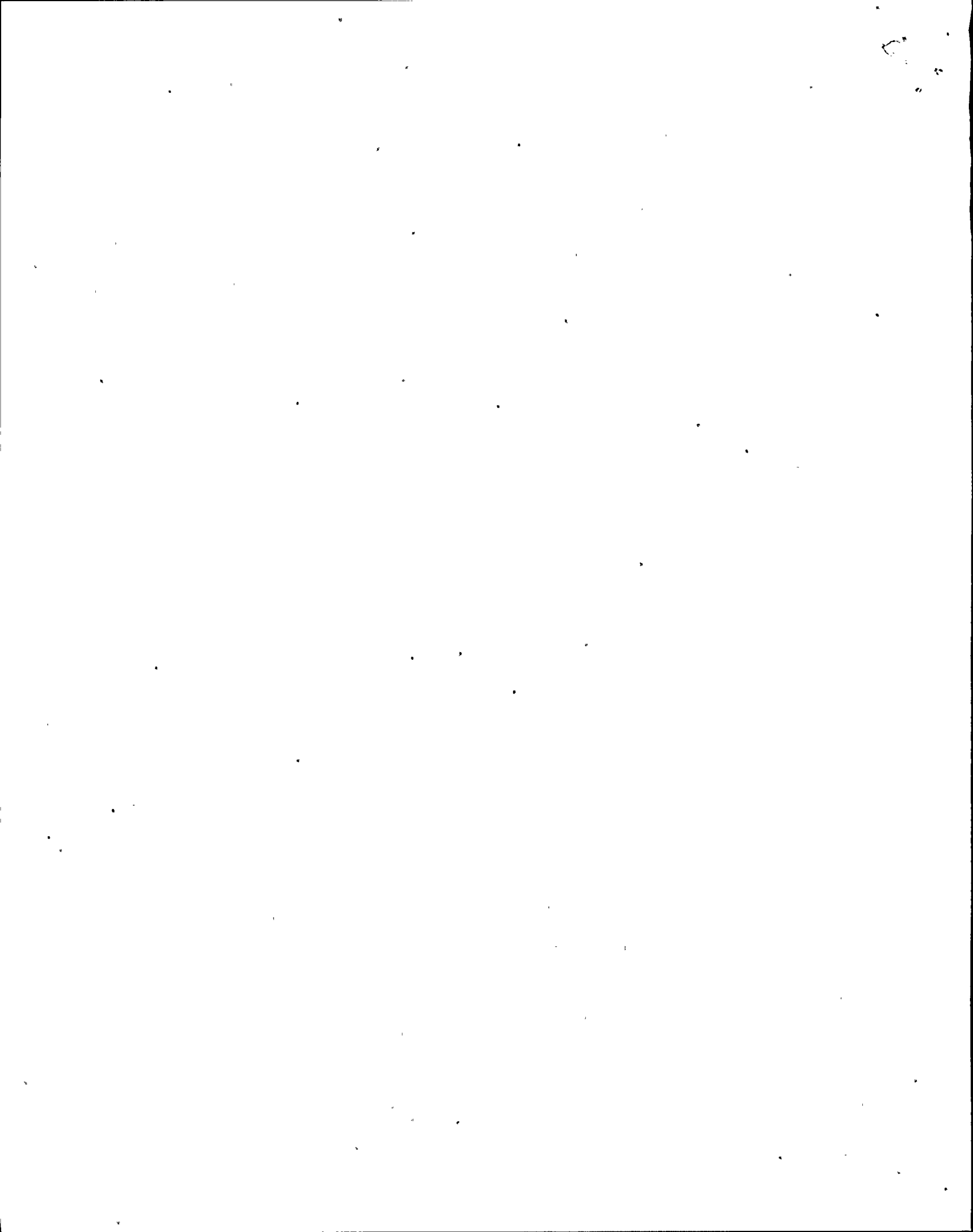
e. Conclusions

An assessment review of the initial examination submittal identified that the submittal was inadequate. Corrective actions necessary to improve the quality of initial examination submittals noted in the April 1997 examination were ineffective requiring again that the examination be postponed and reassessed by NRC staff. The inspectors determined the applicants were well prepared for the examinations and met all regulatory eligibility requirements.

Attachment: SRO Written examination and answer key
Simulator Fidelity Report



ATTACHMENT 1
SRO EXAMINATION AND ANSWER KEY



**U. S. NUCLEAR REGULATORY COMMISSION
NINE MILE POINT - 1 NUCLEAR POWER STATION
WRITTEN EXAMINATION**

APPLICANT INFORMATION

Name:	Region: I
Date:	Facility/Unit: Nine Mile Point 1
License Level: SRO	Reactor Type: GE
Start Time:	Finish Time:

INSTRUCTIONS

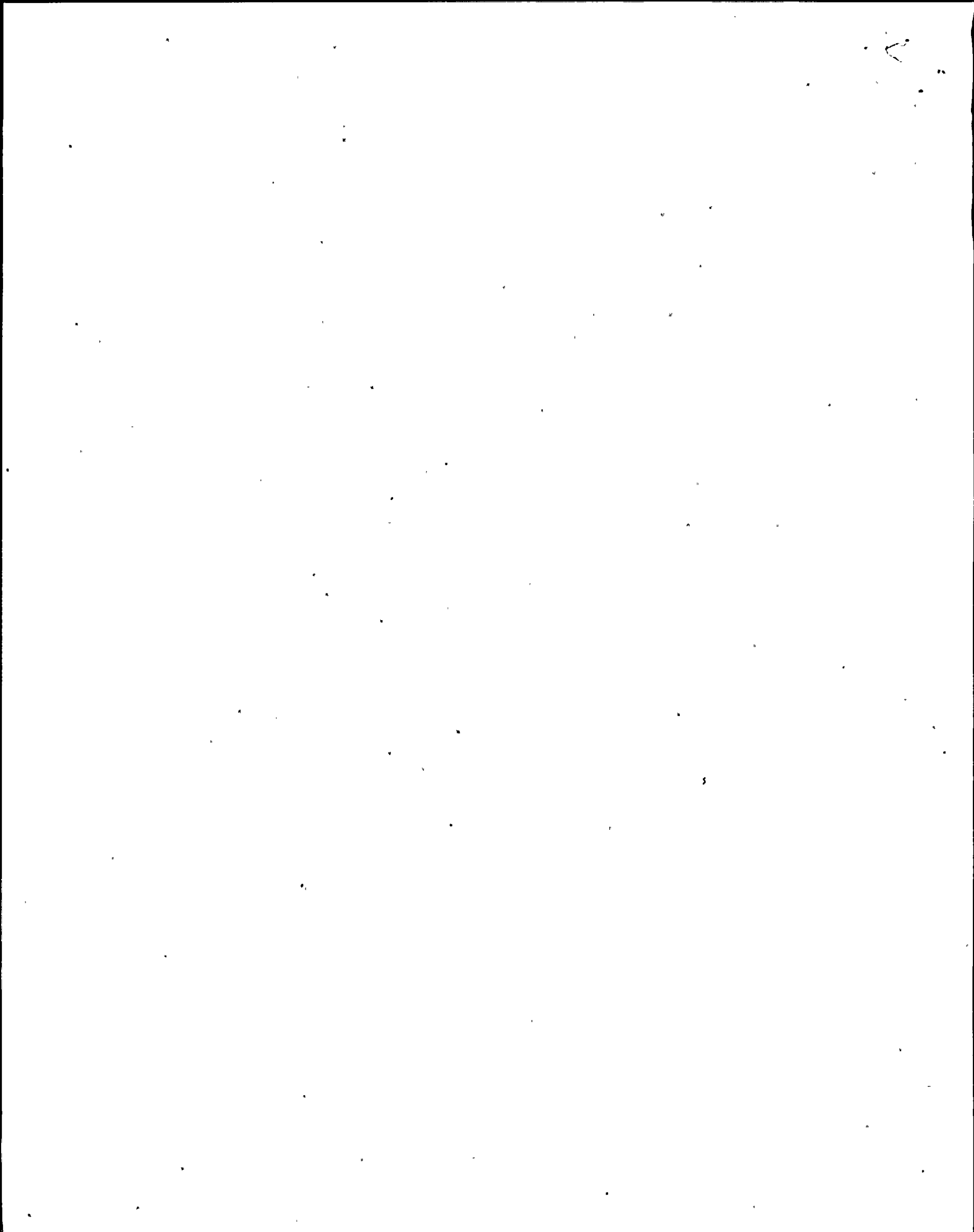
Use the answer sheets provided to document your answers. Staple this cover sheet on top of the answer sheets. Points for each question are indicated in parentheses after the question. The passing grade requires a final grade of at least 80 percent. Examination papers will be picked up 4 hours after the examination starts.

All work done on this examination is my own. I have neither given nor received aid.

Applicant's Signature

RESULTS

Examination Value	____ 100 ____ Points
Applicant's Score	____ Points
Applicant's Grade	____ KEY ____ Percent



Question: 001 (1.0 Point)

The scoop tube for #11 Reactor Recirc Pump has locked up due to an air system malfunction. The air system malfunction has been corrected. WHICH ONE (1) of the following actions are necessary to reset this condition per N1-OP-1 ?

- a. Transfer speed control to local manual, install temporary mechanical stop, transfer speed control to Control Room M/A station, balance the controller and place in auto.
- b. Close RRP #11 discharge valve and at F panel push PUMP MOTOR VIBRATION RESET button, reset 86 relay, and reopen the discharge valve slowly, minimizing flow changes.
- c. Depress AIR FAILURE RESET pushbutton on F Panel, rotate local OPERATING LEVER from LOCK to MANUAL back to AUTO through RESET to AUTO.
- d. Place RRP #11 controller to MANUAL and 20% speed, depress pump MOTOR VIBRATION RESET BUTTON and AIR FAILURE RESET pushbutton on F panel.

Answer: a

K/A: 202002 A2.05 / 3.1

Reference:

O1 -OPS -001-202-1-01, EO-5.0, 7.0, 8.0

N1-OP-01

Source:Q406



Question: 002 (1.0 Point)

While operating at rated power a transient results in a low level HPCI start signal. Subsequently level swelled to +98 inches for approximately 45 sec and then lowered to below + 95 inches from ERV operation. WHICH ONE (1) of the following describes the expected vessel water level and feedwater system response to this event with no operator action?

- a. Level will continue to lower and be controlled in the HPCI band by the operating feedwater pumps.
- b. Level will continue to lower and re-initiate the tripped feedwater pumps in HPCI mode.
- c. Level will continue to lower and will not re-initiate the tripped feedwater pumps in HPCI mode .
- d. Level will be maintained at + 95 inches by the operating feedwater pumps.

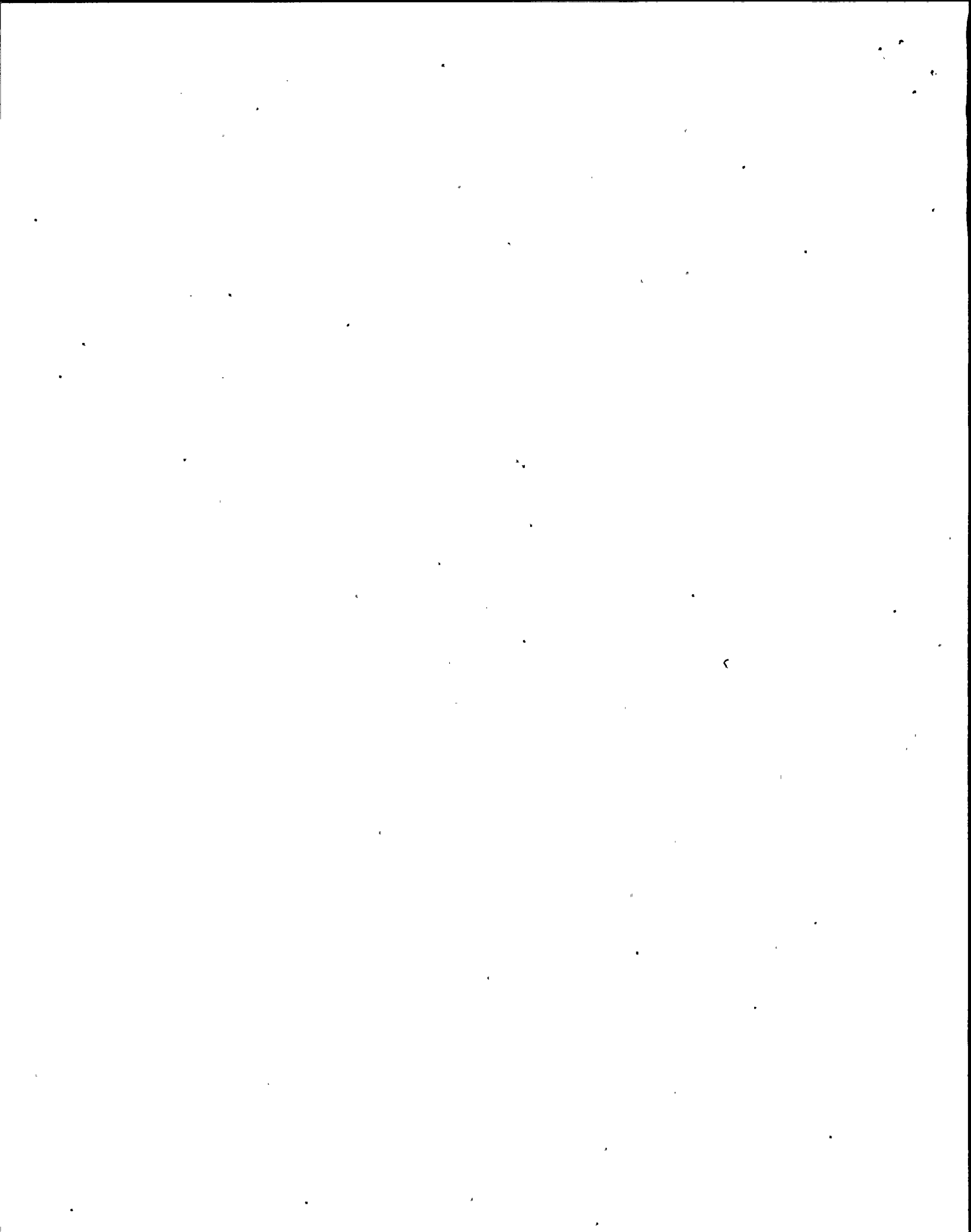
Answer: b

K/A: 206000 A1.01 / 4.4

Reference:

O1-OPS-001-259-1-01, EO-9.0, 17.0a, 15.0, 23.0

Source: new



Question: 003 (1.0 Point)

A loss of Battery Board #11 has occurred. WHICH ONE (1) of the following describes the effect this will have on the Emergency Condensers ability to auto initiate or auto isolate on a valid signal?

- a. EC's will auto initiate and will not auto isolate.
- b. EC's will auto initiate and auto-isolate.
- c. EC's will not auto initiate but will auto isolate.
- d. EC's will not auto initiate or auto isolate.

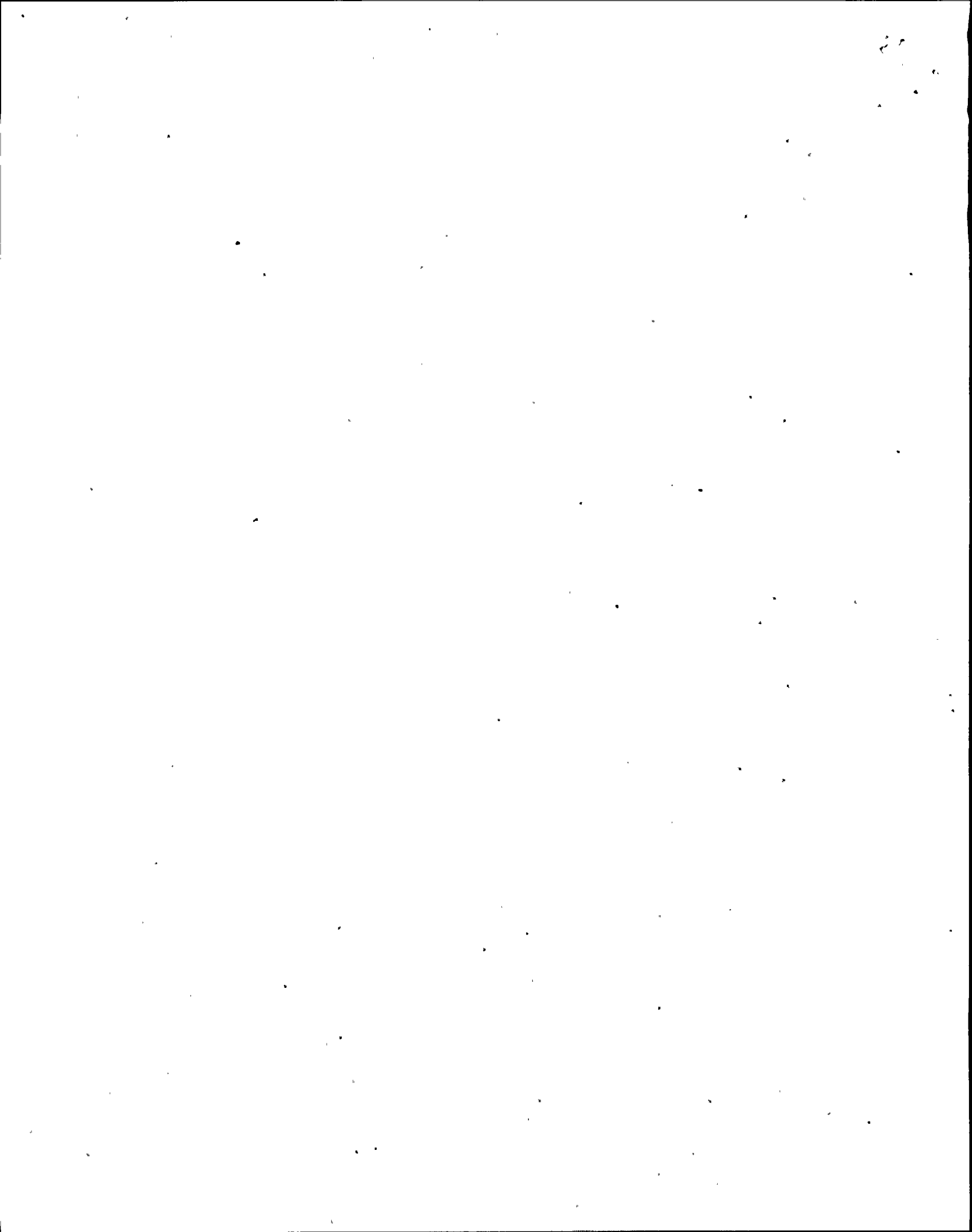
Answer: b

K/A: 207000 K6.08 / 3.7

Reference:

O1-OPS-001-207-1-01, EO-5.0, 3.0, 7c

Source: new



Question: 004 (1.0 Point)

The plant is operating at 100% power with EC System #11 and #12 in standby. An alarm is received indicating a high area temperature for loop #11. WHICH ONE (1) of the following indicates the correct operator response to this alarm?

- a. Verify EC System #11 auto isolation, declare that EC loop Inoperable and enter EOP-5
- b. Monitor temperatures in the Aux. Control Room and when two area temperatures exceed 135°F, enter EOP-05
- c. Place EC System #11 Isolation Bypass to BYPASS to allow automatic isolation to occur
- d. Close the EC System #11 Steam IV's, EC Return IV, EC vents and drains, and enter EOP-5.

Answer: d

K/A: 207000 A2.01 / 4.5

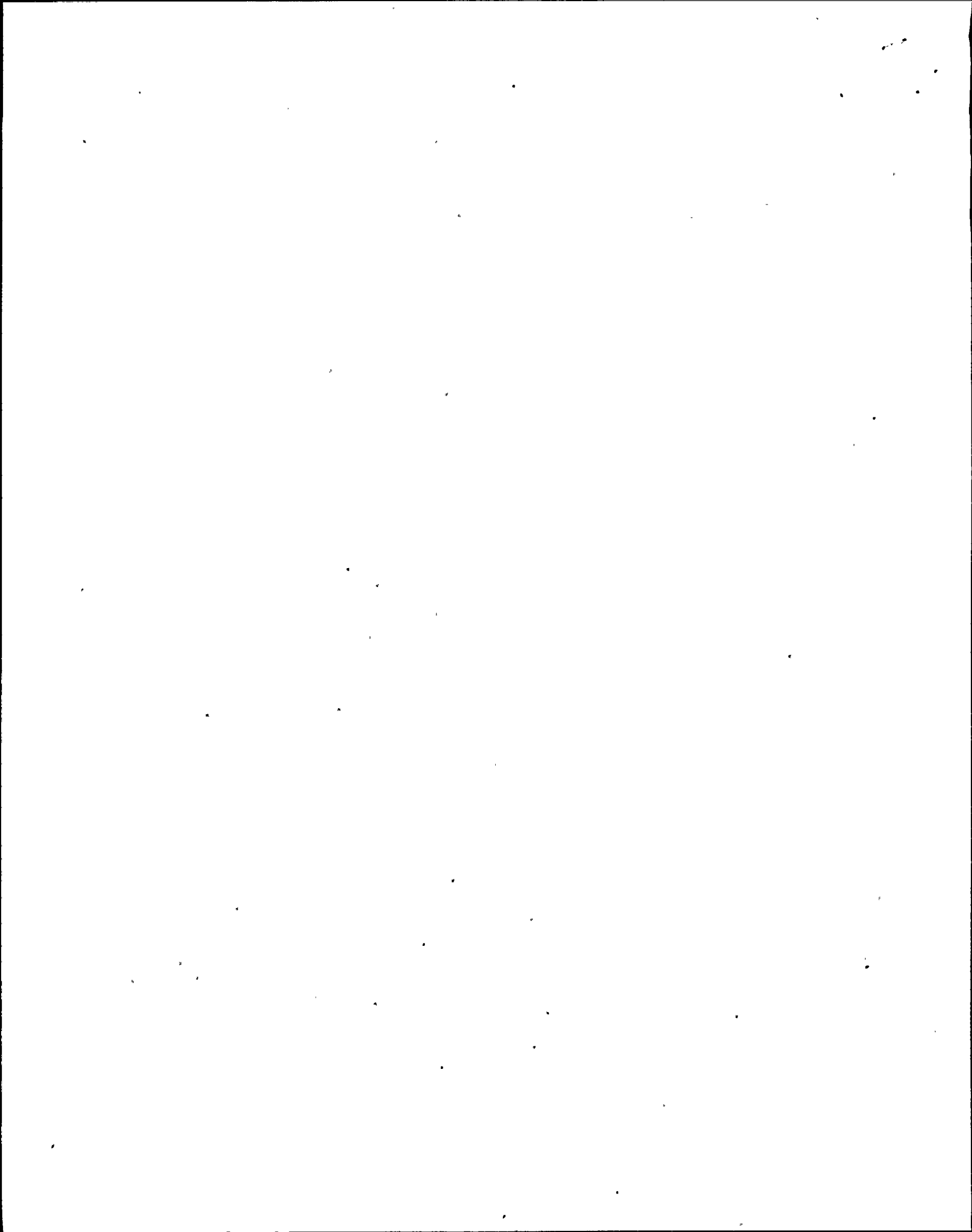
Reference:

O1-OPS-001-207-1-01, EO-7.j, 4d, 7h

N1-ARP-K1,4-3

N1-EOP-05

Source:Q163



Question: 005 (1.0 Point)

Annunciator K2-2-4, PB103-REAC EMER SPR SYS AUTO START CIRC V LOW is received. Investigation reveals a failure of the Power Board 103, 4160 Volt to 120 Volt Control Transformer. WHICH ONE (1) of the following describes the impact on the ability to start 112 and 122 Core Spray Pumps (Automatically and Manually) from the Control Room and why this condition exists?

- a. Will start manually but will not start automatically due to loss of power to the Power Board 103 auto start timer circuit.
- b. Will start manually but will not start automatically due to loss of power to the breaker control circuit.
- c. Will start manually or automatically due to Power Board 102 auto start timer circuit still being available.
- d. Will not start manually or automatically due to loss of power to the breaker control circuit.

Answer: a

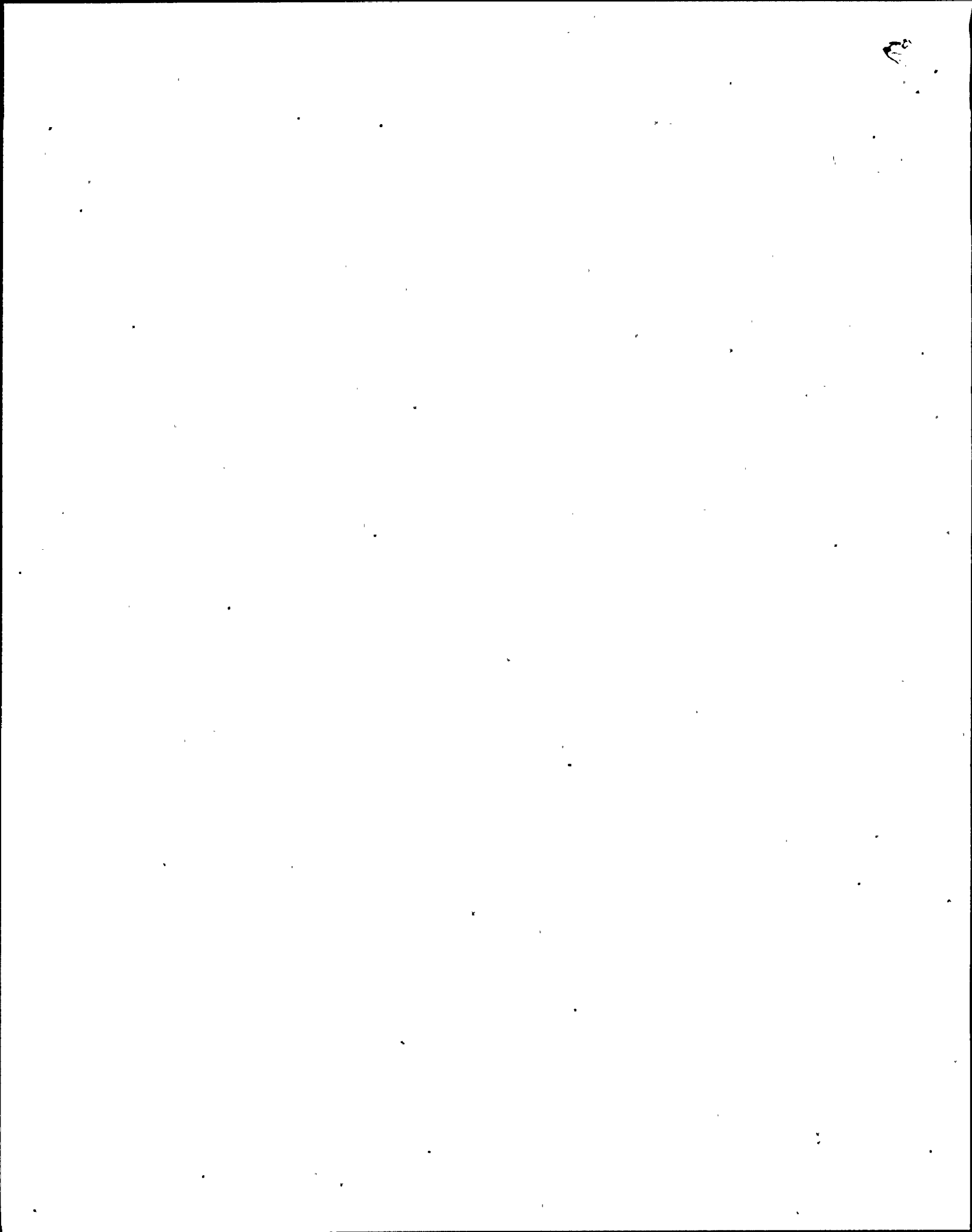
K/A: 209001 A3.02 / 3.7

Reference:

EWD C-19410-C Sh 8

01-OPS-001-209-1-01, EO-4.c

Source: new



Question: 006 (1.0 Point)

During an ATWS event with a loss of RPS bus #11, boron injection is directed in accordance with N1-EOP-3. WHICH ONE (1) of the following identifies the expected status of the Liquid Poison (LP) and Reactor Cleanup System (CU) after the operator initiates LP pump #11?

- a. LP #11 pump running, #11 Explosive valve not fired, #12 Explosive valve fired, CU would be isolated.
- b. LP #11 pump not running, #11 and 12 Explosive valves fired, CU would be isolated.
- c. LP #11 pump running, #11 and 12 Explosive valves fired, CU would not be isolated.
- d. LP #11 pump not running, #11 Explosive not fired, #12 Explosive valve fired, CU would not be isolated

Answer: a

K/A: 211000 A4.03 / 4.1

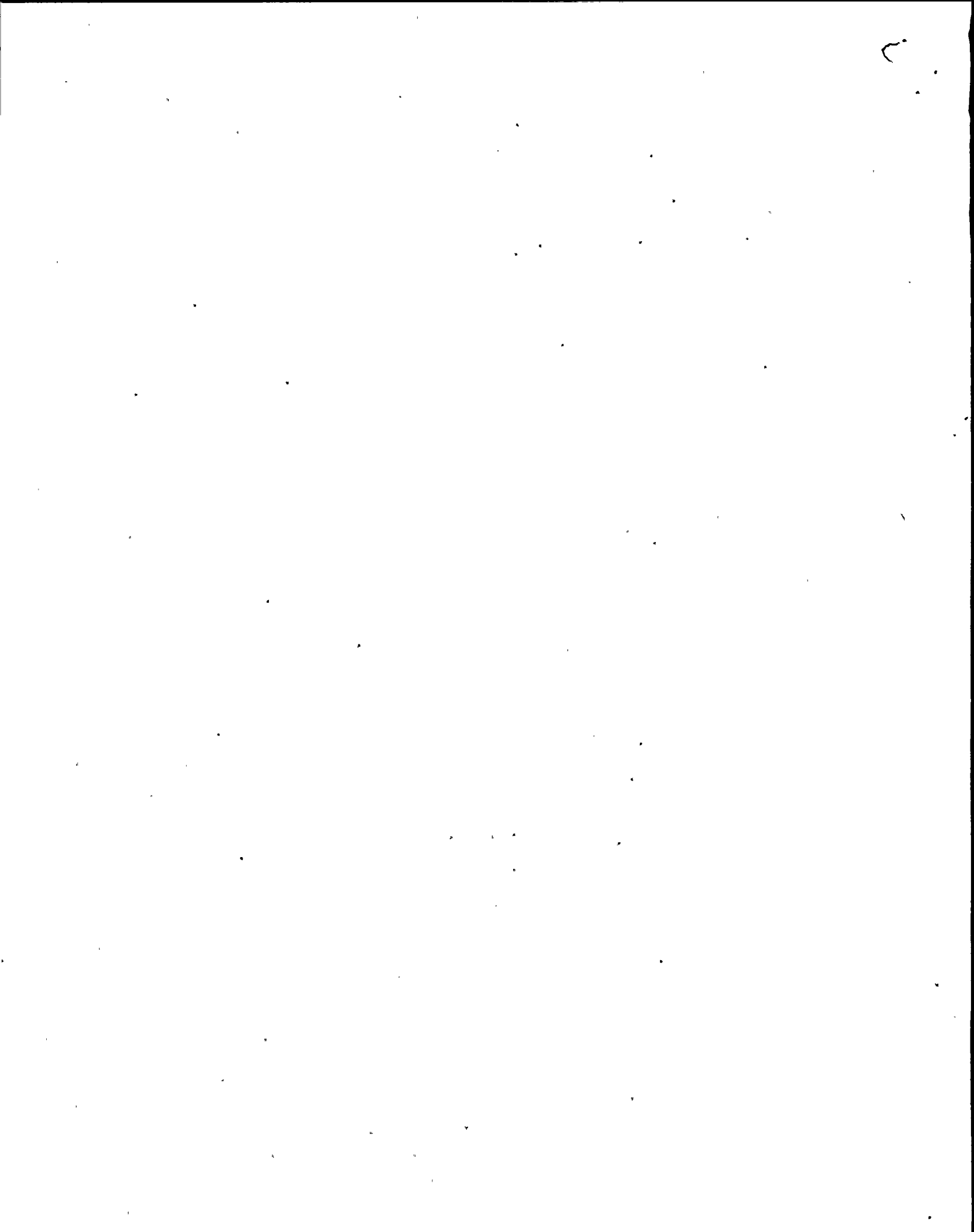
Reference:

O1-OPS-001-211-1-01, EO-5.0

O1-OPS-001-204-1-01, EO-4.0c

O1-OPS-001-212-1-01, EO-16.0d

Source: Modified Q842



Question: 007 (1.0 Point)

While operating at 100% power, a loss of Power Board 13A occurs. The shift notices that core megawatts thermal is changing and enters N1-SOP-2, Unexplained Reactor Power Change. WHICH ONE (1) of the following describes the direction of power change and why this change is occurring?

- a. Increase, due to loss of MG 131.
- b. Increase, due to loss of EPR.
- c. Decrease, due to loss of power to 11 and 12 Recirc. MG voltage regulation circuit.
- d. Decrease, due to loss of power to 11 feedwater flow D/P transmitter.

Answer: a

K/A: 212000 K2.01 / 3.3

Reference:

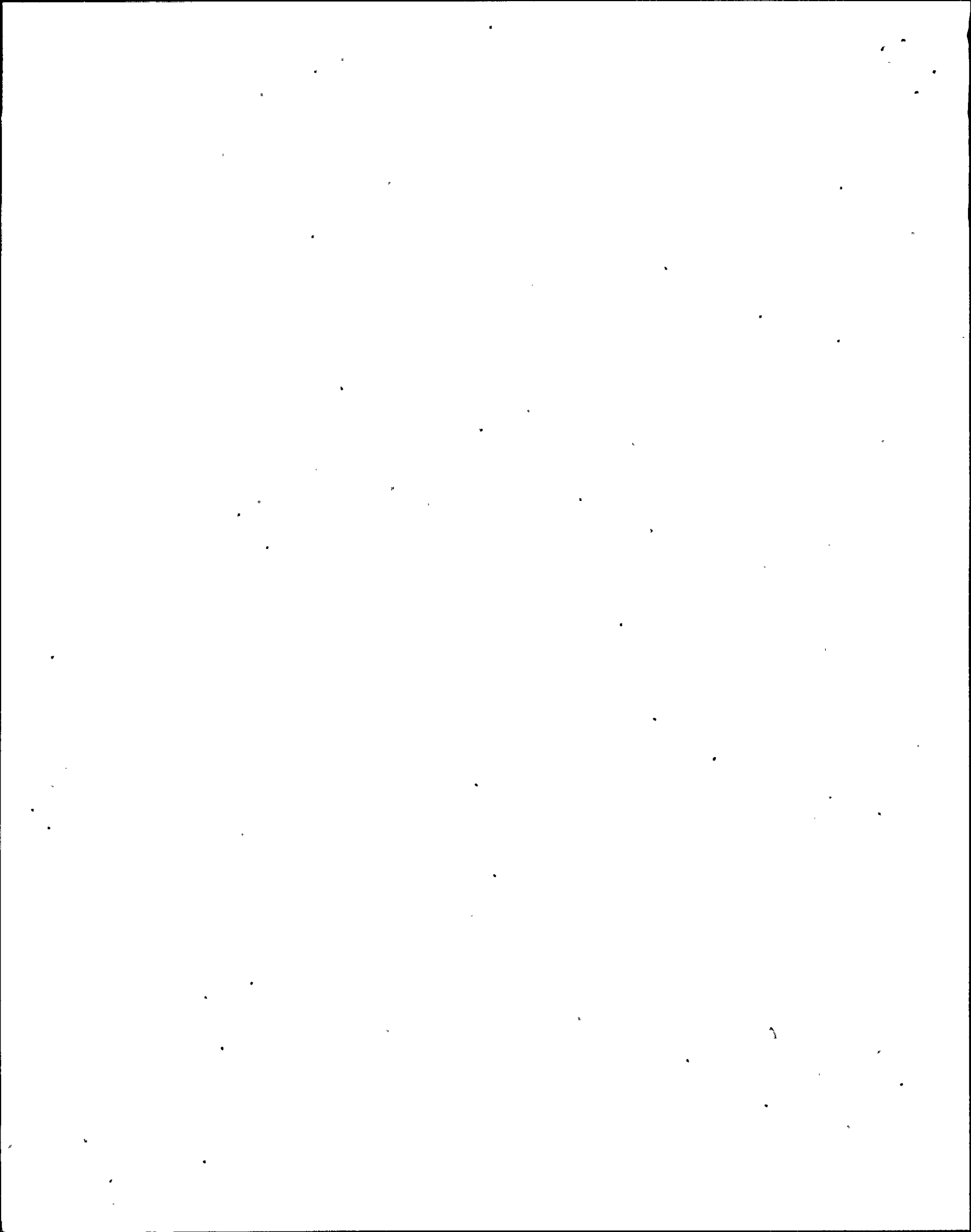
O1-OPS-001-212-1-01, EO-2.0

N1-SOP-2

N1-OP-48

N1-OP-16

Source: new



Question: 008 (1.0 Point)

The reactor is at 60% power when the #11 Flow Converter input to the APRM's fails downscale. WHICH ONE (1) of the following will be generated in addition to a flow comparator rod block?

- a. A flow biased half scram, and a flow biased rod withdrawal block on APRMs 11, 12, 13 and 14.
- b. A flow biased half scram, and a flow biased rod withdrawal block on APRMs 15, 16, 17 and 18.
- c. A flow biased rod withdrawal block on APRMs 11, 12, 13 and 14.
- d. A flow biased rod withdrawal block on APRMs 15, 16, 17 and 18.

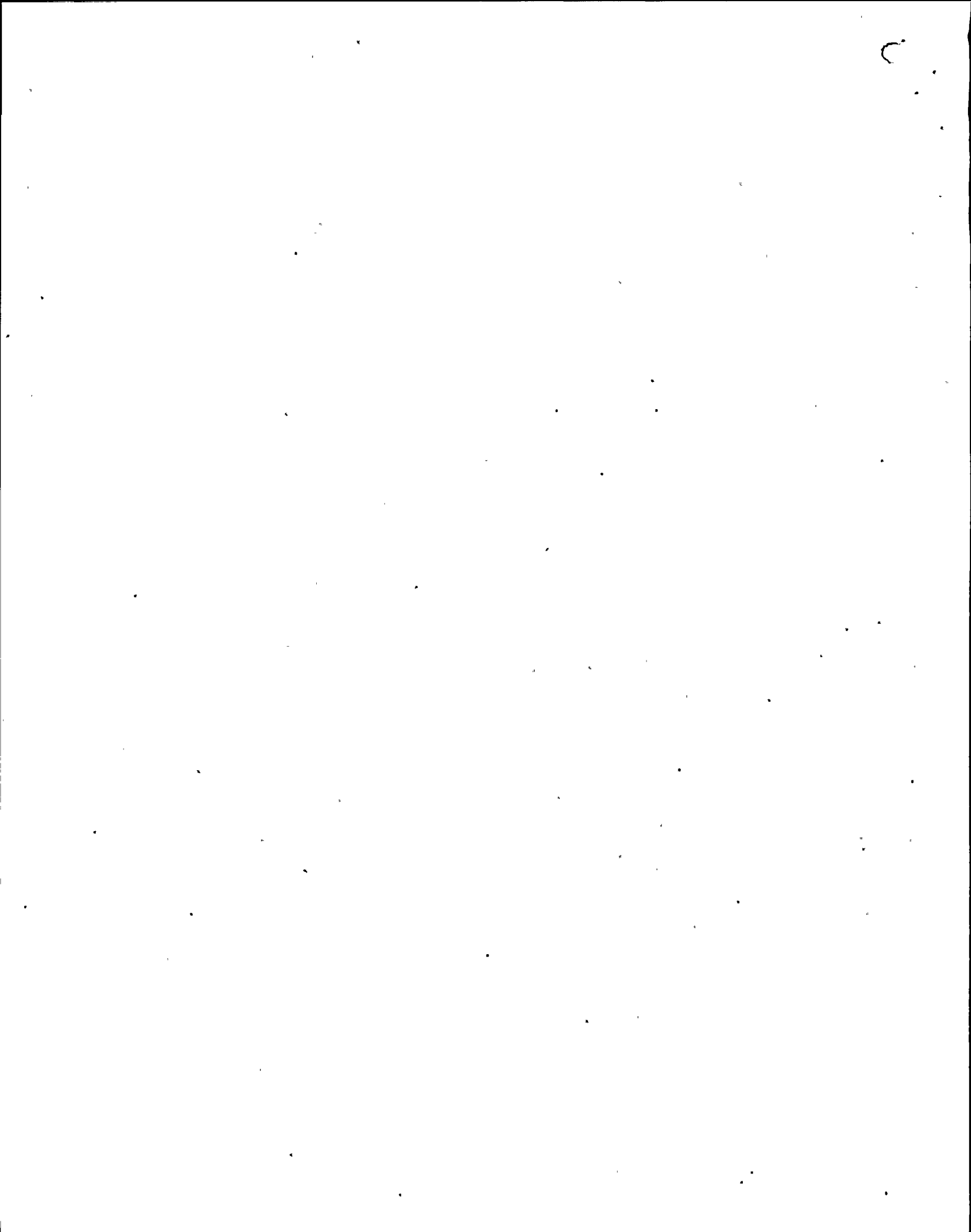
Answer: c

K/A: 215004 K4.07 / 3.7

Reference:

O1-OPS-001-215-1-02, EO-4.c, 7.e

Source: Q14498



Question: 009 (1.0 Point)

A gross rupture has occurred in the common variable leg on the #11 Yarway / Rosemount level column. WHICH ONE (1) of the following identifies the status of RPS and Alternate Rod Insertion (ARI) circuitry from this failure considering level instruments effect only ?

- a. A 1/2 scram signal on RPS and no ARI initiation.
- b. A 1/2 scram signal on RPS and an ARI initiation.
- c. A full scram signal on RPS and no ARI initiation.
- d. A full scram signal on RPS and an ARI initiation.

Answer: d

K/A: 216000 K1.19 / 3.9

Reference:

O1-OPS-001-216-1-01, EO-3.0c, 6.0

DRW, N1, C-18015-C

Source: Q14547



Question: 010 (1.0 Point)

A manual reactor scram has just occurred with the following plant conditions:

- Vessel water level is 103 inches above instrument zero.
- Vessel pressure is 800 psig.
- Core Flow is 34×10^6 lbm/hr.
- Drywell 319' elev. temperature is 155° F.

WHICH ONE (1) of the following instruments should be used to monitor RPV level under these plant conditions?

- a. Narrow Range GEMAC
- b. Suppressed Range GEMAC
- c. Wide Range GEMAC
- d. Fuel Zone Water Level Monitoring system.

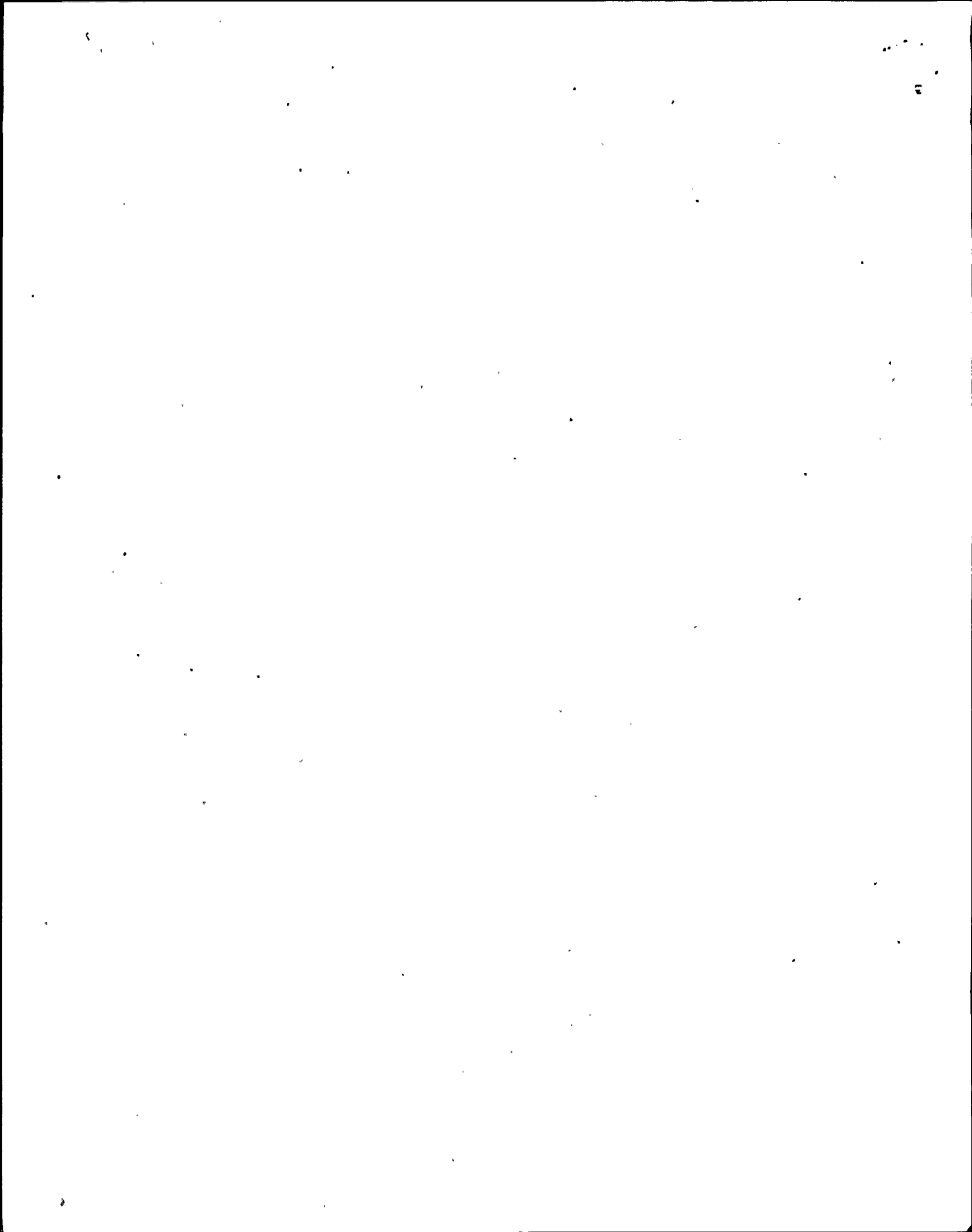
Answer: c

K/A: 216000 A1.01 / 3.3

Reference:

O1 -OPS -001-216-1-01, EO-3.0.b/d

Source: new



Question: 011 (1.0 Point)

A loss of coolant accident has occurred resulting in a valid ADS initiation signal. WHICH ONE (1) of the following describes the response of the Automatic Depressurization System if both channel 11 drywell pressure transmitters fail to provide input to both ADS logics?

- a. The primary and backup valves will actuate.
- b. The primary valves will actuate but the backup valves will not actuate.
- c. The primary valves will not actuate but backup valves will actuate.
- d. The primary and backup valves will not actuate automatically.

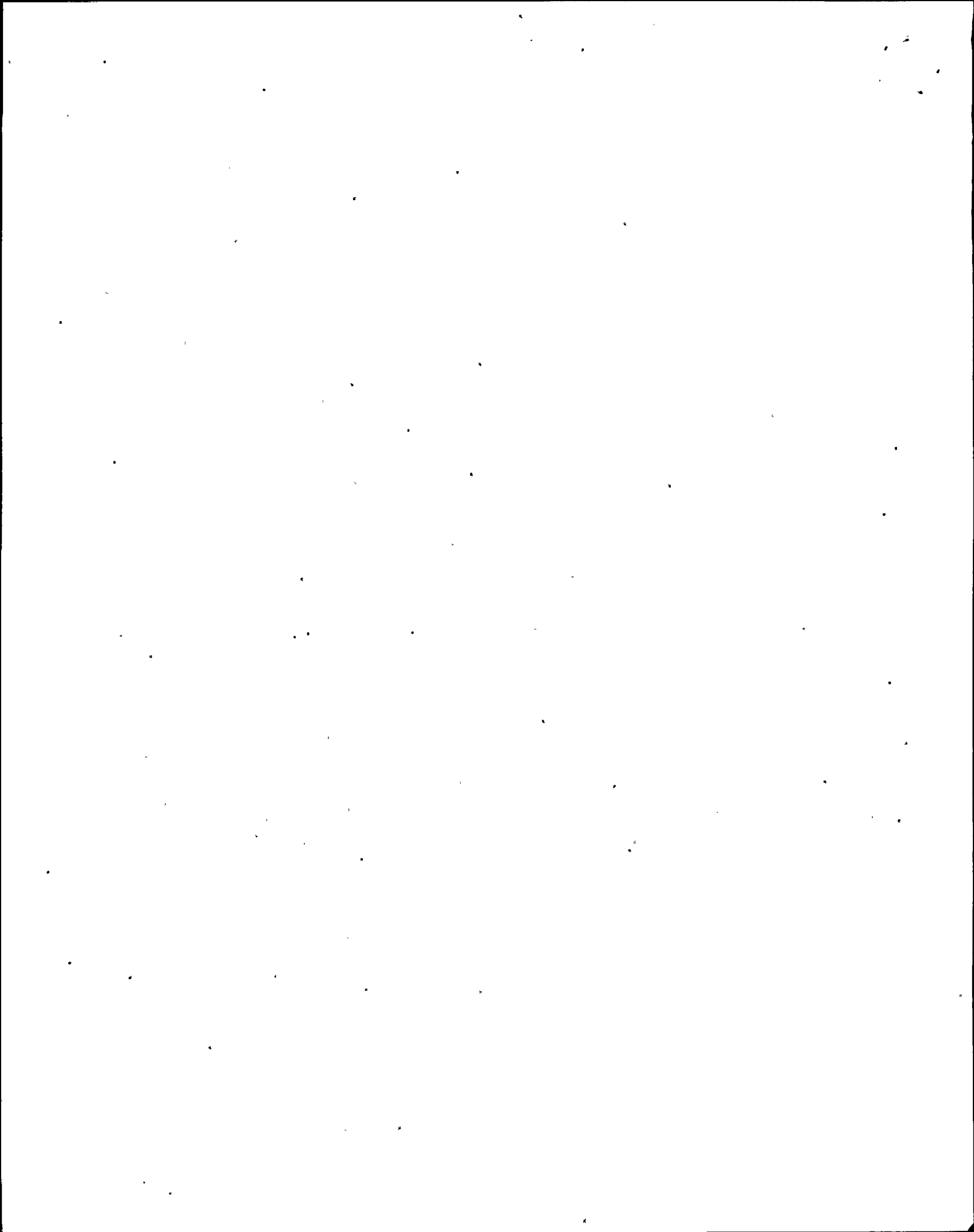
Answer: d

K/A: 218000 K6.07 / 3.5

Reference:

O1-OPS-001-218-1-01, EO-4.0c & d

Source: new



Question: 012 (1.0 Point)

WHICH ONE (1) of the following describes the concern if the Primary Containment vacuum relief valves between the primary and secondary containment were to not open when required ?

- a. Excessive Primary Containment internal pressure.
- b. Excessive Secondary Containment negative internal pressure.
- c. Excessive Primary Containment negative internal pressure.
- d. Excessive Primary and Secondary Containment internal pressure.

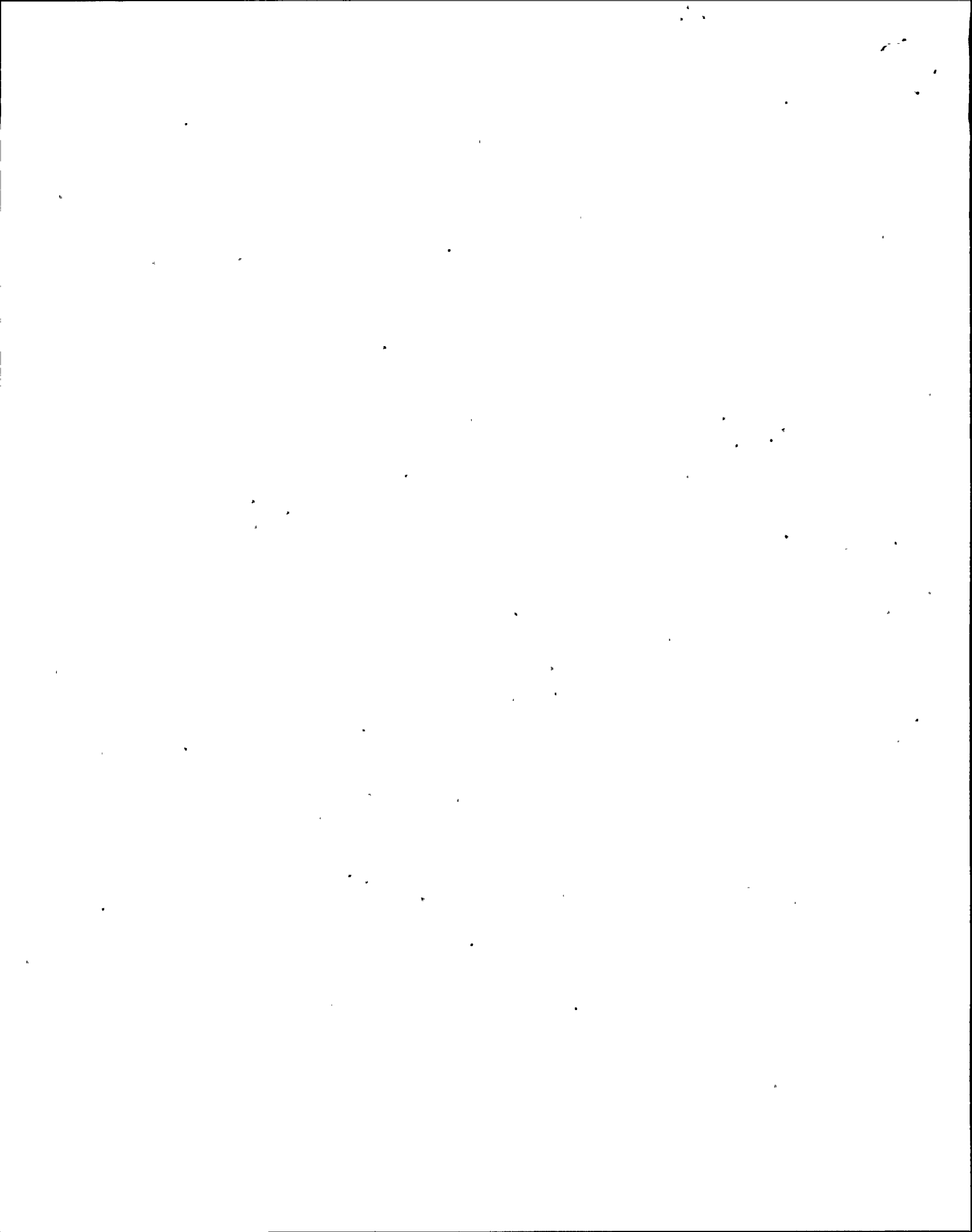
Answer: c

K/A: 223001 K3.06 / 3.6

Reference:

O1-OPS-001-223-1-02, EO-3.0

Source: new



Question: 013 (1.0 Point)

Nine Mile Point Unit 1 Technical Specifications requires a minimum downcomer submergence when reactor coolant temperature is above 215°F. WHICH ONE (1) of the following identifies the basis for submergence not being required below this temperature?

- a. Torus pressure may reach but will not exceed 62 psig during a LOCA vessel blowdown.
- b. Torus pressure may reach but will not exceed 35 psig during a LOCA vessel blowdown.
- c. Torus pressure may reach but will not drop below -1.0 psid during post LOCA containment spray.
- d. Torus pressure may reach but will not drop below 3.5 psig during post LOCA containment spray.

Answer: b

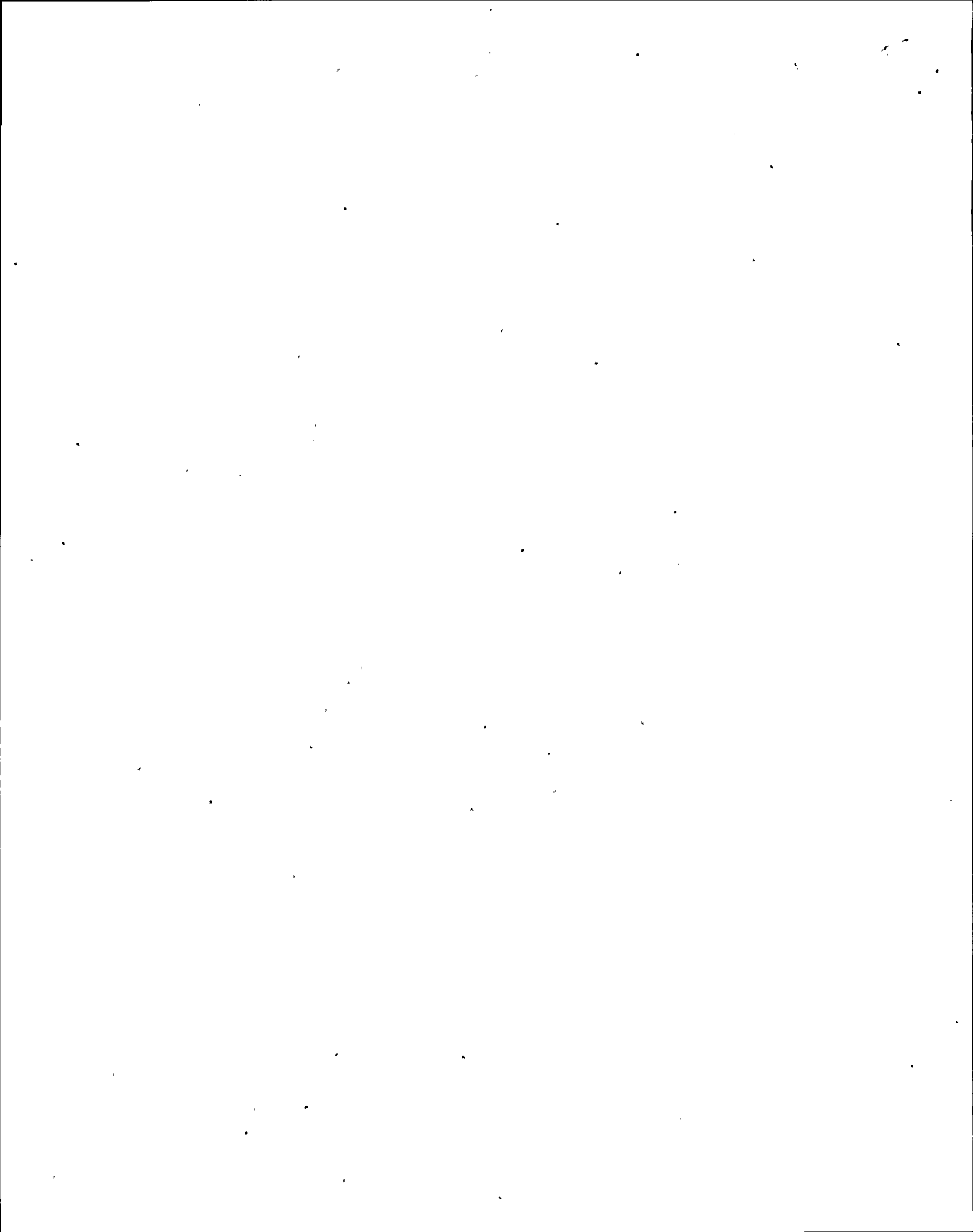
K/A: 223001 A2.02 / 4.1

Reference:

O1 -OPS -001-223-1-01, EO-11.0

TECHSPEC, N1, 3.3.2 Basis

Source: new



Question: 014 (1.0 Point)

During a LOCA, the following conditions exist:

- Drywell pressure is 8 psig and rising
- RPV level is -20 inches and slowly rising

WHICH ONE (1) of the following actions are required to allow determination of containment Hydrogen and Oxygen gas concentrations?

- a. Verify drywell pressure remains below 13 psig and open monitoring system isolation valves.
- b. RPV Water level must be raised above 53 inches before the monitoring system isolation valves can be opened.
- c. Place the CAD channel 11 and 12 RPS bypass switches to bypass and open monitoring system isolation valves.
- d. Perform a containment sample then reset the isolation and open monitoring system isolation valves.

Answer: c

K/A: 223002 K4.04 / 3.6

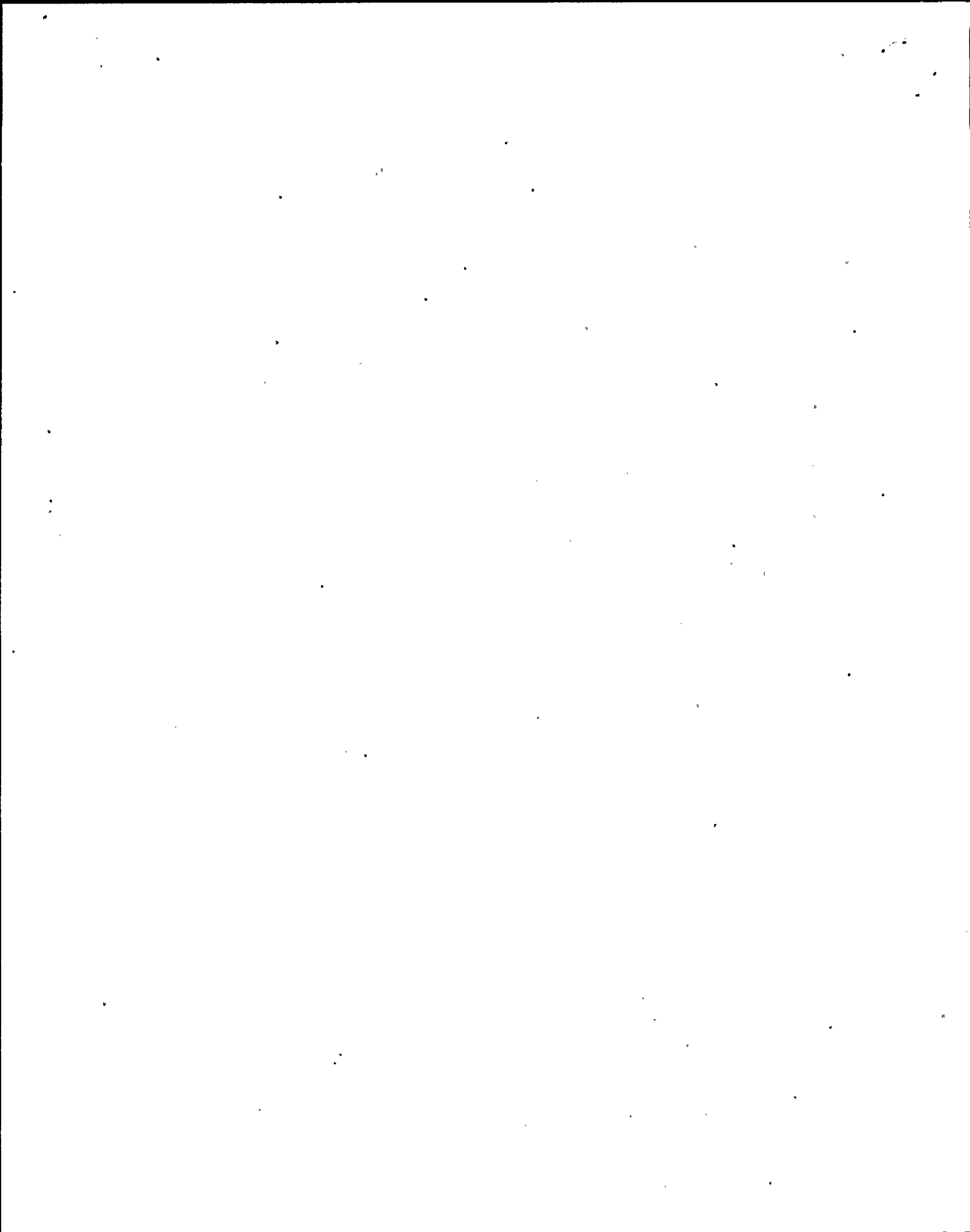
Reference:

O1 -OPS -001-223-1-04, EO-4.0b & c

N1-EOP-04

N1-OP-09

Source: Q226



Question: 015 (1.0 Point)

A small break LOCA and subsequent loss of feedwater has resulted in the following plant conditions:

- Drywell pressure of 3.7 psig and rising slowly
- Drywell temperature of 175°F and rising slowly
- Reactor level of 15 inches and lowering slowly
- Reactor pressure of 750 psig and lowering slowly

Assuming no operator action, WHICH ONE (1) of the following describes the adverse consequences of a continuing loss of Reactor level?

- a. Isolation of the Primary Containment and loss of venting capability.
- b. Exceeding the negative design pressure of the Primary Containment.
- c. Vessel Isolation and loss of Emergency Cooling capability at 5 inches Reactor level.
- d. Reactor Recirculation Pumps trip resulting in thermal stratification.

Answer: b

K/A: 226001 A1.01 / 3.8

Reference:

O1-OPS-006-344-1-04, EO-4.0

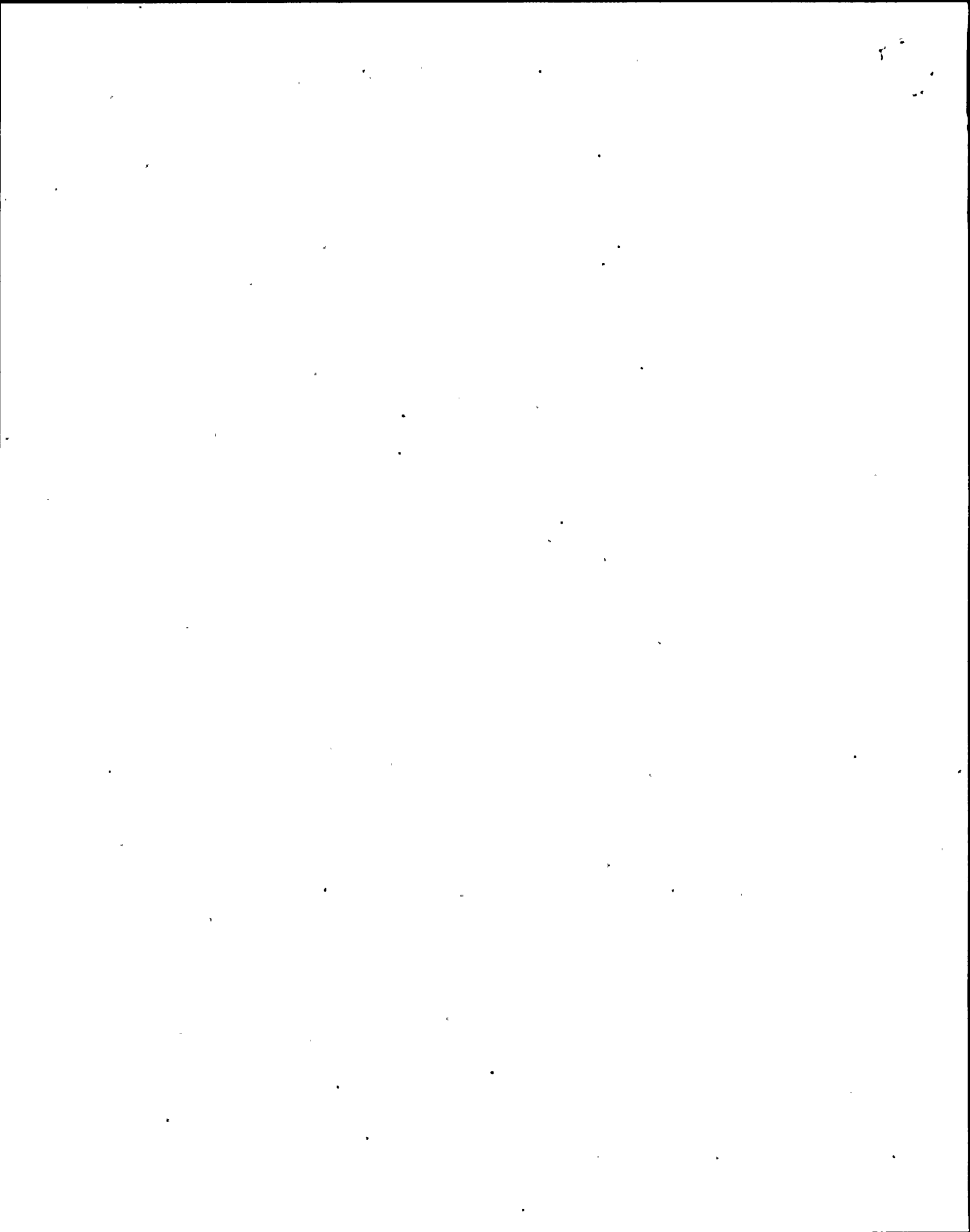
N1-ODP-OPS-0302

N1-SOP-17

N1-OP-1

P&ID C-18015-C

Source: new



Question: 016 (1.0 Point)

A steam line break inside the drywell has resulted in entry into EOP-8. The ERV's have failed to function. WHICH ONE (1) of the following is required per EOP-1, Att. 1 prior to using an alternate depressurization method?

- a. Bypass all MSIV isolations by installing jumpers.
- b. Place ADS inhibit switch in bypass position.
- c. Place the MSIV 7% test switch to position 111.
- d. Verify FU-8 & FU-9 HPCI fuses are pulled.

Answer: a

K/A: 239002 K3.03 / 4.4

Reference:

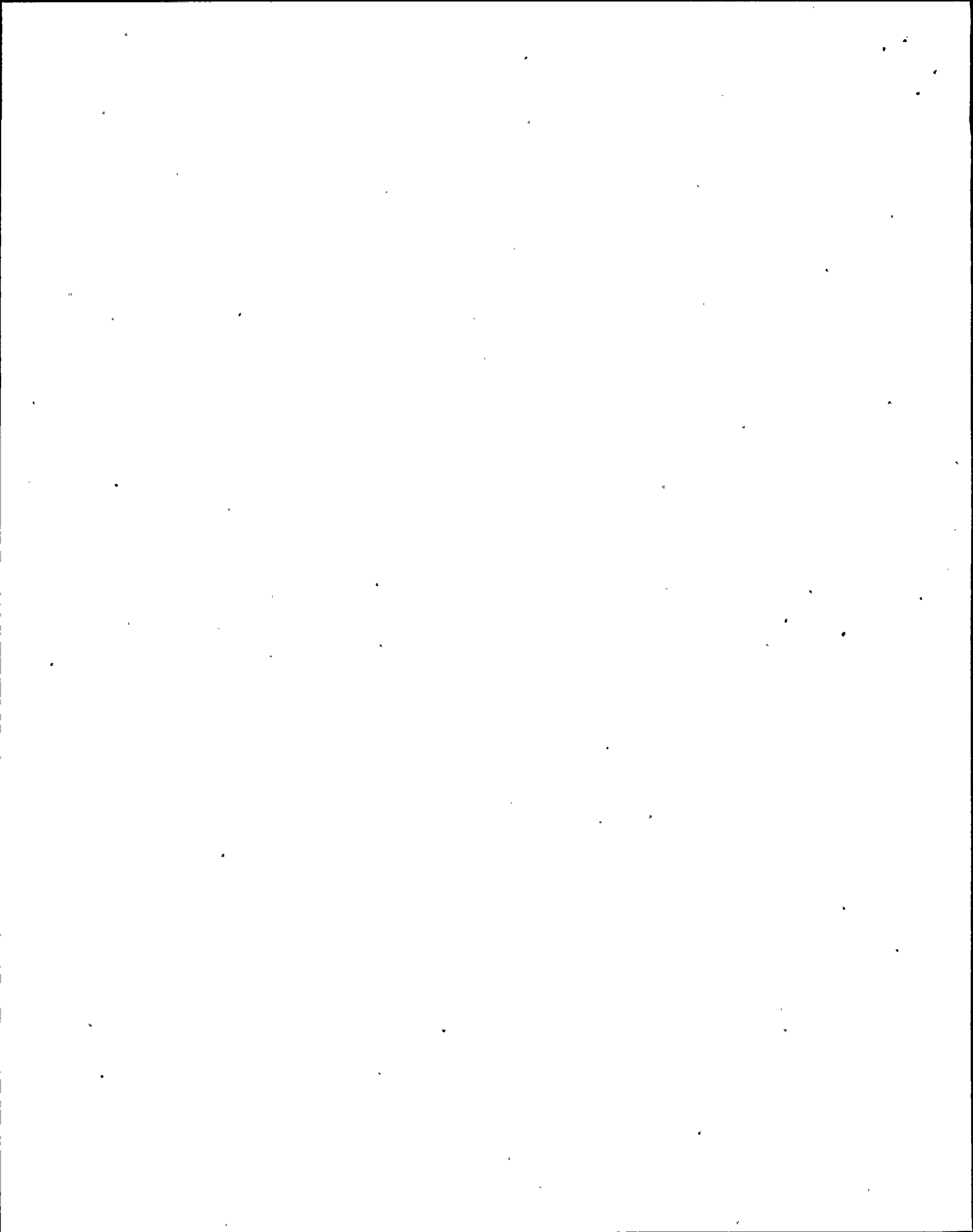
O1-OPS -001-239-1-01, EO-11.0

N1-EOP-08

N1-EOP-1, Att. 1

N1-OP-13

Source: Q467



Question: 017 (1.0 Point)

The plant is operating at 100% power when ERV 111 inadvertently opens with the following ERV 111 indications:

- Red position indicating light is OFF
- Green position indicating light is ON
- Blue continuity light is ON
- Red Acoustic Monitor Alarm light is ON

WHICH ONE (1) of the following actions will result in closure of ERV 111?

- a. Depressing ADS Timer Reset Pushbuttons
- b. Pulling ERV 111 Control Power fuses in F panel
- c. Pulling ERV 111 Control Power fuses at local Cabinet
- d. Reducing Reactor Pressure

Answer: d

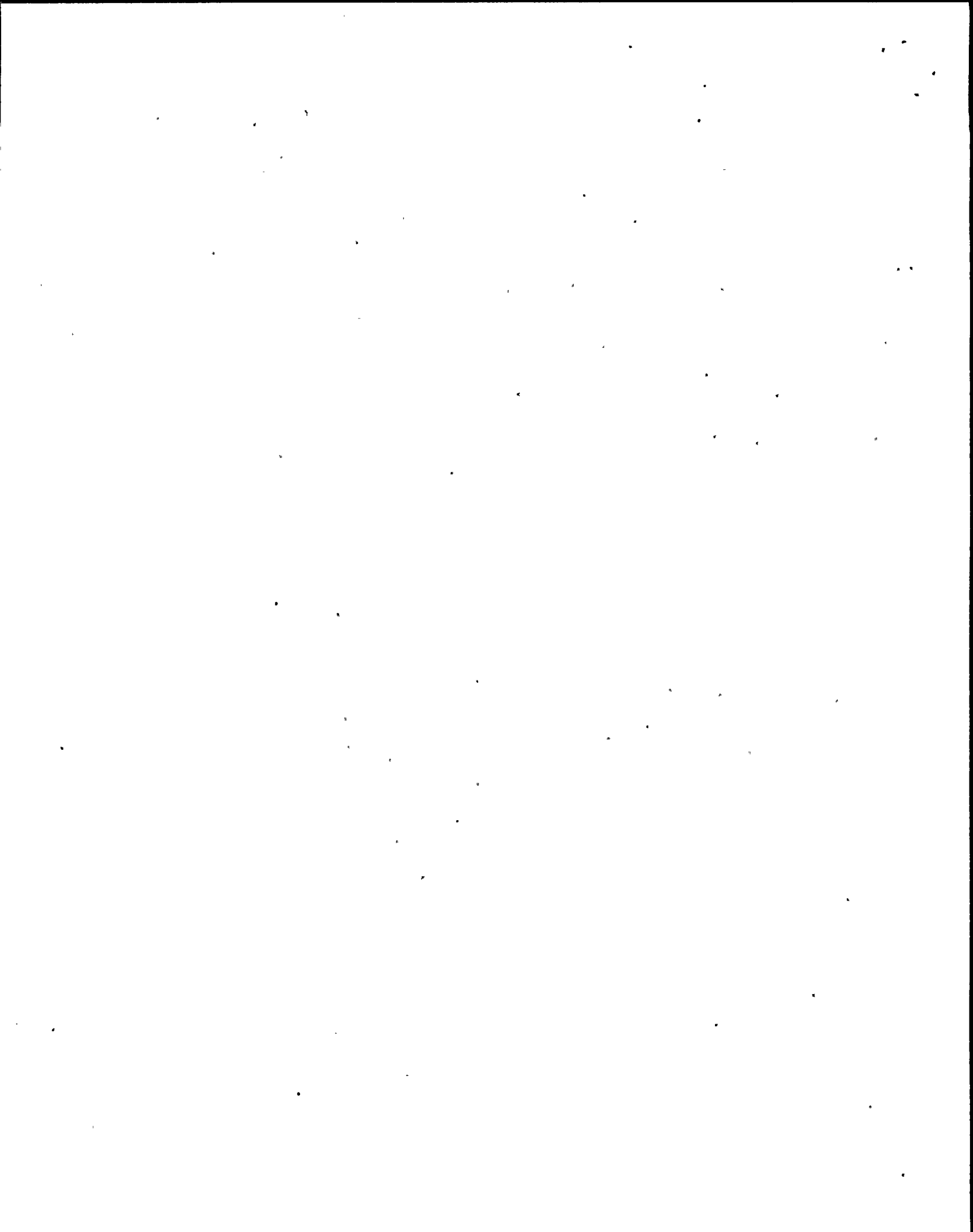
K/A: 239002 A2.03/4.2

Reference:

O1-OPS-001-223-1-02, EO-8.0

N1-OP-1

Source: new



Question: 018 (1.0 Point)

The turbine stop valve closure scram and the generator load reject scram are automatically bypassed when reactor power is less than 45%. WHICH ONE (1) of the following allows these scrams to be bypassed when less than 45% power?

- a. Transient analysis shows that MCPR will be less than SLCPR during the DBA control rod drop accident.
- b. Transient analysis shows that MAPRAT will be less than 1.0 for a generator load reject without bypass.
- c. Transient analysis shows that LHGR will be below MFLPD limits for a turbine trip without bypass.
- d. Transient analysis shows that below 45% power SLCPR will be less than MCPR for the limiting transient for the reload cycle.

Answer: d

K/A: 241000 K1.11 / 3.8

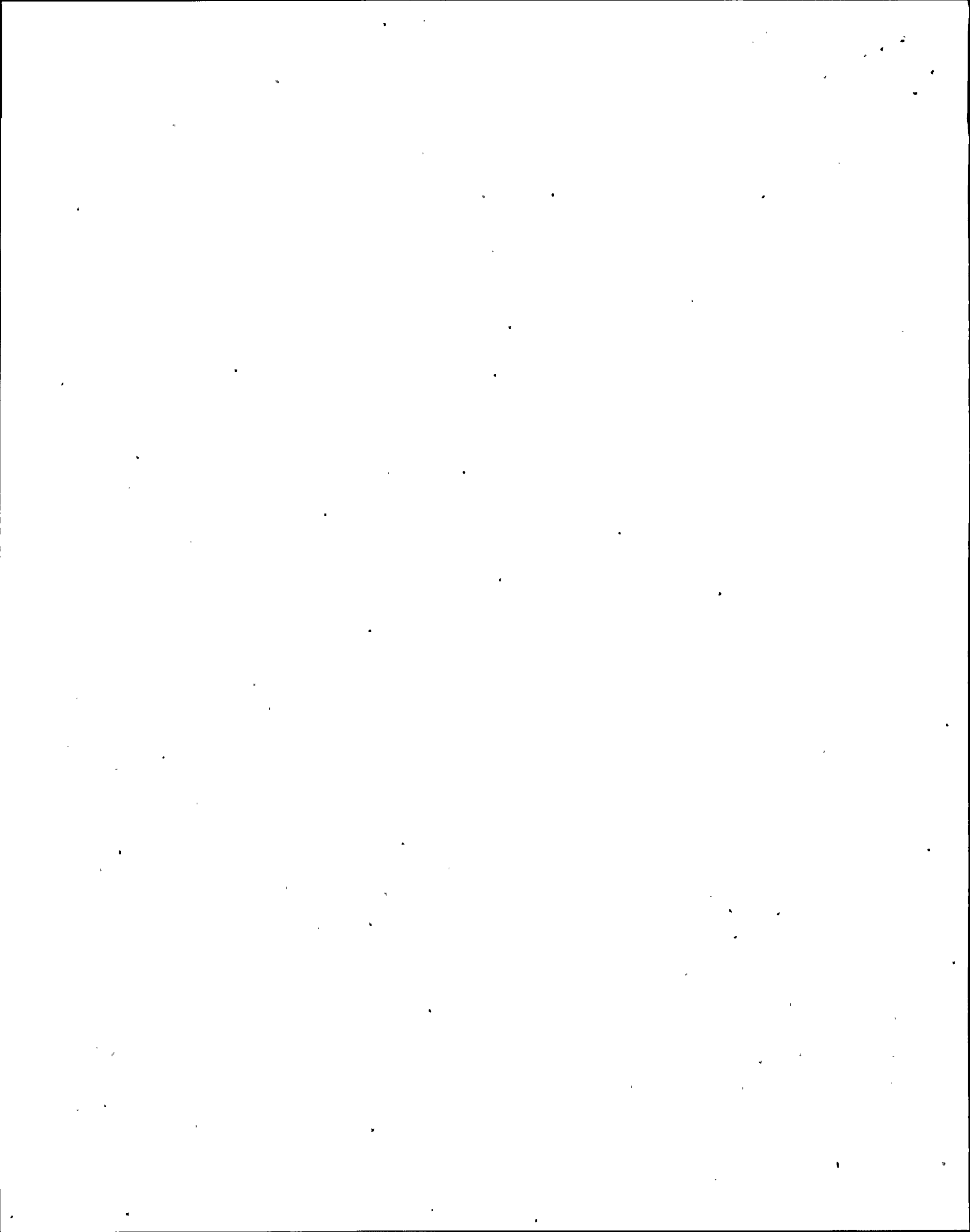
Reference:

O1-OPS-001-248-1-01, EO-13.0

NI-OP-31

Unit 1 Tech. Spec. bases

Source: Q642



Question: 019 (1.0 Point)

The plant is operating at 100% power. A loss of total feedwater flow input to Feedwater Level Control (FWLC) occurs. WHICH ONE (1) of the following describes the expected feedwater response?

- a. FWLC would demand a lower controlled level above the scram setpoint.
- b. FWLC would demand a higher controlled level above the high level trip setpoint.
- c. FWLC would demand a lower controlled level below the scram setpoint.
- d. FWLC would demand a higher controlled level below the high level trip setpoint.

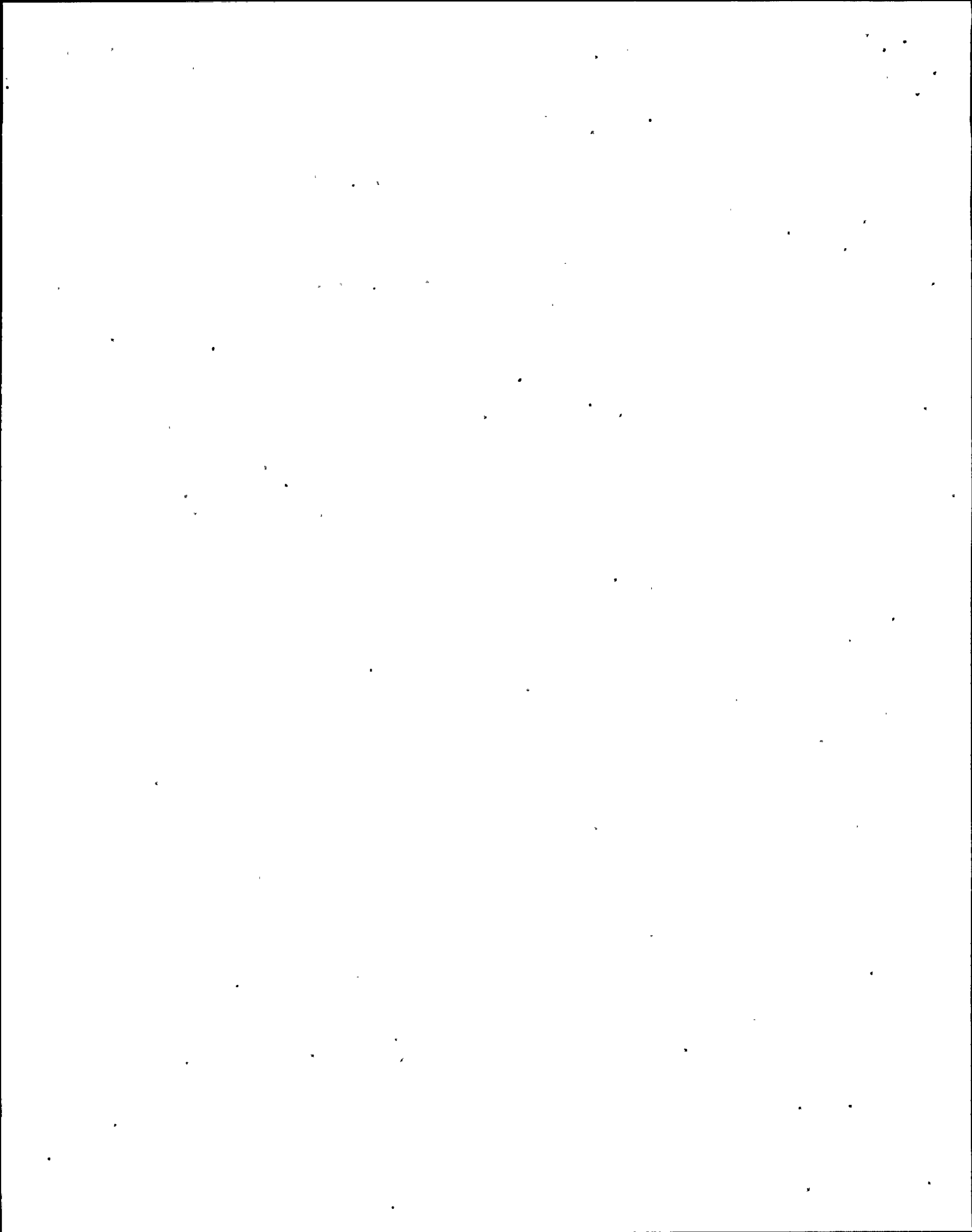
Answer: b

K/A: 259002 K6.04 / 3.1

Reference:

O1-OPS-001-259-1-02, EO-5.0, 11.0

Source: new



Question: 020 (1.0 Point)

A steam line break in the Reactor Building and subsequent isolation has occurred. Both trains of Reactor Building Emergency Ventilation (RBEV) initiated and have been in service for one hour. WHICH ONE (1) of the following describes the impact on the RBEV system from continued operation of the system in the present lineup?

- a. Potential failure of the charcoal filter housings due to exceeding the negative internal pressure design of .5 psig.
- b. Overheating of the filters due to deposition of radioactive isotopes in excess of the heat removal capability.
- c. Reduced efficiency of the filter trains due to excessive flowrate through the charcoal filters.
- d. Wetting of the charcoal filters due to excessive flowrate through the 10 KW heater.

Answer: d

K/A: 261000 K4.03 / 2.7

Reference:

O1-OPS-001-261-1-01, EO-6.0

N1-OP-10

Source: new



Question: 021 (1.0 Point)

The plant is operating at 100% power. A loss of PB-16A has occurred and cannot be energized. WHICH ONE (1) of the following describes why the plant could not continue to operate under this condition?

- a. Reduced Instrument Air compressor capacity can lead to a reduction of Instrument Air pressure and N1-SOP-6 entry.
- b. The loss of three DW Cooling fans would cause primary containment conditions to degrade (temperature/pressure).
- c. The loss of #11 RBCLC pump could reduce cooling capability to the DW coolers causing conditions to degrade (temperature/pressure).
- d. The loss of DW Equipment Drain Tank sump pumps requires plant shutdown to ensure leak rates are within allowances.

Answer: b

K/A: 262001 A2.04 / 4.2

Reference:

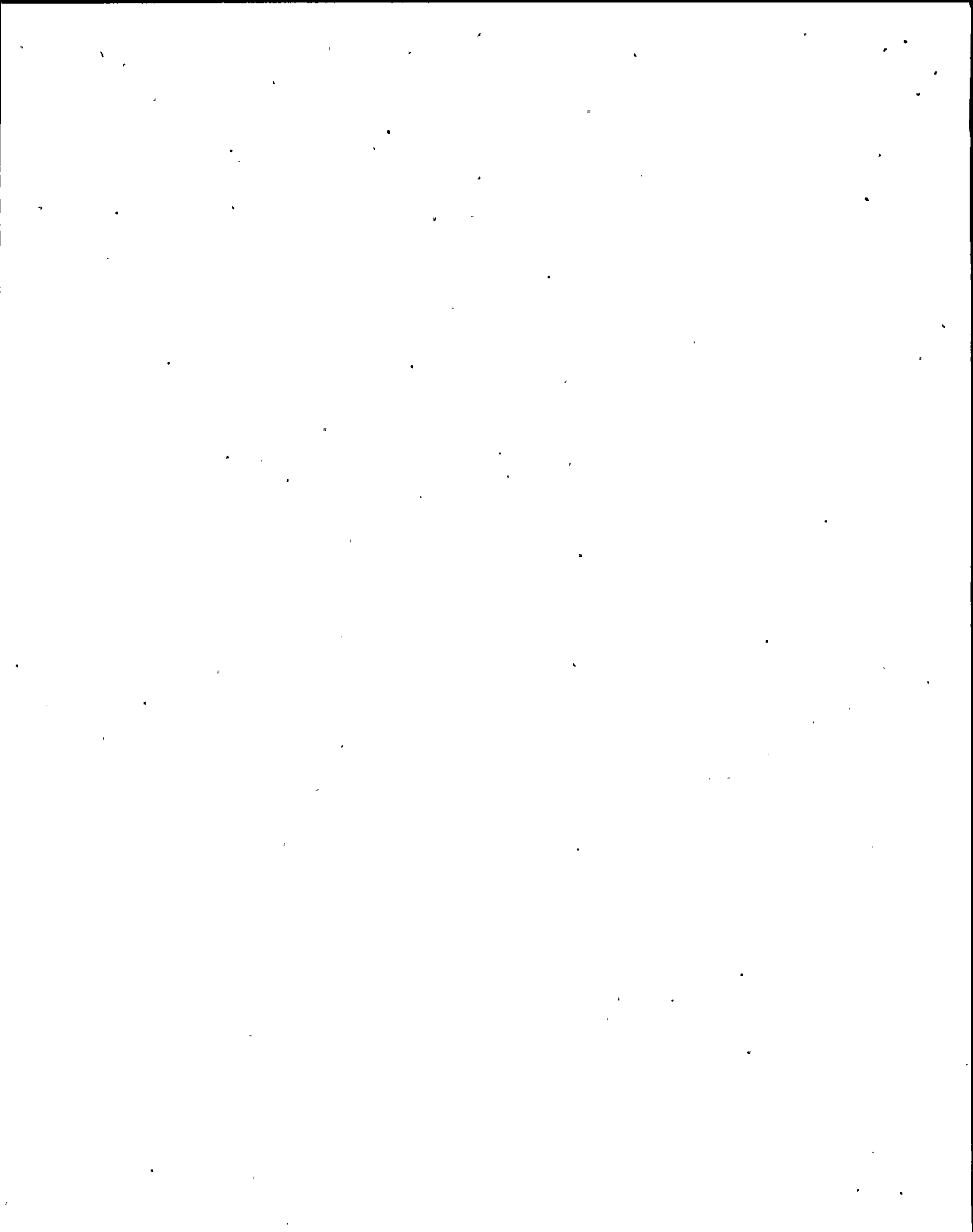
O1-OPS-001-262-1-02, EO-4.0, 5.0, 7.0

N1-EOP-04

N1-OP-30

N1-SOP-05

Source: Q716



Question: 022 (1.0 Point)

EDG 102 fails to start on a valid initiation signal. The second start sequence also fails to start the engine. WHICH ONE (1) of the following describes EDG 102 auto start capability, assuming a valid initiation signal is still present?

- a. EDG 102 will attempt to start a third time after a fifteen second time delay.
- b. EDG 102 will attempt to start if the RESET / FAST STOP pushbutton on the engine control panel is depressed.
- c. EDG 102 will not attempt to start unless the 48x reset pushbutton inside the local control cabinet is depressed.
- d. EDG 102 will not attempt start but can be manually started from the diesel generator engine control panel.

Answer: c

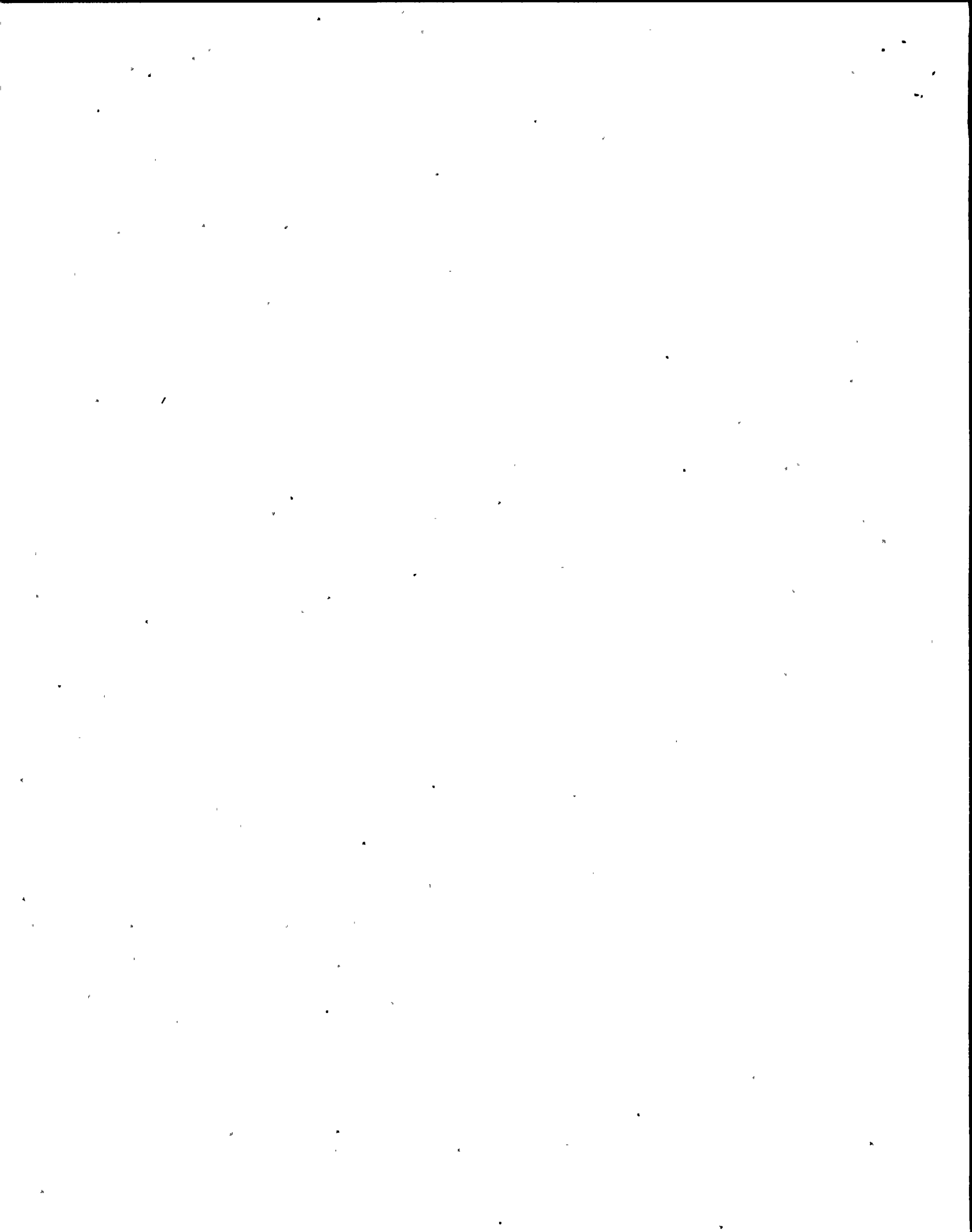
K/A: 264000 K4.02 / 4.2

Reference:

O1-OPS-001-264-1-01, EO-7a

N1-OP-45

Source: Q802



Question: 023 (1.0 Point)

Annunciator L1-3-4, REACT BLDG ATM DIFF PRESS is received in the control room. Investigation reveals that Reactor Building D/P is at -0.6 inches of water. WHICH ONE (1) of the following explains the reason for this condition ?

- a. The operating Reactor Building Ventilation Exhaust fan has tripped.
- b. The Reactor Building D/P controller has failed, causing the operating Reactor Building Ventilation Exhaust Fan to shift to fast speed.
- c. The operating Reactor Building Ventilation Supply fan Outlet Damper has failed open.
- d. The operating Reactor Building Ventilation Supply fan Flow Control Valve has failed closed.

Answer: d

K/A: 290001 A4.01 / 3.4

Reference:

O1-OPS-001-288-1-01, EO-4.a, 7.e

N1-ARP-L1-3-4

P&ID C-18013-C

Source: new



Question: 024 (1.0 Point)

With the plant operating at rated power, the power supply fuse to a backup scram valve fails creating an open in the supply circuit. WHICH ONE (1) of the following identifies the response of the associated backup scram valve and scram response due to this failure?

- a. Valve repositions to trip position but no scram occurs.
- b. Valve repositions to trip position and a full scram occurs.
- c. Valve cannot reposition but redundant valves can effect scram if an RPS trip occurs.
- d. Valve cannot reposition and no scram can occur even if an RPS trip occurs.

Answer: a

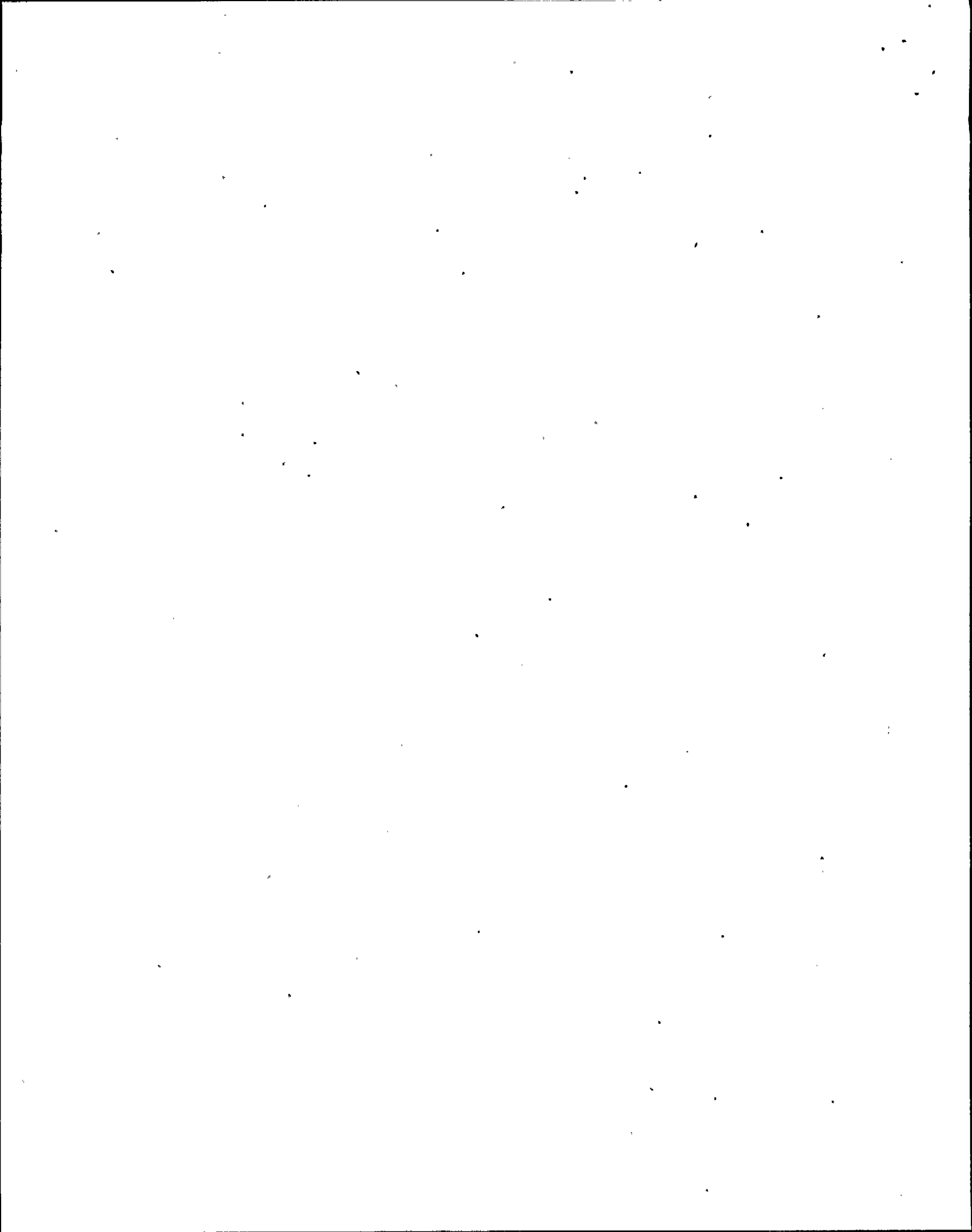
K/A: 201001 K2.03 / 3.6

Reference:

O1-OPS-001-212-1-01, EO-9.0

DRW, N1, C-18016-C

Source: Q14616 (modified)



Question: 025 (1.0 Point)

During a refuel outage, plant conditions are as follows:

- Reactor mode switch is in REFUEL
- One control rod is withdrawn to position 12 for testing.
- Refuel platform is over the Spent Fuel Pool.
- Refuel platform grapple is in the fully raised position and UNLOADED.

WHICH ONE (1) of the following describes the effect of these conditions?

- a. RMCS will prevent the selection of any other control rod from the reactor control panel.
- b. Power to refuel platform grapple will be interrupted if the hoist is loaded.
- c. Refuel platform is blocked from traveling over the core.
- d. Control rod block will prevent withdrawal of another selected rod.

Answer: d

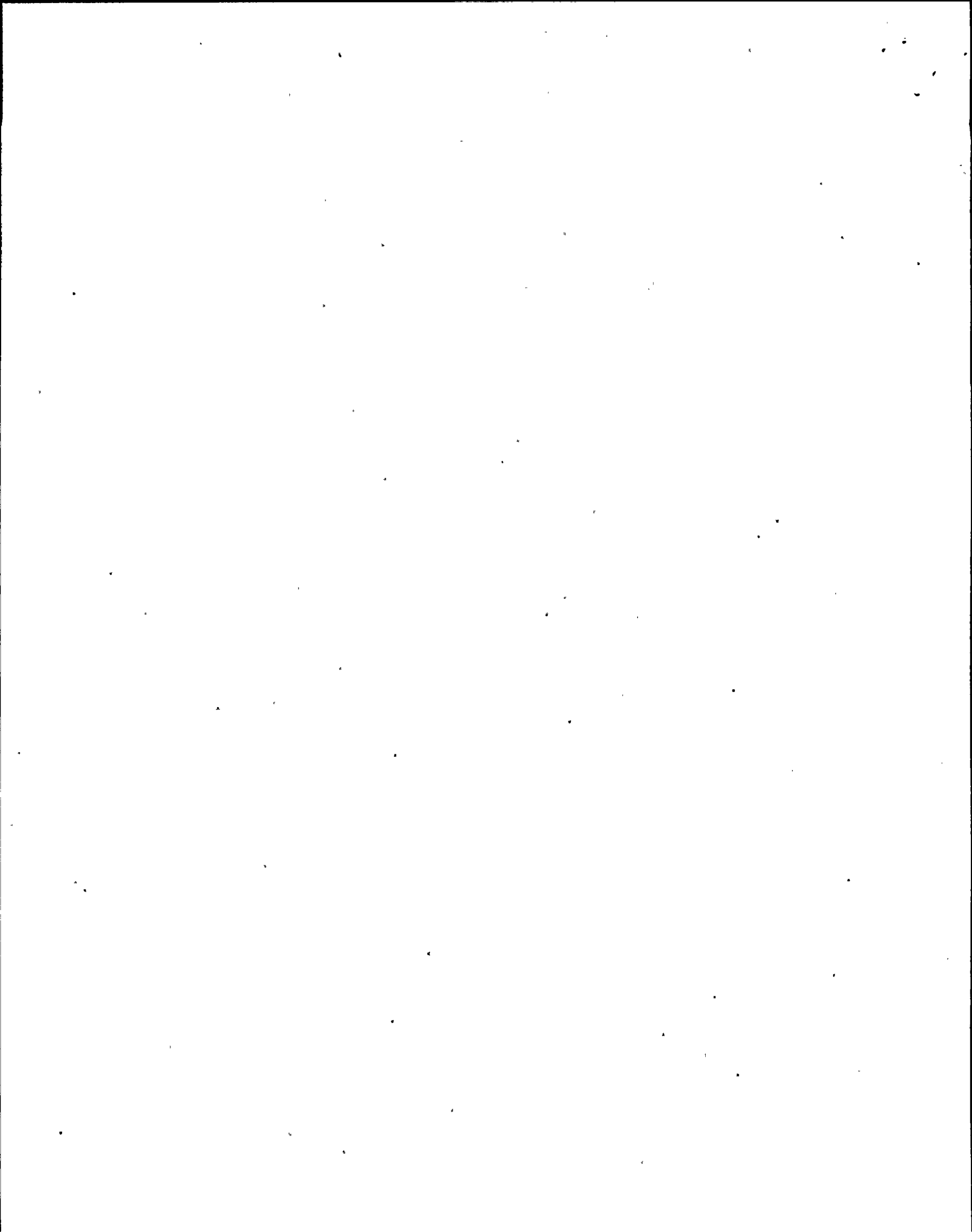
K/A: 201002 K1.08 / 3.6

Reference:

O1-OPS-001-234-1-02, EO-4c

N1-OP-34

Source: Q13627



Question: 026 (1.0 Point)

During a plant failure to scram transient, the ATWS-RPT logic initiates a Reactor Recirculation (RR) Pump trip. One of the two required breakers have failed to trip on three of the recirculation pumps. WHICH ONE (1) of the following identifies the effect on the Recirculation system from this transient?

- a. All RR pumps would stop and flow coast down time may be affected.
- b. All RR pumps would stop and recirculation pump MG set damage would occur.
- c. Two RR pumps would stop and remaining RR pumps would run with their scoop tube locked up.
- d. Two RR pumps would stop and remaining RR pumps would slow to 20% speed demand.

Answer: a

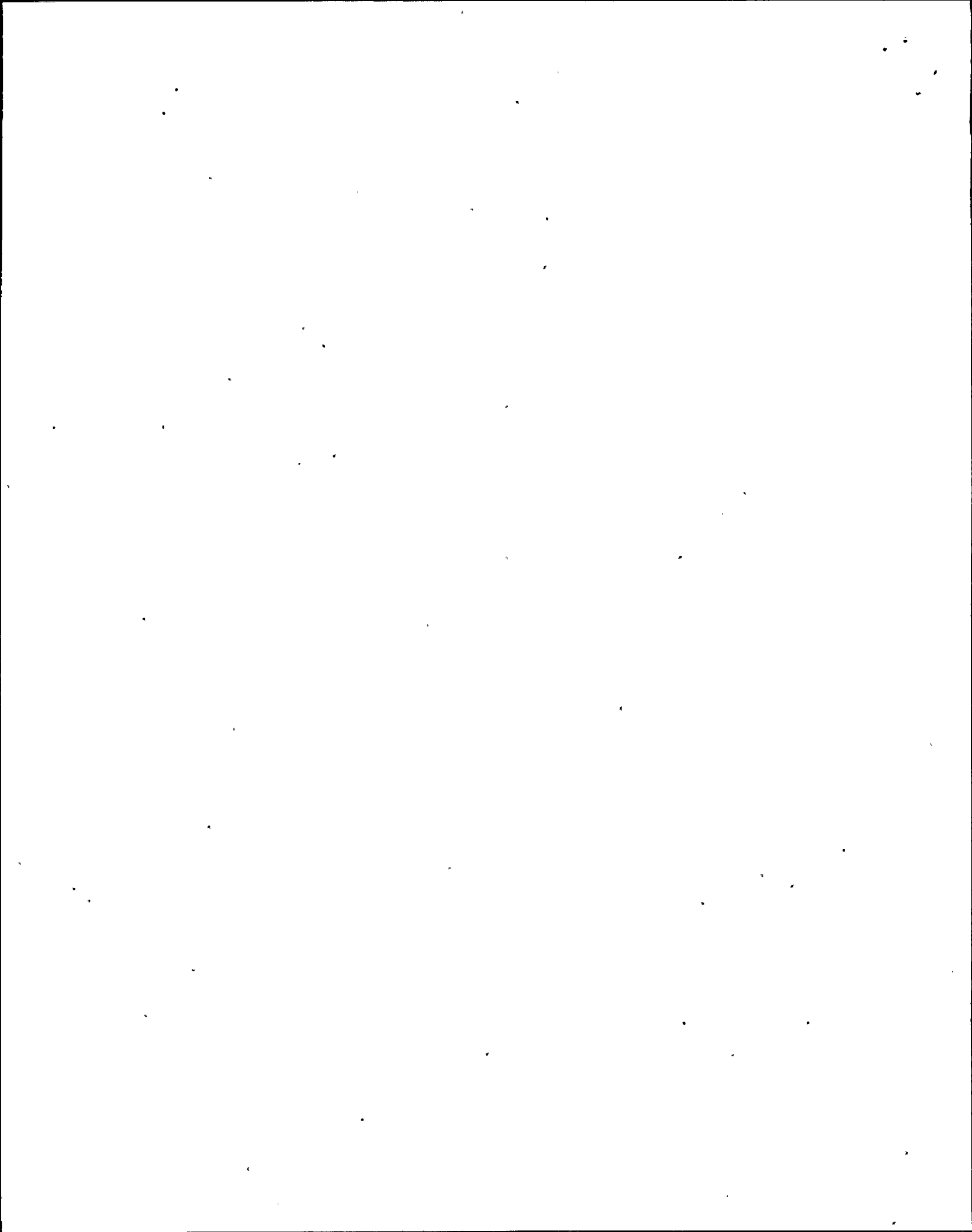
K/A: 202001 K1:27/4.3

Reference:

O1-OPS-001-202-1-01, EG-5.0

N1-OP-40

Source: new



Question: 027 (1.0 Point)

Following a scram from rated conditions the Reactor Water Cleanup system is being used to lower level. WHICH ONE (1) of the following describes the possible effect of raising reject flow during this evolution?

- a. The system may isolate due to high filter demin. differential pressure from the flow change.
- b. The system may isolate due to high pressure in the system downstream of HP PCV.
- c. The system may isolate due to high system temperature from the flow change.
- d. The system may isolate due to low flow from diverting flow to the reject line.

Answer: c

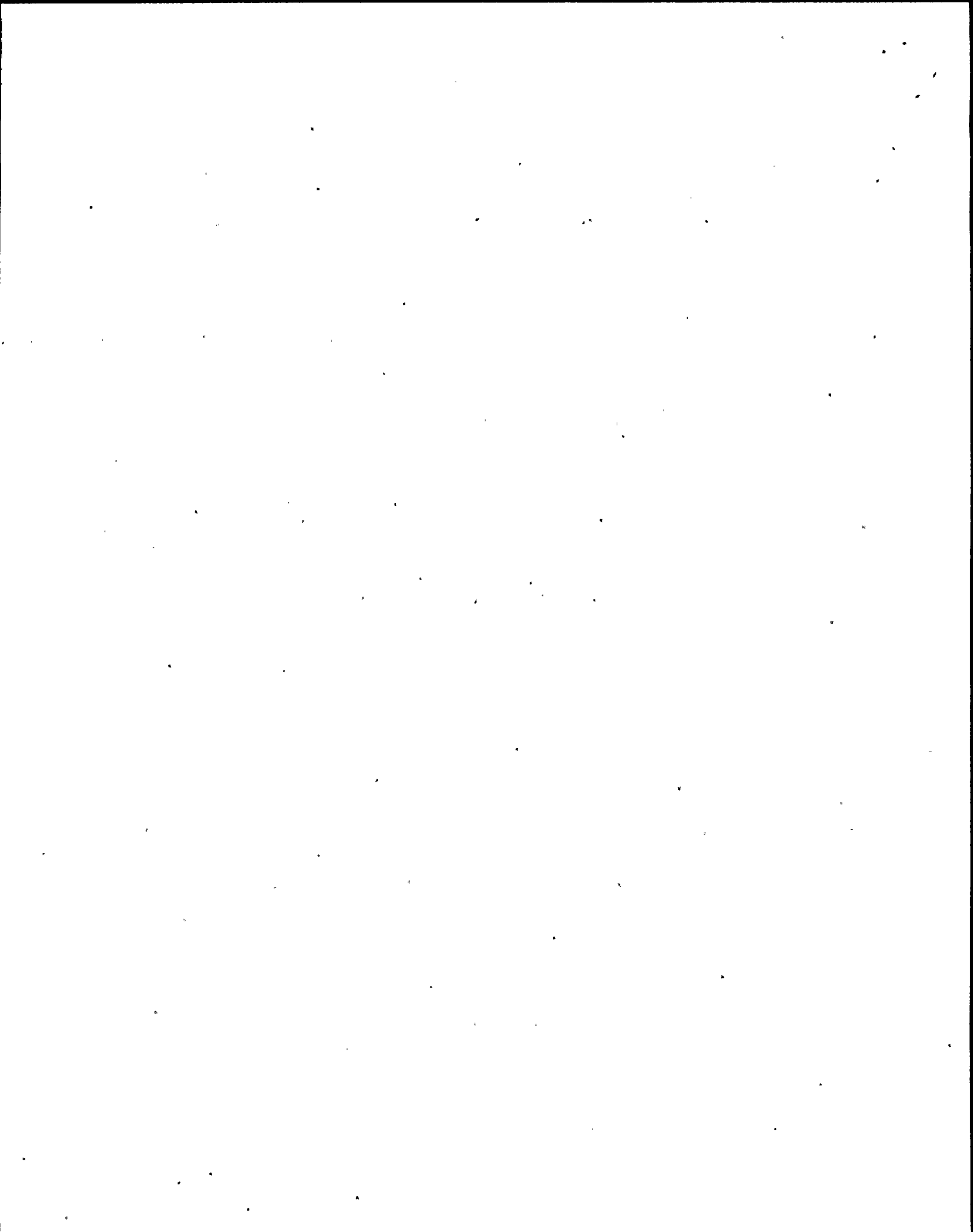
K/A: 204000 K3.02 / 3.1

Reference:

O1-OPS-001-204-1-01, EO-6.0

N1-OP-3

Source: new



Question: 028 (1.0 Point)

James R. F.
1/20/98

A LOSS OF THE OPERATING RECIRC PUMP CONCURRENT WITH
The reactor has been placed into cold shutdown following extended high power operations. A loss of shutdown cooling occurs 36 hours after reactor shutdown. Plant conditions immediately after the loss of shutdown cooling are as follows:

- Coolant temperature in the unisolated loops is approximately 150°F
- RPV metal temperatures just below the water line are 155° to 165°F

WHICH ONE(1) of the following is positive indication that thermal stratification is occurring?

- a. Unisolated recirc loop temperature is steady. RPV metal temperatures just below the water line are 155° to 165° and decreasing
- b. Unisolated recirc loop temperature is steady. RPV metal temperatures just below the water line are 135° to 145° and decreasing
- c. Unisolated recirc loop temperature is increasing. RPV metal temperatures just below the water line are 135° to 145° and increasing
- d. Unisolated recirc loop temperature is decreasing. RPV metal temperatures just below the water line are 175° to 185° and increasing

Answer: d

K/A: 205000 A2.09 / 3.8

Reference:

O1-OPS-001-205-1-01, EO-6.0, 10.0

N1-OP-04

Source: new



Question: 029 (1.0 Point)

A startup is in progress. IRMs 12 and 16 are the highest, indicating 56 on range 4. All other IRMs are tracking closely. Reactor period is 60 seconds. If range switches are NOT moved after power has doubled, WHICH ONE (1) of the following correctly identifies the response of the plant?

- a. Full scram
- b. Half scram on 11 RPS channel.
- c. Half scram on 12 RPS channel.
- d. Rod block.

Answer: d

K/A: 215003 A1.05 / 3.9

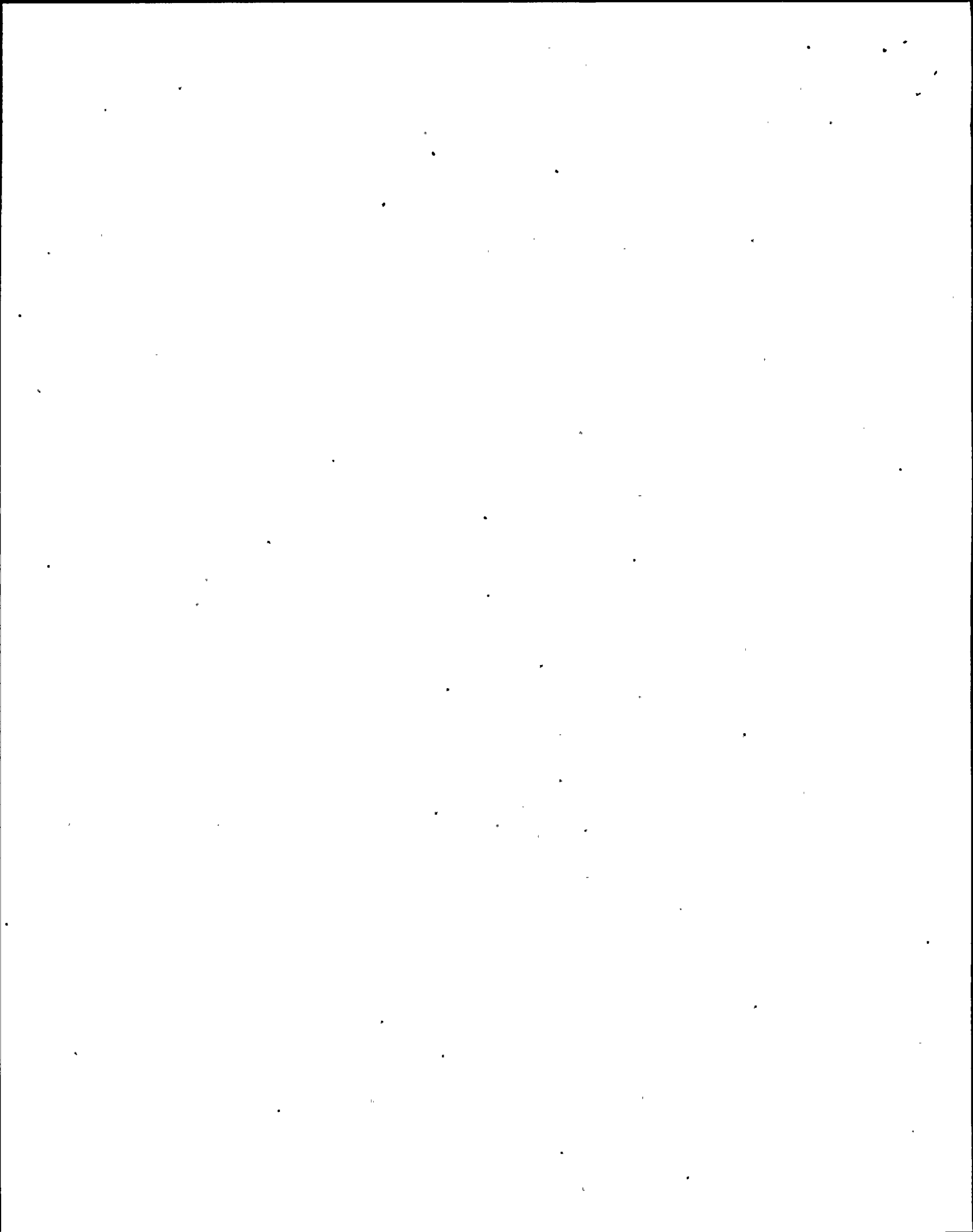
Reference:

Q1-OPS-001-215-1-02, EO-5.0, 4.0.c

N1-OP-43A

N1-OP-38B

Source: Modified (Q121)



Question: 030 (1.0 Point)

Due to ERV leakage during power operations, torus cooling loop 111 was placed in service. During the evolution, an RPV leak results in a Containment Spray System initiation. WHICH ONE (1) of the following describes the automatic Containment Spray system response?

- a. FCV(80-118) will close.
- b. The containment spray loop 111 IV will open.
- c. FCV(80-118) will close and the containment spray loop 111 IV will open.
- d. FCV(80-118) will stay open and the containment spray loop 111 IV will remain closed.

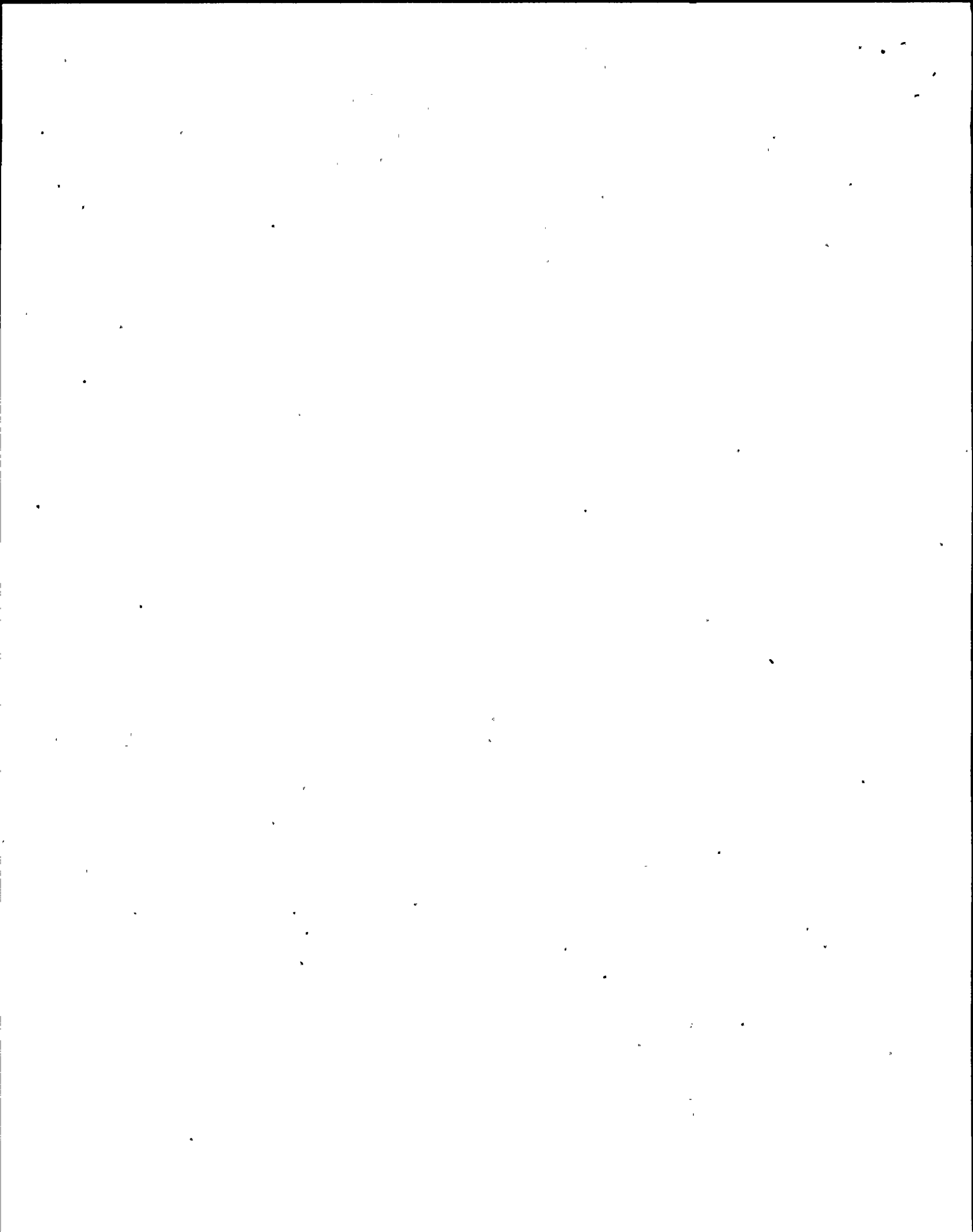
Answer: d

K/A: 219000 A1.02 / 3.5

Reference:

O1-OPS-001-226-1-01, EO-4b, 4c

Source: Q13480



Question: 031 (1.0 Point)

During Refueling operations a fuel bundle is in transit from the Spent Fuel Pool to the core. WHICH ONE (1) of the following actions should be performed if power is lost to the Refuel Bridge?

- a. Immediately evacuate the upper drywell area.
- b. Suspend all fuel handling and evacuate the refuel floor.
- c. Immediately operate the manual controls to return the fuel bundle to its original location in the Spent Fuel Pool.
- d. Consult the Reactor Engineering Representative to determine the nearest safe storage location.

Answer: d

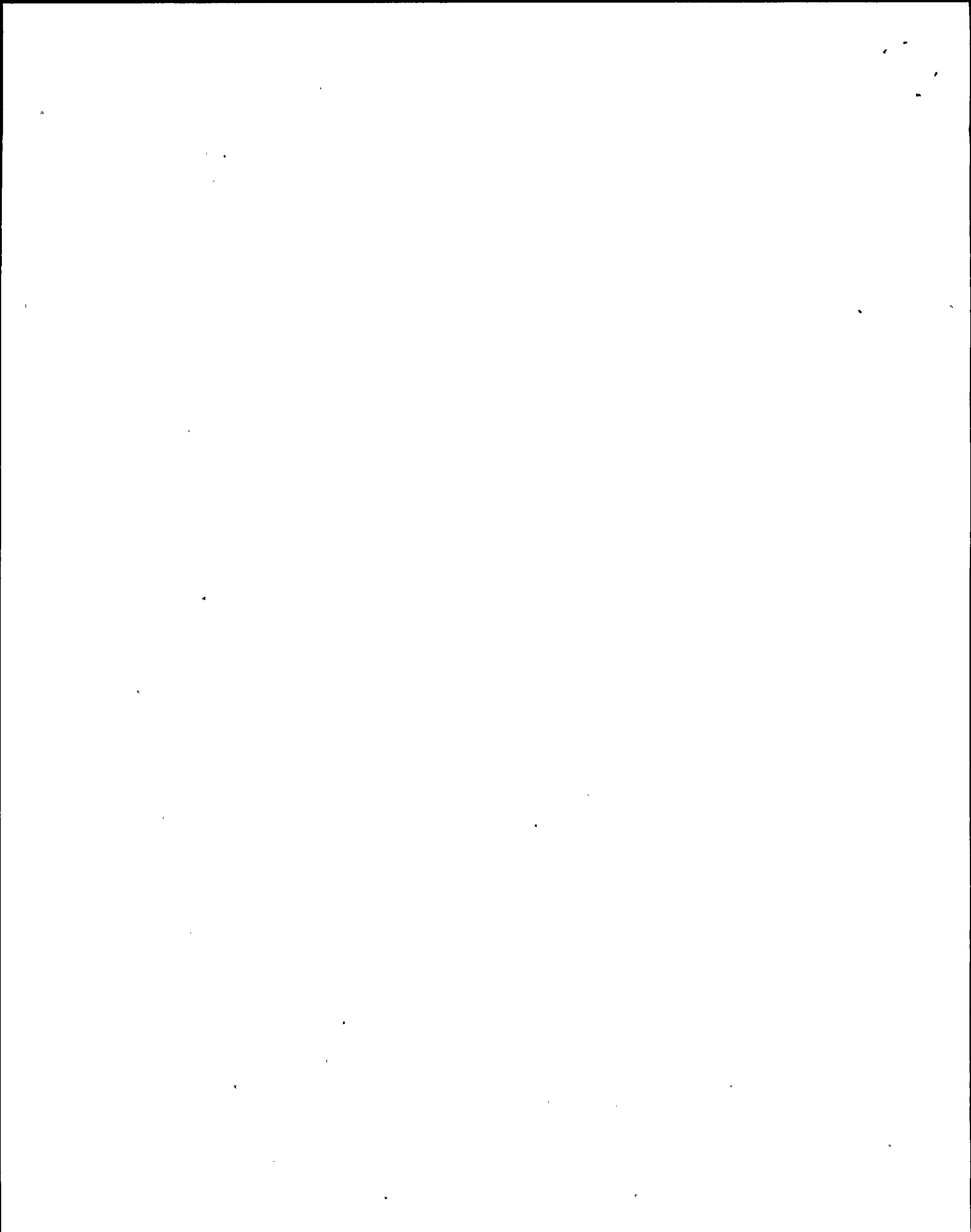
K/A: 234000 A2.03 / 3.1

Reference:

N1-OP-34

O1-OPS-001-234-1-01, EO-8:0

Source: Q13634



Question: 032 (1.0 Point)

The plant is operating at full power when the operator identifies stator water conductivity to be 0.58 umho and rising slowly. Moments later while attempting to determine the cause of the high conductivity, a generator runback occurs. The generator remains on line following the runback. WHICH ONE (1) of the following actions are required per N1-ARP-A2 ?

- a. Monitor the generator, and trip it if conductivity rises to 0.99 umho.
- b. Remove the generator from service immediately.
- c. Correct the cause of runback and recover load.
- d. Correct the cause of high conductivity and recover load

Answer: b

K/A: 245000 K5.02 / 3.1

Reference:

N1-ARP-A2,2-2

N1-OP-44

NI-OP-32

O1-OPS-001-253-1-01, EO-4.c, 7.e, 8.0

Source: Q254



Question: 033 (1.0 Point)

A reactor startup is in progress. The reactor Mode Switch is in Startup and all IRM's are on range 7 or above. 24 VDC Nuclear Inst. Bus #121 power is lost. WHICH ONE (1) of the following describes the RPS/Neutron Monitoring response?

- a. A half scram will occur due to loss of SRM power.
- b. A half scram will occur due to loss of IRM power.
- c. A full scram will occur due to loss of SRM power.
- d. A full scram will occur due to a loss of IRM power.

Answer: b

K/A: 263000 K3.03 / 3.8

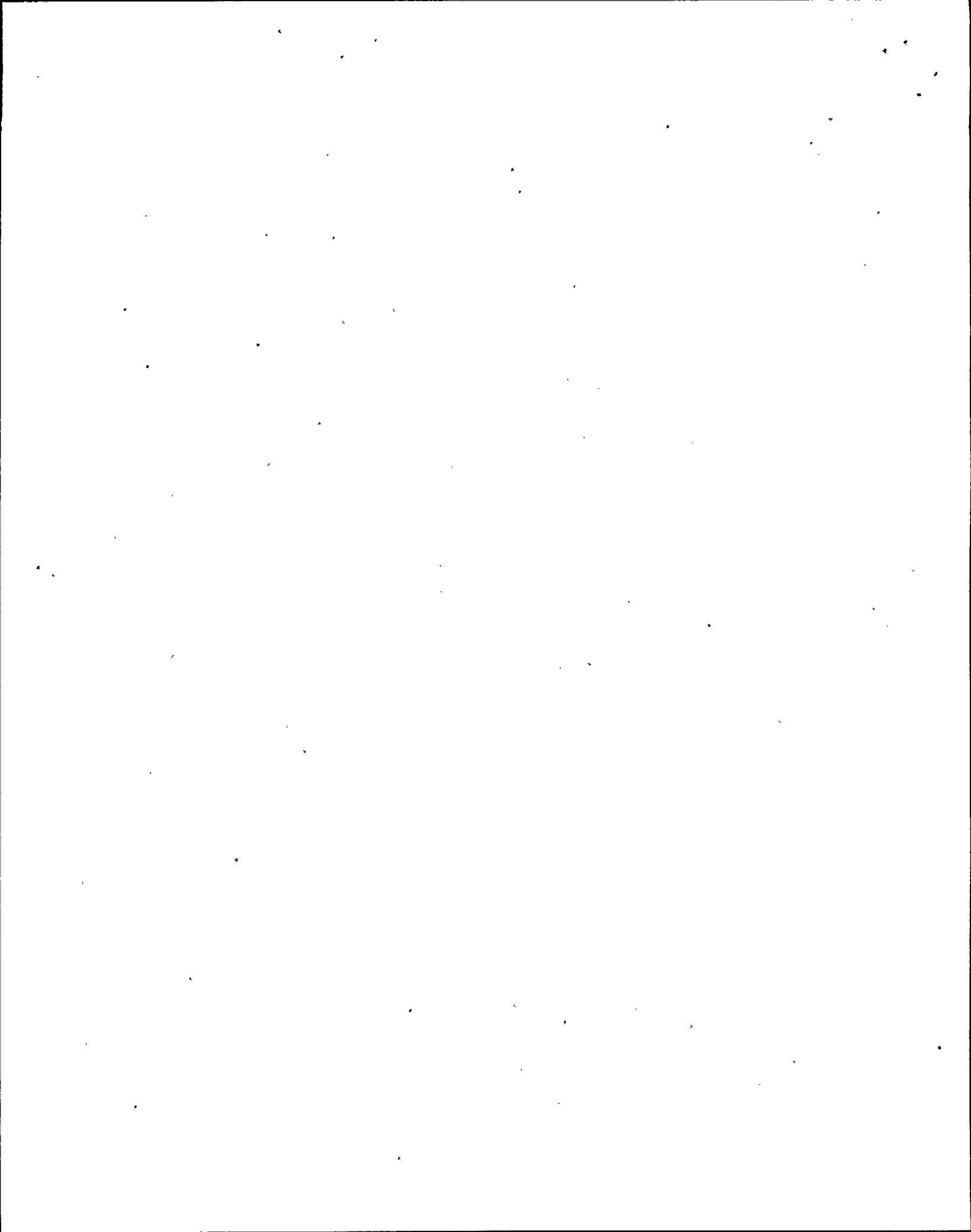
Reference:

O1-OPS-001-215-1-02, EO-5.0

O1-OPS-001-263-1-01, EO-8.0

N1-OP-47B, H.2.0

Source: Q86 (MOD)



Question: 034 (1.0 Point)

The RAGEMS/OGESMS select switch is moved from OGESMS to RAGEMS for testing. WHICH ONE (1) of the following systems may receive an isolation signal due to the switch manipulation?

- a. Main Steam
- b. Vent and Purge
- c. Offgas
- d. Reactor Building Ventilation

Answer: b

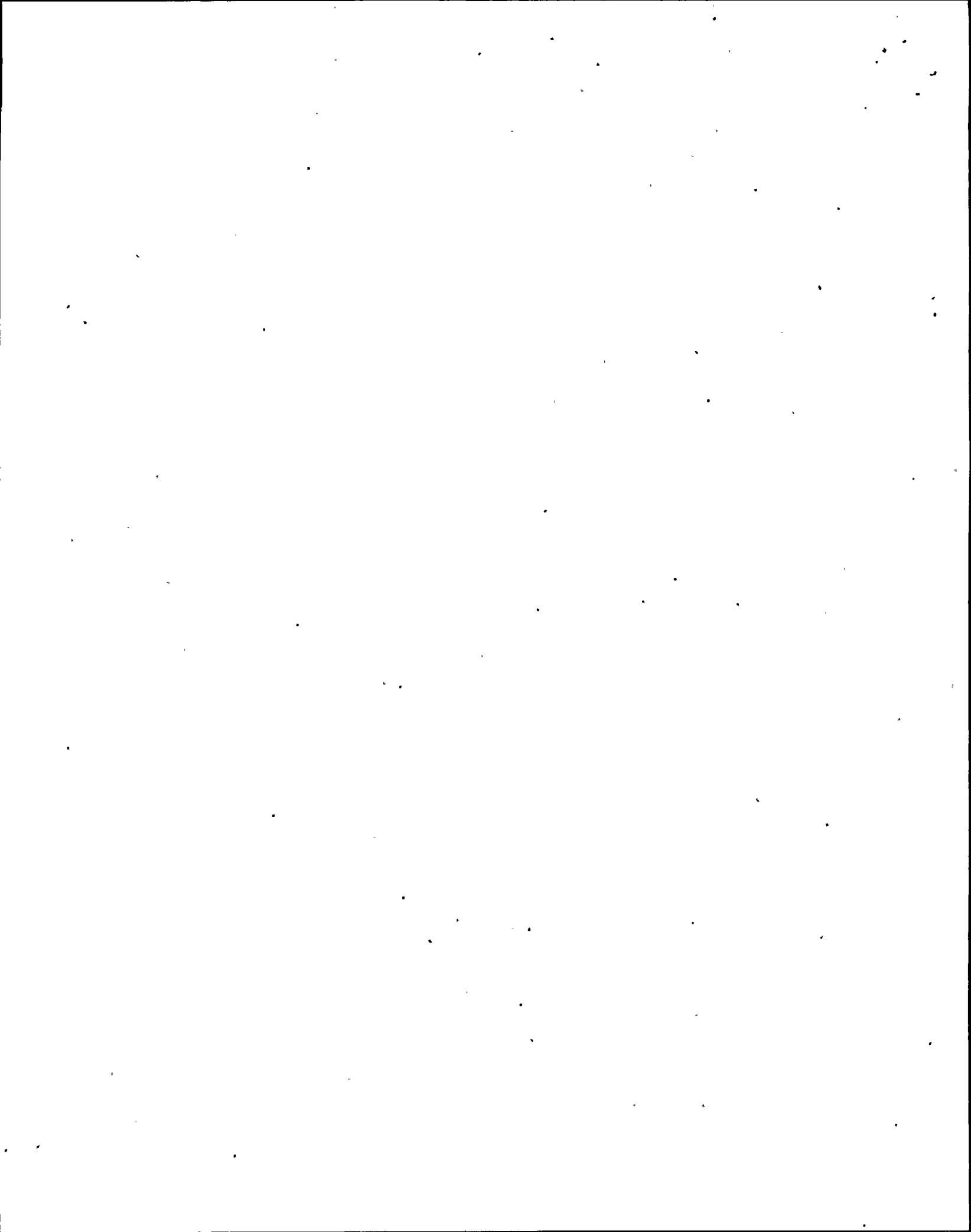
K/A: 272000 K4.03 / 3.9

Reference:

O1-OPS-001-273-1-01, EO-5.0, 8.0

N1-OP-50B, D.3

Source: new



Question: 035 (1.0 Point)

With the plant operating at 100% power, the local pushbutton to initiate carbon dioxide flooding of powerboard 102 room is inadvertently depressed. WHICH ONE (1) of the following describes the fire suppression response?

- a. Pre-discharge alarm sounds for 30 seconds, master blocking valve opens, hazard blocking valve opens, local fire panel alarm annunciates, after timed discharge, hazard and master blocking valves reclose.
- b. Master blocking valve opens immediately, hazard blocking valve opens, main fire panel alarm annunciates, after timed discharge, hazard and master blocking valves reclose.
- c. Pre-discharge alarm sounds for 30 seconds, master blocking valve opens, hazard blocking valve opens, local fire panel alarm annunciates, hazard and master blocking valves remain open until manually reclosed.
- d. Master blocking valve opens immediately, hazard blocking valve opens, main fire panel alarm annunciates, hazard and master blocking valves remain open until manually reclosed.

Answer: a

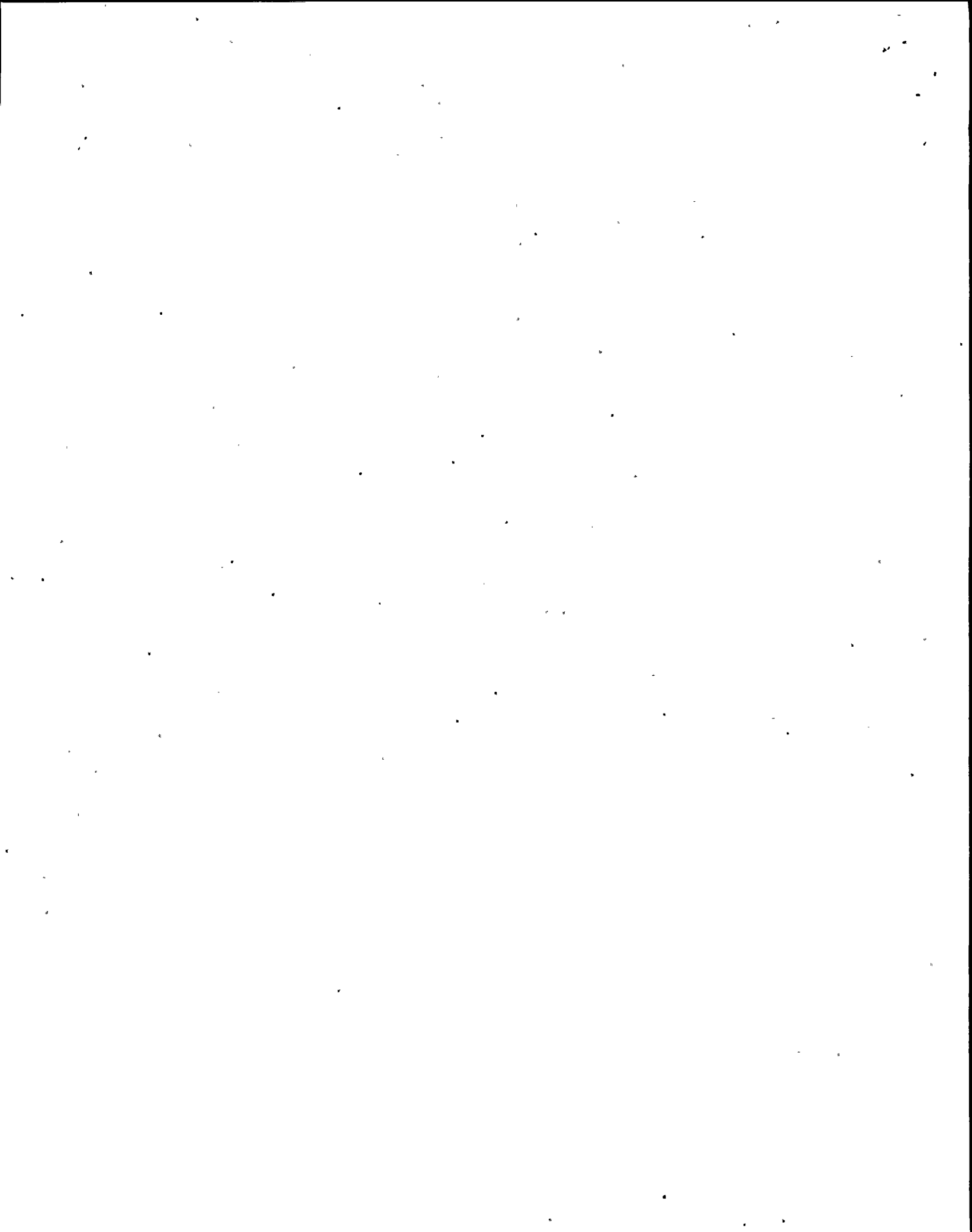
K/A: 286000 K1.09/3.3

Reference:

O1-OPS-001-286-1-03, EO-2.0, 3.0

N1-OP-21C

Source: new



Question: 036 (1.0 Point)

With the plant operating at 100% power, the normal Service Water pumps trip. WHICH ONE (1) of the following describes the required response per N1-SOP-7 ?

- a. Verify Emergency Service Water auto start to supply all Service Water loads and scram the reactor.
- b. Start Emergency Service Water to supply RBCLC and scram the reactor.
- c. Start Emergency Service Water to supply all loads and commence emergency power reduction.
- d. Commence emergency power reduction and scram when at minimum flow.

Answer: b

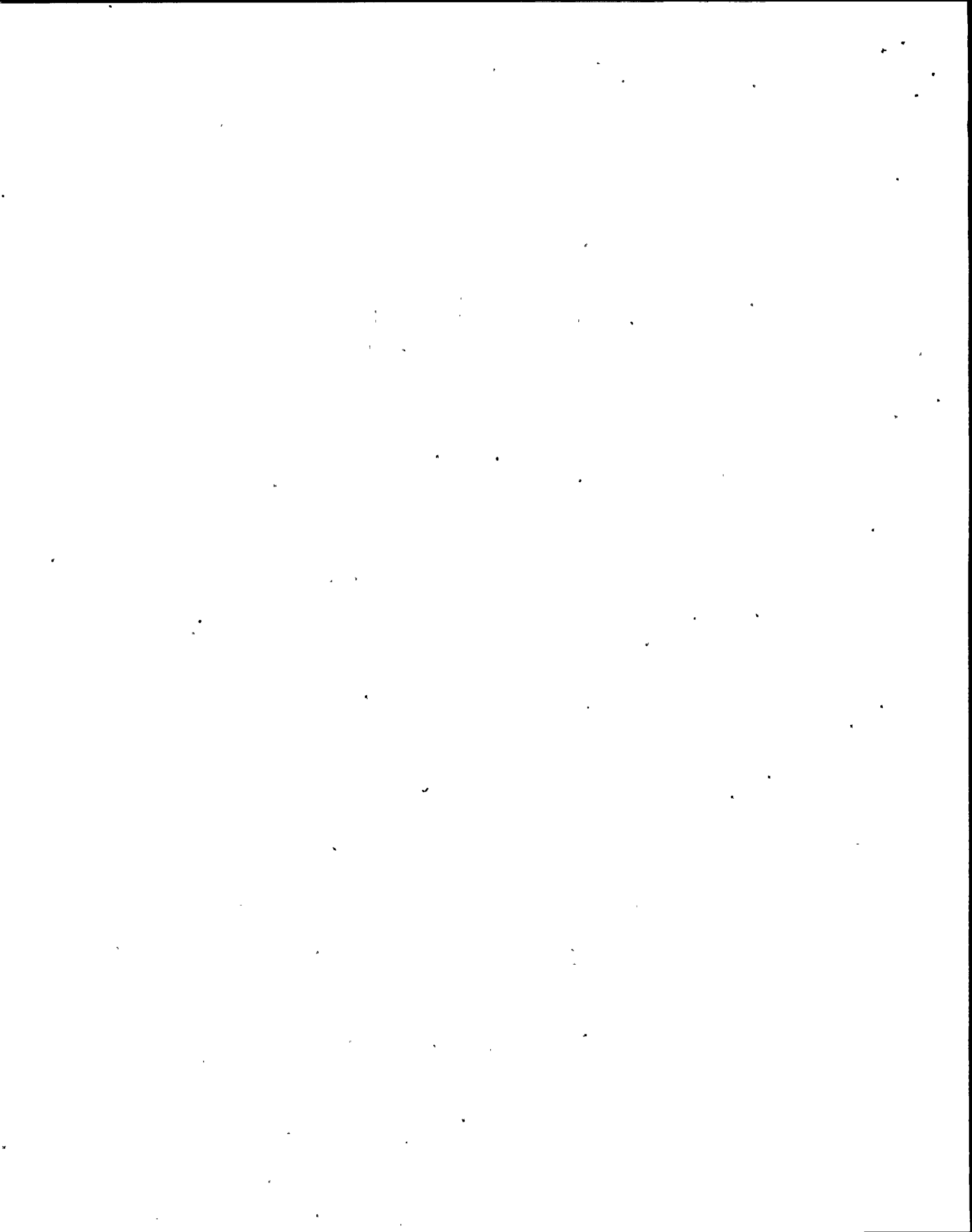
K/A: 400000 A2.01 / 3.4

Reference:

O1-OPS-001-276-1-01, EO-8.0

N1-SOP-07

Source: new



Question: 037 (1.0 Point)

During plant startup control rod 10-19 drifts out, is inserted and isolated per N1-OP-5. WHICH ONE (1) of the following identifies the possible cause for rod 10-19 to begin to drift outward after it is isolated?

- a. Stuck collet fingers.
- b. Leaking directional control valve.
- c. Leaking scram outlet valve.
- d. Stuck open ball check valve.

Answer: a

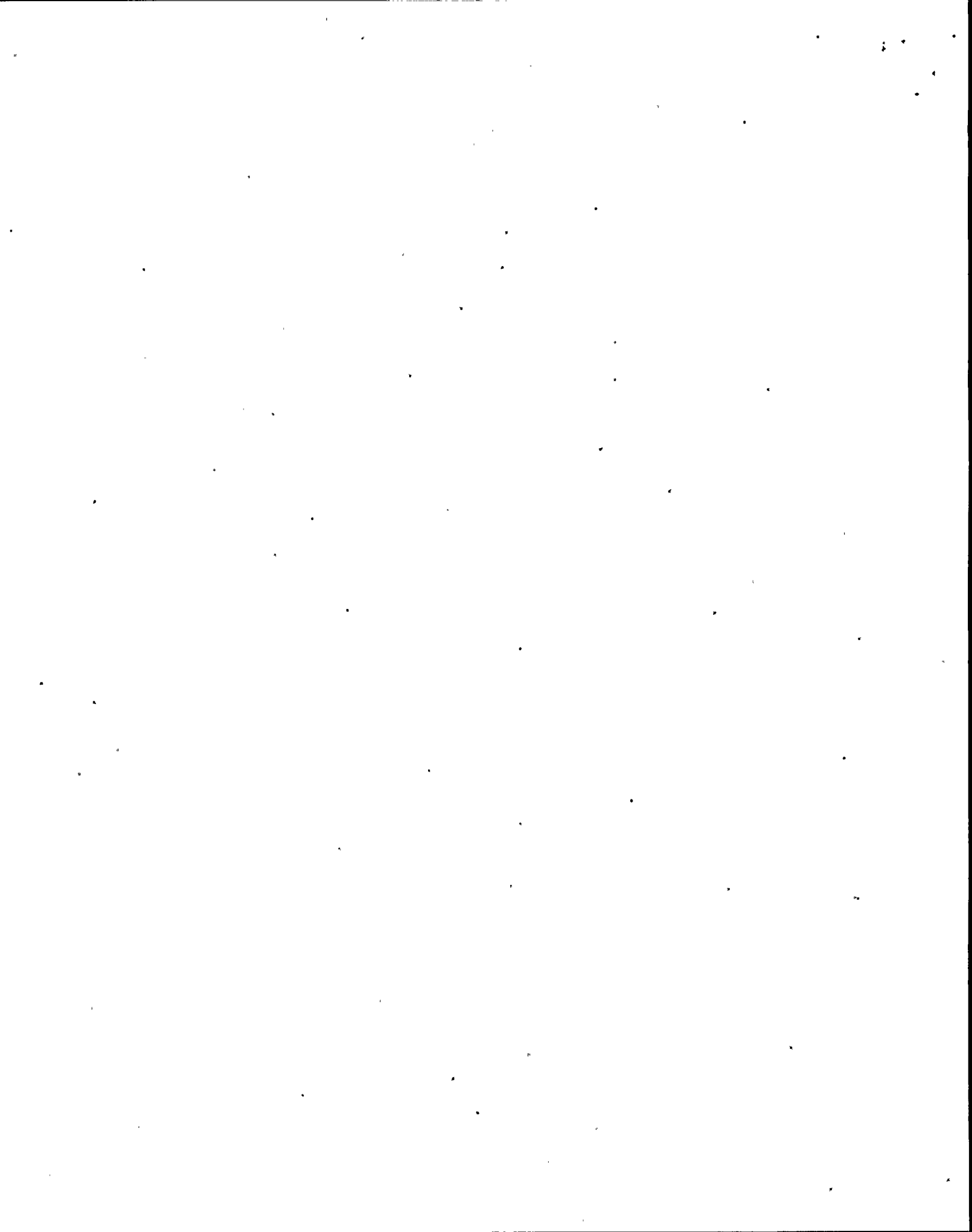
K/A: 201003 K4.07 / 3.2

Reference:

O1-OPS-001-201-1-04, EO-3.0, 6.c

N1-OP-5

Source: new



Question: 038 (1.0 Point)

With the plant in Refuel, the Spent Fuel Pool Filtering and Cooling system is in service operating normally with suction from the pool and reactor internals area. A loss of Instrument Air system occurs. WHICH ONE (1) of the following identifies the effect this will have on the Spent Fuel Storage Pool Filtering and Cooling System?

- a. System would continue to circulate water and the surge tank would overflow.
- b. System would not continue to circulate water and the pool would overflow.
- c. System would continue to circulate water and the pool level would drain to the level of the vacuum breakers.
- d. System would not continue to circulate water and pool water would drain to the level of the vacuum breakers.

Answer: b

K/A: 233000 A3.02 / 2.6

Reference:

O1-OPS-001-233-1-01, EO-5,0, 8.0

Source: new



Question: 039 (1.0 Point)

A complete failure of the Instrument Air System has occurred resulting in a reactor scram and turbine trip. WHICH ONE (1) of the following systems/components would be available to control reactor pressure from the Control Room?

- a. Electromatic Relief Valves
- b. Turbine Bypass valves
- c. Reactor Water Cleanup System
- d. Shutdown Cooling System

Answer: a

K/A: 239001 K6.02 / 3.2

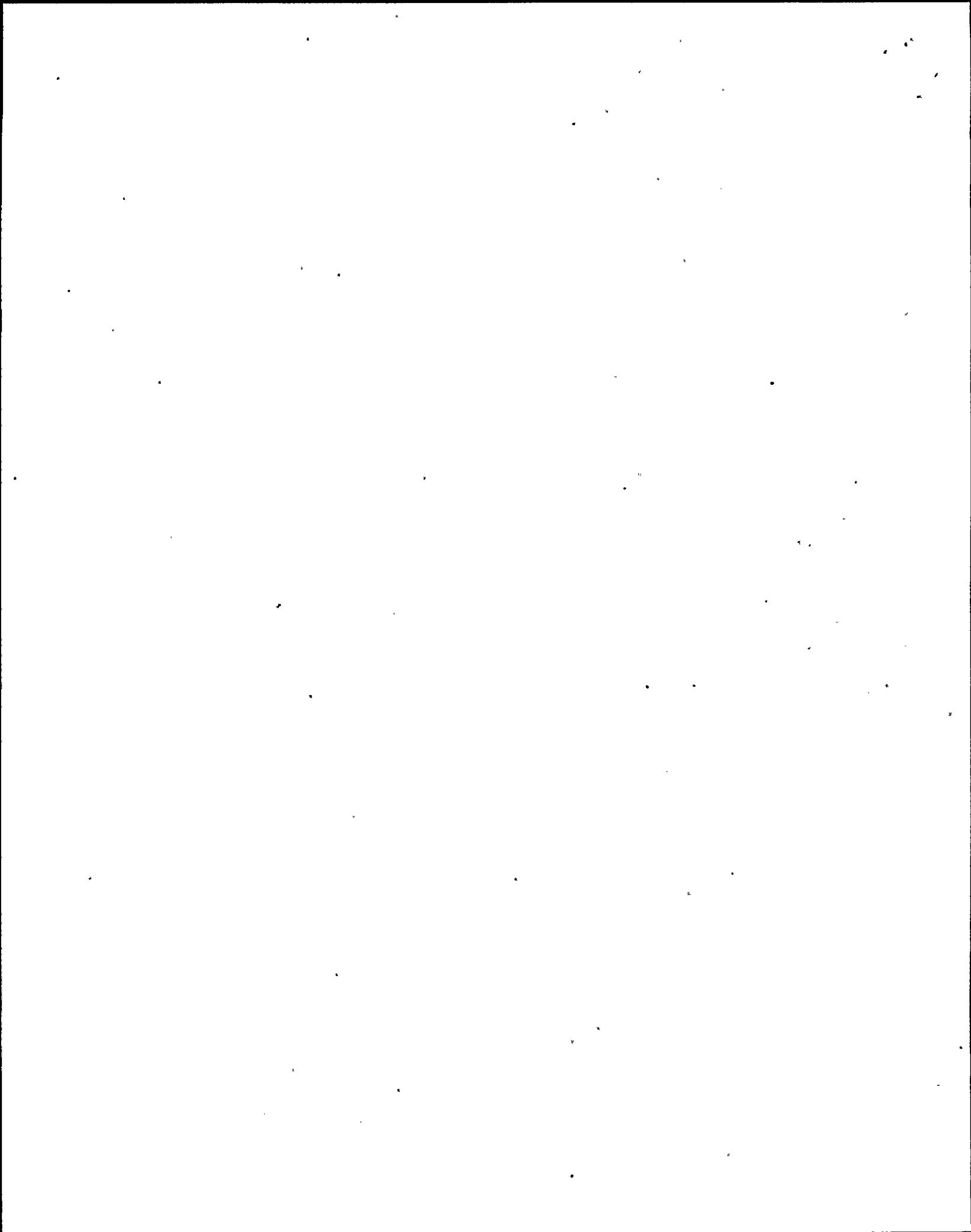
Reference:

N1-SOP-06

O1-OPS-001-278-1-01, EO-8.0

O1-OPS-001-218-1-01, EO-3.0

Source: Q724



Question: 040 (1.0 Point)

WHICH ONE (1) of the following identifies why the operating limits imposed on a fuel bundle become more restrictive at the end of life with respect to the APLHGR thermal limit?

- a. The inventory of Pu^{240} in the bundle increases making the delayed neutron fraction smaller.
- b. Resistance to heat transfer within the bundle decreases with exposure in the presence of barrier fuel.
- c. Neutron embrittlement of the cladding increases the probability of brittle fracture of the cladding at low power levels.
- d. The inventory of fission product gases in the "gas gap" increases the resistance to heat transfer.

Answer: d

K/A: 290002 K5.01 / 3.9

Reference:

N1, TECHSPEC, 3.1.7

O1-LOT-002-303-1-09, EO-4.b

Source: Q643



Question: 041 (1.0 Point)

With no AC power available, (Station Blackout), SOP-18 strips certain 125 VDC loads to preserve battery capacity to perform selected vital functions. WHICH ONE (1) of the following states why the stripping of some 125 VDC loads is required?

- a. To ensure sufficient DC capacity for continued operation of MG-167, the Process Computer and the Annunciators.
- b. To ensure sufficient DC capacity for Reactor Instrumentation, Emergency Condenser Controls, and to start a Diesel Generator.
- c. To ensure sufficient battery capacity to energize the Standby UPS.
- d. To ensure sufficient DC capacity to start the Diesel Fire Pump.

Answer: b

K/A: 295003 AK1.02 / 3.4

Reference:

• O1-OPS-006-342-1-01, EO-2

• N1-OP-47A

• Source: Q4261



Question: 042 (1.0 Point)

The plant is operating at 100% power when a loss of power to powerboard 11 & 12 occurs. WHICH ONE (1) of the following is the setpoint at which a low voltage transfer will occur and the bases for that setpoint?

- a. At 80% normal bus voltage to assure that loading on PB 16 and PB 17 is maintained below 962 amps when only one source of power is available
- b. At 20% normal bus voltage to prevent interference with the load shedding logic in the event of a LOCA coincident with a LOOP
- c. At 80% normal bus voltage to assure the ground fault overcurrent protection provided by the 50G relays remains operable
- d. At 20% normal bus voltage to preclude re-energizing motors when their residual voltage may be considerably out-of-phase with the incoming voltage.

Answer: d

K/A: 295003 AK3.01/3.5

Reference:

O1-OPS-001-262-1-01, EO-4.b

N1-OP-30

Source : new



Question: 043 (1.0 Point)

While operating at rated power a turbine trip occurs with a failure of all bypass valves. The following conditions result:

- RPS high pressure scram did not cause a scram
- 4 ERV's opened
- 3 Safety valves opened
- All rods failed to insert
- EC's failed to auto initiate and have been manually initiated.

Under these plant conditions, WHICH ONE (1) of the following signals provides a backup to the high reactor pressure scram signal per Unit 1 Tech. Spec. bases?

- a. Turbine Control Valve fast closure trip.
- b. APRM flow biased upscale trip.
- c. High Drywell Pressure trip.
- d. Reactor Water level low trip.

Answer: c

K/A: 295006 AK2.01 / 4.4

Reference:

01-OPS-001-212-1-01, EO-12.0, 18.0

UNIT 1 TECH. SPEC. BASES 2.2.2

Source: new



Question: 044 (1.0 Point)

During a plant startup the RO is rolling the main turbine in preparation for loading. WHICH ONE (1) of the following conditions will result in an RPS trip under these plant conditions?

- a. Condenser vacuum lowers to 15" Hg Vac
- b. Steam tunnel temperature rises to 180°F
- c. Six IRMs spike upscale
- d. Scram Discharge Volume level rises to 50 gallons

Answer: d

K/A: 295006 AA2.06 / 3.8

Reference:

O1-OPS-001-212-1-01, EO-12.0

Source: new



Question: 045 (1.0 Point)

With the Reactor at 100% power and the Main Generator synchronized with the Grid, a loss of control oil to the operating piston of 12 Turbine Control Valve results in 12 Turbine Control Valve failing closed. WHICH ONE (1) of the following describes the response of the Turbine Control System to the rising reactor pressure?

- a. The remaining Turbine Control Valves will open to the Primary Valve Limit Stop and Turbine Bypass Valves will open until the Reactor Flow Limit is reached.
- b. The remaining Turbine Control Valves will not reposition since 12 Turbine Control Valve is forcing the Primary Valve Relay to minimum, Turbine Bypass Valves will open to the Reactor Flow limit.
- c. The remaining Turbine Control Valves will open until the Turbine Governor restricts Control Oil flow to the Speed relay, Turbine Bypass Valves will then open to accept the remaining steam flow.
- d. The remaining Turbine Control Valves will open until the Bypass Relay reaches the Primary Valve Limit Stop, Turbine Bypass Valves will not open since the Reactor Flow Limit is exceeded.

Answer: a

K/A: 295007 AK2.01 / 3.7

Reference:

O1-OPS-001-248-1-01, EO-3.0

U1 Operations Technology Figure 27-11

Source : new



Question: 046 (1.0 Point)

A plant scram has occurred. EC's are in service with RPV pressure stable. RPV level is lowering. WHICH ONE (1) of the following explains the large drop in indicated level when transition to the fuel zone level instrument occurs?

- a. This is caused by the location of the variable leg tap in relation to the reference leg tap .
- b. This is caused by core two phase flow effects on the variable leg tap.
- c. This is caused by steam flow effects on the reference leg tap.
- d. This is caused by the location of the variable leg tap in relation to the Lo-Lo Rosemount tap.

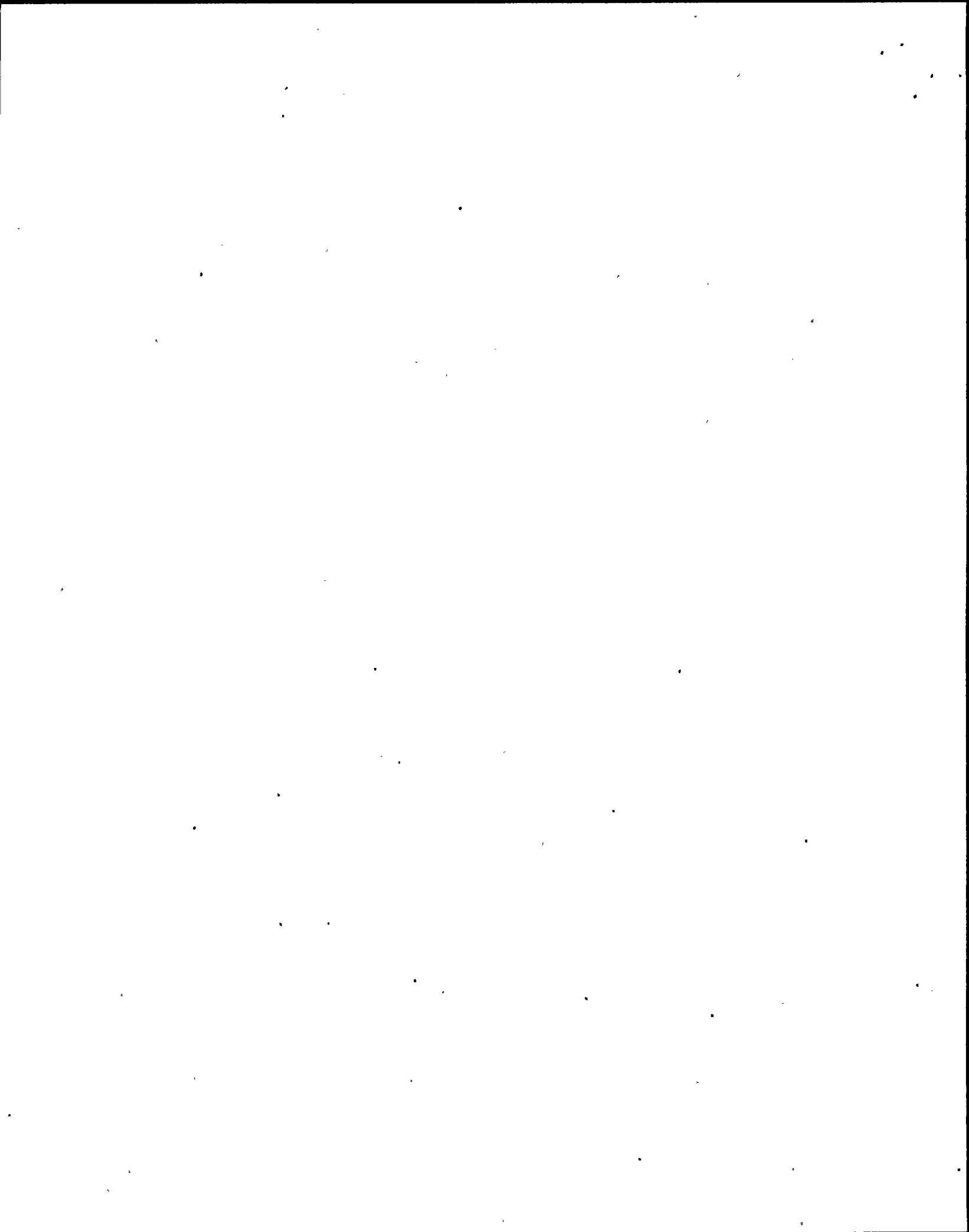
Answer: b

K/A: 295009 AK2.01 / 4.0

Reference:

O1-OPS-001-216-1-01, EO-5.0

Source: new



Question: 047 (1.0 Point)

While operating at rated power a large break loss of coolant accident occurs inside the drywell. As the drywell pressure and temperature began to rise the operator noted that torus pressure rose at the same rate and remained the same as drywell pressure.

WHICH ONE (1) of the following identifies the possible explanation for this response ?

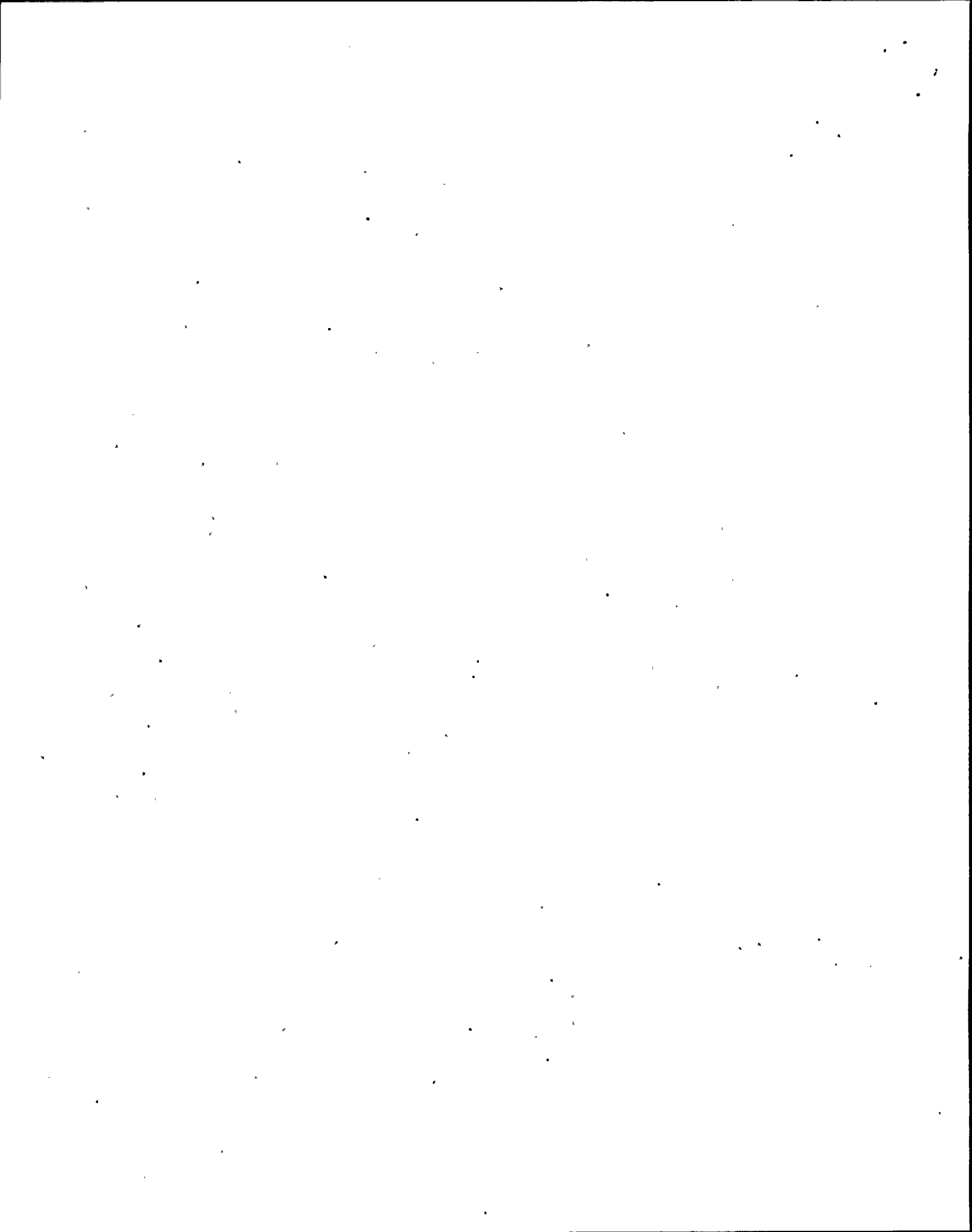
- a. This is the expected response due to the design operation of the torus to drywell vacuum relief system.
- b. This response may be due to the failure of the torus to drywell vacuum relief system valves .
- c. This is the expected response due to the design operation of the reactor building to torus vacuum relief system.
- d. This response may be due to the failure of the reactor building to torus vacuum relief system.

Answer: b

K/A: 295010 AK1.01 / 3.4

Reference: O1-OPS-001-223-1-02, EO-3.0, 5.0

Source: new



Question: 048 (1.0 Point)

Following a loss of coolant accident, Primary Containment pressure is being maintained less than the Primary Containment Pressure limit per N1-EOP-4. WHICH ONE (1) of the following would be lost if the Primary Containment pressure limit were exceeded?

- a. Ability to operate containment vent valves.
- b. Ability to monitor containment pressure
- c. Ability to operate RPV head vents.
- d. Ability to monitor containment water level.

Answer: a

K/A: 295010 AK3.01 / 4.0

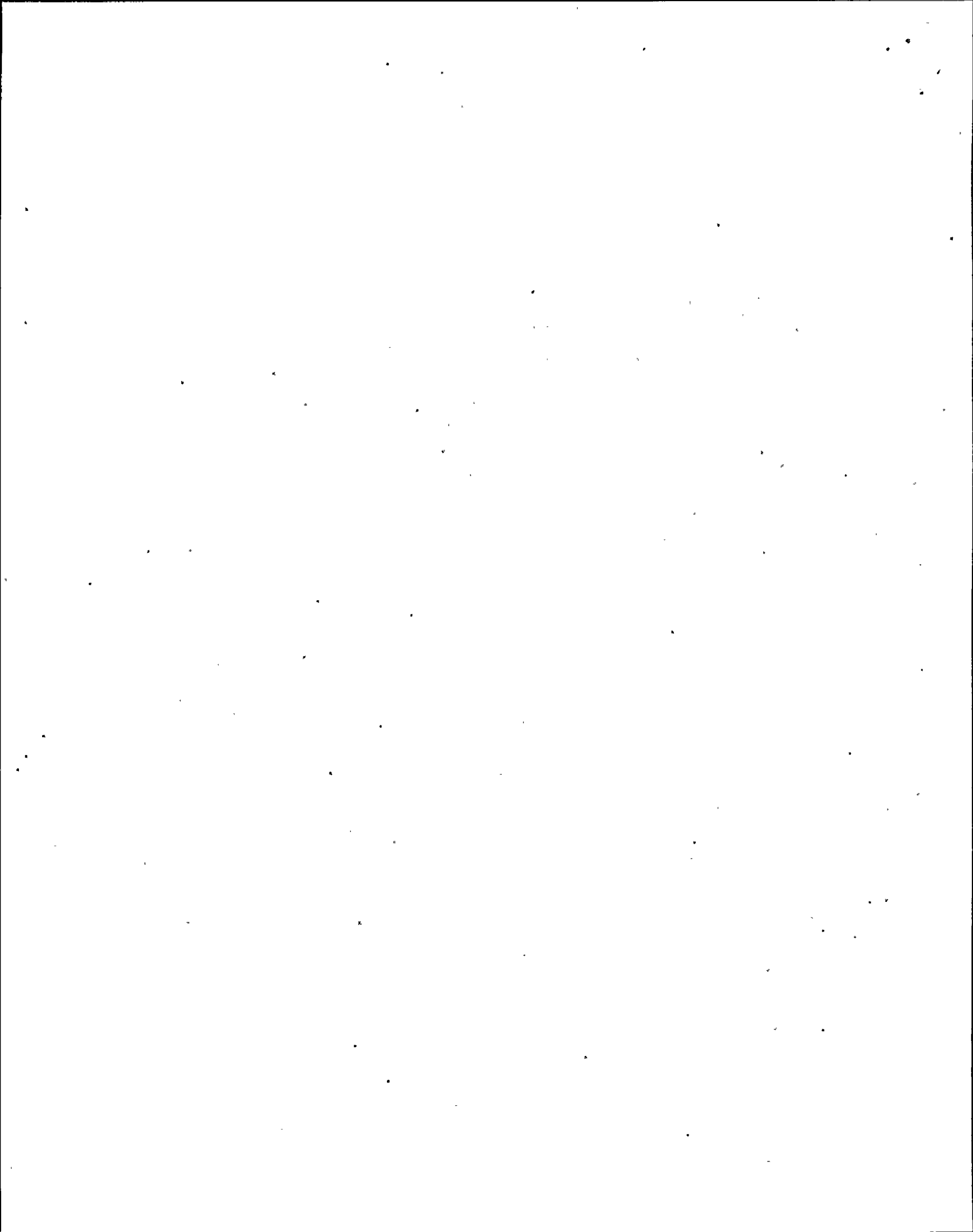
Reference: . .

O1-OPS-006-344-1-04, EO-4.0

N1-EOP-04

N1-ODP-PRO-0302

Source: new



Question: 049 (1.0 Point)

Following a low power ATWS and MSIV isolation, reactor pressure is being maintained between 800 and 1000 psig with Emergency Condensers and ERV 111. Per the EOP bases, continuing to cycle ERV 111 open and closed for pressure control will result in WHICH ONE (1) of the following?

- a. Localized heating of the torus
- b. Excessive dynamic loading of ERV 111 Y-Quencher
- c. Chugging at the discharge of ERV 111
- d. Violation of the ERV solenoid EQ temperature rating

Answer: a

K/A: 295013 AA2.02 / 3.5

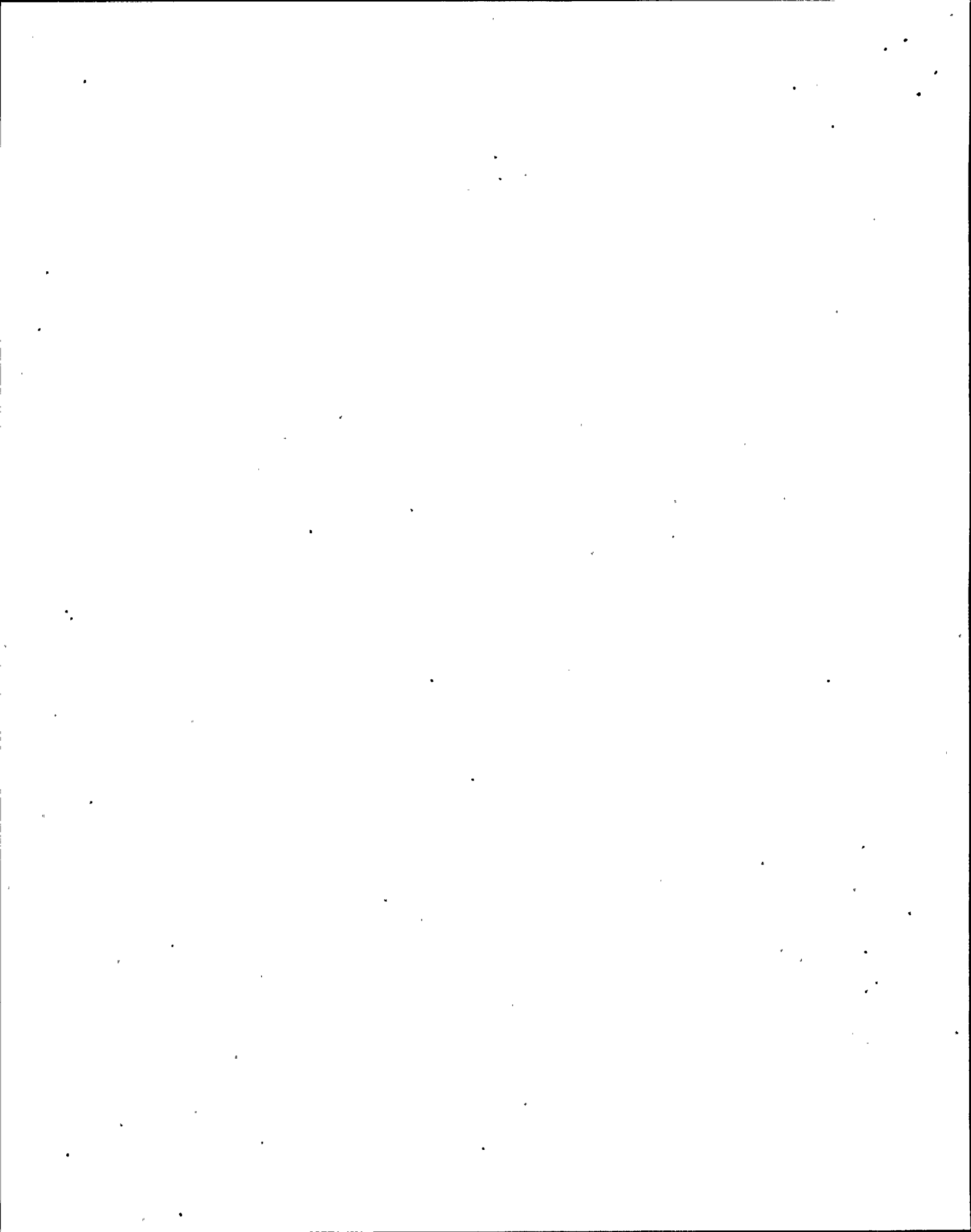
Reference:

N1-EOP-03

N1-ODP-OPS-0302

O1-OPS-001-218-1-01, EO-7.0

Source: new



Question: 050 1.0 Point)

Considering only the reactor's response to a reduction in feedwater temperature of approximately 50° F. WHICH ONE (1) of the following describes the Minimum Critical Power Ratio (MCPR) response ?

- a. MCPR decreased but remains above SLCPR
- b. MCPR increased but remains below SLCPR
- c. MCPR decreased below SLCPR
- d. MCPR increased above SLCPR

Answer: a

K/A: 295014 AK2.02 / 4.2

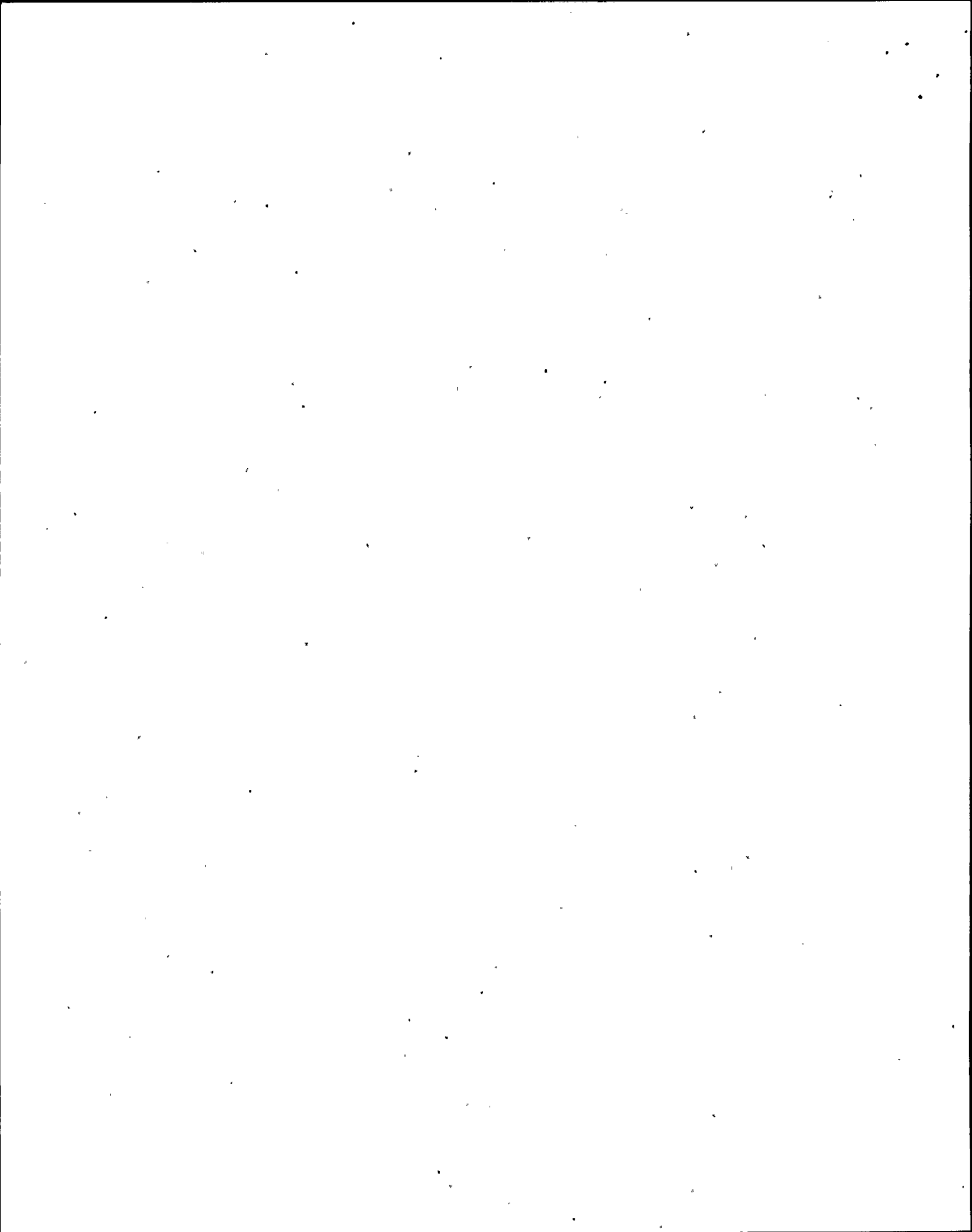
Reference:

01-LOT-002-303-1-09, EO - 5.7.1

NI-OP-48

TECH.SPECS, 2.1

Source: Q706



Question: 051 (1.0 Point)

The plant is operating at 100% power when an unexplained drop in reactor power occurs. WHICH ONE (1) of the following identifies an event that could have caused this indication ?

- a. Closure of an EC steam IV.
- b. Loss of a feedwater heater string.
- c. EC condensate return valve fails open.
- d. Crack growth in the core shroud.

Answer: d

K/A: 295014 AA2.03 / 4.3

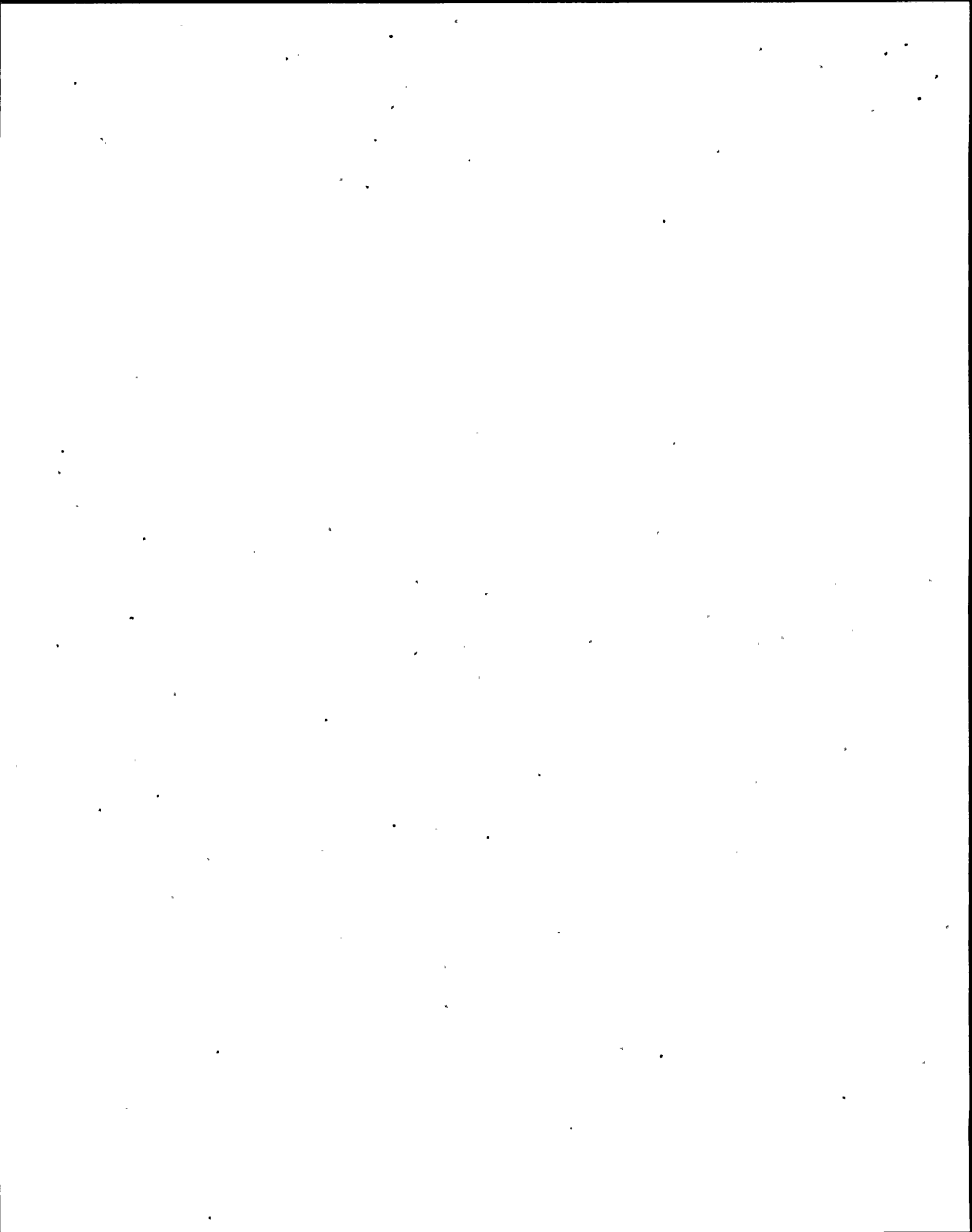
Reference:

N1-SOP-02

O1-OPS-001-101-1-01, EO-4.0

Management Expectation, Knowledge of shroud crack identification IAW SOP-02

Source: new



Question: 052 (1.0 Point)

N1-EOP-3, Failure to Scram, directs a normal cooldown to commence when it is determined that "the reactor is shutdown and no boron has been injected". WHICH ONE (1) of the following conditions would meet the EOP definition of reactor shutdown and allow cooldown to commence?

- a. SRM period indication shows a negative period while fully withdrawn with IRM's onscale on Range 4 and fully inserted.
- b. SRM period indication shows a negative period while fully inserted with IRM's onscale on Range 9 and fully inserted.
- c. SRM period indication shows a stable positive period while fully withdrawn with SRM's indicating 500 cps.
- d. SRM period indication shows an infinity period while fully inserted with IRM's downscale in R10 and fully withdrawn.

Answer: a

K/A: 295015 AK1.02 / 4.1

References:

N1-ODP-OPS-0302

O1-OPS-006-344-1-01, EO-4.0

Source: new



Question: 053 (1.0 Point)

During a condition requiring a manual reactor scram a loss of Rod Position Indication occurs. WHICH ONE (1) of the following identifies the correct EOP response following the scram insertion?

- a. Enter EOP-2 and verify APRM's downscale.
- b. Enter EOP-3 and execute EOP-3.1.
- c. Enter EOP-3 and exit when APRM's are verified downscale.
- d. Enter EOP-2 and execute EOP-3.1.

Answer: b

K/A: 295015 AK2.01 / 3.9

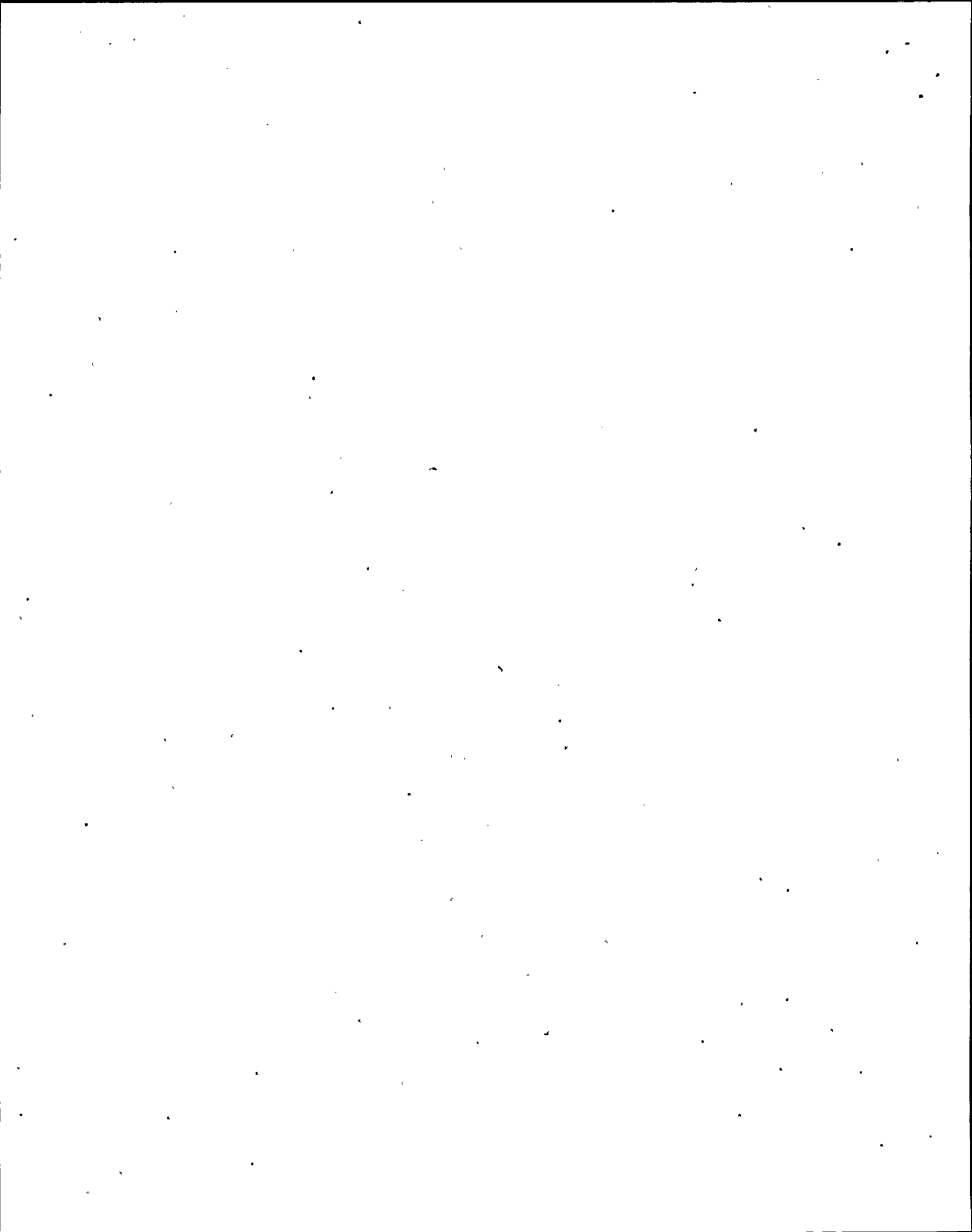
References:

O1-OPS-006-344-1-03, EO-2.0

N1-EOP-3

SER-97-4

Source: new



Question: 054 (1.0 Point)

Following a control room evacuation, plant conditions are as follows:

- Reactor pressure being maintained between 500 - 600 psig with EC's
- The main turbine has tripped
- A failure to fast transfer of Powerboards 11 and 12 has occurred
- Reactor level is 35 inches and stable

In accordance with N1-SOP-9.1, what sources of makeup can be used to restore and maintain reactor level between 53 and 95 inches under these conditions?

- a. Core Spray
- b. Feedwater/HPCI
- c. Diesel Fire Pump lined up to Feedwater
- d. CRD

Answer: d

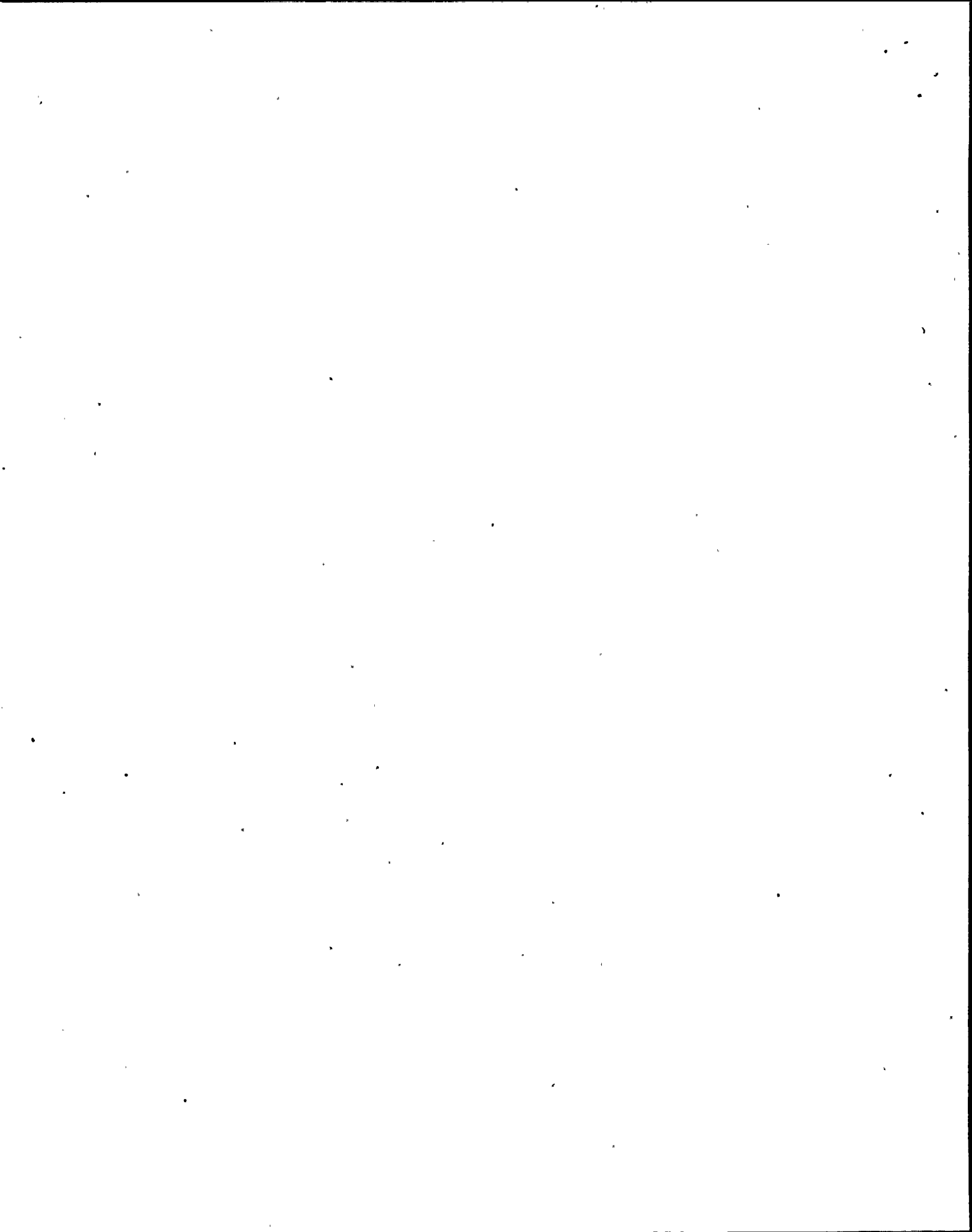
K/A: 295016 AA1.06/4.1

References:

O1-OPS-006-342-1-01, EO-2

N1-SOP-9.1

Source: new



Question: 055 (1.0 Point)

A release of radioactivity is in progress. The following radiological conditions are observed.

- Main Stack OGESMS shows rising radiation levels.
- Turbine Building Ventilation PING, shows elevated radiation levels
- Reactor Building Ventilation radiation monitors are reading normal.

WHICH ONE (1) of the following describes the probable source of the release?

- a. Recirculation Pump seal leakage with Primary Containment leakage.
- b. Reactor Water Cleanup leakage outside the Primary Containment.
- c. Main Steam leakage outside the Primary Containment.
- d. Fuel Clad failure release thru Offgas.

Answer: c

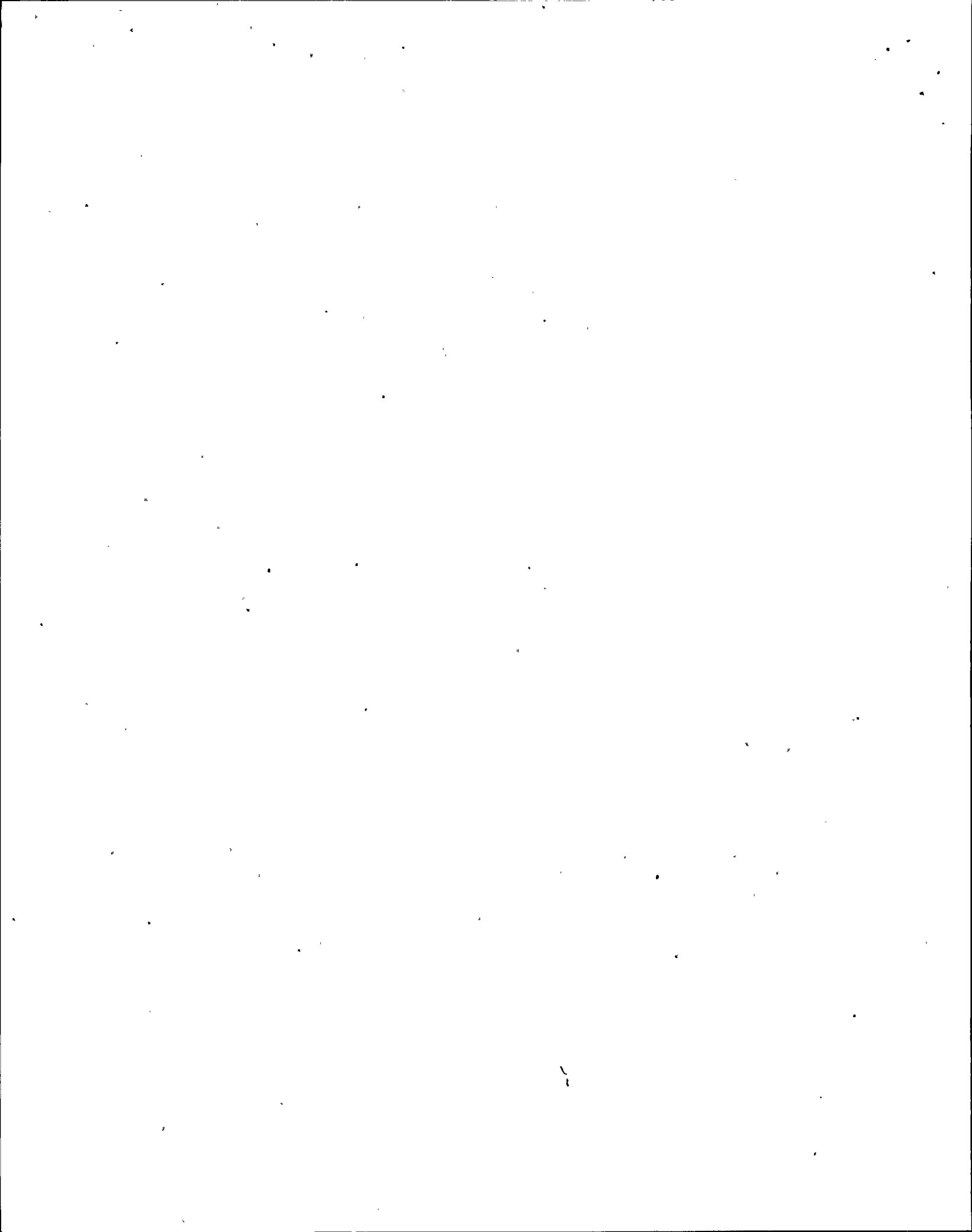
K/A: 295017 AA2.04 / 4.3

References:

DRW C-18021-C, Sh.1

O1-OPS-001-273-1-01, EO-4.0.d, 5.0

Source: new



Question: 056 (1.0 Point)

The spent fuel pool cooling system is in service with the fuel pool gates installed. WHICH ONE (1) of the following describes the fuel pool cooling system response to a leak in the skimmer surge tank? Assume no operator actions and that the condensate transfer system is not available.

- a. Fuel pool level will continue to decrease and cooling capability will be lost.
- b. Fuel pool level will continue to decrease and cooling capability will be maintained.
- c. Fuel pool level will be maintained and cooling capability will be lost.
- d. Fuel pool level and cooling capability will be maintained.

Answer: c

K/A: 295023 AA2.02 / 3.7

References:

O1-OPS-001-233-1-01, EO-4.0, 8.0

N1-OP-06

N1-SOP-20

Source: Q13567



Question: 057 (1.0 Point)

During a LOCA, a failure of the Containment Spray Raw Water Pumps to start has occurred. WHICH ONE (1) of the following describes the effect this will have when Containment Spray is initiated?

- a. Containment Spray System rated flow to the containment will not be achieved.
- b. Containment Spray System contamination could be released to the environment.
- c. Containment Spray System pumps would trip on loss of cooling.
- d. Containment Spray System design heat exchanger differential temperature would be exceeded.

Answer: b

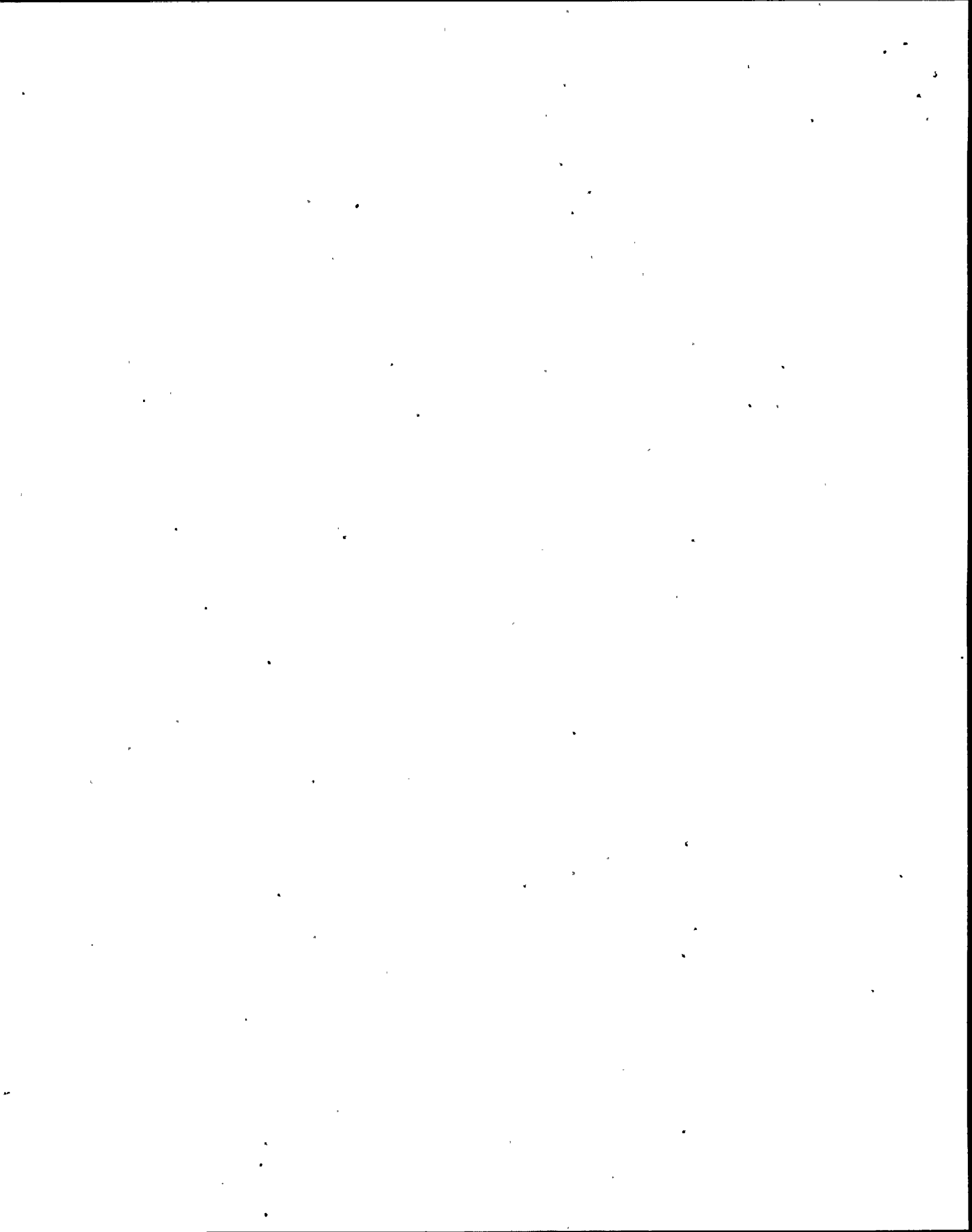
K/A: 295024 EA1.11 / 4.2

References:

NI-OP-14

O1-OPS-001-226-1-01, EO-6.0

Source: new



Question: 058 (1.0 Point)

With the plant operating at 100% power, a Main Turbine Governor Runback occurred five minutes ago due to a loss of Stator Water Cooling, Generator MVARs have been reduced to zero and Reactor Recirculation Flow has been reduced to the top of the restricted zone. The following plant conditions exist:

- Reactor power at 60%
- Reactor level at 72 inches and stable
- Reactor pressure at 1042 psig and stable
- First Stage Bowl Pressure Low Annunciator in alarm
- Nine Turbine Bypass Valves are open
- Generator Stator Amps at 4400 and stable

Based on the current plant conditions, WHICH ONE (1) of the following conditions exist?

- a. Generator stator water runback will result in a generator and turbine trip
- b. Failure of Reactor Flow Limit has permitted nine (9) Turbine Bypass Valves to open.
- c. ATWS condition exists due to high reactor pressure.
- d. Turbine trip will not result in a reactor scram.

Answer: d

K/A: 295025 EA1.02 / 3.8.

References:

N1-ARP-F-3-4-6

O1-OPS-001-212-1-01, EO-14

UI Tech.Spec. 2.1.2.i

Source: new



Question: 059 (1.0 Point)

Following an MSIV isolation and failure to scram event, Liquid Poison must be injected if the reactor cannot be shutdown before torus temperature exceeds the Boron Injection Initiation Temperature. WHICH ONE (1) of the following describes the bases for this requirement?

- a. To inject LP prior to the torus temperature that requires a manual scram.
- b. To prevent torus air space pressure from exceeding the Pressure Suppression Pressure Limit.
- c. To achieve the Cold Shutdown Boron Weight prior to exceeding 160°F in the torus.
- d. To ensure torus temperature does not exceed the torus design temperature.

Answer: a

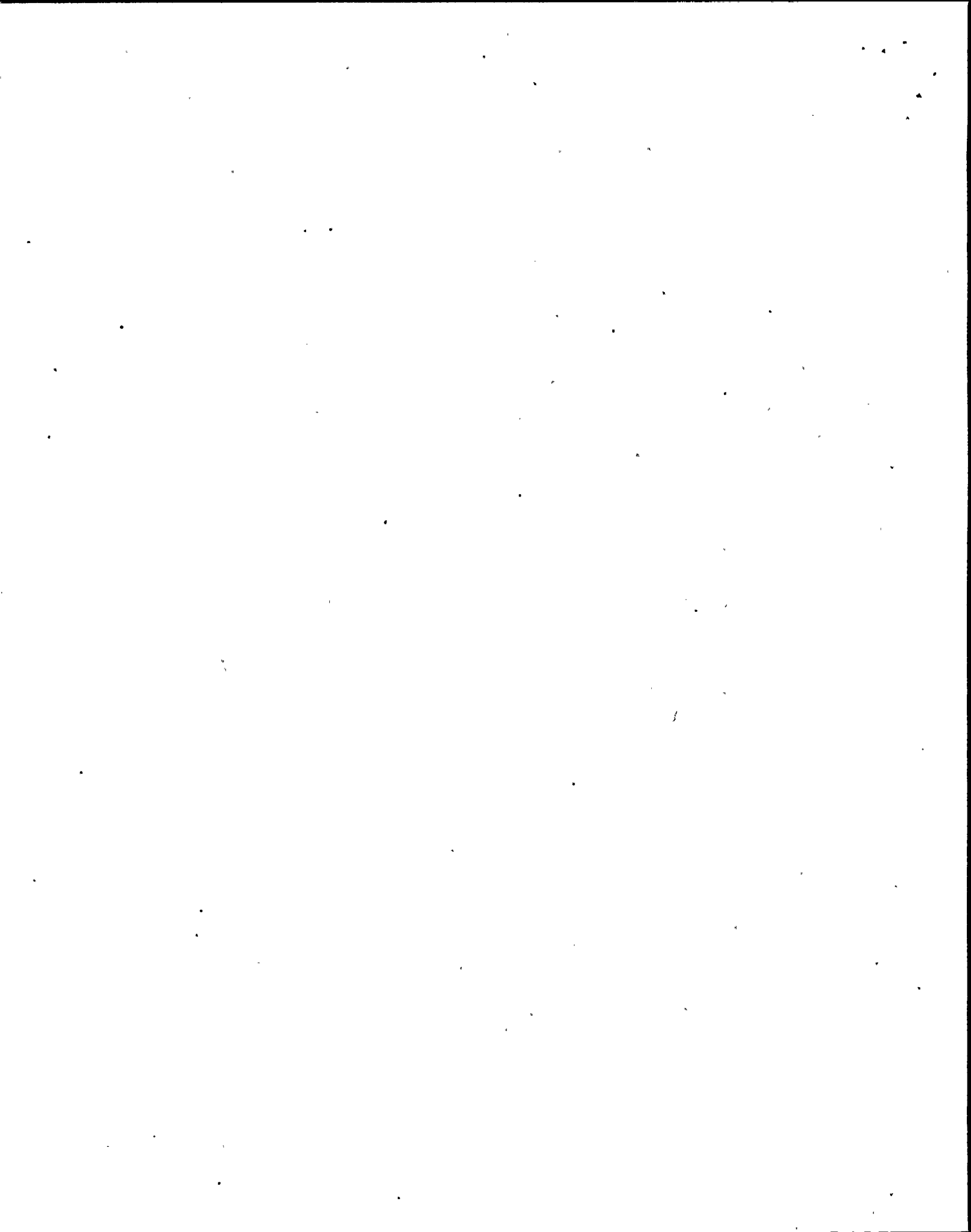
K/A: 295026 EK3.04 / 4.1

References:

N1-ODP-OPS-0302

O1-OPS-006-344-1-03, EO-4.0

Source: new



Question: 060 (1.0 Point)

A failure to scram has occurred. Torus temperature has risen due to ERV operation but is now stable. Torus level is lowering for unknown reasons. WHICH ONE (1) of the following is the bases for the torus level at which the Heat Capacity Temperature limit will be exceeded irrespective of torus temperature?

- a. Torus level LCO value.
- b. Lowest indicated value for torus level.
- c. Lowest safety related indicated value for torus level.
- d. ERV tailpiece discharges become uncovered.

Answer: d

K/A: 295030 EK1.03 / 4.1

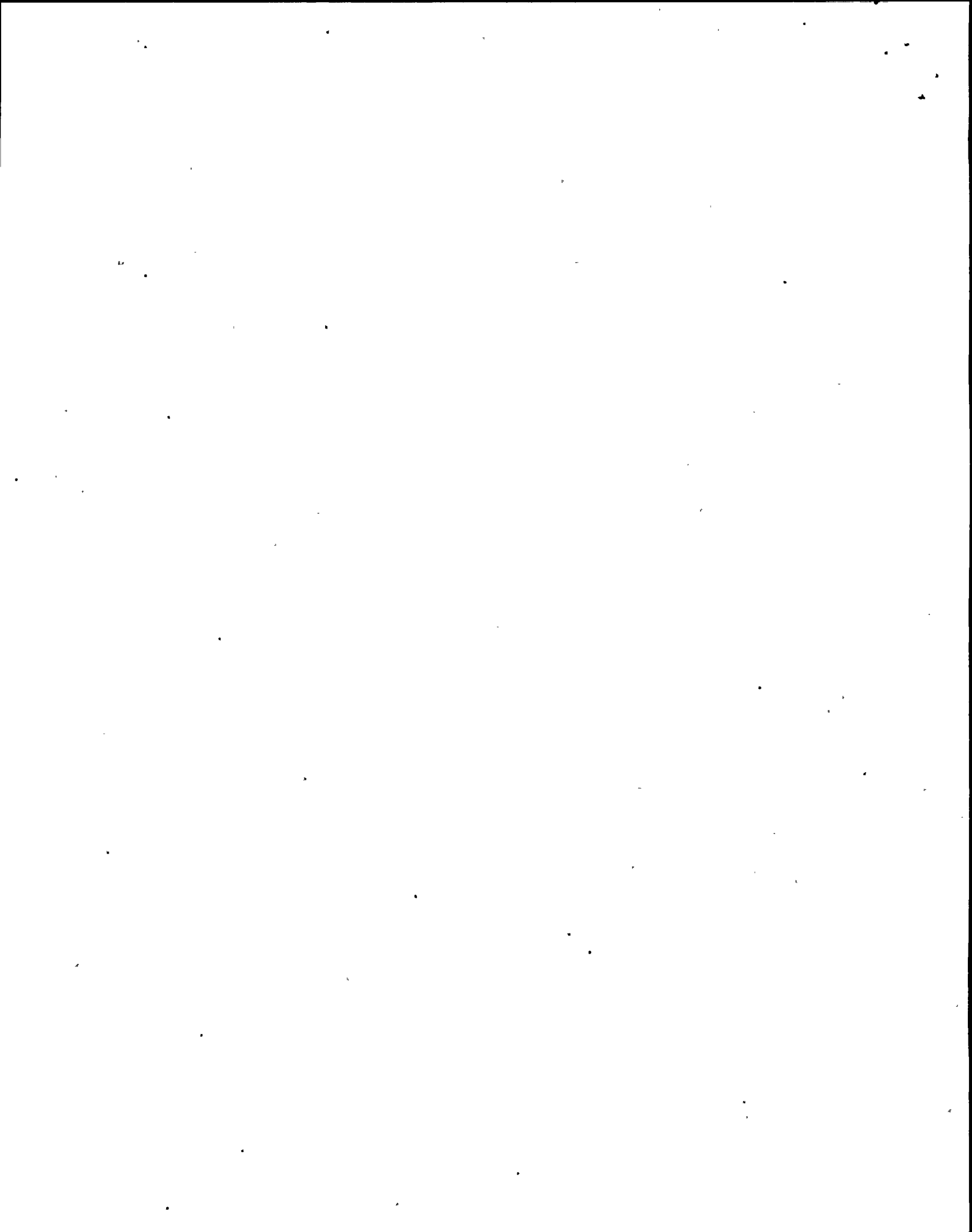
References:

O1-OPS-006-344-1-04, EO-4.0

N1-EOP-03

N1-ODP-OPS-0302

Source: new



Question: 061 (1.0 Point)

Torus water level is at a normal value for plant operation when a loss of coolant accident occurs. Emergency Depressurization is required per N1-EOP-4 due to exceeding the Pressure Suppression Pressure. WHICH ONE (1) of the following describes what is prevented by depressurizing based on the Pressure Suppression Pressure at normal torus level?

- a. Not exposing ERV tail pipe discharge points.
- b. Emergency Depressurization without containment venting being required.
- c. Not exceeding the ERV tailpipe level limit.
- d. Exceeding the pressure achieved by transferring all non-condensibles to the torus.

Answer: d

K/A: 295030 EK2.08 / 3.8

References:

N1-ODP-OPS-0302

O1-OPS-006-344-1-04, EO-4.0

Source: new



Question: 062 (1.0 Point)

A plant scram has occurred due to a loss of feedwater. Core Spray is available. RPV level is approaching TAF. WHICH ONE (1) of the following identifies the reason for requiring an Emergency Depressurization at this time?

- a. To reject heat to the pool while still within design limits.
- b. To establish steam cooling flow path conditions.
- c. To cause a level swell to drop the fuel temperature.
- d. To maximize flow from injection systems.

Answer: d

K/A: 295031 EK3.05 / 4.3

References:

N1-ODP-OPS-0302

O1-OPS-006-344-1-02, EO-4.0

Source: new



Question: 063 (1.0 Point)

A large fire has occurred and resulted in the following conditions:

- RPV water level cannot be determined
- All control rods are inserted to position "00"
- RPV pressure is 900 psig
- Only 2 of the 6 ERVs can be opened
- MSIVs and all 9 TBVs are open

WHICH ONE(1) of the following will assure adequate core cooling?

- a. Maintaining RPV pressure greater than Minimum RPV Flooding Pressure
- b. Maintaining RPV pressure greater than the Minimum Alternate Flooding Pressure.
- c. Flooding the drywell in accordance with EOP-10
- d. Maintaining current conditions for the Maximum Core Uncovery Time Limit

Answer: c

K/A: 295031 EA2.04 / 4.8

References:

N1-ODP-OPS-0302

O1-OPS-006-344-1-10, EO-2.0

Source: Q14731



Question: 064 (1.0 Point)

All rods are not fully inserted following a reactor scram. N1-EOP-3 is entered. ARI is initiated. The following indications are on F Panel:

- All of the blue SCRAM lights are de-energized
- All of the amber accumulator lights are de-energized
- All of the Scram Solenoid Group lights are de-energized
- Reactor pressure is 500 psig and stable
- No control rod drive pumps are available
- The RWM has been bypassed

WHICH ONE (1) of the following methods in N1-EOP-3.1, Alternate Control Rod Insertion, would provide a success path to insert control rods under current plant conditions?

- a. Pulling RPS solenoid fuses
- b. Venting the scram air header locally
- c. Scramming rods individually from the J Panel
- d. Drive control rods manually

Answer: b

K/A: 295037 EK3.07 / 4.3

References:

O1-OPS:006-344-1-11, EO-4.0

N1-EOP-3.1

Source: Q778



Question: 065 (1.0 Point)

The following override statement exists in EOP-6:

**"IF...TURBINE BUILDING VENTILATION IS SHUTDOWN,
THEN...RESTART TURBINE BUILDING VENTILATION"**

WHICH ONE (1) of the following is the basis for keeping the Turbine Building Ventilation System in operation while executing EOP-6 ?

- a. Maintains Turbine Building pressure above Reactor Building Pressure.
- b. Prevents a reactor scram due to high temperature in the MSL tunnel.
- c. Prevents having an unmonitored ground release from the Turbine Building.
- d. Ensures adequate dilution of the gases discharged through the stack.

Answer: c

K/A: 295038 EK2.03 / 3.8

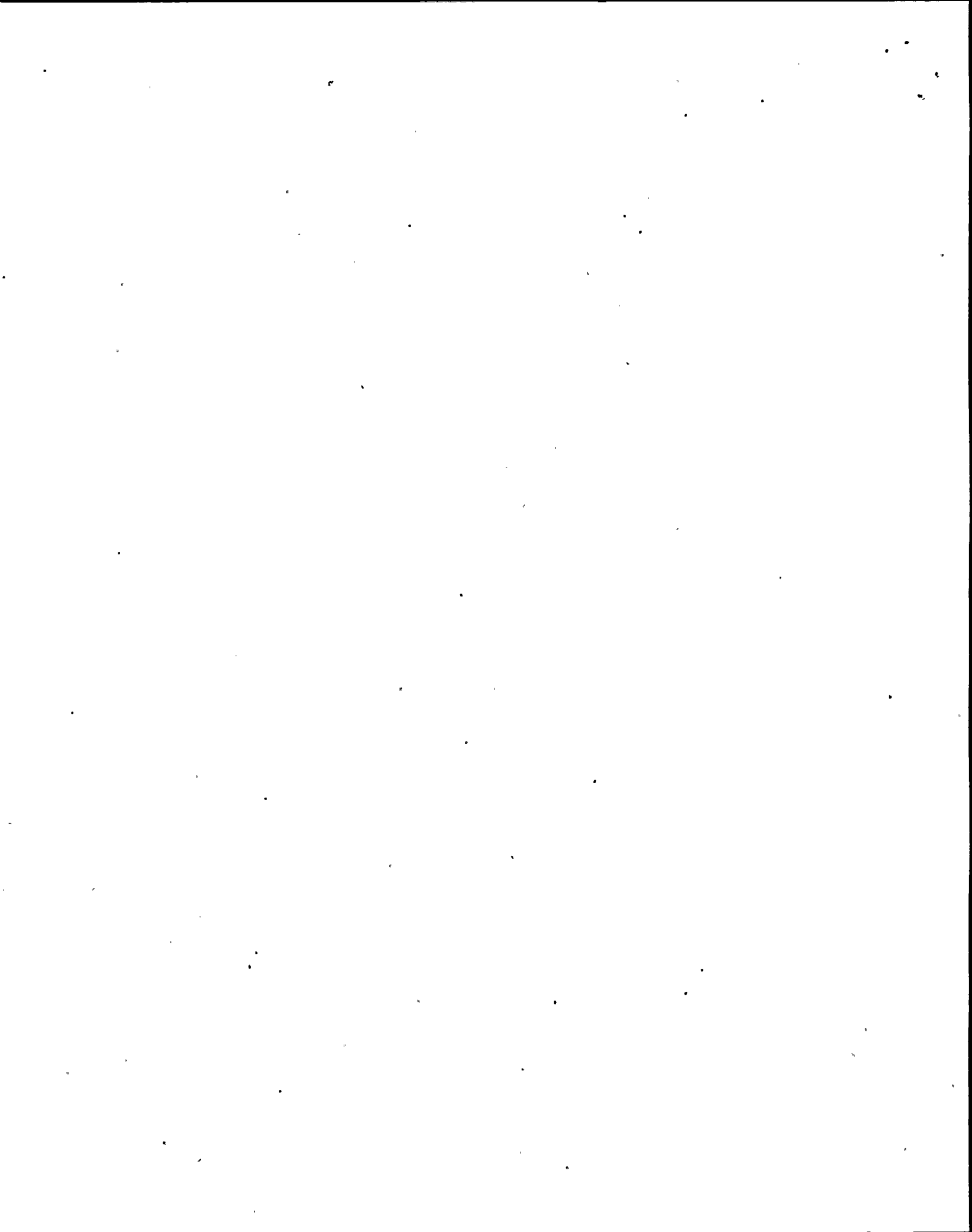
References:

N1-EOP-06

N1-ODP-OPS-0302

O1-OPS-001-288-1-02, EO-9.0

Source: Q317



Question: 066 (1.0 Point)

A large loss of coolant accident has occurred. The core remained uncovered for an extended period of time. Containment venting due to excessive hydrogen is required. WHICH ONE (1) of the following identifies the basis for initiating containment sprays while venting the containment?

- a. Maintains the discharge gas temperature within RBEVS design.
- b. Minimizes radioactive release during venting.
- c. Reduces pressure differential across the vent valves.
- d. Reduces torus pressure to draw gas through the downcomers.

Answer: b

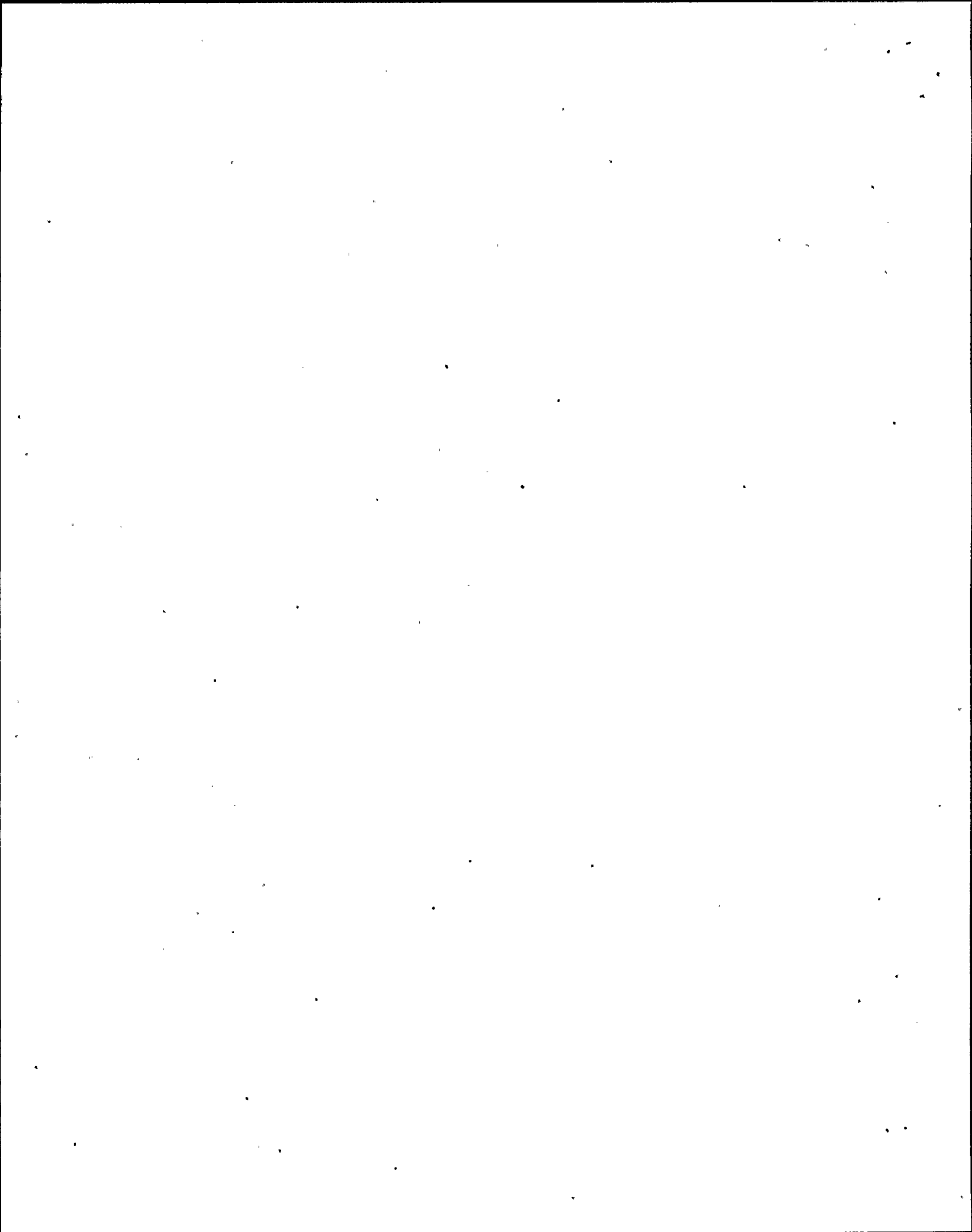
K/A: 500000 EK3.05 / 3.4

References:

N1-ODP-OPS-0302

O1-OPS-006-344-1-04, EO-4.0

Source: new



Question: 067 (1.0 Point)

The plant is operating at rated power. A malfunction results in all Reactor Recirculation pumps running to minimum speed. Core flow is determined to be to left of the natural circulation flow line. WHICH ONE (1) of the following identifies the required action per N1-SOP-02?

- a. Manually scram the reactor.
- b. Raise recirculation flow to > 45% flow.
- c. Commence a normal reactor shutdown.
- d. Verify core flow indication is correct.

Answer: a

K/A: 295001 AA2.01 / 3.8

References:

N1-SOP-02

O1-OPS-001-202-1-01, EO-8.0

Source: new



Question: 068 (1.0 Point)

Reactor power is 38%, on the APRM's, when annunciator A1-3-4, CONDENSER VACUUM BELOW 24"HG, alarms. Condenser vacuum, as read on control room meters, indicates 23.5" and lowering slowly. If vacuum continues to lower, WHICH ONE (1) of the following automatic protective actions would occur first?

- a. Turbine bypass valves close
- b. Turbine Trip
- c. Reactor Scram
- d. MSIV Closure

Answer: b

K/A: 295002 AA1.05 / 3.2

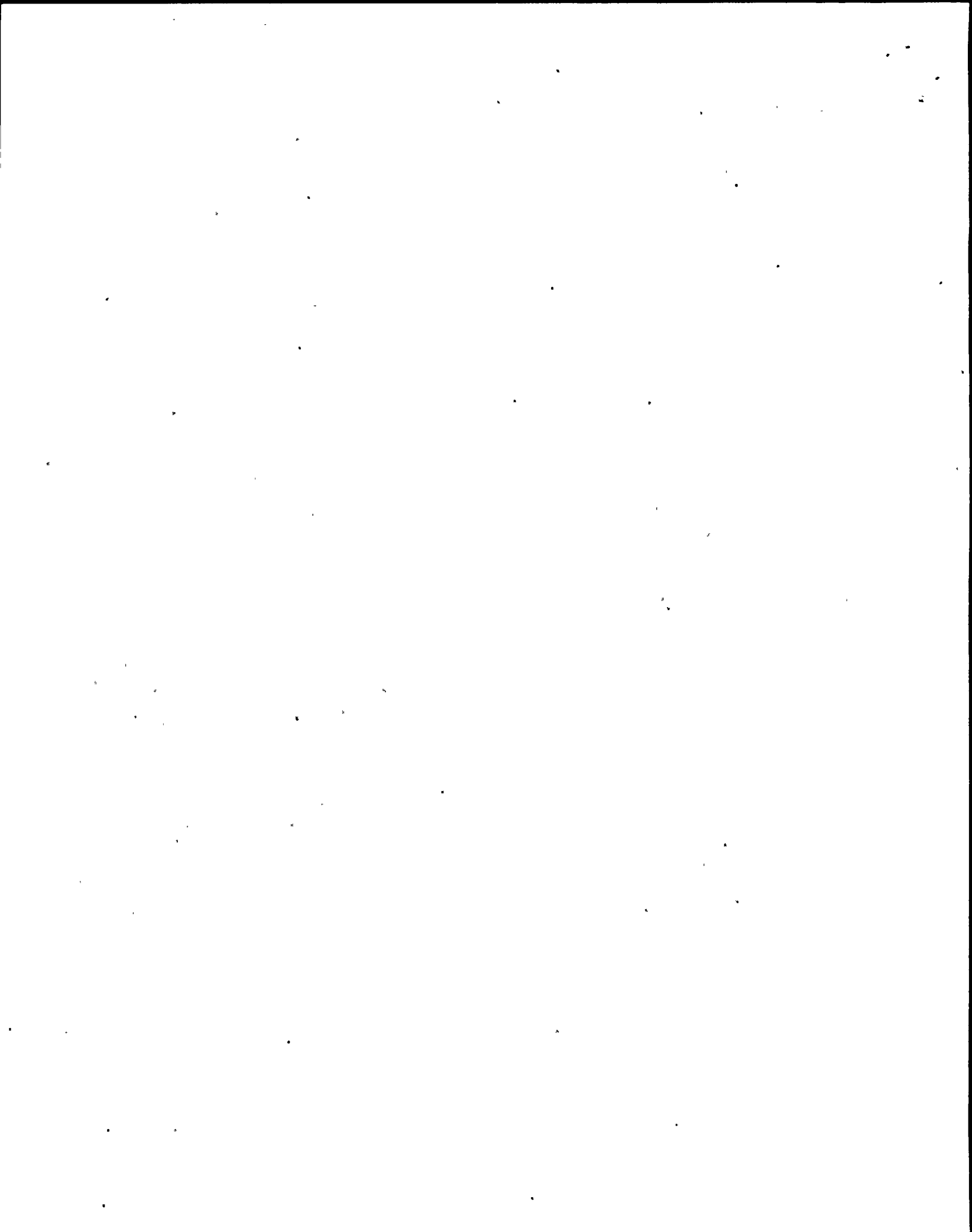
References:

O1-OPS-001-248-1-01, EO-9.0

N1-OP-31

N1-OP-40

Source: Q11335



Question: 069 (1.0 Point)

A loss of Battery Board 11 has occurred. RPV pressure is 1097 psig. WHICH ONE (1) of the following sets of ERVs would be open?

- a. ERV 121 and 122
- b. ERV 111 and 113
- c. ERV 112 and 123
- .. d. ERV 113 and 123

Answer: a

K/A: 295004 AA1.05 / 3.2

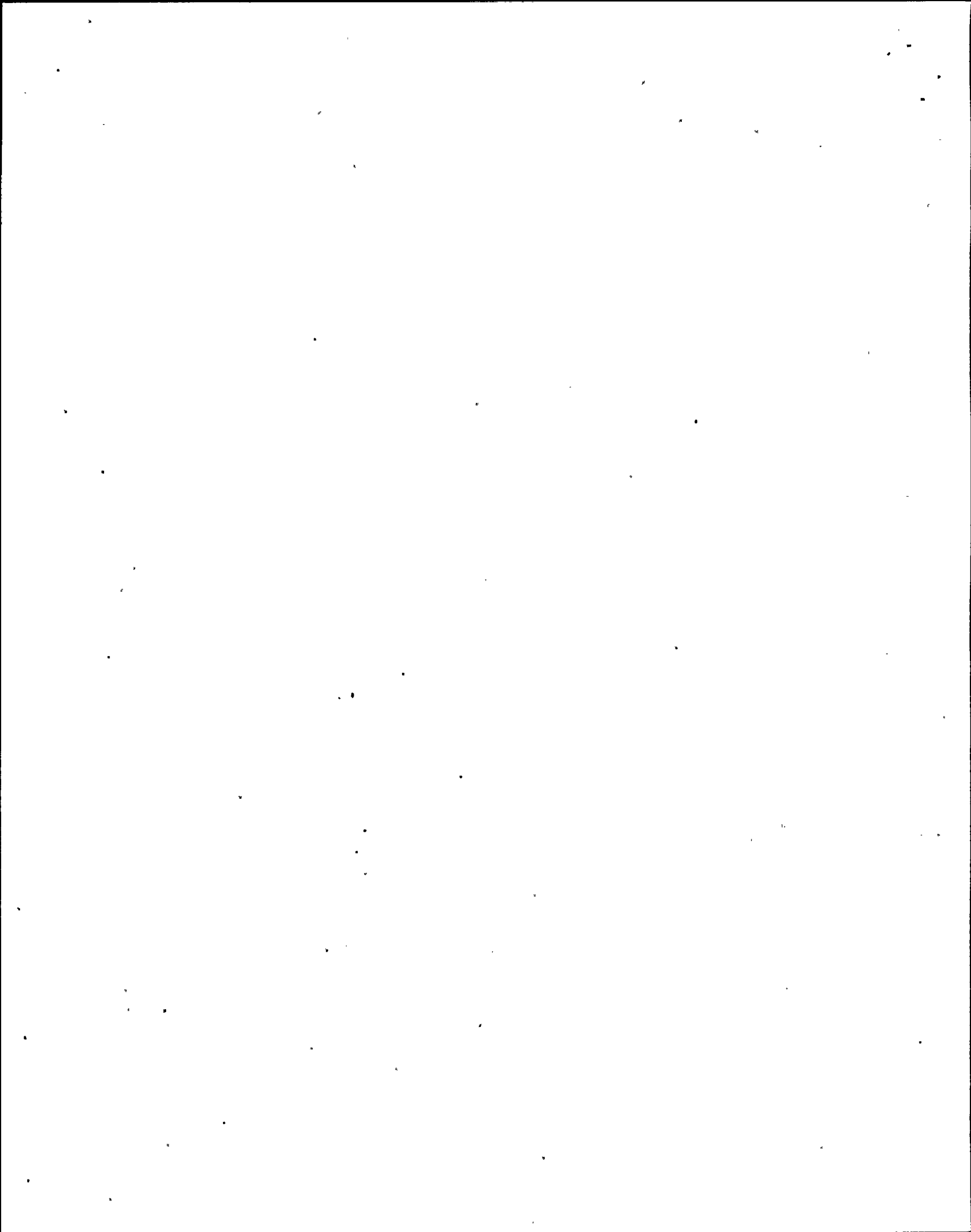
References:

N1-OP-47A

O1-OPS-001-218-1-01, EO-5.0

O1-OPS-001-263-1-01, EO-5.0

Source: Q403



Question: 070 (1.0 Point)

While the reactor is operating at 100% power, a turbine trip occurs. N1-SOP-1 and N1-SOP-4 are carried out and the plant is stabilized in the hot shutdown condition. A check of the alarm typers reveals that RPS 11 and 12 turbine trip alarms did not activate and that high neutron flux within one (1) second of exceeding the setpoint had caused the reactor scram.

WHICH ONE (1) of the following statements describes the plant response to the given conditions?

- a. Plant response met design specifications.
- b. Neutron monitoring system response was incorrect and must be repaired.
- c. The safety limit shall be assumed to be exceeded.
- d. The neutron flux scram duration limit has been exceeded.

Answer: c

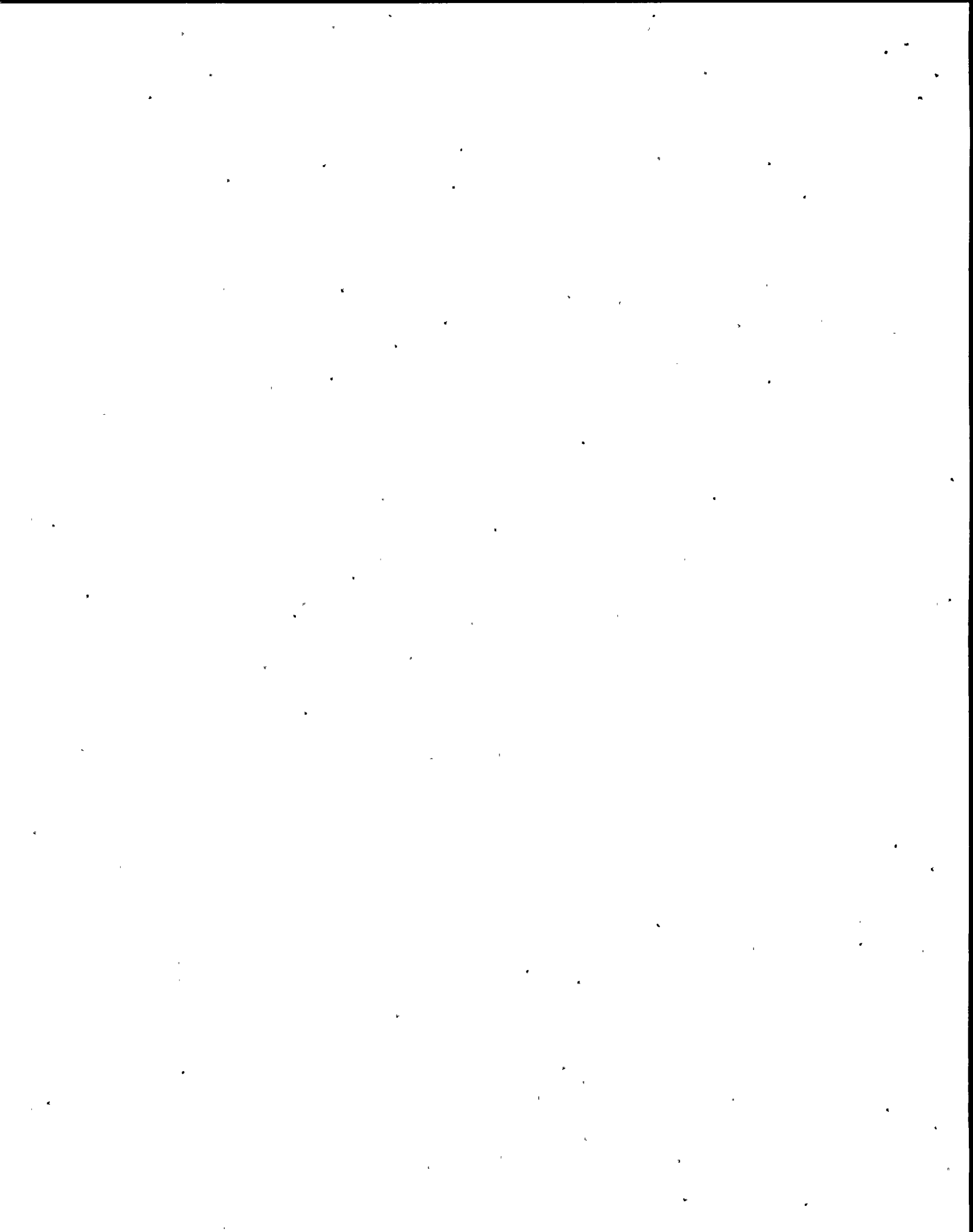
K/A: 295005 AK2.01 / 3.9

References:

TECHSPEC, N1, 2.1.1.c

O1-OPS-001-212-1-01, EO-12.0, 18.0

Source: Q58



Question: 071 (1.0 Point)

During a scram from full power, operators are taking actions per N1-EOP-2, RPV Control and N1-SOP-1, Reactor Scram. During the recovery actions indicated water level rose to 10.5 ft on the Wide Range GEMAC indicator and then stabilized prior to securing injection to the vessel. WHICH ONE (1) of the following RPV locations has actual RPV level reached?

- a. The Main Steam lines.
- b. The GEMAC reference leg.
- c. The top of the steam separators.
- d. The RPV head vents.

Answer: a

K/A: 295008 AK2.11 / 3.3 .

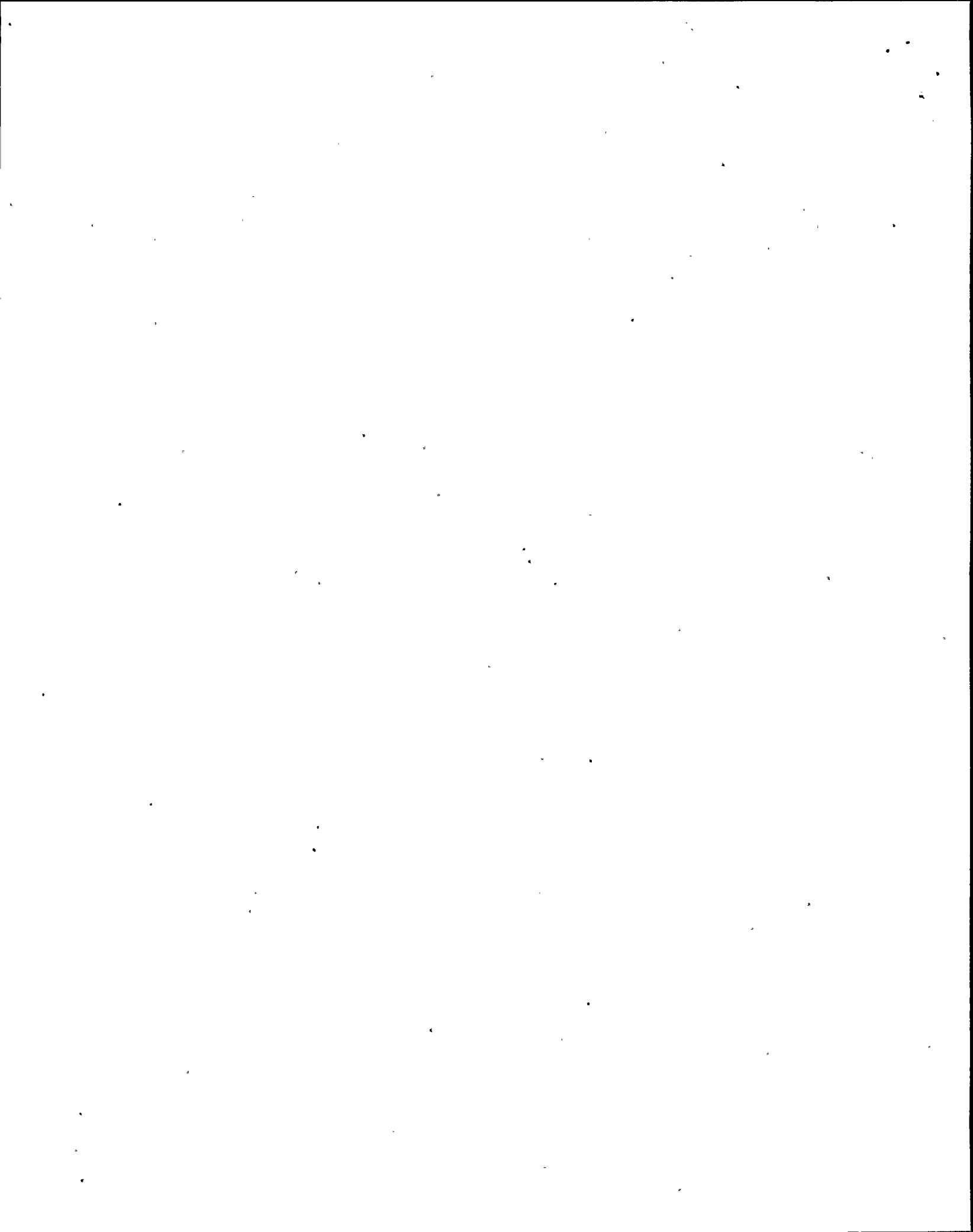
References:

O1-OPS-001-216-1-01, EO-3.0.d

O1-OPS-001-101-1-01, EO- 3.0

Management Expectation on Overfill Event

Source: new



Question: 072 (1.0 Point)

The plant is operating at 90% power. Intake level is lowering. WHICH ONE (1) of the following pumps should be immediately tripped?

- a. Both Circulating Water pumps.
- b. One Service Water pump.
- c. One RBCLC and one Service Water pump.
- d. One Circulating Water pump.

Answer: d

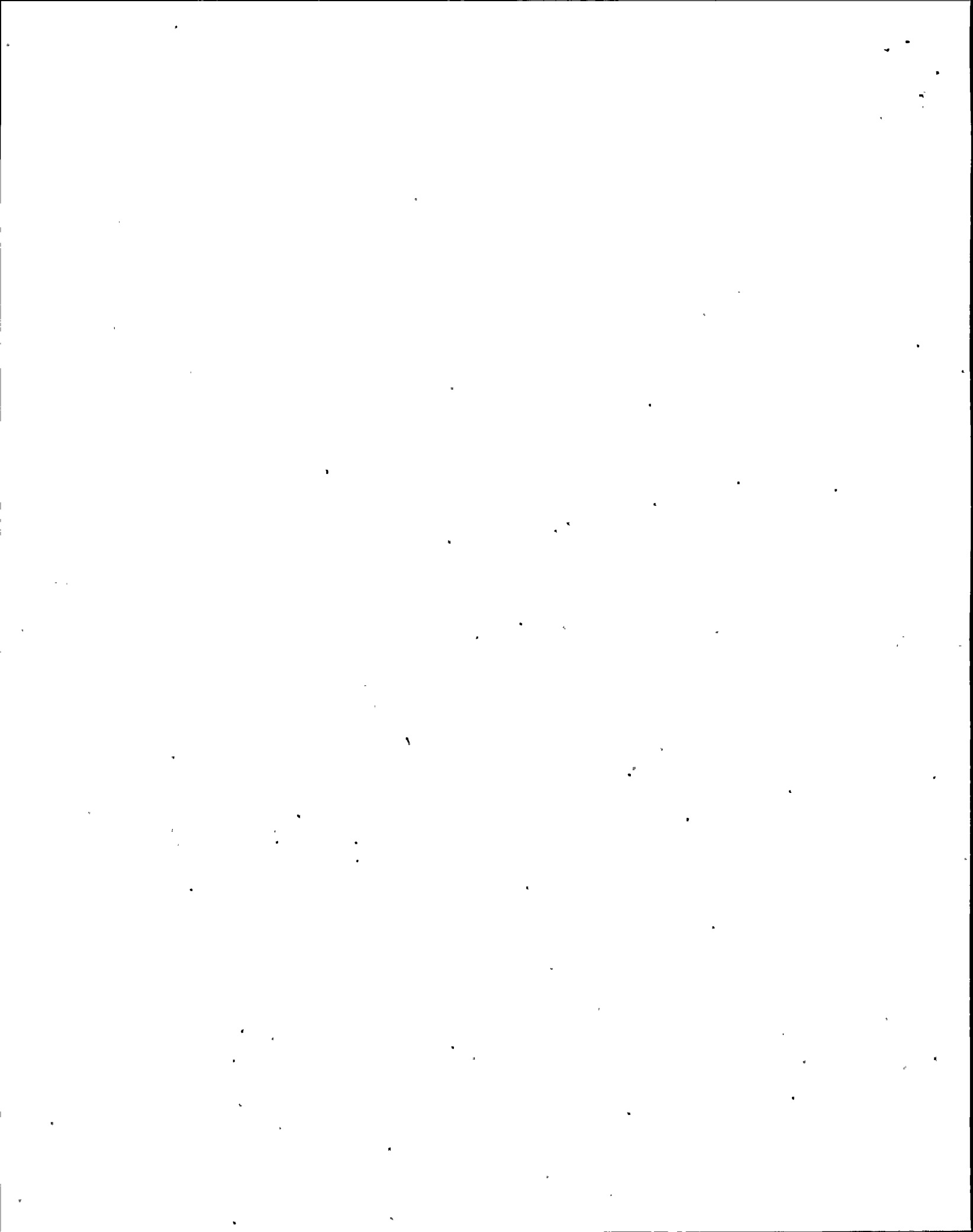
K/A: 295018 AK2.02 / 3.6

References:

N1-SOP-07

O1-OPS-006-342-1-01, EO-2

Source: new



Question: 073 (1.0 Point)

The plant is operating at 100% power. A loss of instrument air occurs. WHICH ONE (1) of the following valve responses is expected to occur?

- a. EC condensate return valves fail open, RB vent isolation dampers fail close.
- b. RB vent isolation dampers fail open, Scram outlet valves fail open.
- c. EC condensate return valves fail close, FW FCVs fail locked up
- d. Scram outlet valves fail open, FW FCVs fail open.

Answer: a

K/A: 295019 AK2.13 / 3.2

References:

N1-SOP-06

O1-OPS-001-278-1-01, EO-8.0

Source: new



Question: 074 (1.0 Point)

A turbine trip and rod insertion failure has resulted in the following conditions:

- Power is at 36 %
- Liquid Poison #11 is running

WHICH ONE (1) of the following conditions would be the immediate EOP concern if the MSIVs were to isolate inadvertently?

- a. Primary Containment Pressure Limit.
- b. Heat Capacity Temperature Limit.
- c. Pressure Suppression Pressure Limit.
- d. Cold Shutdown Boron Weight.

Answer: b

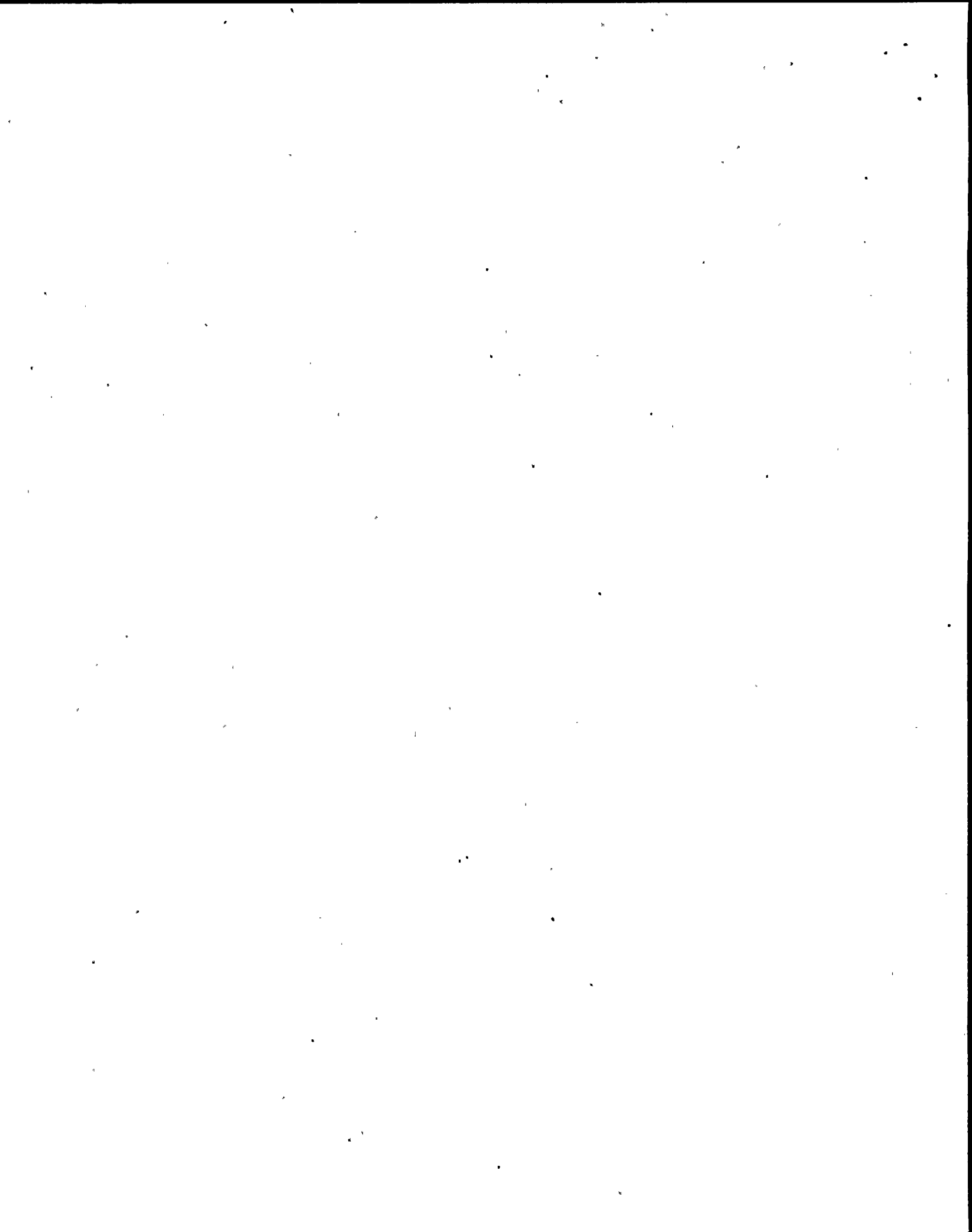
K/A: 295020 AK1.01 / 3.9

References:

N1-EOP-3

O1-OPS-006-344-1-03, EO-3.0, 5.0

Source: new



Question: 075 (1.0 Point)

The plant is in cold shutdown. Inadvertent closure of a SDC suction IV results in loss of normal shutdown cooling. WHICH ONE (1) of the following methods would be used to provide alternate decay heat removal?

- a. Maximize CU non-regen. HX flow.
- b. Start another recirculation pump.
- c. Place an EC loop in service.
- d. Fill the vessel to flood through the head vents.

Answer: a

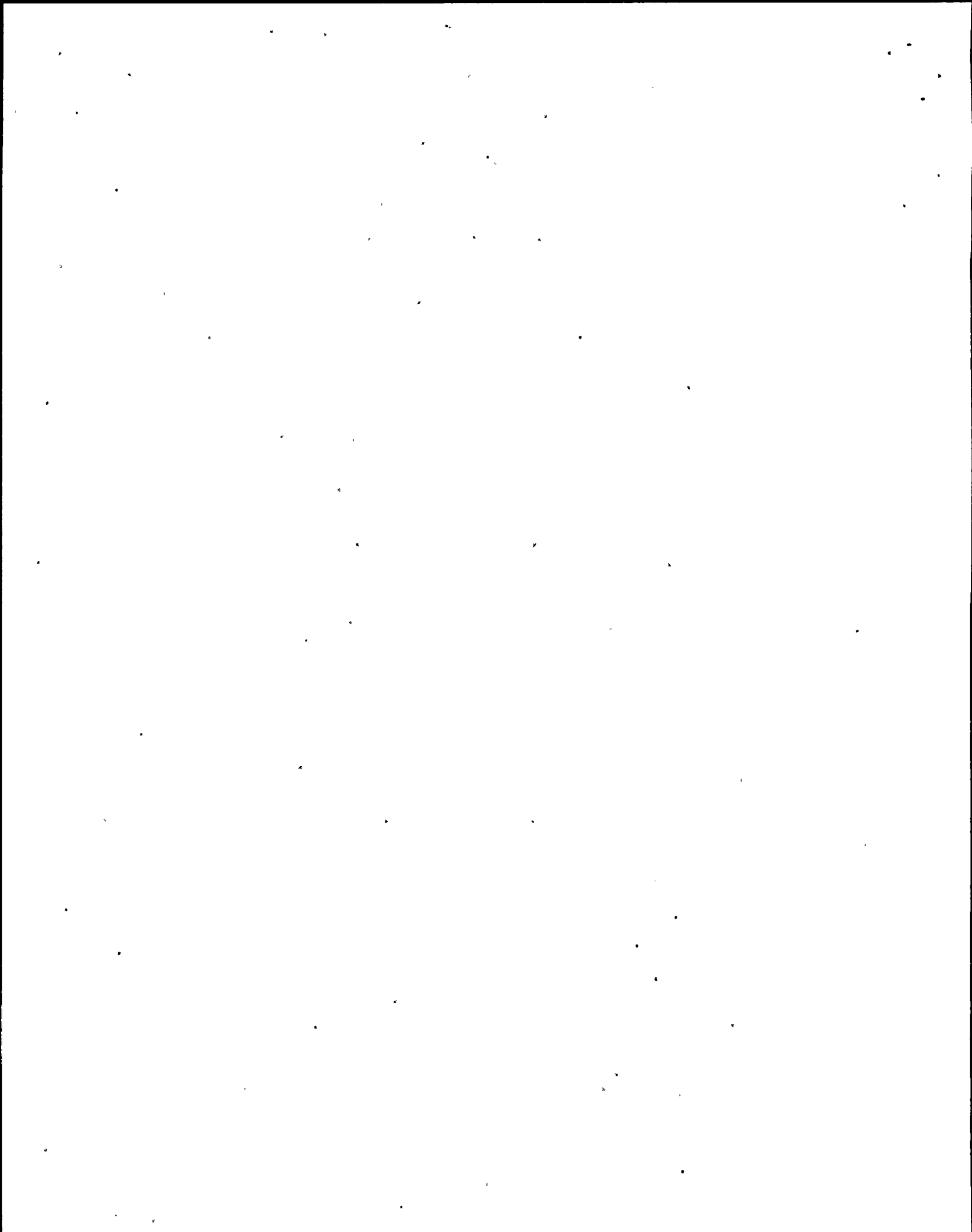
K/A: 295021 AA1.04 / 3.7

References:

N1-SOP-20

O1-OPS-001-205-1-01, EO-8.0

Source: new



Question: 076 (1.0 Point)

A loss of both CRD pumps has occurred during a reactor startup with reactor pressure at 500 psig. WHICH ONE (1) of the following identifies the required action if an accumulator alarm is received on a rod at position 12?

- a. Insert the rod with the accumulator alarm one notch.
- b. Restart a pump and insert one rod one notch within 20 min..
- c. Insert a manual scram.
- d. Isolate the affected HCU.

Answer: c

K/A: 295022 AK1.01 / 3.4

References:

N1-OP-5, H18.0

O1-OPS-001-201-1-01, EO-8.0

Source: new



Question: 077 (1.0 Point)

A loss of coolant accident has occurred. The following RPV and drywell conditions exist:

- Core Spray System #11 & #12 are injecting
- Drywell pressure is 8 psig
- Drywell temperature is 250°F
- WR GEMAC is -1:0 feet
- NR GEMAC is 0 inches
- Yarways (both) are 0 inches
- Fuel Zone Level indication is flashing

Based on the above conditions, WHICH ONE (1) of the following is required?

- a. Flood the drywell per EOP-10
- b. Flood the RPV per EOP-7
- c. Start pumps in alternate systems
- d. Steam cooling per EOP-9

Answer: b

K/A: 295028 EK1.01 / 3.7

References:

O1-OPS-006-344-1-07, EO-2.0

N1-EOP-7

N1-ODP-OPS-0302

Source: Q22



Question: 078 (1.0 Point)

Drywell Flooding, N1-EOP-10 is in progress. Torus level is approaching 26 feet. WHICH ONE (1) of the following explains why the Reactor Head Vent and Drywell Flooding Vent are not opened until primary containment water level reaches 26 feet?

- a. Highest level at which the Torus can be vented.
- b. Ensures the vent discharge pipe is submerged.
- c. Lowest possible level to start flooding the RPV.
- d. Ensures core submergence before venting RPV to atmosphere.

Answer: c

K/A: 295029 EA2.03 / 3.5

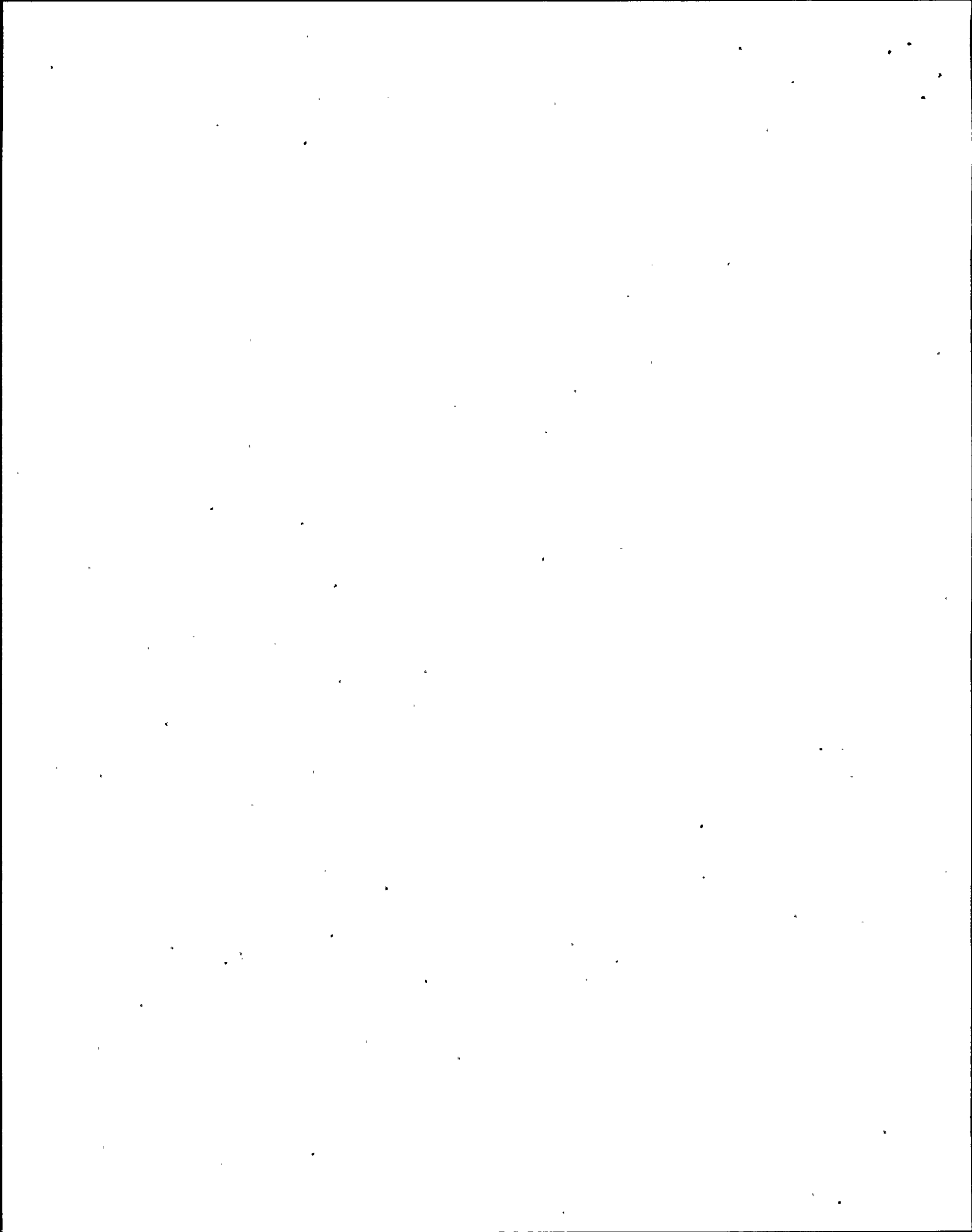
References:

N1-EOP-10

N1-ODP-OPS-0302

O1-OPS-006-341-1-07, EO-4.0

Source: Q889



Question: 079 (1.0 Point)

A fire on Reactor Building 261' El. has resulted in the following conditions:

- North and East sides of Reactor Building 261' El. have temperatures of 200°F.
- N1-EOP-5 has been entered
- The Reactor has been scrammed
- The CSO is executing N1-SOP-1
- The fire is out

WHICH ONE (1) of the following describes the impact on execution of N1-SOP-1 due to these conditions?

- a. Loss of access to safe shutdown equipment in the Reactor Building.
- b. Reactor water level control actions will be complicated.
- c. The main condenser will not be available as a heat sink.
- d. "All-Rods-In" cannot be verified from the Control Room.

Answer: b

K/A: 295032 EK2.04 / 3.8

References:

O1-OPS-001-204-1-01, EO-4.0:c, 8.0

EWD C-19859-C

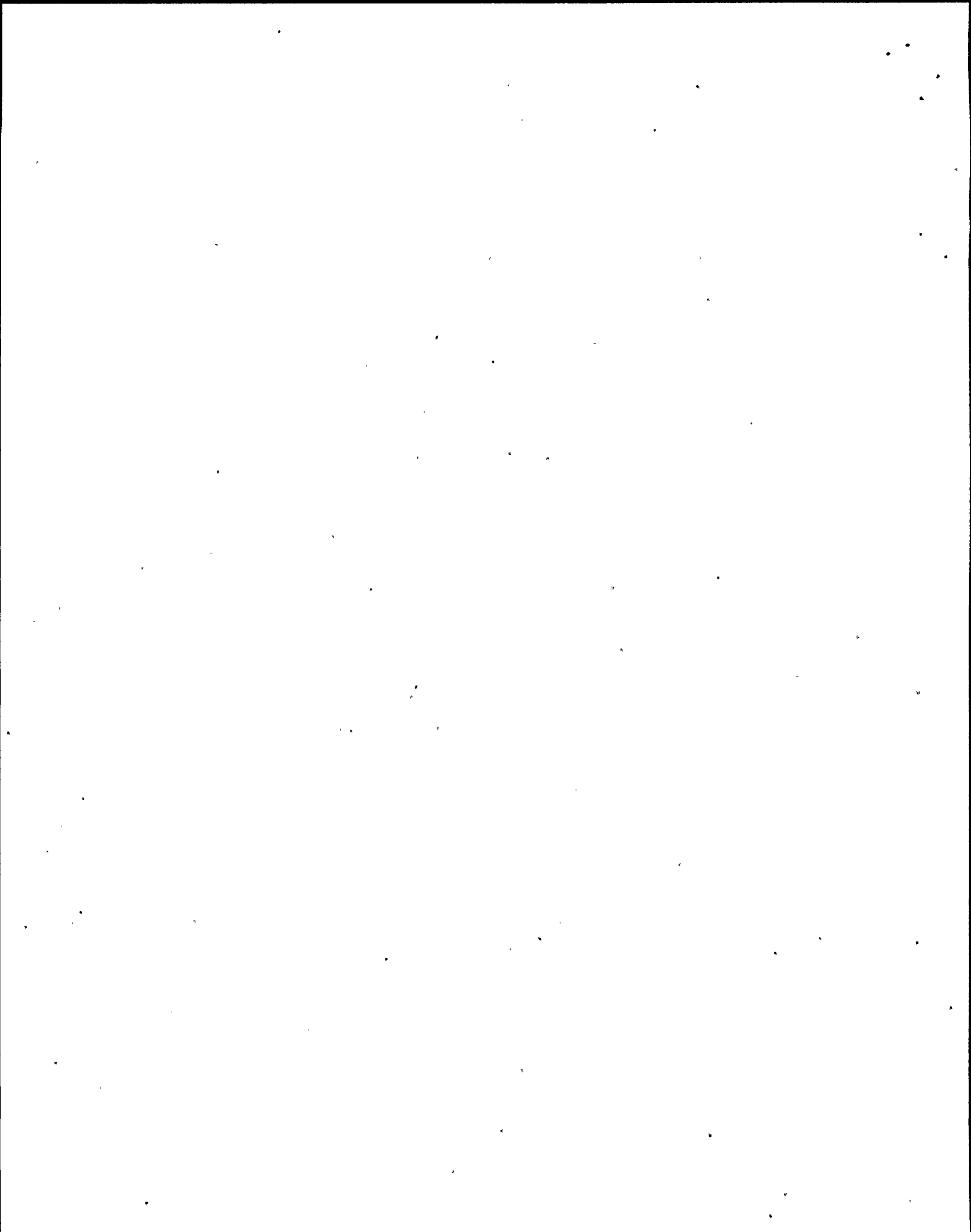
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N1-SOP-9

N1-SOP-1

N1-EOP-5

Source: new



Question: 080 (1.0 Point)

With the plant operating at rated conditions, Reactor Building EVS initiates due to valid radiation signal. No other actuation/isolation signals are exceeded. WHICH ONE (1) of the following identifies all EOP(s) that must be entered under these plant conditions?

- a. Radioactivity Release and RPV control.
- b. Secondary Containment and RPV control.
- c. Radioactivity Release.
- d. Secondary Containment.

Answer: d

K/A: 295033 EK3.02 / 3.6

References:

N1-EOP-5

O1-OPS-006-344-1-05, EO-2.0

Source: new



Question: 081 (1.0 Point)

The plant is in a refueling outage. Fuel Pool keylock switch on panel "J" is in the "REFUEL" position. WHICH ONE (1) of the following functions is accomplished by placing the switch in the "REFUEL" position?

- a. Aligns the Refuel Bridge High Range Radiation Monitor to the Reactor Building Emergency Ventilation initiation logic.
- b. Aligns electrical power to the refuel bridge components and initiates refuel platform self-diagnostic testing.
- c. Enables the refuel bridge interlocks and rod block circuitry and initiates refuel platform self-diagnostic testing.
- d. Changes the setpoint of the refuel floor high radiation alarm to that specified for handling spent fuel.

Answer: a

K/A: 295034 EK2.06 / 4.2

References:

O1-OPS-001-234-1-01, EO-4.0

N1-OP-34

Source: Q13629



Question: 082 (1.0 Point)

Following a seismic event and turbine trip, N1-EOP-5 was entered due to high Floor Drain sump levels. The NE and SE corners of the Reactor Building are now at 5.5' and 6' respectively with report of piping cracks. Torus level is slowly lowering. Isolation MOV's will not close. WHICH ONE (1) of the following identifies the condition that precludes Emergency Depressurizing at this time?

- a. The NE corner has not reached 6 ft.
- b. Dropping RPV pressure will not change the leak rates.
- c. Other isolation valves have not yet been closed outside the drywell.
- d. The Reactor was already scrammed.

Answer: b

K/A: 295036 EA2.03 / 3.8

References:

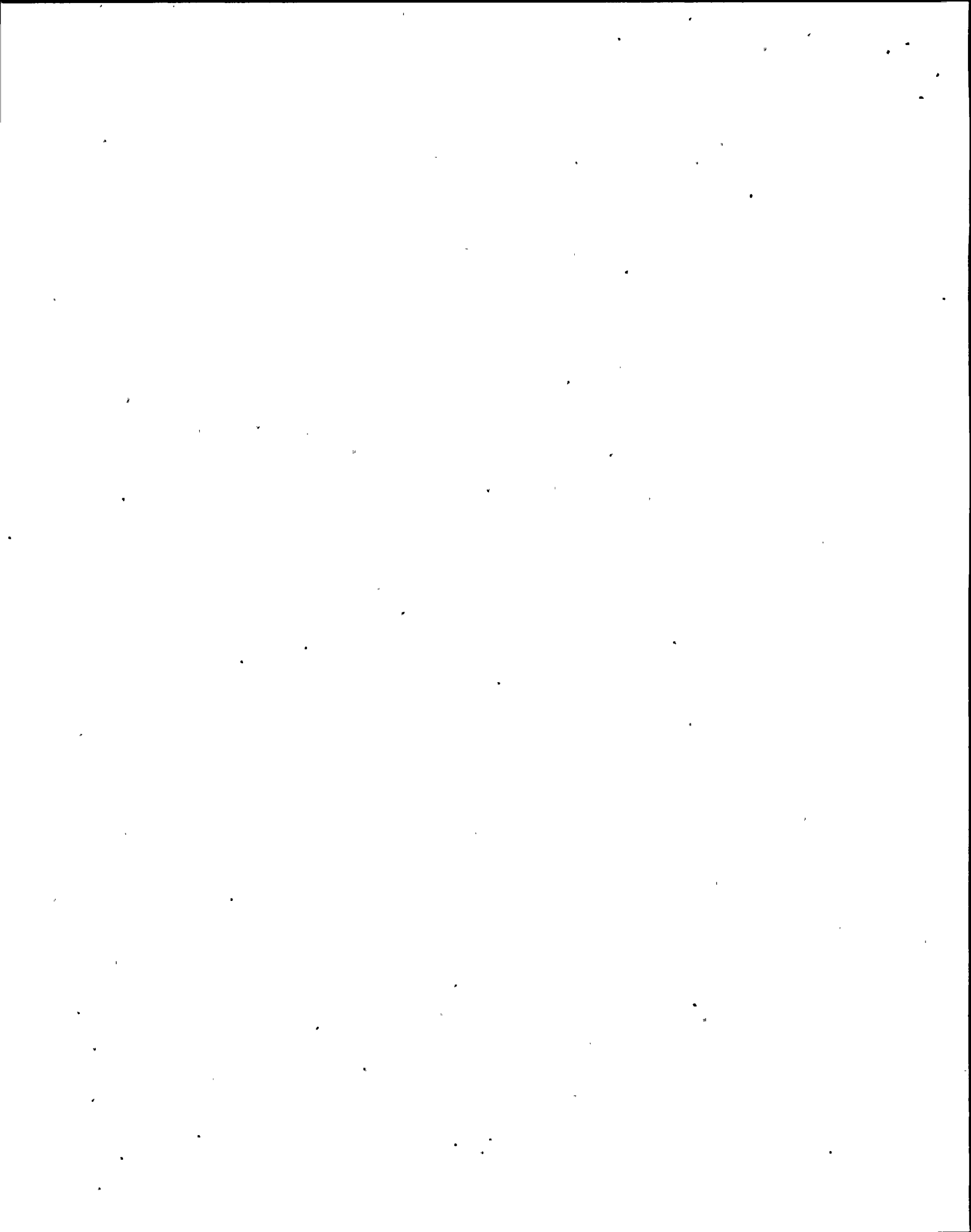
N1-ODP-OPS-0302

N1-EOP-5 (steps SCL 4 thru SCL 11 &
Tables 5.3 & 5.4)

N1-OP-5

O1-OPS-006-344-1-01, EO-4

Source: new



Question: 083 (1.0 Point)

The plant is operating at power. N1-SOP-09, Fire in the Plant, is entered. A reactor scram is required by N1-SOP-09. WHICH ONE (1) of the following conditions required the scram?

- a. A confirmed fire inside the protected area.
- b. Fire results in misoperation of plant equipment.
- c. Fire detection alarm in the Aux. Control Room.
- d. Actuation of an automatic sprinkler system.

Answer: b

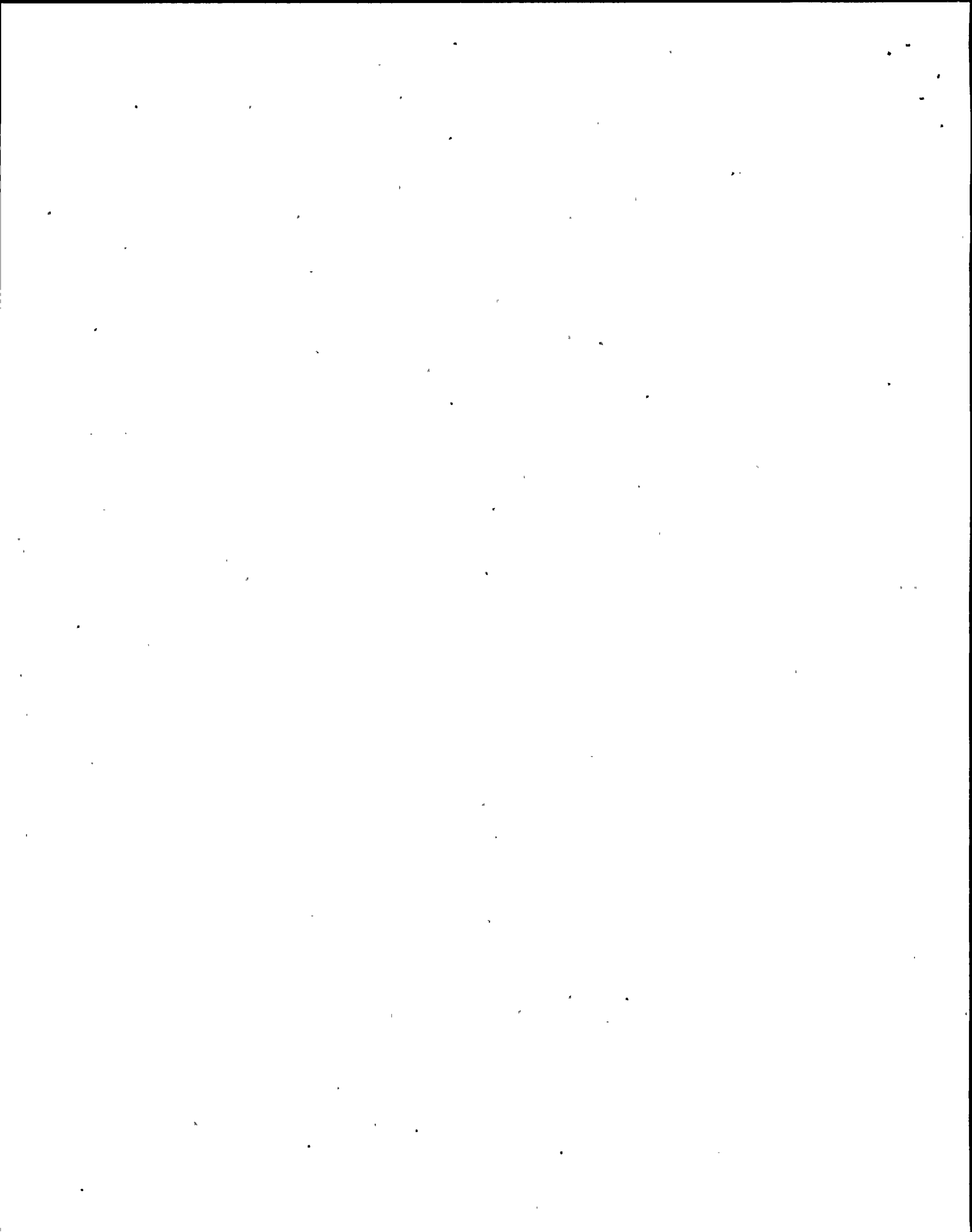
K/A: 600000 AA2.13 / 3.8

References:

N1-SOP-9

O1-OPS-006-342-1-01, EO-2

Source: new



Question: 084 (1.0 Point)

The following plant conditions exist:

- The plant tripped two days ago on a load reject signal
- All plant equipment responded as required

WHICH ONE (1) of the following identifies the individual who must authorize unit restart and any additional conditions that must be satisfied per GAP-OPS-01, Administration of Operations?

- a. Manager Operations, if N1-REP-6, Post Scram Review, has been initiated.
- b. Plant Manager, if N1-REP-6, Post Scram Review, has been initiated.
- c. Plant Manager, following SORC approval of N1-REP-6, Post Scram Review.
- d. Manager Operations, following SORC approval of N1-REP-6, Post Scram Review.

Answer: c

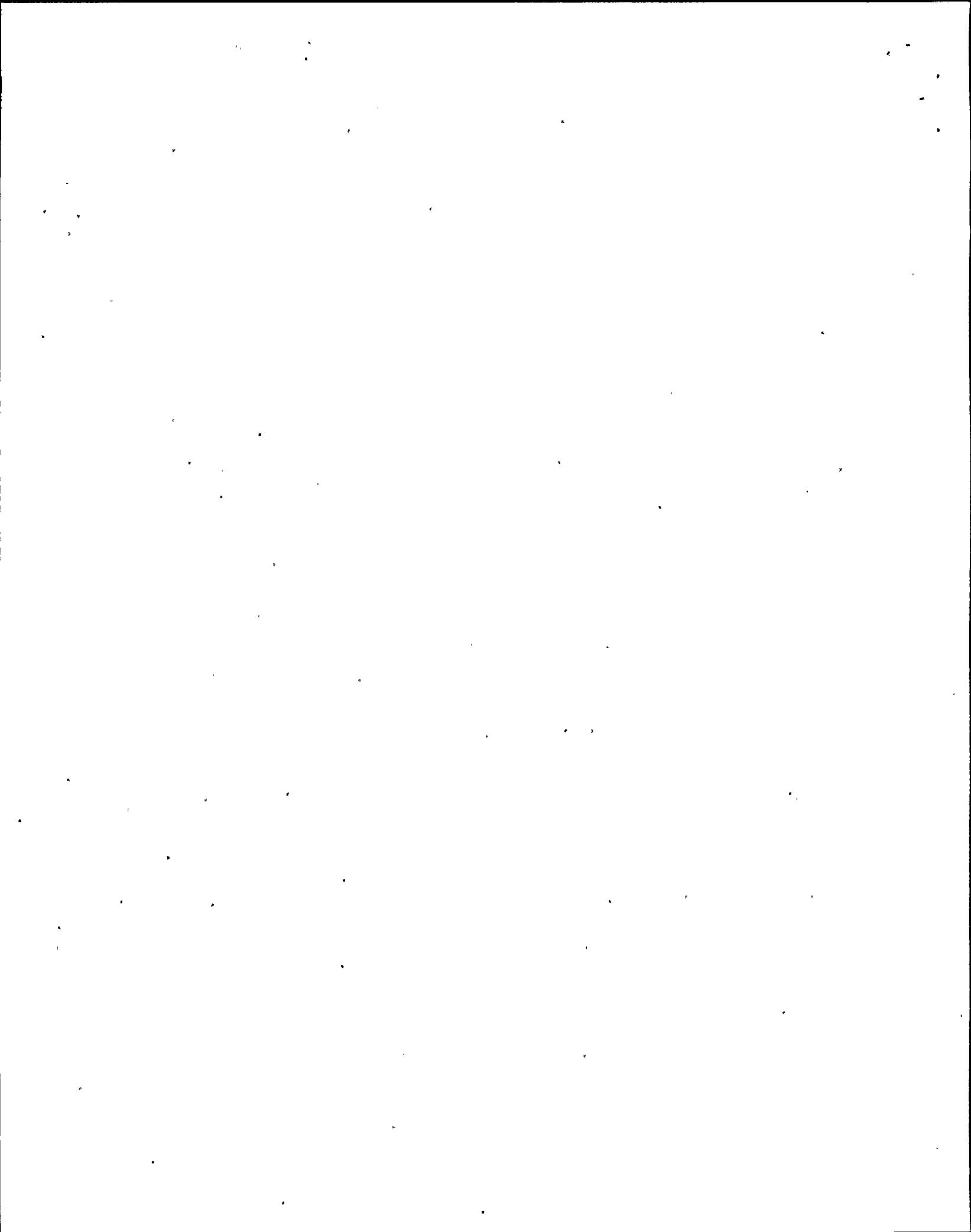
K/A: G.2.1.1 / 3.8

References:

GAP-OPS-01

O3-OPS-006-343-3-01, EO-2.0, 4.0, 5.0 .

Source: new



Question: 085 (1.0 Point)

While operating at power, emergency cooling loop #12 auto initiates. As CSO you notify the SSS, who determines the initiation was inadvertent and that the system can be secured. Concerning the above conditions, WHICH ONE (1) of the following onsite notifications is required?

- a. Shift Emergency Plan Coordinator
- b. Site Environmental Supervisor
- c. Shift Chemistry Technician
- d. Shift Radwaste Operator

Answer: c

K/A: G.2.1.14 / 3.3

References:

N1-OP-13

O1-OPS-001-207-1-01, EO-7.0c

Source: Q167



Question: 086 (1.0 Point)

You are performing a system lineup to support an equipment markup. Concurrent verification is required. WHICH ONE (1) of the following describes a requirement of concurrent verification?

- a. A second qualified individual must positively identify the correct valve and reviews the intended action before the valve is manipulated.
- b. Individuals involved must be physically separated by both space and time .
- c. Must be performed on safety related valves or equipment.
- d. Shall be used during the performance of all tasks regardless of whether independent verification will be performed.

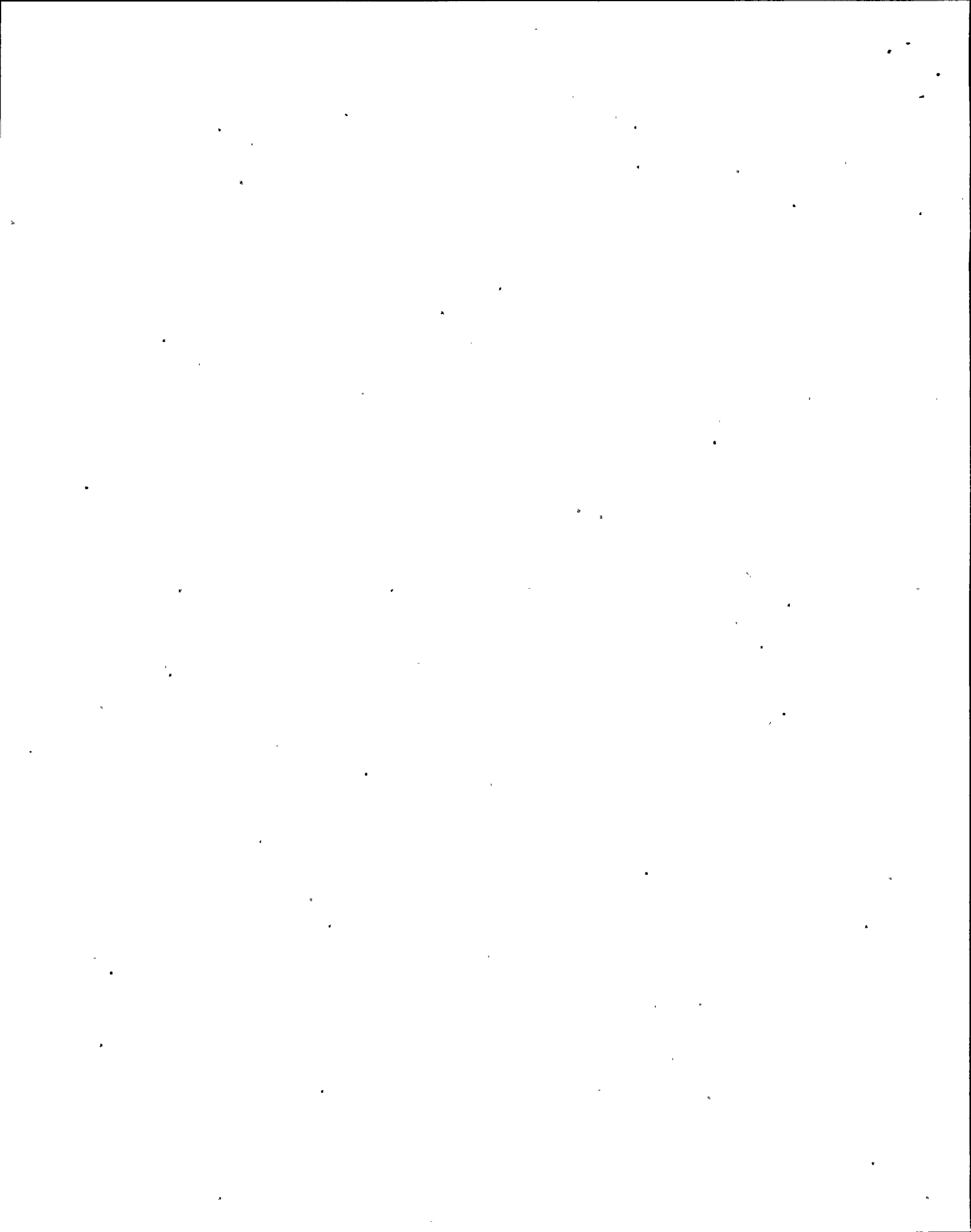
Answer: a

K/A: G.2.1.29 / 3.3

References: OPS. REF. MAN.

OPS Manager Expectation

Source: new



Question: 087 (1.0 Point)

WHICH ONE (1) of the following identifies the parameters that must be assessed to determine the Tech. Spec. operating mode for the Power Operating Condition?

- a. Mode switch, coolant temperature.
- b. Rod positions, core alterations status.
- c. Mode switch, criticality status.
- d. Criticality status, coolant temperature.

Answer: c

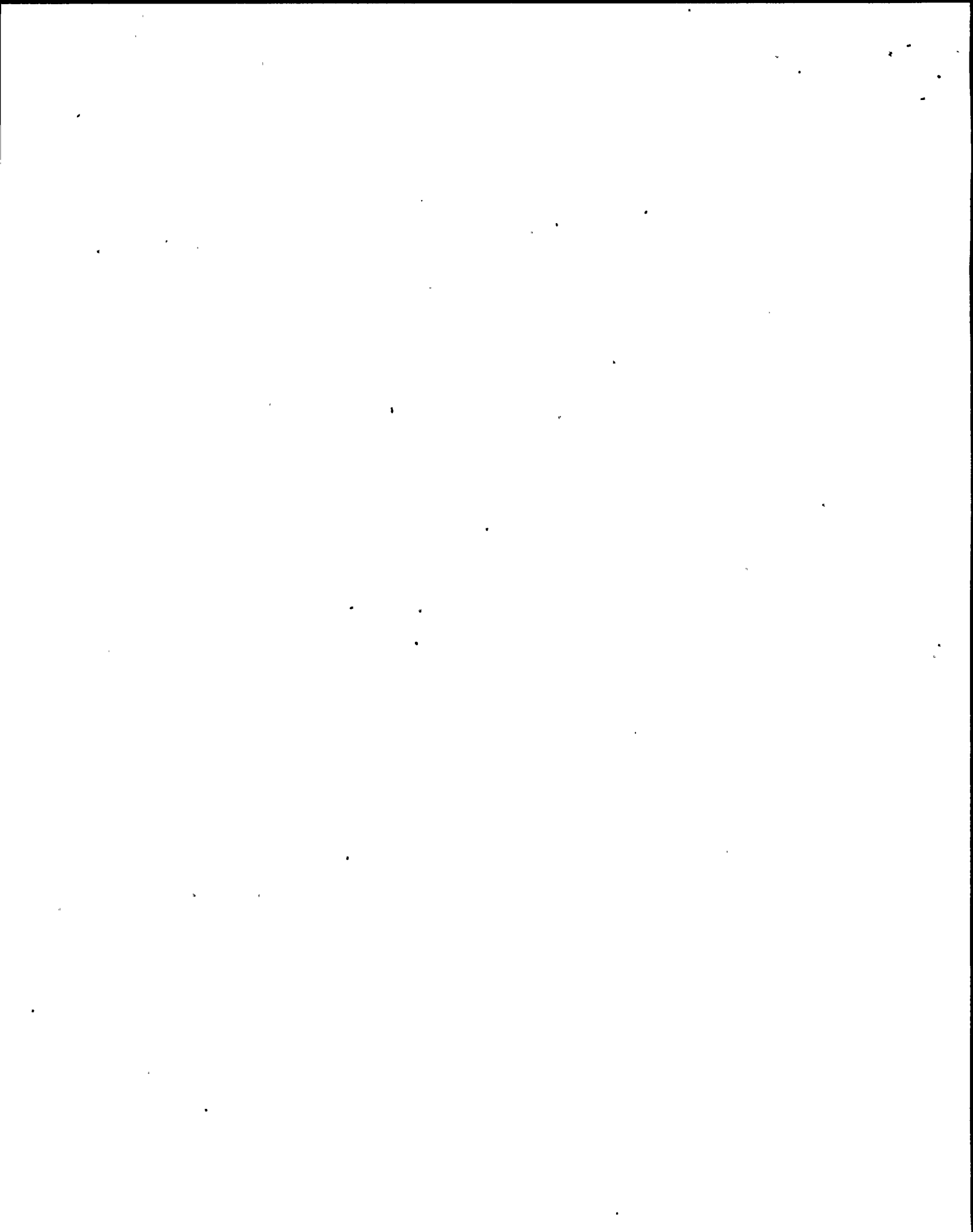
K/A: G.2.1.22 / 3.3

References:

U1 TECH.SPEC.,1.0

O1-OPS-008-362-1-01, EO-2.0

Source: new



Question: 088 (1.0 Point)

WHICH ONE (1) of the following actions must be taken if the inoperability of a system places it in a condition not addressed by it's individual specification ?

- a. Place the system in a condition consistent with the spec. or place the unit in cold shutdown within 12 hours.
- b. Apply the actions of the spec. for the condition that is addressed.
- c. Apply the action for the related Safety Limit from section 2.0.
- d. Place the system in a condition consistent with the spec. or place the unit in a condition such that the spec. no longer applies .

Answer: d

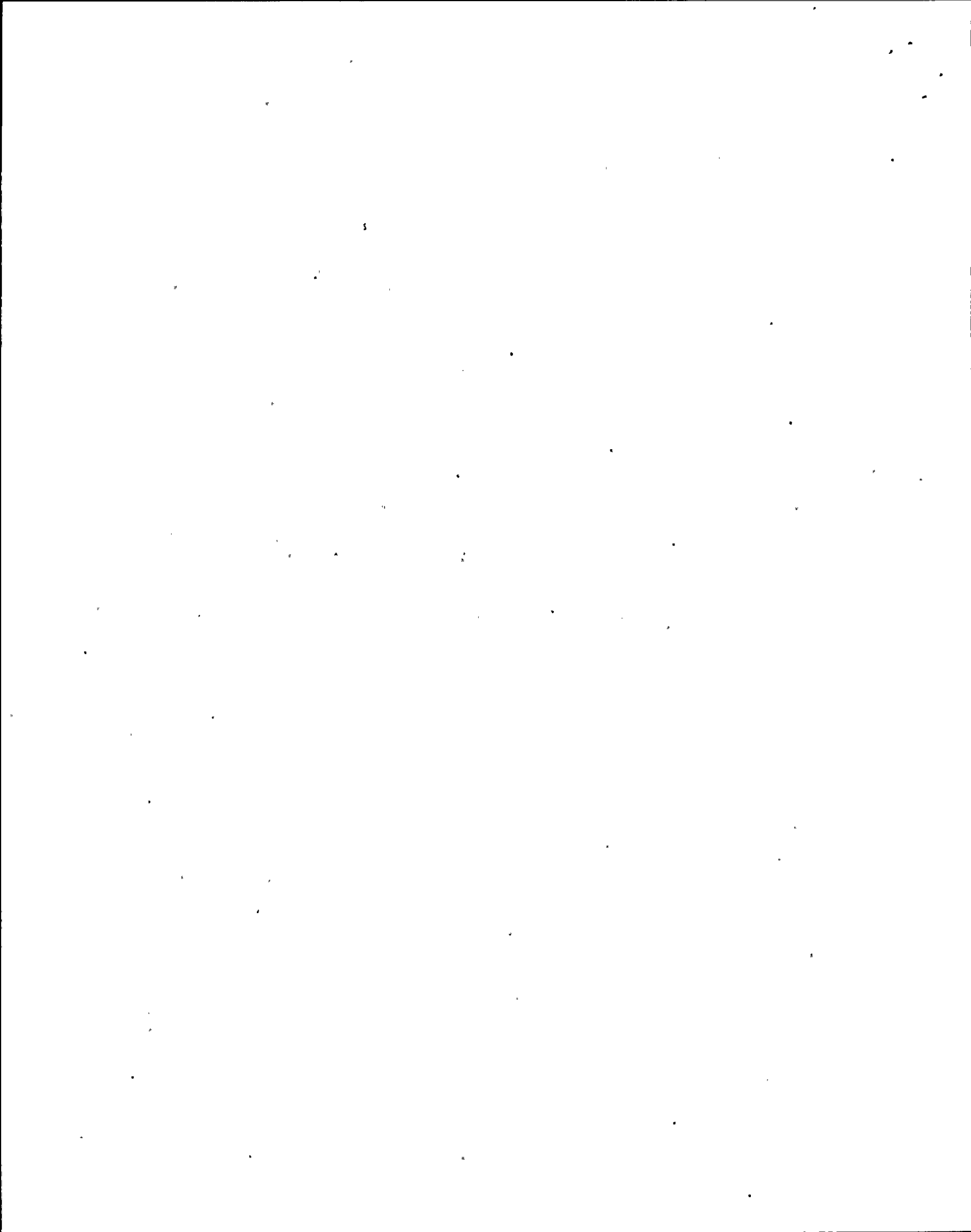
K/A: G.2.1.12 / 4.0

References:

U1 TECH. SPEC.;3.0

O1-OPS-008-362-1-01, EO-2.0, 3.0

Source: new



Question: 089 (1.0 Point)

A markup on spent fuel pool cooling is ready for application. The equipment is located in a high radiation area. According to GAP-OPS-02, Control of Equipment Markups, WHICH ONE (1) of the following describes the conditions under which the SSS may waive independent verification?

- a. The device does not need to be cycled.
- b. Personnel exposure greater than 100 mrem is likely.
- c. A licensed operator applies the markup.
- d. The device is in an area that is NOT monitored by a Victorine VAMP.

Answer: c

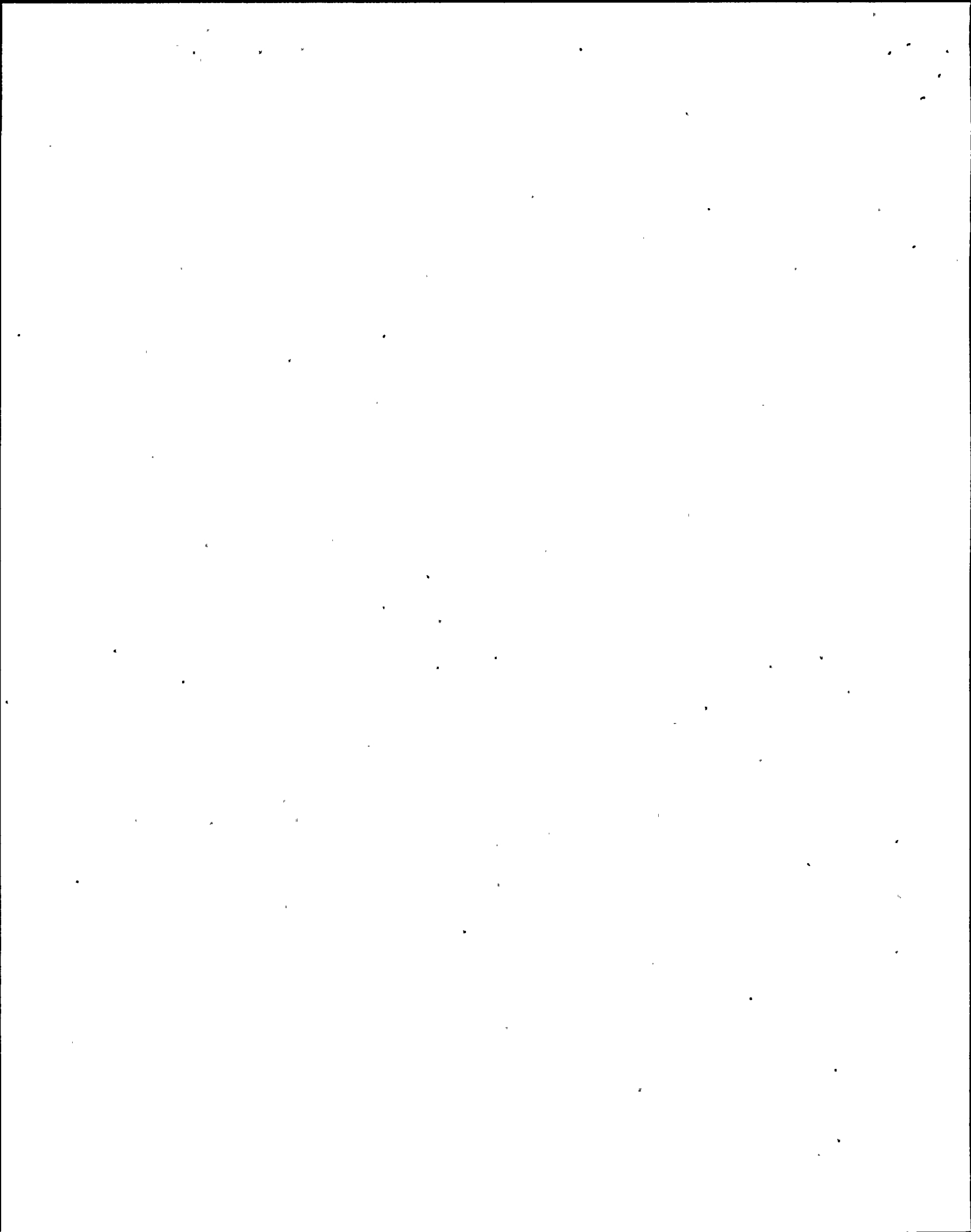
K/A: G .2.2.13 / 3.8

References:

GAP-OPS-02

O3-OPS-006-343-3-01, EO-2.0

Source: Q13010



Question: 090 (1.0 Point)

Post maintenance testing of the Reactor Protection System is required. WHICH ONE (1) of the following applies to the conduct of the testing?

- a. Testing should only require verification that the maintenance activity was performed correctly.
- b. Testing should test components and features either directly or potentially affected by the maintenance.
- c. Testing should test only the components and features directly affected by the maintenance.
- d. Testing should test the entire system for which the maintenance was performed.

Answer: b

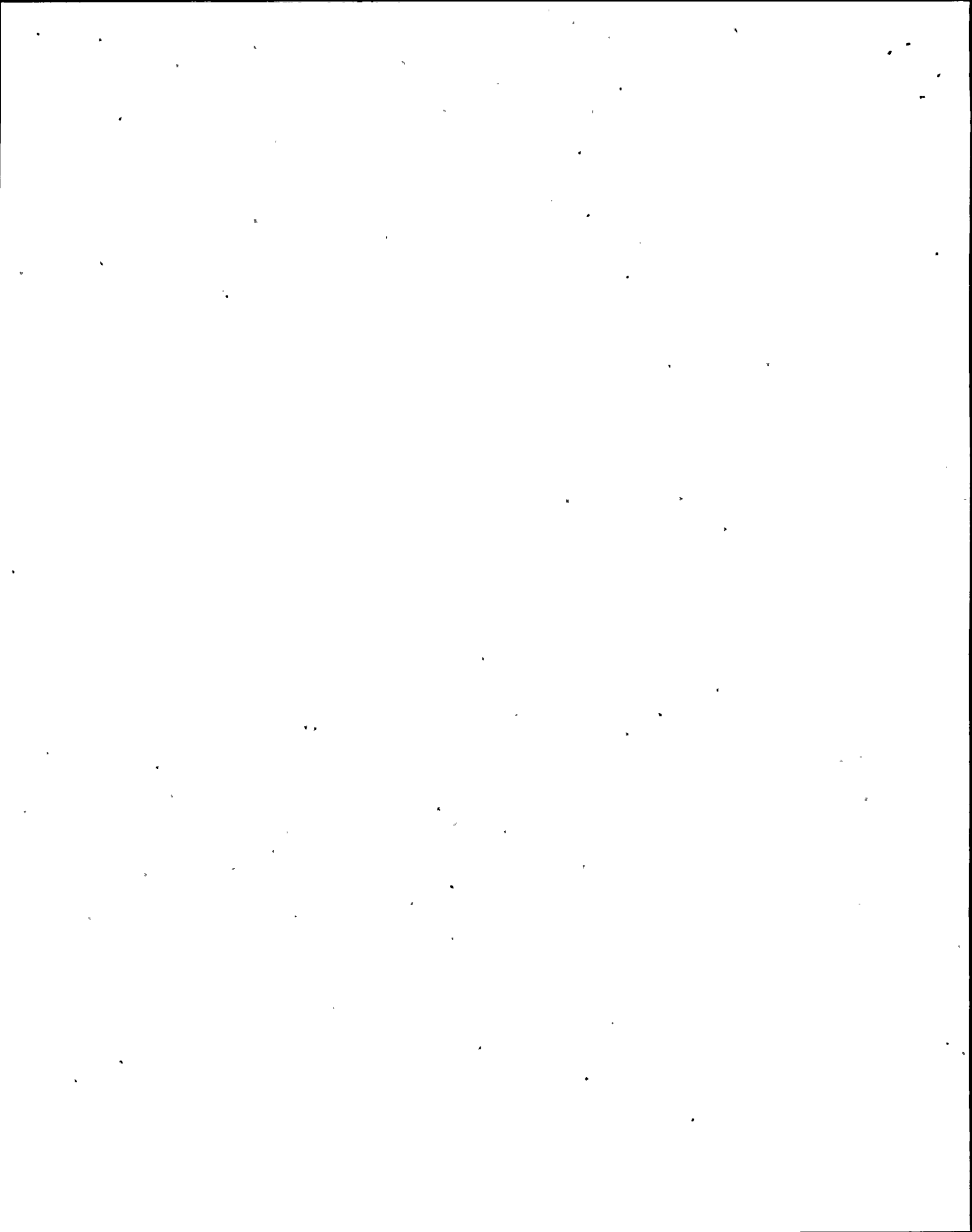
K/A: G.2.2.21 / 3.5

References:

GAP-SAT-02

O3-OPS-006-343-3-01, EO-1.0

Source: new



Question: 091 (1.0 Point)

While operating at 100% reactor power, all nine turbine bypass valves fail open causing the following events:

- RPV pressure drops to 750 psig, reactor power decreases to 50% before the MSIVs start to close
- After the MSIVs close, RPV pressure increases to 1380 psig before ERVs decrease pressure to about 1100 psig
- Reactor power spikes to 120% on APRMs before a reactor scram reduces power to 0%
- RPV level decreases to a low of -5 inches before operators are able to restore level above +53 inches

WHICH ONE (1) of the following indicate the Safety Limits that have been violated?

- a. RPV water level and neutron flux
- b. RPV water level and MCPR
- c. RPV pressure and neutron flux
- d. RPV pressure and MCPR

Answer: d

K/A: G.2.2.22 / 4.1

References:

U1 TECH. SPEC., 2.0

O1-OPS-001-239-1-01, EO-13.0

Source:Q9817



Question: 092 (1.0 Point)

An I&C surveillance test is being performed on the vent and purge system containment isolation logic. The test requires defeating each channel in the auto isolation logic to perform the test. Of the channels being tested the second channel exceeds its allowable trip setpoint, the remaining channels remain operable. WHICH ONE (1) of the following identifies the time that the LCO timer should be started for the INOP channel?

- a. At the time the channel failed the test.
- b. At the time the channel was defeated at the test start.
- c. At the completion of the testing on all channels.
- d. At the time the last testing was complete on this channel.

Answer: b

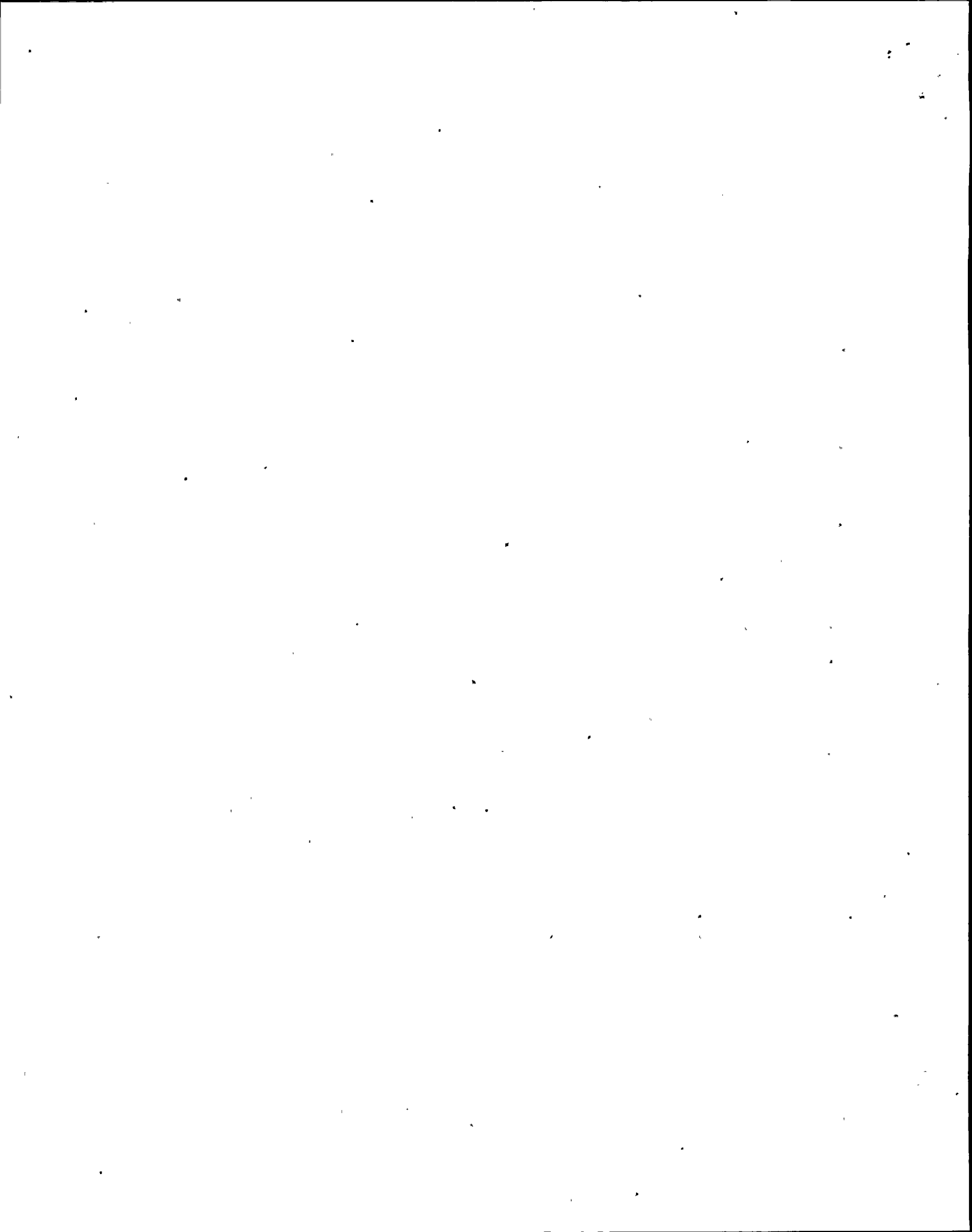
K/A: G.2.2.24 / 3.8

References:

U1 TECH. SPEC.,3.0/4.0

O1-OPS-001-223-1-04, EO-11.0

Source: new



Question: 093 (1.0 Point)

The following conditions exist:

- A fuel bundle is being raised from the core.
- Neutron monitoring count rate is increasing.
- No rod motion observed.

WHICH ONE (1) of the following actions should be performed?

- a. Continue withdrawing the fuel bundle.
- b. Position the fuel bundle to the nearest safe location in the core.
- c. Return the fuel bundle to the original location.
- d. Stop all fuel movement immediately.

Answer: d

K/A: G.2.2.31 / 3.8

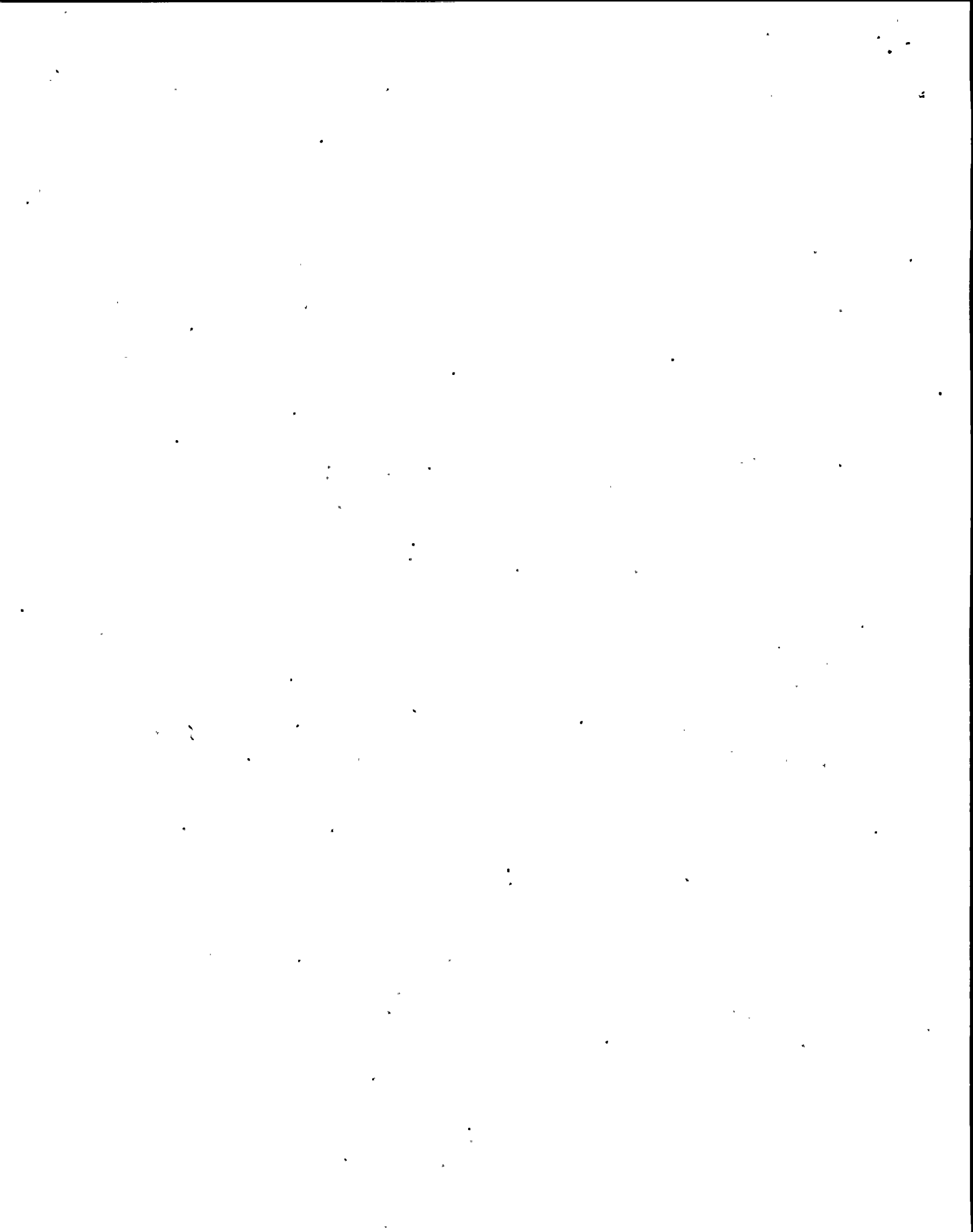
References:

N1-OP-34

O1-OPS-001-234-1-01, EO-7.0, 9.0, 10.0, 11.0

N1-FHP-25

Source: Q13626



Question: 094 (1.0 Point)

A fire in the radwaste building has been extinguished with help of offsite fire departments. As SSS WHICH ONE (1) of the following actions must you ensure takes place prior to allowing offsite fire departments to leave the site?

- a. Escort emergency personnel and apparatus from the fire scene out of the protected area.
- b. Notify the Fire Program Coordinator, Manager Emergency Preparedness, and the Director Nuclear Information Services.
- c. Ensure personnel and equipment are surveyed by radiation protection.
- d. Ensure the roadway from the fire location/area is clear of obstructions.

Answer: c

K/A: G.2.3.1 / 3.0

References:

EPIP-EPP-28

EPIP-EPP-18, B. EO-3.0

O3-OPS-006-350-3-01

Source: Q316



Question: 095 (1.0 Point)

A DBA loss of coolant accident has occurred. Due to equipment malfunctions a water seal on the containment spray isolation valves cannot be established. WHICH ONE (1) of the following would be the potential consequence?

- a. Radioactive release to the secondary containment.
- b. Water hammer in the loop if it was put in service.
- c. The over pressurization of low pressure piping
- d. Excessive differential pressures across the containment spray nozzles.

Answer: a

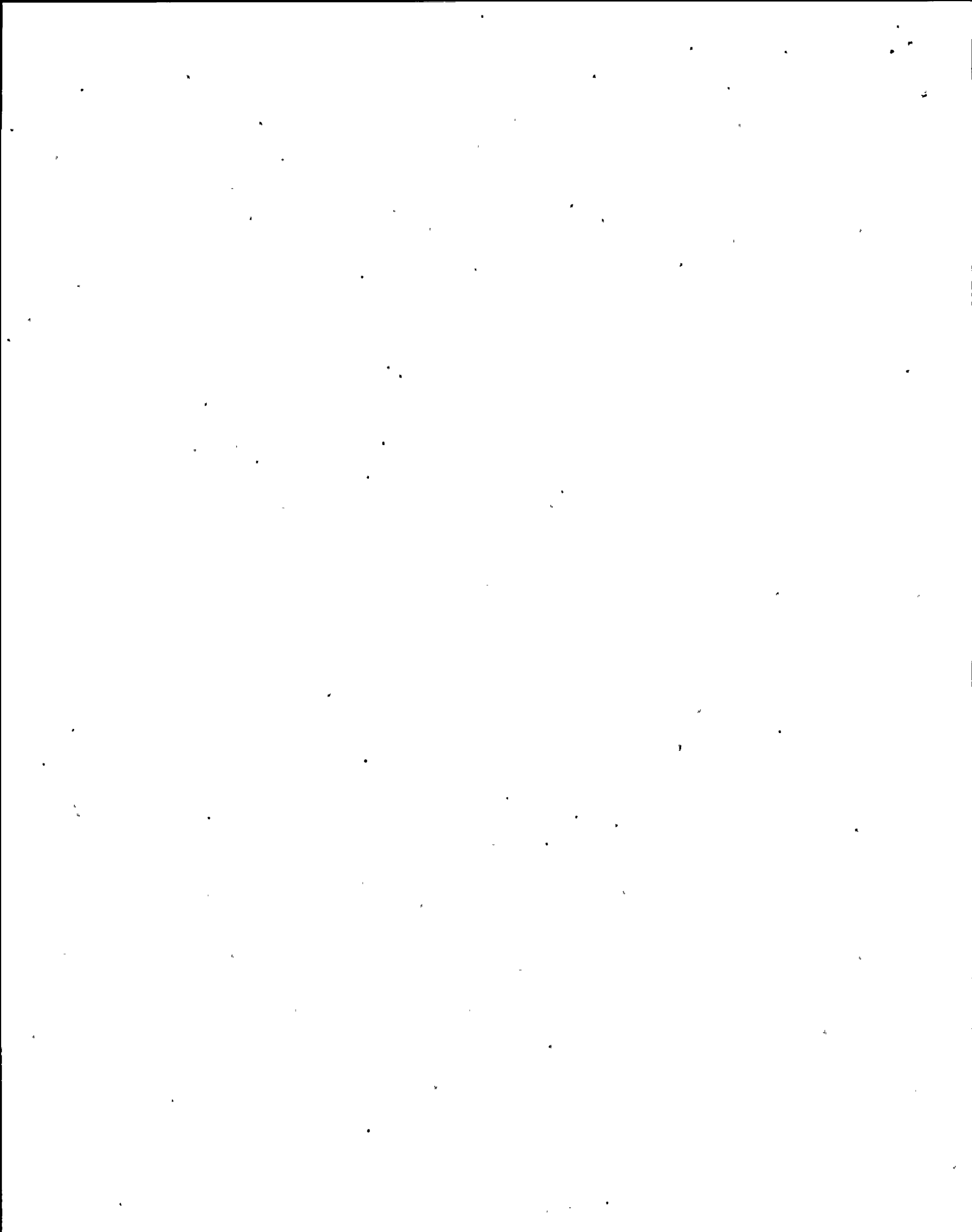
K/A: G.2.3.11 / 3.2

References:

O1-OPS-001-226-1-01, EO-9.0

N1-OP-14

Source: Q23



Question: 096 (1.0 Point)

While executing N1-EOP-2, RPV Control, water level lowers below the minimum indicated water level. WHICH ONE (1) of the following identifies what may occur due to indicated level being below the Minimum Indicated Water Level per Unit 1 EOPs ?

- a. Actual level could be above the reference leg penetration under these conditions.
- b. Actual level could be below the variable leg penetration under these conditions.
- c. Indicated level could be indicating saturation conditions under these conditions.
- d. Indicated level could be experiencing notching under these conditions.

Answer: b

K/A: G.2.4.20 / 4.0

References:

N1-EOP-02

O1-OPS-006-344-1-02, EO-4.0

N1-ODP-OPS-0302

Source: new



Question: 097 (1.0 Point)

WHICH ONE (1) of the following identifies the required action that should be taken during EOP execution if an additional entry condition occurs?

- a. Re-enter the affected EOPs at the beginning.
- b. Re-enter the affected sections of the affected EOPs.
- c. Continue in the affected EOPs but check overrides.
- d. Do not re-enter but redo all affected decision blocks.

Answer: a

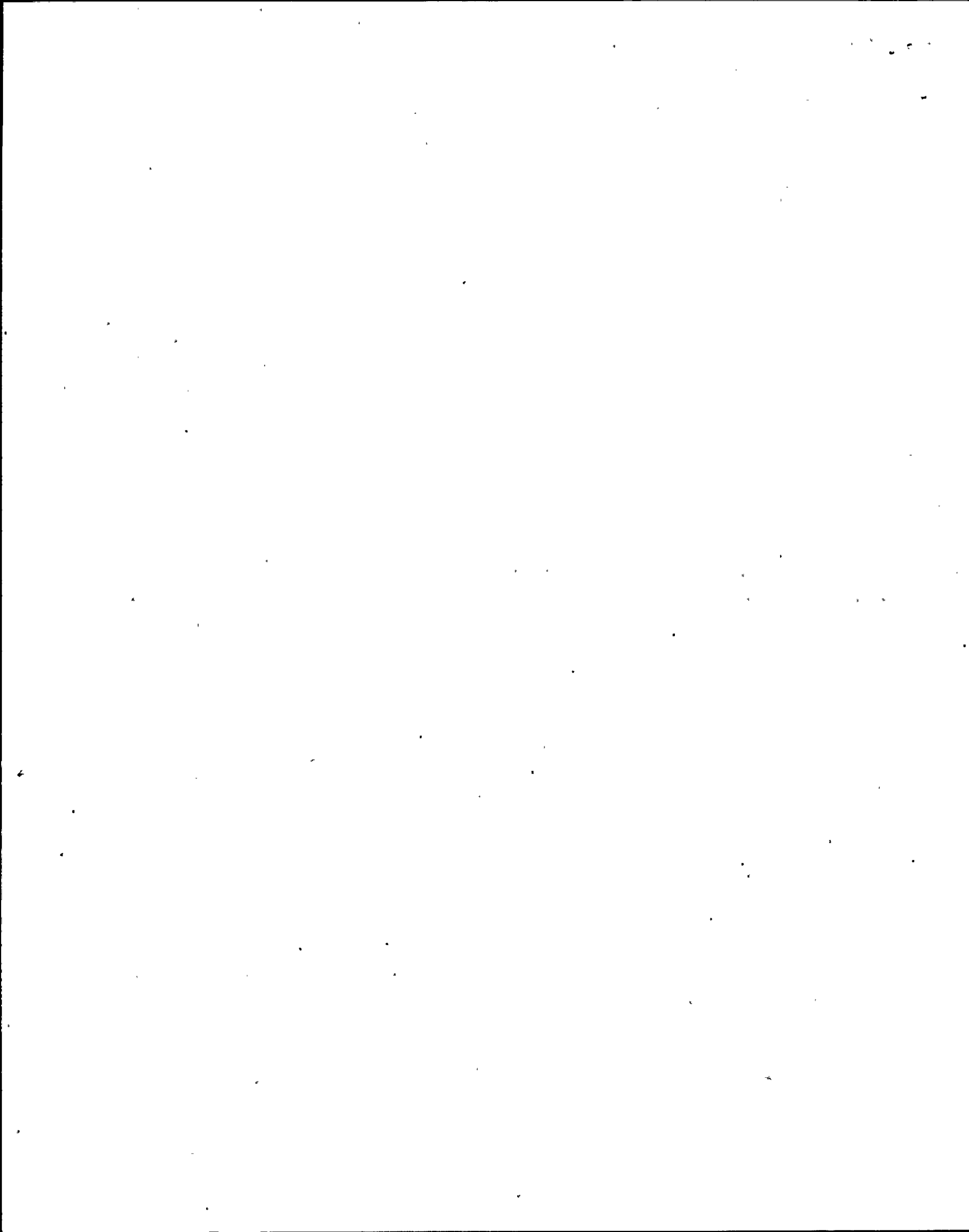
K/A: G.2.4.14 / 3.9

References:

N1-ODP-OPS-0302

O1-OPS-006-344-1-01, EO-4.0

Source: new



Question: 098 (1.0 Point)

The plant has experienced a LOCA and the following conditions exist:

- Ten (10) rods bounced on the scram and are at position 02 or 04
- APRM's are downscale
- Torus pressure is at 10 psig and rising
- Reactor Level is at -111 inches and lowering
- Three (3) ERV's are open
- Reactor pressure is 495 psig and lowering

WHICH ONE (1) of the following describes the status of Adequate Core Cooling, and why it is/is not being achieved?

- a. Adequate Core Cooling is assured since Reactor pressure is above the Minimum Alternate RPV Flooding Pressure with three (3) ERV's open.
- b. Adequate Core Cooling is assured since Reactor Pressure is 72 psig above Torus pressure with three (3) ERV's open.
- c. Adequate Core Cooling is not assured since Reactor level is below the Top of Active Fuel.
- d. Adequate Core Cooling is not assured since Reactor pressure is below the Minimum RPV Flooding Pressure for three (3) open ERV's.

Answer: c

K/A: G.2.4.3 / 3.8

References:

O1-OPS-006-344-1-01, EO-4.0

N1-ODP-OPS-0302

Source: new



Question: 099 (1.0 Point)

WHICH ONE (1) of the following is a responsibility that the SED may delegate to another person per the site Emergency Plan Procedures ?

- a. Determining the necessity for a station evacuation per EPP-05, Station Evacuation.
- b. Determine what assistance if any is required from JAFNPP.
- c. Authorizing emergency exposure per EPP-15, Health Physics.
- d. Classification of the event as an Unusual Event, Alert, Site Area Emergency, or General Emergency.

Answer: b

K/A: G.2.4.38 / 4.0

References:

EPIP-EPP-18

O3-OPS-006-350-3-01

EPIP-EPP-18 B. EO-3.0

Source: Q14458(mod)



Question: 100 (1.0 Point)

A loss of the MG Set 167 has resulted in annunciator F1-3-8, COMPUTER PWR INPUT M-G SET 167, coming into alarm and subsequently clearing. WHICH ONE (1) of the following explains why the annunciator for MG 167 has cleared?

- a. MG 167 has shifted over to DC drive from 125 VDC Battery Board 11
- b. MG 167 Auto Bus Transfer has re-energized lost loads from Power Board 17
- c. Loss of power to Annunciator Bus alarm relays
- d. Overcurrent relays automatically reset 100 seconds after overcurrent condition clears

Answer: c

K/A: G.2.4.31 / 3.4

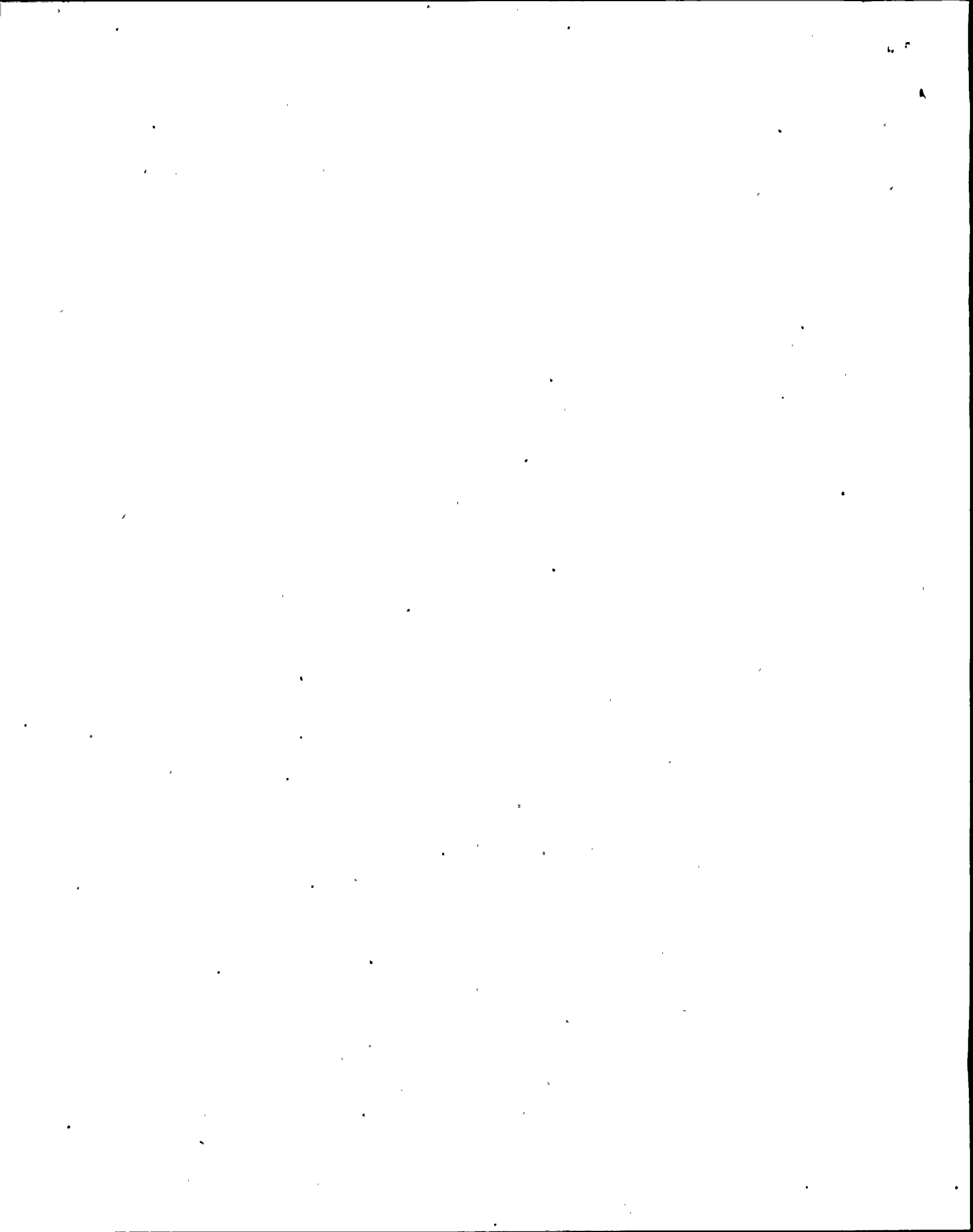
References:

NI-ARP-F1

O1-OPS-001-262-1-03, EO-8.0

EWD.C-19436-C Sh. 7

Source: new



SIMULATION FACILITY REPORT

Facility Licensee: Niagara Mohawk Power Corporation

Facility Docket No. 50-220

Operating Tests Administered on: January 21-23, 1998

While conducting the simulator portion of the operating tests, examiners observed the following items.

<u>ITEM</u>	<u>DESCRIPTION</u>
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NONE	
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