

**U.S. Nuclear Regulatory Commission  
Site-Specific RO Written Examination**

**Applicant Information**

Name:

Date:

Facility/Unit – Hatch Units 1 & 2

Region:    I    II    III    IV

Reactor Type: W  CE  BW  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. To pass the examination, you must achieve a final grade of at least 80 percent. Examination papers will be collected 6 hours after the examination begins

**Applicant Certification**

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

\_\_\_\_\_   
Applicant's Signature

**Results**

Examination Value \_\_\_\_\_ Points

Applicant's Score \_\_\_\_\_ Points

Applicant's Grade \_\_\_\_\_ Percent

Name: \_\_\_\_\_

ILT-13 NRC Exam (RO)

Form: 0

Version: 0

1. 212000K1.06 001

Which ONE of the choices below completes the following statement?

The LEAST amount of water accumulated in the **Unit 1** Scram Discharge Volume that will cause a Scram signal is \_\_\_\_\_ gallons.

A. 19

B. 37

C. 58

D. 64

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2. 202001A3.09 001

**Unit 2** is operating with both Recirc Pumps operating at 60% speed.

Subsequently, ASD 2A trips.

Based on the above conditions, which ONE of the choices below completes the following statements?

ACTUAL Total Core Flow equals (=) \_\_\_\_\_ .

ACCURATE Total Core Flow \_\_\_\_\_ be read directly from the Total Core Flow recorder on 2H11-P603.

- A. Jet Pump Loop A flow plus (+) Jet Pump Loop B flow;  
can NOT
- B. Jet Pump Loop A flow plus (+) Jet Pump Loop B flow;  
can
- C. Jet Pump Loop B flow minus (-) Jet Pump Loop A flow  
can NOT
- D. Jet Pump Loop B flow minus (-) Jet Pump Loop A flow;  
can

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3. 202002K4.05 001

**Unit 1** is initially operating at 100% RTP.

Recirc Pump 1A experiences an ASD Power Cell Bypass resulting in the following:

Total Jet pump flows are indicated below:

- o Total Jet pump A flow 35.0 Mlbm/hr
- o Total Jet pump B flow 39.0 Mlbm/hr

Based on the above conditions and IAW 34SO-B31-001-1, Reactor Recirculation System, which ONE of the choices below completes the following statements?

The above Recirc Loop flows \_\_\_\_\_ EXCEED the mismatch limitations in 34SO-B31-001-1.

If subsequently desired to raise Recirc Pump 1A speed, use of the SPEED HOLD RESET pushbutton \_\_\_\_\_ REQUIRED.

- A. do;  
is
- B. do;  
is NOT
- C. do NOT;  
is
- D. do NOT;  
is NOT



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5. 205000A4.12 010

**Unit 2** is in Mode 4 with RHR Loop A in Shutdown Cooling.

Preparations are in progress to start Recirc pump 2B.

- o RWL is 55 inches and steady
- o SDC flow is 7700 gpm
- o RHR pump 2A is running
- o RHRSW pump 2C is running

At 10:00, 4160VAC 2F de-energizes.

Based on the above conditions, which ONE of the choices below completes the following statements?

At 10:10, Recirc pump 2B Suction temperature will be \_\_\_\_\_ its' temperature at 10:00.

Recirc pump 2B Suction temperature will be monitored on panel \_\_\_\_\_ .

- A. the same as;  
2H11-P602
- B. the same as;  
2H11-P601
- C. higher than;  
2H11-P602
- D. higher than;  
2H11-P601

ILT-13 NRC Exam (RO)

6. 206000K4.17 001

**Unit 2** was operating at 100% RTP when a scram occurred.

HPCI is currently operating in Pressure Control mode.

Subsequently, CST level starts lowering and stabilizes at 20 inches.

Based on the above conditions, which ONE of the choices below completes the following statement?

Five (5) minutes after CST level reaches 20 inches, 2E41-F004, CST Suction valve, will \_\_\_\_\_ and HPCI will be operating \_\_\_\_\_ .

- A. be closed;  
in Pressure Control mode
- B. be closed;  
on Minimum Flow
- C. still be open;  
in Pressure Control mode
- D. still be open;  
on Minimum Flow

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7. 209001K3.02 005

**Unit 2** has experienced a Loss of Offsite Power (LOSP) AND Onsite AC Power.

At 09:00, the following conditions existed and remain unchanged for 3 minutes:

- |                        |                   |
|------------------------|-------------------|
| o Control rods         | All rods in       |
| o RPV Pressure         | 800 psig          |
| o RWL                  | -135 inches       |
| o Drywell Pressure     | 3 psig            |
| o ADS Inhibit Switches | "Normal" position |

At 9:04, an operator injects with HPCI and RWL is stable at -105 inches.

At 9:05, an operator starts the EDG 2A and the following events occur:

- o Core Spray pump 2A starts, NO other pumps start
- o Core Spray pump 2A discharge pressure is 138 psig (highest achieved)

Based on the above conditions, which ONE of the choices below completes the following statement?

The ADS valves will \_\_\_\_\_ .

- A. automatically open at 09:05
- B. automatically open at 09:07
- C. automatically open at 09:13
- D. NOT automatically open



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8. 211000K1.01 005

Which ONE of the choices below completes the following statements?

The Standby Liquid Control (SBLC) System line that is ABOVE the core plate, is used in determining \_\_\_\_\_ dP.

As core flow is LOWERED from rated to minimum, the indication for the above dP indicator will move in the \_\_\_\_\_ direction.

- A. Jet Pump;  
positive
- B. Jet Pump;  
negative
- C. Core Spray Line Break Detection;  
positive
- D. Core Spray Line Break Detection;  
negative

ILT-13 NRC Exam (RO)

9. 201006A4.05 010

**Unit 1** is at 19% RTP shutting down IAW 34GO-OPS-013-1, Normal Plant Shutdown.

The currently latched RWM step is Step 21 with the following conditions:

- o Insert limit                    08
- o Withdraw limit                12
- o The last control rod in Step 21 is selected (06-35)
- o All step 21 control rods are at the INSERT limit
- o The control rods in Step 20 are NOT the same control rods in Step 21

Subsequently, a drive water pressure transient occurred resulting in control rod 06-35 repositioning to position 06.

Based on the above conditions and IAW 34GO-OPS-065-0, Control Rod Movement, which ONE of the choice below completes the following statements?

The RWM Operator Display \_\_\_\_\_ display an Insert Error (IE).

The RWM Operator Display will indicate "POWER" as \_\_\_\_\_ .

- A. will;  
below LPSP
- B. will;  
above LPAP
- C. will NOT;  
below LPSP
- D. will NOT;  
above LPAP

ILT-13 NRC Exam (RO)

10. 212000K2.01 001

IAW 34SO-C71-001-1, 120 VAC RPS Supply System, which ONE of the choices below completes the following statements?

On **Unit 1**, the NORMAL power supply to RPS Bus 1A is \_\_\_\_\_ .

If RPS MG Set 1A is tagged out for maintenance, the PREFERRED power supply for RPS Bus 1A will be \_\_\_\_\_ .

- A. 600 VAC 1C;  
Essential Cabinet 1B
- B. 600 VAC 1C;  
Essential Cabinet 1A
- C. 600 VAC 1D;  
Essential Cabinet 1B
- D. 600 VAC 1D;  
Essential Cabinet 1A

ILT-13 NRC Exam (RO)

11. 215001G2.1.31 001

**Unit 2** is operating at 100% RTP with the "A" Channel TIP in the core when an event occurred requiring the TIP system to be isolated.

IAW 34AB-C71-001-2, Scram Procedure, which ONE of the choices below completes the following statements?

After ALL of the TIP Ball valves are closed, the NPO \_\_\_\_\_ confirm the isolation on 2H11-P601 Vertical Display.

The Shear Valve keylock switches used to fire the Shear Valves are located at Panel \_\_\_\_\_ .

- A. can;  
2H11-P601
- B. can;  
2H11-P607
- C. can NOT;  
2H11-P601
- D. can NOT;  
2H11-P607

12. 215003A3.03 001

A **Unit 2** Reactor startup is in progress.

At 10:00, the IRMs indicate as follows:

- o IRMs A, B, C & D                    25/125 on Range 6
- o IRMs E, F, G & H                    10/40 on Range 5

IRMs A - D are rising 9/125 per minute AND  
IRMs E - H are rising 3/40 per minute.

Based on the above conditions, which ONE of the choices below completes the following statement?

The EARLIEST listed time that an IRM will exceed its UPSCALE TRIP setpoint is \_\_\_\_\_ .

- A. 10:06
- B. 10:07
- C. 10:09
- D. 10:10

ILT-13 NRC Exam (RO)

13. 215003K2.01 001

Which ONE of the choices below completes the following statement?

On **Unit 2**, the power supply to IRM H is \_\_\_\_\_ .

- A. 2R25-S001, 125 VDC Cabinet 2A
- B. 2R25-S002, 125 VDC Cabinet 2B
- C. 2R25-S015, 24/48 VDC Cabinet 2A
- D. 2R25-S016, 24/48 VDC Cabinet 2B

14. 215004K5.03 001

**Unit 1** is starting up IAW 34GO-OPS-001-1, Plant Startup.

The reactor has been declared CRITICAL.

- o SRM/IRM overlap has been confirmed
- o All IRMs are on Range 4
- o SRM detectors are being intermittently withdrawn as required by the procedure

As the SRM "A" detector is being withdrawn, SRM "A" indication reaches 190 cps.

Based on the above conditions, which ONE of the choices below completes the following statements?

At the current SRM "A" indication, a control rod block \_\_\_\_\_ occurred.

If the "DRIVE OUT" pushbutton continues to be depressed, the SRM "A" detector will \_\_\_\_\_ .

- A. has;  
continue to withdraw
- B. has;  
stop withdrawing
- C. has NOT;  
continue to withdraw
- D. has NOT;  
stop withdrawing

ILT-13 NRC Exam (RO)

15. 215005K2.02 001

**Unit 1** is operating at 85% RTP.

- o A loss of RPS Bus 1A occurs

Based on the above conditions, which ONE of the choices below completes the following statements?

APRM "C" "2 of 4 Voter Module" will be \_\_\_\_\_ .

The TOTAL number of APRM NUMACs that will be ENERGIZED is \_\_\_\_\_ .

- A. ENERGIZED;  
two (2)
- B. ENERGIZED;  
four (4)
- C. DE-ENERGIZED;  
two (2)
- D. DE-ENERGIZED;  
four (4)



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16. 217000A1.08 001

**Unit 2** is conducting 34SV-E51-002-2, RCIC Pump Operability, surveillance.

Based on the above conditions, which ONE of the choices below completes the following statements?

IAW 34SO-E51-001-2, RCIC System, during RCIC pump operation, the Torus water temperature will rise at a rate of approximately \_\_\_\_\_ .

IAW 34SV-E51-002-2, the LOWEST listed Torus water temperature at which the surveillance is REQUIRED to be stopped is \_\_\_\_\_ .

- A. 3°F/hr;  
101°F
- B. 3°F/hr;  
106°F
- C. 30°F/hr;  
101°F
- D. 30°F/hr;  
106°F

## ILT-13 NRC Exam (RO)

17. 218000K3.01 001

**Unit 2** was at 100% RTP when Loss of Coolant Accident (LOCA) occurred.

At 08:00, the following conditions exist:

- o RWL -102 inches, LOWERING at 2 inches per minute
- o RPV Pressure 900 psig, LOWERING at 25 psig per minute
- o Drywell pressure 4.0 psig, slowly RISING
- o ONLY the RC-1 Placard has been performed
- o ADS Switches are in the INHIBIT position with the associated ADS white lights EXTINGUISHED

The P602-3 annunciator indications are provided.

Based on the above conditions and with NO additional operator actions,

At 08:15, ONLY \_\_\_\_\_ will be injecting into the RPV.

### **Reference Provided**

- A. HPCI
- B. Core Spray and RHR
- C. HPCI and the Condensate Booster Pumps
- D. Core Spray, RHR and the Condensate Booster Pumps

ILT-13 NRC Exam (RO)

18. 223002K6.03 005

**Unit 2** is operating at 85% RTP when an event occurs resulting in Fast Drywell Venting placed in service IAW 34SO-T48-002-2, Containment Atmospheric Control and Dilution Systems.

Drywell pressure is 1.2 psig, slowly lowering.

At 10:00, 2D11-K621A, Wide Range Drywell Radiation Monitor, fails UPSCALE.

Based on the above conditions, which ONE of the choices below completes the following statements?

At 10:02, Drywell pressure will be \_\_\_\_\_ .

The 2D11-K621A setpoint, which will ILLUMINATE the Amber Lights on Panel 2H11-P602, is \_\_\_\_\_ .

- A. rising;  
100 R/hr
- B. rising;  
138 R/hr
- C. lowering;  
100 R/hr
- D. lowering;  
138 R/hr

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19. 226001K1.05 001

**Unit 2** is operating at 100% RTP when Jockey Pump System A discharge pressure lowers to 40 psig.

Based on the above condition, which ONE of the choices below completes the following statements?

The Standby Core Spray Jockey Pump \_\_\_\_\_ have automatically started.

If this condition is NOT corrected, the potential exists to drain \_\_\_\_\_ of RHR Drywell Spray piping.

- A. will;  
BOTH divisions
- B. will;  
ONLY one (1) division
- C. will NOT;  
BOTH divisions
- D. will NOT;  
ONLY one (1) division

ILT-13 NRC Exam (RO)

20. 230000K2.02 001

**Unit 2** experiences a Loss of Offsite power.

- o 4160 VAC Bus 2G is the ONLY 4160 VAC Bus that is ENERGIZED

Based on the above conditions, which ONE of the choices below completes the following statements?

RHR pump 2B \_\_\_\_\_ be used for Suppression Pool Spray.

RHR pump 2D \_\_\_\_\_ be used for Suppression Pool Spray.

- A. can;  
can
- B. can;  
can NOT
- C. can NOT;  
can
- D. can NOT;  
can NOT

ILT-13 NRC Exam (RO)

21. 239001K5.05 001

**Unit 2** is operating at 5% RTP with the Reactor Mode switch in STARTUP when the following annunciator is received:

- o 603-214, MAIN STEAM LINE FLOW A HIGH

Based on the above conditions, which ONE of the choices below completes the following statements?

The MINIMUM listed value that will cause 603-214, MAIN STEAM LINE FLOW A HIGH, alarm to be received is \_\_\_\_\_ .

The Main Steam Line High Flow isolation signal \_\_\_\_\_ bypassed in STARTUP.

- A. 137 psid;  
is
- B. 137 psid;  
is NOT
- C. 170 psid;  
is
- D. 170 psid;  
is NOT

ILT-13 NRC Exam (RO)

22. 239002A2.01 001

**Unit 2** is in an ATWS condition with the following:

- o RTP is 5%
- o MSIVs are closed
- o RPV Pressure is 1100 psig, slowly rising

An NPO has just completed cycling the control switch for 2B21-F013B, Safety Relief Valve.

When 2B21-F013B closes, its' vacuum breaker fails open.

Based on the above conditions, which ONE of the choices below completes the following statements?

When 2B21-F013B re-opens, \_\_\_\_\_ pressure will rise due to steam being admitted directly to the atmosphere.

Excluding the 2B21-F013B Mechanical lift setpoint, to PERMANENTLY prevent steam from exiting the stuck open vacuum breaker, the NPO will \_\_\_\_\_ .

- A. Torus;  
reset the LLS logic
- B. Torus;  
pull the fuses for 2B21-F013B
- C. Drywell;  
reset the LLS logic
- D. Drywell;  
pull the fuses for 2B21-F013B

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23. 239002K5.06 001

Which ONE of the choices below completes the following statements?

Operation of the SRV tailpipe vacuum breakers minimizes SRV discharge line \_\_\_\_\_  
for subsequent SRV operation.

SRV tailpipe vacuum breakers \_\_\_\_\_ have position indicating lights in the  
Main Control Room.

- A. backpressure;  
do
- B. backpressure;  
do NOT
- C. hydraulic loading;  
do
- D. hydraulic loading;  
do NOT



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24. 245000K5.03 001

**Unit 2** was operating at 100% RTP when the following occurred:

- o 651-206, GENERATOR PROTECTION CIRCUIT ENERGIZED, ALARMED

Based on the above conditions, which ONE of the choices below completes the following statement?

The Turbine Control Valves will automatically throttle close in order to lower Main Generator amps below a MAXIMUM of \_\_\_\_\_ within two (2) minutes.

- A. 5337 amps
- B. 6466 amps
- C. 14,000 amps
- D. 20,232 amps;

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25. 259002A3.04 001

**Unit 2** is operating at 100% RTP with the following RWL indications:

- o 2C32-R606A, GEMAC, indication: 37.0 inches
- o 2C32-R606B, GEMAC, indication: 36.6 inches
- o 2C32-R606C, GEMAC, indication: 36.9 inches

Subsequently, a leak occurs on the REFERENCE leg associated with the 2C32-R606A instrument resulting in a 3 inch/minute change in RWL.

Based on the above conditions and with NO operator actions,

INITIALLY, the indication on RWL instrument 2C32-R606B will go \_\_\_\_\_ and Feedwater flow will \_\_\_\_\_ .

- A. DOWN;  
LOWER
- B. DOWN;  
RAISE
- C. UP;  
LOWER
- D. UP;  
RAISE

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26. 261000A4.07 001

**Unit 1** is operating at 100% RTP.

At 10:00, an event occurs resulting in Unit 1 Drywell pressure increasing to and stabilizing at 2.5 psig.

Which ONE of the choices below completes the following statements?

At 10:05, with NO operator actions, the **Unit 1** SBTG System flow going to the Main Stack will be from \_\_\_\_\_ .

**Unit 1** SBTG flow can be monitored on panel \_\_\_\_\_ .

- A. one (1) SBTG fan;  
1H11-P657
- B. one (1) SBTG fan  
1H11-P700
- C. two (2) SBTG fans;  
1H11-P657
- D. two (2) SBTG fans;  
1H11-P700

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27. 262001G2.4.1 010

**Unit 2 was operating at 70% RTP when a Station Blackout occurred.**

Based on the above condition, which ONE of the choices below completes the following statements?

Operator actions are REQUIRED to be performed FIRST IAW \_\_\_\_\_ .

If entry into 34AB-R22-002-2, Loss of 4160V Emergency Bus, is REQUIRED, the step for ensuring EDGs for the affected buses have auto-started \_\_\_\_\_ an IMMEDIATE Operator Action.

- A. 34AB-C71-001-2, Scram Procedure;  
is
- B. 34AB-C71-001-2, Scram Procedure;  
is NOT
- C. 34AB-R22-003-2-100, Station Blackout Abnormal;  
is
- D. 34AB-R22-003-2-100, Station Blackout Abnormal;  
is NOT

ILT-13 NRC Exam (RO)

28. 262002A3.01 010

**Unit 2** is at 100% RTP when a Loss of Off-Site Power occurs and EDG 2C fails to start.

Based on the above conditions, which ONE of the choices below completes the following statements?

The Vital AC Bus will transfer to its Alternate source ONLY after the non-essential loads from \_\_\_\_\_ have been re-energized.

- A. 120/208V AC Essential Cabinet 2A, 2R25-S036
- B. 600V Station Serv Swgr 2C, 2R23-S003
- C. 600V Station Serv Swgr 2D, 2R23-S004
- D. 240V Vital AC Batteries, 2R42-S008

ILT-13 NRC Exam (RO)

29. 262002G2.1.32 005

**Unit 2** is operating at 55% RTP with the RFPT 2B in service when the following occurs:

- o The Vital AC Battery Charger AC Input breaker trips OPEN

Subsequently, operators receive annunciator 240V VITAL AC BATT VOLTS LOW, 651-133.

Based on the above conditions, which ONE of the choices below completes the following statements?

The Vital AC Bus \_\_\_\_\_ AUTOMATICALLY transfer to ANOTHER power source.

If power is lost to the Vital AC Bus, RWL will be controlled using the RFPT 2B \_\_\_\_\_ .

- A. will;  
Speed Setter
- B. will;  
M/A Station
- C. will NOT;  
Speed Setter
- D. will NOT;  
M/A Station

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30. 263000A1.01 001

**Unit 2** Division 1 125VDC Station Service Battery Chargers are being operated in the EQUALIZE Mode.

Based on the above conditions and IAW 34SO-R42-001-2, 125 VDC, 125/250 VDC and 250 VDC Systems, which ONE of the choices below completes the following statements?

In EQUALIZE Mode, the charger output voltage to the battery will be \_\_\_\_\_ when the charger is operating in the FLOAT Mode.

Without re-charging, the 125 VDC Station Service batteries are sized to have adequate storage capacity to carry the required load for a MINIMUM of \_\_\_\_\_ .

- A. equal to;  
2 hours
- B. equal to;  
8 hours
- C. higher than;  
2 hours
- D. higher than;  
8 hours

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31. 263000G2.4.31 001

**Unit 2** is operating at 100% RTP when the following annunciator ALARMED:

- o HPCI SYSTEM INVERTER CIRCUIT FAILURE, 601-120

Based on the above conditions and IAW 601-120, which ONE of the choices below completes the following statements?

The power supply that has been lost is \_\_\_\_\_ .

If needed, 2E41-R612, HPCI Flow Controller, \_\_\_\_\_ control HPCI turbine speed.

- A. 125 VDC Cabinet 2B, 2R25-S002;  
will still
- B. 125 VDC Cabinet 2B, 2R25-S002;  
will NOT
- C. 125 VDC Cabinet 2F, 2R25-S006;  
will still
- D. 125 VDC Cabinet 2F, 2R25-S006;  
will NOT



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32. 264000K5.05 001

34SV-R43-001-2, Diesel Generator 2A Monthly Test, is in progress.

Based on the above conditions, which ONE of the choices below completes the following statements?

When manually synchronizing EDG 2A to an energized bus, the synchroscope is REQUIRED to be rotating in a direction which will REDUCE the probability of causing a \_\_\_\_\_ trip.

After EDG 2A output breaker is closed, exceeding the Crankcase pressure setpoint \_\_\_\_\_ automatically trip EDG 2A.

- A. differential voltage;  
will
- B. differential voltage;  
will NOT
- C. reverse power;  
will
- D. reverse power;  
will NOT

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33. 268000K3.04 001

**Unit 2** is operating at 100% RTP when a leak occurred on RHR pump 2B suction line.

The following annunciators ALARMED:

- o RB S-E DIAGONAL FLOOR DRN SUMP LEVEL HIGH, 657-016
- o RB S-E DIAGONAL FLOOR DRN SUMP LEVEL HIGH-HIGH, 657-034

The **Unit 2** Radwaste Operator reports 2G11-C016, Floor Drain Collector Pump, will not operate.

Subsequently, the following annunciator ALARMED:

- o FLOOR DRAIN COLLECTOR TANK 2G11-A006 HI LEVEL, G11-201-2

Based on the above conditions, which ONE of the choices below completes the following statements?

When the Floor Drain Collector Tank 2G11-A006 Hi Level annunciator was received, the RB S-E Diagonal Floor Drain Sump Pumps \_\_\_\_\_ receive an AUTOMATIC trip signal.

The set point for annunciator 657-034 \_\_\_\_\_ an EOP entry condition.

- A. did;  
is
- B. did;  
is NOT
- C. did NOT;  
is
- D. did NOT;  
is NOT

ILT-13 NRC Exam (RO)

34. 271000A1.01 010

**Unit 1** is operating at 30% RTP with SJAE 1A in service.

The following occurs:

- o POSTTREATMENT O/G RADIATION HI-HI-HI/INOP, 601-405, ALARMS
- o POSTTREATMENT O/G RADIATION HI-HI, 601-411, ALARMS
- o POSTTREATMENT O/G RADIATION HI, 601-417, ALARMS
- o CONDENSER LEVEL LOOP A HIGH/LOW, N62-028, ALARMS

The following indications are observed:

- o 1D11-K601, Pre-Treatment radiation monitor reads 200 mr/hr and slowly rising
- o 1D11-K615A & 1D11-K615B, Off Gas Post-Treatment radiation monitors, rises to just above the HI-HI-HI alarm setpoint

Based on the above conditions, which ONE of the choices below completes the following statement?

Main Condenser Vacuum will \_\_\_\_\_ since \_\_\_\_\_ has travelled closed.

- A. slowly degrade;  
1N62-F527, Stack Inlet valve,
- B. slowly degrade;  
1N62-F003A, Prehtr Inlet valve,
- C. rapidly degrade (<5 minutes);  
1N62-F527, Stack Inlet valve,
- D. rapidly degrade (<5 minutes);  
1N62-F003A, Prehtr Inlet valve,

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35. 288000A2.05 005

Today's weather forecast for the Plant Hatch area is high winds with anticipated outside ambient temperature in the low teens.

The outside air temperature is currently 36°F and slowly lowering.

Based on the above conditions, which ONE of the choices below completes the following statements?

Currently, DI-OPS-36-0989, Cold Weather Checks, \_\_\_\_\_ REQUIRED to be entered.

Once DI-OPS-36-0989 is entered, a System Operator will be dispatched to the Diesel Generator Building to \_\_\_\_\_ .

- A. is;  
manually close the EDG AND Switchgear room louvers
- B. is;  
confirm EDG AND Switchgear room louvers have automatically closed
- C. is NOT;  
manually close the EDG AND Switchgear room louvers
- D. is NOT;  
confirm EDG AND Switchgear room louvers have automatically closed

ILT-13 NRC Exam (RO)

36. 290001K6.03 001

**Unit 2** is operating at 100% RTP with the following conditions:

- o **Unit 2** Refueling Equipment Hatch installed
- o 2A SBTG Fan is Danger Tagged out for maintenance

Subsequently, the following occurs:

At 10:00, A RWCU System break in the Unit 2 Reactor Building

At 10:05, 2D11-K609A-D, RB POT CONTAMINATED VENT EXH RADN MON rises to 20 mr/hr

At 10:10, The Supply breaker for 2R24-S012, 600/208V MCC, trips OPEN

Based on the above conditions and with NO operator action, which ONE of the choices below completes the following statements?

At 10:08, the Rx. Bldg. Stack release rate will be \_\_\_\_\_ than at 10:04.

At 10:15, the **Unit 2** Rx. Bldg. dP will be approximately \_\_\_\_\_ .

- A. higher;  
the same as at 10:08
- B. higher;  
0.0 inches water
- C. lower;  
the same as at 10:08
- D. lower;  
0.0 inches water

ILT-13 NRC Exam (RO)

37. 295001AK1.02 001

**Unit 1** is operating at 96% RTP with 92% Core Flow when a malfunction occurs resulting in the following conditions:

- o Condensate Booster pump 1A trips
- o Reactor Feedwater pump 1A trips
- o +24 inches is the lowest RWL during the transient

After the plant stabilizes and with NO operator action,

IAW 34SO-B31-001-1, Reactor Recirculation System, the plant will be operating at approximately \_\_\_\_\_ on the Power To Flow Map provided.

**Reference Provided**

- A. Point A
- B. Point B
- C. Point C
- D. Point D

ILT-13 NRC Exam (RO)

38. 295003G2.4.6 001

**BOTH Units** were operating at 100% RTP when a LOSP occurred.

The following conditions exist:

- o On **Unit 1**, 4160 VAC Buses 1E & 1G are ENERGIZED from their associated EDGs
- o On **Unit 2**, ONLY 4160 VAC Bus 2E is ENERGIZED from its associated EDG

Based on the above conditions,

On **Unit 1**, ENTRY into 34AB-R22-003-1, Station Blackout, \_\_\_\_\_ REQUIRED.

NORMAL power is available to \_\_\_\_\_ of the **Unit 1** LPCI Buses (1R24-S018A/B).

- A. is;  
ONLY one (1)
- B. is;  
BOTH
- C. is NOT;  
ONLY one (1)
- D. is NOT;  
BOTH

ILT-13 NRC Exam (RO)

39. 295004AK3.02 001

**Unit 2** is operating at 100% RTP when the following occurs:

- o 125/250V BATTERY GND FAULT, 651-127, ALARMING
- o 34AB-R42-001-0, Location Of Grounds, is entered
- o A resistance value of 8,000 ohms is indicated

Based on the above conditions, which ONE of the choices below completes the following statements?

This resistance value will require isolation of loads since \_\_\_\_\_ .

34AB-R42-001-0 \_\_\_\_\_ be EXITED at this time.

- A. personnel or equipment hazards could occur if a second ground develops;  
can
- B. personnel or equipment hazards could occur if a second ground develops;  
can NOT
- C. a single ground could result in spurious equipment operation;  
can
- D. a single ground could result in spurious equipment operation;  
can NOT



ILT-13 NRC Exam (RO)

40. 295005AA1.07 001

**Unit 1** is operating at 100% RTP with SAT 1D out of service and de-energized.

Subsequently, the **Unit 1** Main Turbine trips.

Based on the above condition and IAW 34AB-R22-002-1, Loss Of 4160V Emergency Bus, which ONE of the choices below completes the following statement?

After the Main Generator trips, the MAXIMUM number of 4160V Buses that will be ENERGIZED is \_\_\_\_\_ .

- A. three (3)
- B. five (5)
- C. six (6)
- D. seven (7)

ILT-13 NRC Exam (RO)

41. 295006G2.4.4 005

**Unit 2** is at 70% RTP when the following occurred at the listed time:

<u>At 10:00</u> , RPV pressure	1080 psig
<u>At 10:01</u> , RWL	+8 inches
<u>At 10:02</u> , Drywell pressure	1.2 psig
<u>At 10:03</u> , Torus water level	149.5 inches

Based on the above conditions, which ONE of the choices below completes the following statement?

The EARLIEST listed time that an entry condition to the Emergency Operating Procedure (EOP) flowcharts had been met or exceeded is at \_\_\_\_\_ .

- A. 10:00
- B. 10:01
- C. 10:02
- D. 10:03

ILT-13 NRC Exam (RO)

42. 295007AK2.06 001

**Unit 1** is in Mode 3 with RHR loop "A" operating in Shutdown Cooling (SDC).

The following conditions exist:

- o RWL                                37 inches
- o RPV pressure                    85 psig

Subsequently, a malfunction with SDC occurs, resulting in RPV pressure RISING.

Based on the above conditions and IAW 34AB-E11-001-1, Loss of Shutdown Cooling, which ONE of the choices below completes the following statement?

The LOWEST listed RPV pressure that will result in SDC automatically isolating is \_\_\_\_\_ .

- A. 96 psig
- B. 109 psig
- C. 129 psig
- D. 139 psig

ILT-13 NRC Exam (RO)

43. 295008AK1.01 001

**Unit 1** is operating at 100% RTP with the following conditions:

- o Reactor Level Mode Select - Manual (Green light EXTINGUISHED)
- o Reactor Water Level Select - "B"
- o FW Control Mode Select - 3 Element (Green light ILLUMINATED)
- o "B" GEMAC level transmitter fails such that "B" GEMAC RWL indicator starts SLOWLY drifting DOWNWARD

Based on the conditions above and IAW 34SO-N21-007-1, Condensate & Feedwater System, which ONE of the choices below completes the following statement?

Initially, the drifting level transmitter causes the steam dryer/separators to allow more \_\_\_\_\_ and the Recirc pumps will see a \_\_\_\_\_ in their available NPSH.

- A. carryover;  
rise
- B. carryover;  
reduction
- C. carryunder;  
rise
- D. carryunder;  
reduction

ILT-13 NRC Exam (RO)

44. 295013AK2.01 001

**Unit 2** is operating at 100% RTP.

- o A Safety Relief Valve (SRV) inadvertently OPENS
- o An operator closes the SRV
- o Torus water temperature stabilizes at 102°F

NOTE: 34AB-T23-003-2, Torus Temperature Above 95°F  
34SO-E11-010-2, RHR System

Based on the above conditions, which ONE of the choices below completes the following statements?

IAW 34AB-T23-003-2, \_\_\_\_\_ RHR loop(s) is(are) REQUIRED to be placed in Torus Cooling.

IAW 34SO-E11-010-2, prior to starting the first RHR pump in any loop, the respective RHR heat exchanger \_\_\_\_\_ REQUIRED to be ISOLATED.

- A. ONLY one (1);  
is
- B. ONLY one (1);  
is NOT
- C. ALL available;  
is
- D. ALL available;  
is NOT

45. 295015AA1.08 001

**Unit 2** is operating at 100% RTP when a scram occurred.

34AB-C71-001-2, Scram Procedure, is entered.

One (1) Control rod remains at Position 48.

Based on the above conditions and IAW 34SO-X75-002-2, Operation Of SPDS Equipment, which ONE of the choices below completes the following statement?

Thirty (30) seconds later, the SPDS "Primary Display" will have the word "SCRAM" in \_\_\_\_\_ letters.

- A. magenta
- B. yellow
- C. orange
- D. red

ILT-13 NRC Exam (RO)

46. 295016AA1.06 001

The Main Control Room has been evacuated.

The **Unit 2** reactor was NOT shutdown prior to leaving the Control Room.

- o Local actions have been taken to scram the reactor
- o ALL RSDP transfer switches have been placed in the EMERGENCY position

Based on the above conditions and IAW 31RS-OPS-001-2, Shutdown From Outside Control Room,

From the Remote Shutdown Panel, \_\_\_\_\_ can be started to control RWL.

RWL can be determined using the indicator on the RSDP located at the 130' elevation Reactor Building \_\_\_\_\_ .

- A. ONLY one CRD pump;  
NORTHEAST
- B. ONLY one CRD pump;  
NORTHWEST
- C. BOTH CRD pumps;  
NORTHEAST
- D. BOTH CRD pumps;  
NORTHWEST

ILT-13 NRC Exam (RO)

47. 295018AA2.05 001

**Unit 2** is operating at 5% power with PSW/RBCCW Hx dP adjusted to 12 psid.

Subsequently, two (2) RBCCW pumps fail and will NOT run.

**NOTE:** 2P41-F491, PSW Outlet Valve From RBCCW Hx  
34SO-P42-001-2, Reactor Building Closed Cooling Water (RBCCW) System

Based on the above conditions, which ONE of the choices below completes the following statements?

Annunciator HX PSW/RBCCW DIFF PRESS LOW, (650-238), \_\_\_\_\_ be ILLUMINATED.

IAW 34SO-P42-001-2, to RETURN the PSW/RBCCW Hx dP to 12 psid, the SO will throttle 2P41-F491 in the \_\_\_\_\_ direction.

- A. will;  
CLOSE
- B. will;  
OPEN
- C. will NOT;  
CLOSE
- D. will NOT;  
OPEN



ILT-13 NRC Exam (RO)

48. 295019AK3.02 001

**Unit 1** is operating at 100% RTP with the following conditions:

- o 1P51-C001C, Station Service Air Compressor (SSAC), is UNAVAILABLE
- o 1P51-C001B, SSAC, is in Standby Auto Operation
- o 1P51-C001A, SSAC, is in Service

Subsequently the 1P51-C001A, SSAC, trips.

34AB-P51-001-1, Loss Of Instrument And Service Air System Or Water Intrusion Into The Service Air System, is entered.

Based on the above conditions, which ONE of the choices below completes the following statements?

The setpoint at which 1P51-C001B, SSAC, will Automatically Start & Load is \_\_\_\_\_ .

IAW 34AB-P51-001-1, one of the reasons 1P51-C001B, SSAC, automatically started is to prevent \_\_\_\_\_ from failing close.

- A. 100 psig;  
1T41-F032A/B, Rx Bldg Isol Dmprs To SBGT,
- B. 100 psig;  
1T41-F011A/B, Rx Bldg Inboard Isol Dmprs,
- C. 107 psig;  
1T41-F032A/B, Rx Bldg Isol Dmprs To SBGT,
- D. 107 psig;  
1T41-F011A/B, Rx Bldg Inboard Isol Dmprs,

ILT-13 NRC Exam (RO)

49. 295021AK3.01 005

**Unit 2** is in Mode 4 with RHR loop "B" operating in Shutdown Cooling (SDC).

Subsequently, a leak occurs resulting in a SDC isolation due to low RWL.

Based on the above conditions and IAW 34AB-E11-001-2, Loss of Shutdown Cooling, which ONE of the choices below completes the following statements?

RWL \_\_\_\_\_ be raised to a MINIMUM of 53 inches.

The desired RWL will be confirmed using RWL instrument \_\_\_\_\_ .

- A. will;  
2B21-R605, Floodup Range
- B. will;  
2C32-R606A, Narrow Range
- C. will NOT;  
2B21-R605, Floodup Range
- D. will NOT;  
2C32-R606A, Narrow Range

ILT-13 NRC Exam (RO)

50. 295022AA2.03 001

**Unit 2** is operating at 100% RTP with HPCI Danger tagged out of service.

Subsequently, Drywell pressure rises to 2.2 psig.

Based on the above conditions and NO Operator actions,

FINAL CRDM temperatures are expected to \_\_\_\_\_ .

- A. significantly rise ( $>100^{\circ}\text{F}$ )
- B. significantly lower ( $>100^{\circ}\text{F}$ )
- C. slightly rise ( $<10^{\circ}\text{F}$ )
- D. slightly lower ( $<10^{\circ}\text{F}$ )

51. 295023AA2.02 005

Fuel movement is in progress on **Unit 1**.

The following currently exists:

- o A fuel bundle is on the Main Grapple
- o The Main Grapple is in the Normal Up position
- o Spent Fuel Storage Pool Water Level is 22.5 feet

At 12:00,

The **Unit 1** Main Steam line plugs fail causing the Reactor Cavity and Fuel Pool water levels to lower at 6 inches/minute.

Based on the above plant conditions, which ONE of the choices below completes the following statements?

IAW LCO TS 3.7.8, Spent Fuel Storage Pool Water Level, the EARLIEST listed time that entry into a Required Action Statement (RAS) for Spent Fuel Storage Pool Water Level is \_\_\_\_\_ .

When water level drops to the Main Steam lines, the fuel seated in the Fuel Pool racks will \_\_\_\_\_ .

- A. 12:02;  
be uncovered
- B. 12:02;  
still be covered
- C. 12:04;  
be uncovered
- D. 12:04;  
still be covered

ILT-13 NRC Exam (RO)

52. 295024G2.4.8 001

**Unit 1** is being shutdown for a refueling outage.

The following events occur:

<u>Time</u>	<u>Event</u>
07:30	4160 VAC 1G de-energizes and can NOT be restored
08:00	The Reactor Mode Switch is placed in SHUTDOWN due to Drywell pressure rising to 3.5 psig
15:00	Reactor Coolant temperature is reduced to 211°F
23:00	The Reactor Mode Switch is placed in REFUEL

Based on the above conditions and IAW 34AB-R23-001-1, Loss of 600 Volt Emergency Bus, which ONE of the choices below completes the following statement?

The EARLIEST time that the 4160/600V 1CD Transformer can be used to supply power to 600 VAC 1D is \_\_\_\_\_ .

- A. 07:30
- B. 08:00
- C. 15:00
- D. 23:00

ILT-13 NRC Exam (RO)

53. 295025EK2.06 001

31EO-EOP-107-2, Alternate RPV Pressure Control, is in progress.

- o RPV pressure 1060 psig and slowly rising
- o HPCI system is aligned in Pressure Control Mode
- o 2E41-R612, HPCI flow controller is in AUTOMATIC with the setpoint at 2500 gpm

Based on the above conditions and IAW 31EO-EOP-107-2, which ONE of the choices below completes the following statement?

To stabilize RPV pressure, the operator will \_\_\_\_\_ .

- A. throttle 2E41-F011, Test to CST VLV, in the OPEN direction
- B. throttle 2E41-F011, Test to CST VLV, in the CLOSE direction
- C. LOWER the setpoint on 2E41-R612, HPCI flow controller
- D. RAISE the setpoint on 2E41-R612, HPCI flow controller

ILT-13 NRC Exam (RO)

54. 295026EK1.02 001

**Unit 2** is operating at 100% RTP when a leak occurs inside the Drywell (DW).

Based on the above condition, which ONE of the choices below completes the following statements?

Steam condensation from the leak will cause Torus water temperature to heat up \_\_\_\_\_ .

IAW 31EO-EOP-012-2, PC Primary Containment Control, the LOWEST listed Torus temperature requiring entry into RC Point A of 31EO-EOP-010-2, RC RPV Control (NON-ATWS), is \_\_\_\_\_ .

- A. uniformly throughout the Torus due to the design of the downcomers;  
111°F
- B. uniformly throughout the Torus due to the design of the downcomers;  
101°F
- C. directly under the area of the DW leak due to the energy being distributed directly to the Torus water in that area;  
111°F
- D. directly under the area of the DW leak due to the energy being distributed directly to the Torus water in that area;  
101°F

55. 295028EK1.02 001

**Unit 2** experienced a loss of Instrument Air.

The following conditions exist:

- o Reactor power                    3%
- o RPV Pressure                    1110 psig, slowly rising
- o RWL                                -110 inches, stable
- o ADS Inhibit Switches        INHIBIT position
- o RHR pumps                        ONLY 2A running
- o Drywell (DW) Pressure       3.0 psig, rising at 0.5 psi/minute
- o DW Temperature                370°F, slowly rising

After the above conditions have existed for ten (10) minutes, the NPO places the ADS "INHIBIT" switches to the "NORMAL" position and NONE of the ADS valves OPEN.

Based on the conditions above, the MOST likely listed reason the ADS valves did NOT open is that \_\_\_\_\_ .

- A. Instrument Air to the ADS valves has been lost
- B. DW Temperature is above the design criteria
- C. only one RHR pump is in operation
- D. the required timer is still timing



56. 295030EK2.01 001

An event has occurred on **Unit 1**.

At 10:00, plant parameters are:

- o Torus Water Level ..... 148 inches
- o Torus Water Temperature ..... 228.5°F rising, SPDS trend (0.10 degrees/minute)
- o Torus Pressure ..... 12 psig

The following occurs at the listed times;

At 10:00, HPCI is injecting at 2500 gpm

At 10:10, HPCI flow is RAISED to 3000 gpm

At 10:15, Torus level LOWERS to 144 inches

At 10:20, Torus pressure LOWERS to 1.0 psig due to Drywell Sprays

Based on the above conditions, which ONE of the choices below completes the following statement?

The EARLIEST listed time that entry into the UNSAFE area of the HPCI Pump NPSH Limit Graph is at \_\_\_\_\_ .

**Reference Provided**

- A. 10:00
- B. 10:10
- C. 10:15
- D. 10:20

ILT-13 NRC Exam (RO)

57. 295031EK1.01 001

**Unit 2** was operating at 100% RTP when a LOCA occurred.

- o An Emergency Depressurization has been completed
- o Core Spray pump 2A is the ONLY pump available for injection
- o Core Spray pump 2A is injecting at 3300 gpm

Based on the above conditions and IAW 31EO-EOP-010-2, RC (Non-ATWS), RC/L Path, which ONE of the choices below completes the following statement?

The LOWEST listed RWL at which Adequate Core Cooling is ASSURED is \_\_\_\_\_ .

- A. -180 inches
- B. -190 inches
- C. -205 inches
- D. -208 inches

ILT-13 NRC Exam (RO)

58. 295033G2.1.28 001

An emergency has been declared on **Unit 2**.

Radiation levels in the Reactor Building are averaging 100 mr/Hr.

The OSC & the TSC are manned.

Subsequently, one (1) **Unit 2** Turbine Building Exhaust fan is placed on it's alternate power supply.

The crew has restarted the Turbine Building Ventilation System IAW 31EO-EOP-014-2, SC Secondary Containment Control - RR Radioactivity Release Control, using 34SO-U41-001-2, Turbine Building Ventilation System, Section 4.3.10.

Based on the conditions above and IAW 34SO-U41-001-2, which ONE of the choices below completes the following statements?

Alternate power to the Turbine Building Ventilation Exhaust Fans is from \_\_\_\_\_ .

The reason the Turbine Building Ventilation Exhaust Fans were restarted is to maintain the radiological habitability of the \_\_\_\_\_ within limits.

- A. 2R24-S011, Reactor Building 600/208 VAC MCC 2C;  
Main Control Room (MCR)
- B. 2R24-S011, Reactor Building 600/208 VAC MCC 2C;  
Operation Support Center (OSC)
- C. 2R24-S012, Reactor Building 600/208 VAC MCC 2B;  
Main Control Room (MCR)
- D. 2R24-S012, Reactor Building 600/208 VAC MCC 2B;  
Operation Support Center (OSC)

ILT-13 NRC Exam (RO)

59. 295035EK3.02 001

**Unit 2** is operating at 100% RTP with the following alignment:

- |  |         |
|--|---------|
| o 2T41-C001A, Rx Bldg Supply Fan       | Running |
| o 2T41-C001B, Rx Bldg Supply Fan       | Standby |
| o 2T41-C007A, Rx Bldg Vent Exhaust Fan | Running |
| o 2T41-C007B, Rx Bldg Vent Exhaust Fan | Standby |

Subsequently, the shaft on the running, 2T41-C007A, Rx Bldg Vent Exhaust Fan, breaks.

Based on the above conditions and IAW 34SO-T41-005-2, Reactor Building Ventilation System, which ONE of the choices below completes the following statement?

The Reactor Building dP will \_\_\_\_\_ .

- A. remain relatively the same since the standby 2T41-C007B automatically started
- B. remain relatively the same since 2T41-C001A tripped, 2T41-C001B and 2T41-C007B have automatically started
- C. trend towards 0 inches water since the inservice 2T41-C001A automatically tripped
- D. trend towards 0 inches water since the standby 2T41-C007B did NOT automatically start

ILT-13 NRC Exam (RO)

60. 295037EK3.03 001

**Unit 2** was operating at 100% RTP when an ATWS occurred.

RC-1 actions are completed.

Reactor power stabilizes at 8% RTP.

Which ONE of the choices below completes the following statements?

Based on the above conditions, the Recirc pumps are \_\_\_\_\_ .

During performance of 31EO-EOP-017-2, CP-3 ATWS LEVEL Control, a mitigating strategy for RWL control is to ensure \_\_\_\_\_ .

- A. tripped;  
core inlet subcooling is LOWERED
- B. tripped;  
core void fraction is RAISED
- C. operating at minimum speed;  
core inlet subcooling is LOWERED
- D. operating at minimum speed;  
core void fraction is RAISED

ILT-13 NRC Exam (RO)

61. 295038EA2.01 001

The following annunciator on **Unit 1** is in the ALARMED condition:

- o SERVICE WATER EFFLUENT RADIATION HIGH, 601-407

Subsequently, the Offsite release from this flowpath results in an Unusual Event (RU1) being declared.

Based on the above conditions, which ONE of the choices below completes the following statements?

The flowpath containing this alarm \_\_\_\_\_ AUTOMATICALLY isolate due to this High radiation signal.

Currently, an entry condition into the Radioactivity Release Control (RR) portion of 31EO-EOP-014-1 \_\_\_\_\_ exist.

- A. will;  
does NOT
- B. will;  
does
- C. will NOT;  
does NOT
- D. will NOT;  
does

ILT-13 NRC Exam (RO)

62. 300000A2.01 005

**Unit 2** is operating at 100% RTP when the following occurs:

- o INSTR AIR DRYERS MALFUNCTION, 700-205, ILLUMINATED
- o INSTR AIR DRYERS SYS PRESS LOW, 700-219, ILLUMINATED
- o Non-Essential Instrument Air Header pressure is 45 psig

Based on the above conditions,

The Non-Essential Instrument Air Header Isolation Valve, 2P52-F015, is \_\_\_\_\_ .

Entry into 34AB-P51-001-2, Loss of Instrument and Service Air System or Water Intrusion into the Service Air System, \_\_\_\_\_ REQUIRED.

- A. open;  
is
- B. open;  
is NOT
- C. closed;  
is
- D. closed;  
is NOT

63. 400000K4.01 001

**Unit 2** is operating at 50% RTP.

Subsequently, one (1) RBCCW pump trips.

Based on the above conditions and IAW 34AB-P42-001-2, Loss Of Reactor Building Closed Cooling Water, the Standby RBCCW pump will receive an automatic start signal on RBCCW System \_\_\_\_\_ low.

A Standby RBCCW pump automatic start signal \_\_\_\_\_ when the condition clears.

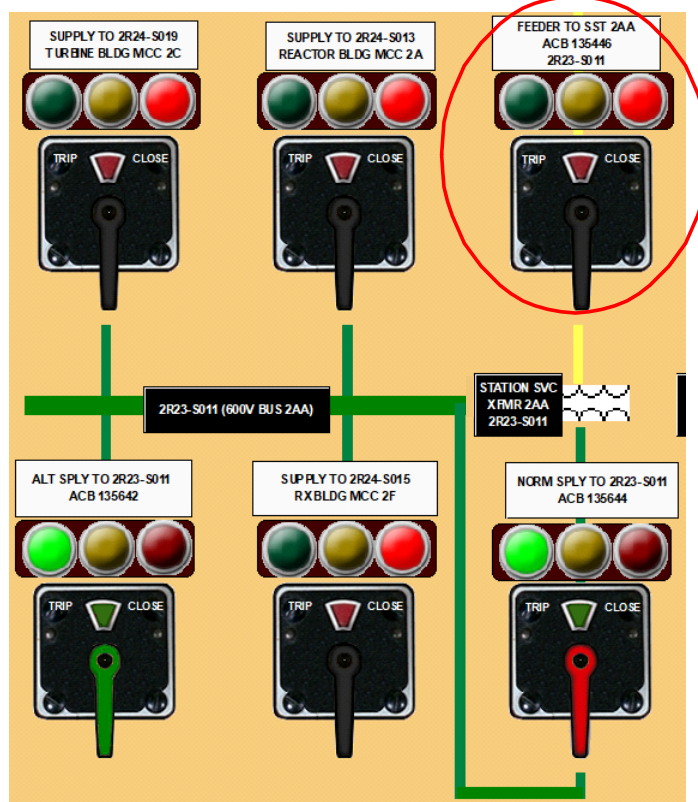
- A. flow;  
will automatically reset
- B. flow;  
must be manually reset
- C. pressure;  
will automatically reset
- D. pressure;  
must be manually reset



ILT-13 NRC Exam (RO)

64. 600000AK2.04 010

Unit 2 is operating at 100% RTP when 2R23-S011, 600V Bus 2AA, is involved in a fire.



Based on the above conditions, which ONE of the choices below completes both statements?

I AW 34AB-X43-001-2, Fire Procedure, the breaker indicated above (ACB 135446) \_\_\_\_\_ REQUIRED to be OPEN.

After 600V Bus 2AA is de-energized, the fire brigade will suppress the fire at the Unit 2 \_\_\_\_\_ elevation.

- A. is;  
Control Building 130 foot
- B. is;  
Turbine Building 147 foot
- C. is NOT;  
Control Building 130 foot
- D. is NOT;  
Turbine Building 147 foot

ILT-13 NRC Exam (RO)

65. 700000AA1.03 001

**BOTH UNITS** are operating at 100% RTP.

Following a grid disturbance, the following **Unit 1** conditions exist:

- o Generator Megavars + 400 MVARs
- o 230 KV switchyard voltage 231 KV and LOWERING

The crew enters 34AB-S11-001-0, Operation with Degraded System Voltage.

Based on the above conditions and IAW 34AB-S11-001-0, Operation With Degraded Voltage, which ONE of the choices below completes the following statements?

To adjust Reactive load (VARs) to + 300 MVARs, the operator will select from the HMI Screen \_\_\_\_\_ and depress LOWER.

If the 230 KV switchyard voltage trend continues, 4160 VAC Bus 1E \_\_\_\_\_ to its associated EDG.

- A. PSI-LOAD then LOAD SET;  
will AUTOMATICALLY transfer
- B. PSI-LOAD then LOAD SET;  
must be MANUALLY transferred
- C. EX2100 then REGULATOR ADJUST;  
will AUTOMATICALLY transfer
- D. EX2100 then REGULATOR ADJUST;  
must be MANUALLY transferred

ILT-13 NRC Exam (RO)

66. G2.1.41 001

IAW 34FH-OPS-001-0, Fuel Movement Operation, which ONE of the choices below completes the following statements?

IF, during fuel movement, it is found that conditions have changed such that any of the prerequisites of this procedure are no longer satisfied, \_\_\_\_\_ has the authority to halt fuel movement.

Prior to halting fuel movement, the bundle will be placed in the Spent Fuel Pool or, if possible, placed in \_\_\_\_\_ .

- A. ONLY the Refueling SRO;  
its proper "in-core" location
- B. ONLY the Refueling SRO;  
any possible location in the RPV
- C. ANY MEMBER of the refueling team;  
its proper "in-core" location
- D. ANY MEMBER of the refueling team;  
any possible location in the RPV

ILT-13 NRC Exam (RO)

67. G2.1.8 005

**Unit 2** is operating at 25% RTP with the need to change Recirc Pump 2A speed LOCALLY.

Which ONE of the choices below describes the MINIMUM qualification and the coordination requirements for changing Recirc Pump "A" speed locally?

IAW NMP-OS-007-001, Conduct of Operations Standards and Expectations, a \_\_\_\_\_ can perform the LOCAL speed adjustment while under the direction and in the presence of an ACTIVE Licensed Operator.

At the current power level and IAW 34SO-B31-001-2, Reactor Recirculation, while local speed adjustments are being made, communication with the Control Room \_\_\_\_\_ REQUIRED.

- A. System Operator In Training (SOIT);  
is
- B. System Operator In Training (SOIT);  
is NOT
- C. Nuclear Plant Operator In Training (NPOIT);  
is
- D. Nuclear Plant Operator In Training (NPOIT);  
is NOT

68. G2.2.22 001

A LOCA has occurred on **Unit 2**.

- o RWL -15 inches and LOWERING

At 11:00, RWL lowers to -156 inches.

At 11:15, RWL lowers to -181 inches.

At 11:20, RWL lowers to -196 inches.

At 11:25, RWL lowers to -208 inches.

Based on the above conditions and IAW Tech Specs,

The EARLIEST listed time a SAFETY LIMIT violation FIRST occurred is \_\_\_\_\_ .

- A. 11:00
- B. 11:15
- C. 11:20
- D. 11:25

ILT-13 NRC Exam (RO)

69. G2.2.35 001

**Unit 1** is in a refueling outage making preparations for startup.

- o The Reactor Mode Switch is in the SHUTDOWN position
- o Reactor Coolant temperature is 170°F
- o ALL, except for one (1), of the reactor vessel head bolts are FULLY tensioned

Based on the above conditions and IAW Technical Specifications, which ONE of the choices below completes the following statements?

Currently, the unit is in \_\_\_\_\_ .

With ALL of the reactor vessel head bolts fully tensioned AND the Reactor Mode Switch in REFUEL, the unit will be in \_\_\_\_\_ .

- A. Mode 4;  
Mode 2
- B. Mode 4;  
Mode 5
- C. Mode 5;  
Mode 2
- D. Mode 5;  
Mode 5

ILT-13 NRC Exam (RO)

70. G2.2.42 001

IAW **Unit 1** Tech Specs, which ONE of the choices below completes the following statement?

A **Unit 1** Tech Spec LCO condition that will REQUIRE entry into a Required Action Statement (RAS) (NOT A TRACKING RAS) is \_\_\_\_\_ .

- A. RCIC is inop in Mode 3 with reactor steam dome pressure at 100 psig
- B. Suppression Pool water level is 149.5 inches in Mode 1
- C. Reactor steam dome pressure is 1052 psig in Mode 1
- D. Drywell pressure is 1.80 psig in Mode 2

ILT-13 NRC Exam (RO)

71. G2.3.11 001

**Unit 2** Radwaste is discharging Waste Sample Tank A to the canal.

Subsequently, the following indication is received:

- o 2G11-R045, Total Plant Dilution Flow, recorder indicates 9500 gpm

Based on the above conditions, which ONE of the choices below completes the following statements?

The Radwaste discharge to the canal \_\_\_\_\_ .

With the existing Specific Release Permit, \_\_\_\_\_ permitted to restart the discharge of Waste Sample Tank A to the canal.

- A. will automatically terminate;  
ONLY one (1) restart is
- B. will automatically terminate;  
NO restarts are
- C. must be manually terminated;  
ONLY one (1) restart is
- D. must be manually terminated;  
NO restarts are



72. G2.3.12 001

IAW 31GO-OPS-005-0, Primary Containment Entry,

The MAXIMUM reactor power at which radiological conditions will allow a NORMAL Primary Containment Entry to occur is \_\_\_\_\_ .

- A. IRM Range 5
- B. 7% RTP
- C. 10% RTP
- D. 13% RTP

ILT-13 NRC Exam (RO)

73. G2.3.4 001

**Unit 2** was operating at 100% RTP when an event occurred that resulted in minor fuel failure.

RCIC and HPCI have tripped..

A NPO is being dispatched to maximize CRD flow and monitor CRD operation locally.

The NPO has a current annual TEDE dose exposure of 1500 mrem.

The following general area radiation levels exist:

- o U2 NE Diagonal 800 mrem/hr
- o U2 NW Diagonal 1000 mrem/hr
- o U2 SE Diagonal 1200 mrem/hr
- o U2 SW Diagonal 1400 mrem/hr

Based on the above conditions and IAW NMP-HP-001, Radiation Protection Standard Practices,

Assuming NO extensions are approved and WITHOUT exceeding the Hatch TEDE Administrative limit, the MAXIMUM listed STAY time for the NPO in the CRD Diagonal, is \_\_\_\_\_ .

- A. 36 minutes
- B. 29 minutes
- C. 24 minutes
- D. 20 minutes

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74. G2.4.16 010

**Unit 2** has experienced a complete Loss Of Offsite Power (LOSP).

The following conditions exist on Unit 2:

- o ONLY 4160 VAC bus 2E is energized
- o Drywell pressure is currently 2.0 psig and rising 0.1 psig per minute
- o RWL is -5 inches slowly rising
- o RC-1, RC-2, & RC-3 are complete

Based on the above conditions, which ONE of the choices below completes the following statement?

Actions in \_\_\_\_\_ takes precedence over actions in any other procedure.

- A. 34AB-R22-003-2, Station Blackout
- B. 34AB-R22-002-2, Loss of 4160V Emergency Bus
- C. 31EO-EOP-010-2, RC (Non-ATWS) flowchart
- D. 31EO-EOP-012-2, Primary Containment (PC) flowcart

ILT-13 NRC Exam (RO)

75. G2.4.3 001

Which ONE of the choices below completes the following statement concerning the **Unit 2** SRV control switches?

A \_\_\_\_\_ dot has been placed above the SRV control switches to indicate that \_\_\_\_\_ .

- A. yellow;  
this valve is on the Post-Accident Monitoring (PAM) Instrumentation list
- B. yellow;  
this valve is on the Technical Requirements Manual (TRM) Master Equipment Cross Reference list
- C. blue;  
this valve is on the Post-Accident Monitoring (PAM) Instrumentation list
- D. blue;  
this valve is on the Technical Requirements Manual (TRM) Master Equipment Cross Reference list

**You have completed the test!**

# **NRC RO REFERENCES**

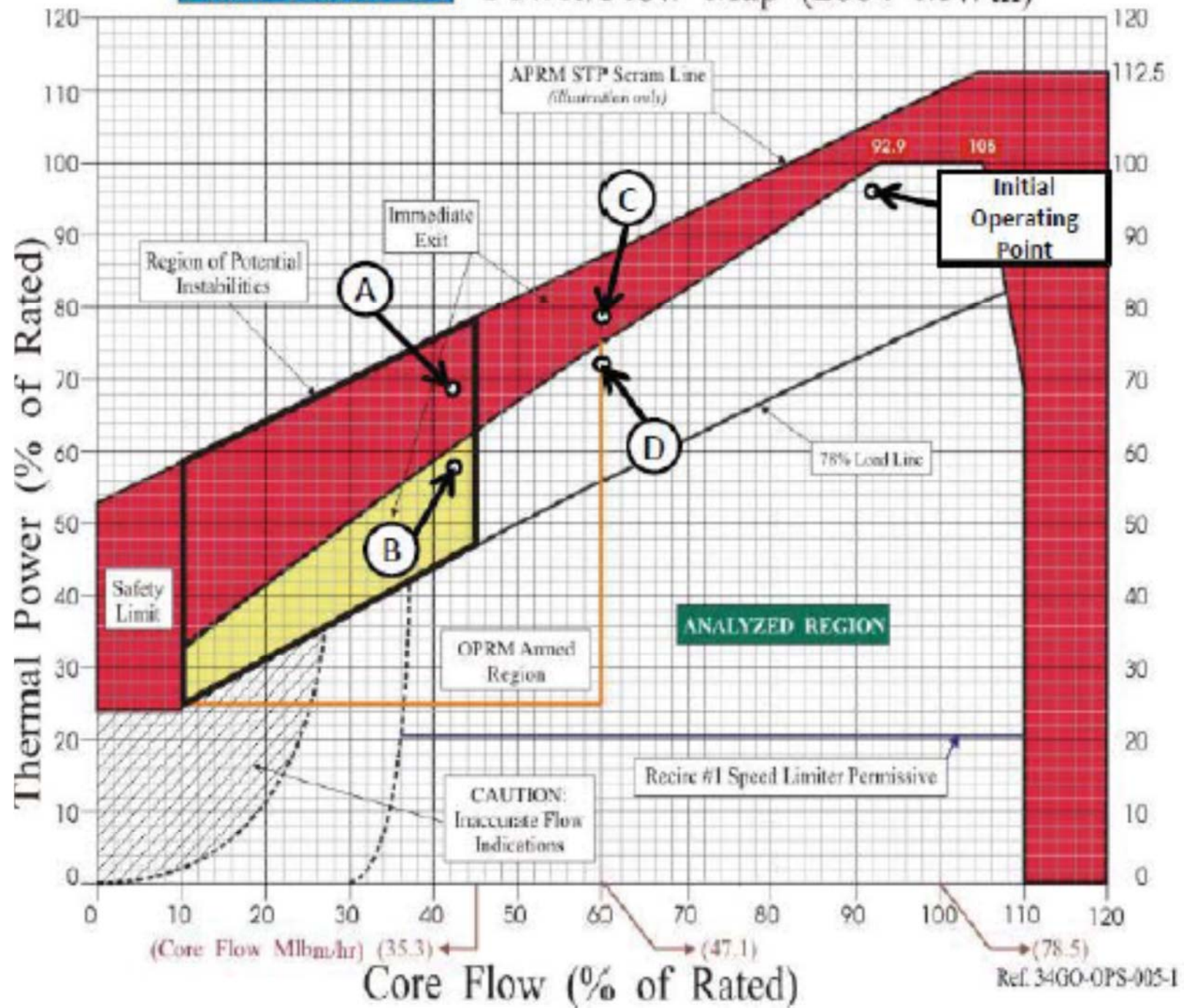
## **RO EXAM**

1. 2H11-P602, Annunciator Indications, Graphic
2. 34GO-OPS-005-1, Power Changes, Att. 1 Power to Flow Map
3. Unit 1 EOP Graphs 17A & 17B

RCIC TURBINE TRIP	RCIC STEAM LINE DIFF PRESS HIGH	RCIC ISOL TIMER INITIATED	RCIC TURBINE BRG OIL PRESS LOW	ADS LOW WATER LVL ACTU TIMERS INITIATED	AUTO BLOWDOWN TIMERS INITIATED
RCIC ISOLATION SIGNAL LOGIC A	RCIC TURBINE INLET DRAIN POT LEVEL HIGH	RCIC VALVES MOTOR OVERLOAD	RCIC TURBINE COUPLING END BRG TEMP HIGH	SAFETY BLOWDOWN PRESSURE HIGH	AUTO BLOWDOWN CS OR RHR PRESS PERMISSIVE
RCIC ISOLATION SIGNAL LOGIC B	RCIC TURBINE EXH DIAPHRAGM PRESS HIGH	RCIC PUMP SUCT PRESS LOW	RCIC TURBINE GOV END BRG TEMP HIGH	AUTO BLOWDOWN CONTROL POWER FAILURE	AUTO BLOWDOWN RELAYS ENERGIZED
RCIC INVERTER K603 POWER FAILURE	RCIC TURB EXH PRESS HIGH	RCIC PUMP SUCT PRESS HIGH	RCIC PUMP DISCHARGE FLOW LOW	AUTO BLOWDOWN TEST PROCEDURE FAULTY	AUTO BLOWDOWN HIGH DRWL PRESS SEAL-IN
RCIC LOGIC OR TORUS LVL LOGIC POWER FAILURE	RCIC VAC BRKR VALVES NOT FULLY OPEN	RCIC BARON CND SR LEVEL HIGH	RCIC BAROM CND SR PRESS HIGH	AUTO BLOWDOWN IN TEST STATUS	RCIC SYSTEM HIGH VESSEL LEVEL TRIP
RCIC LEAK DET LOGIC POWER FAILURE	RCIC OIL FILTER DIFF PRESS HIGH	RCIC BARON CND SR LEVEL LOW	RCIC TURBINE IN TEST STATUS	ADS INHIBIT SWITCH(ES) IN INHIBIT POSITION	RCIC ISOLATION VLV F007/F008 NOT FULLY OPEN

**P602-3**

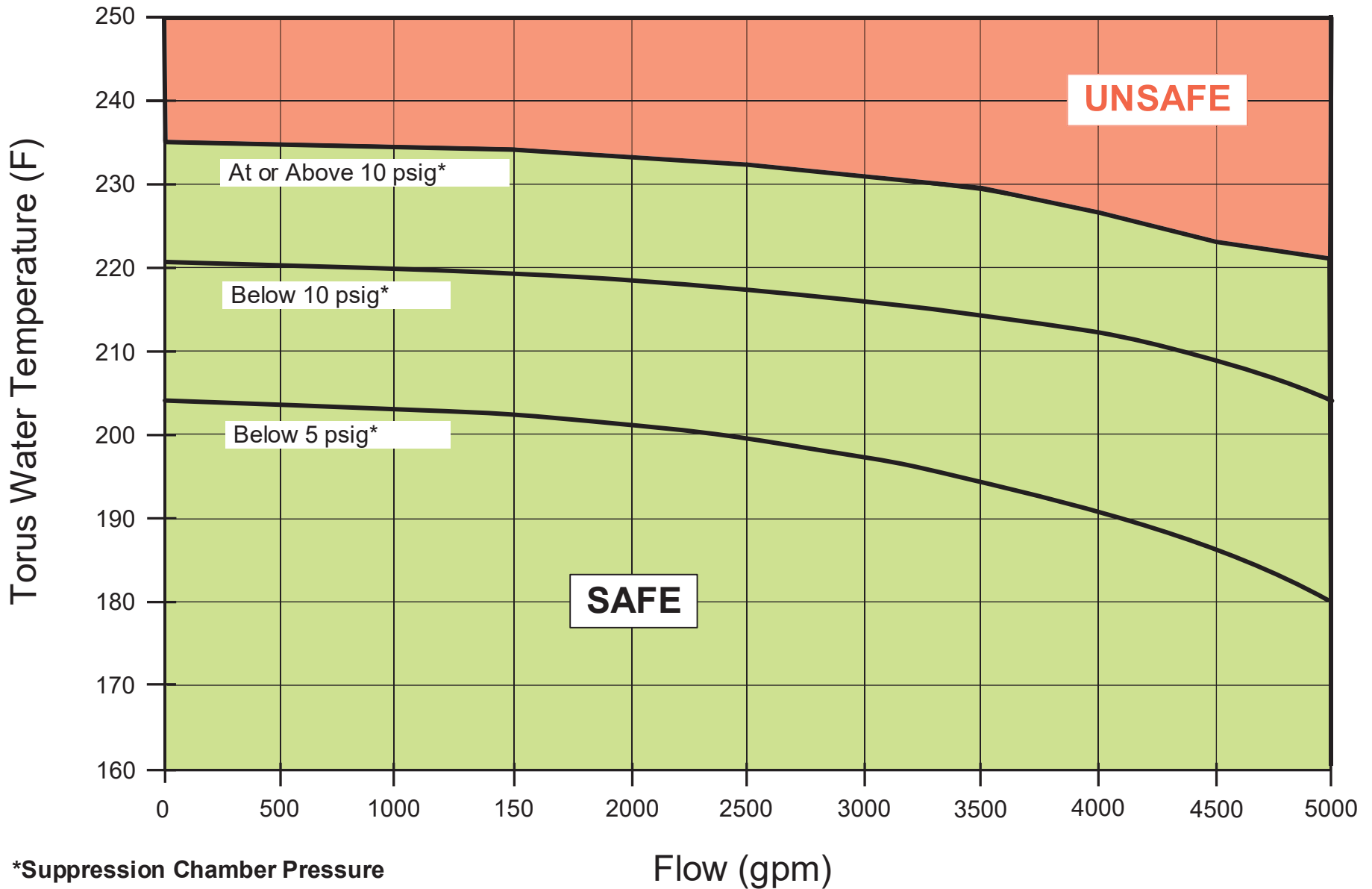
# Plant Hatch U1 Power/Flow Map (2804 MWth)



**GRAPH 17A**

# HPCI Pump NPSH Limit (Torus Water level at or Above 146")

**UNIT 1**



\*Suppression Chamber Pressure

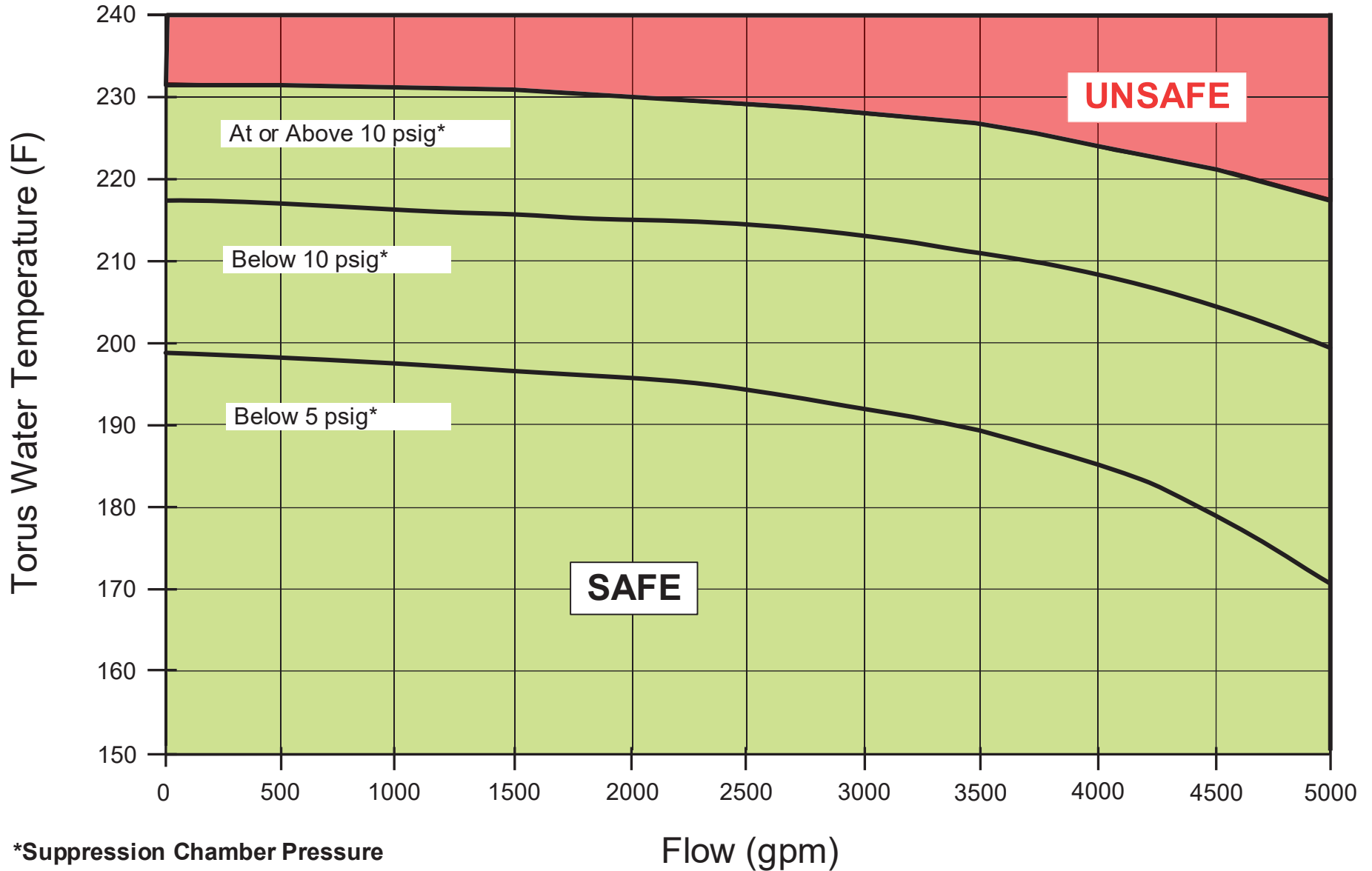
Note: May use SPDS in place of this Graph



**GRAPH 17B**

# HPCI Pump NPSH Limit (Torus Water level Below 146")

**UNIT 1**



**\*Suppression Chamber Pressure**

Note: May use SPDS in place of this Graph

**ANSWER KEY REPORT**  
for ILT-13 NRC Exam (RO) Test Form: 0

#	ID	Answers
1	212000K1.06 1	D
2	202001A3.09 1	D
3	202002K4.05 1	A
4	203000K6.03 5	A
5	205000A4.12 10	C
6	206000K4.17 1	B
7	209001K3.02 5	D
8	211000K1.01 5	C
9	201006A4.05 10	A
10	212000K2.01 1	B
11	215001G2.1.31 1	B
12	215003A3.03 1	C
13	215003K2.01 1	D
14	215004K5.03 1	C
15	215005K2.02 1	D
16	217000A1.08 1	B
17	218000K3.01 1	D
18	223002K6.03 5	B
19	226001K1.05 1	B
20	230000K2.02 1	B
21	239001K5.05 1	D
22	239002A2.01 1	D
23	239002K5.06 1	D
24	245000K5.03 1	D
25	259002A3.04 1	A
26	261000A4.07 1	A
27	262001G2.4.1 10	A
28	262002A3.01 10	B
29	262002G2.1.32 5	A
30	263000A1.01 1	C
31	263000G2.4.31 1	B
32	264000K5.05 1	C
33	268000K3.04 1	D
34	271000A1.01 10	A
35	288000A2.05 5	B
36	290001K6.03 1	D
37	295001AK1.02 1	A
38	295003G2.4.6 1	C
39	295004AK3.02 1	B
40	295005AA1.07 1	C
41	295006G2.4.4 5	A
42	295007AK2.06 1	D
43	295008AK1.01 1	A
44	295013AK2.01 1	D
45	295015AA1.08 1	D
46	295016AA1.06 1	B
47	295018AA2.05 1	D

**ANSWER KEY REPORT**  
for ILT-13 NRC Exam (RO) Test Form: 0

#	ID	Answers
48	295019AK3.02 1	B
49	295021AK3.01 5	A
50	295022AA2.03 1	A
51	295023AA2.02 5	D
52	295024G2.4.8 1	B
53	295025EK2.06 1	D
54	295026EK1.02 1	A
55	295028EK1.02 1	B
56	295030EK2.01 1	C
57	295031EK1.01 1	A
58	295033G2.1.28 1	A
59	295035EK3.02 1	D
60	295037EK3.03 1	A
61	295038EA2.01 1	C
62	300000A2.01 5	C
63	400000K4.01 1	C
64	600000AK2.04 10	B
65	700000AA1.03 1	C
66	G2.1.41 1	C
67	G2.1.8 5	C
68	G2.2.22 1	A
69	G2.2.35 1	C
70	G2.2.42 1	D
71	G2.3.11 1	A
72	G2.3.12 1	C
73	G2.3.4 1	D
74	G2.4.16 10	A
75	G2.4.3 1	A