

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

Name:

Date:

Facility/Unit – Hatch Units 1 &amp; 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-12 NRC Exam (RO)

Form: 0

Version: 0

1.

Which ONE of the choices below completes the following statement?

The power supply to the **Unit 2** Alternate Rod Insertion (ARI) solenoids is 125V DC CABINET \_\_\_\_\_ .

A. 2C, 2R25-S003

B. 2D, 2R25-S004

C. 2E, 2R25-S005

D. 2F, 2R25-S006

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2.

The **Unit 2** is operating at 90% RTP during a control rod exercise with the following condition:

- o Control rod 10-39 is to be inserted from position 48 to 46

Subsequently, when Control rod 10-39 is given a notch insert signal, it double notches to position 44.

Based on the above conditions and IAW 34GO-OPS-065-0, Control Rod Movement,

The operator is REQUIRED to notify the Operating Shift team and \_\_\_\_\_ .

Entry into 34AB-C11-004-2, Mispositioned Control Rods, \_\_\_\_\_ REQUIRED.

- A. leave Control rod 10-39 at position 44;  
is
- B. leave Control rod 10-39 at position 44;  
is NOT
- C. move Control rod 10-39 to position 46;  
is
- D. move Control rod 10-39 to position 46;  
is NOT

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3.

On **Unit 2**, a coupling check is being performed on Control rod 38-27 when the following occurs:

- o ROD OVERTRAVEL, 603-248-2, ALARMS

Which ONE of the choices below completes the following statements for Control rod 38-27?

The Position indication on the Four-Rod display \_\_\_\_\_ be BLANK.

The Red Full-Out light will be \_\_\_\_\_ .

- A. will NOT;  
illuminated
- B. will NOT;  
extinguished
- C. will;  
illuminated
- D. will;  
extinguished

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4.

**Unit 2** is in MODE 3 with RHR pump 2A in Shutdown Cooling with the following conditions:

- o RHR Pump 2A Running in SDC Mode
- o RHRSW Pump 2A Running
- o 2E11-R608A, RHR A Flow Recorder, 7,700 gpm

**At 13:00**, plant conditions are:

|                  |           |
|------------------|-----------|
| RWL              | 20 inches |
| RPV pressure     | 50 psig   |
| Drywell pressure | 2.0 psig  |

Based on the above conditions and without any operator actions, which ONE of the choices below completes the following statements?

**At 13:10**,

RHR Pump 2A \_\_\_\_\_ automatically align to the Suppression Pool.

2E11-R608A, RHR A Flow Recorder, will indicate \_\_\_\_\_ .

- A. will;  
(0) zero gpm
- B. will;  
7,700 gpm or greater
- C. will NOT  
(0) zero gpm
- D. will NOT;  
7,700 gpm or greater

5.

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

- o A loss of RPS Bus A occurs

Based on the above conditions,

The PCIS Group that will have an isolation valve to automatically change position is  
PCIS \_\_\_\_\_ .

- A. Group 3
- B. Group 4
- C. Group 5
- D. Group 6

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6.

**Unit 2** has been shutdown for a refueling outage.

- o Reactor is in Mode 4
- o RHR loop B is in Shutdown Cooling
- o Power history is 32 EFPY

At 12:00, a RHR Loop B valve was adjusted to raise the cooldown rate IAW 34SO-E11-010-2, Residual Heat Removal, Section 4.2.4, Shutdown Cooling in Conditions 4, 5.

- o RPV Head Flange Metal temperature is 108°F and lowering 20°F per hour

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

At 12:00, the valve adjusted was \_\_\_\_\_ .

IAW the **Unit 2** Pressure and Temperature Limits Report, the EARLIEST listed time that the RPV Head Flange temperature will be BELOW the MINIMUM allowed RPV Metal temperature is \_\_\_\_\_ .

**Reference Provided**

- A. 2E11-F015B, RHR Inboard valve;  
13:00
- B. 2E11-F015B, RHR Inboard valve;  
14:00
- C. 2E11-F003B, Hx Outlet valve  
13:00
- D. 2E11-F003B, Hx Outlet valve  
14:00

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7.

**Unit 2** is in Mode 4 with RHR Loop B in Shutdown cooling (SDC).

The following conditions exist:

- o RWL Band assigned 34 inches to 59 inches (corrected)
- o RWL 50 inches (2C32-R606A-C, Narrow Range RWL)
- o RHR SDC Flow Band 6200 gpm to 8200 gpm
- o RHR SDC flow 7000 gpm (2E11-R603B)
- o Recirc pump 2A In service

Subsequently, Recirc pump 2A trips.

Based on the above conditions and IAW 34SO-E11-010-2, Residual Heat Removal System,

After Recirc pump 2A trips, \_\_\_\_\_ .

- A. the LOWEST allowable RWL is 34 inches (corrected)
- B. RWL must be raised to 54 inches indicated on 2C32-R606A-C
- C. the LOWEST allowable RHR SDC flow 7000 GPM
- D. RHR SDC flow must be raised to 7800 gpm



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8.

IAW 34SO-E41-001-2, High Pressure Coolant Injection System, which ONE of the choices below completes the following statements?

When Attachment 9, HPCI System Fill and Vent, is being performed, HPCI is required to be aligned to the \_\_\_\_\_ .

When Section 7.4.6, Swapping HPCI Suction Source, is performed to align the HPCI suction to the Torus, a compensatory action is required to monitor pump \_\_\_\_\_ once per shift.

- A. Condensate Storage Tank;  
suction pressure
- B. Condensate Storage Tank;  
discharge pressure
- C. Torus;  
suction pressure
- D. Torus;  
discharge pressure

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9.

**Unit 2** was operating at 100% RTP when a transient occurred during which Core Spray received a valid auto start signal.

Subsequently, when RPV pressure reaches 440 psig, 600VAC bus 2D DE-ENERGIZES.

RPV pressure is lowering at a constant rate of 10 psig/minute.

Two (2) minutes after 600VAC bus 2D DE-ENERGIZES,

2E21-F005A, Inboard Injection Vlv, \_\_\_\_\_ be open.

2E21-F005B, Inboard Injection Vlv, \_\_\_\_\_ be open.

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

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10.

**Unit 2** experiences an ATWS condition.

IAW 34SO-C41-003-2, Standby Liquid Control System, the OATC places the SBLC Pump Selector Switch, on panel 2H11-P603, to the PUMP A position.

The lowest RWL during the ATWS is 9 inches.

Based on the above conditions,

2G31-F042, RWCU Return Isolation valve, will \_\_\_\_\_ .

2G31-F004, RWCU OUTBOARD valve, will \_\_\_\_\_ .

- A. automatically close;  
remain open
- B. automatically close;  
automatically close
- C. remain open;  
remain open
- D. remain open;  
automatically close

11.

**Unit 2** is shutting down for a refueling outage.

The Reactor Mode switch is in RUN with the following indications:

- o APRM A            12.5%
- o APRM B            13.5%
- o APRM C            12.0%
- o APRM D            14.0%

Based on the above conditions, which ONE of the choices below completes the following statements if the Reactor Mode switch is transferred to the START & HOT STBY position?

The TOTAL number of white Scram Group lights EXTINGUISHED on Panel 2H11-P603 is \_\_\_\_\_ .

The RPS auto-trip setpoint is EXCEEDED on \_\_\_\_\_ .

- A. four (4);  
one (1) APRM
- B. four (4);  
two (2) APRMs
- C. eight (8);  
two (2) APRMs
- D. eight (8);  
three (3) APRMs

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12.

**Unit 2** is operating with a central control rod selected and the following indications:

- o APRM A            28.0%
- o APRM B            29.5%
- o APRM C            29.0%
- o APRM D            30.0%

Based on the above conditions,

Currently, the Rod Block Monitor (RBM) \_\_\_\_\_ automatically BYPASSED.

If APRM A is bypassed, RBM A Reference Power value will be \_\_\_\_\_ .

- A. is;  
29.0%
- B. is;  
30.0%
- C. is NOT;  
29.0%
- D. is NOT;  
30.0%

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13.

**Unit 1** is performing a reactor startup IAW 34GO-OPS-001-1, Plant Startup.

The **Unit 1** Reactor Mode switch is in the START & HOT STBY position.

Subsequently, the following occurs:

- o IRM E is INOP due to its high voltage power supply output failing low
- o IRM F reaches 117/125

Based on the above conditions and NO operator actions,

Alarm, REACTOR AUTO SCRAM SYSTEM A TRIP, 603-117, will be \_\_\_\_\_ .

Alarm, REACTOR AUTO SCRAM SYSTEM B TRIP, 603-118, will be \_\_\_\_\_ .

- A. EXTINGUISHED;  
EXTINGUISHED
- B. EXTINGUISHED;  
ILLUMINATED
- C. ILLUMINATED;  
EXTINGUISHED
- D. ILLUMINATED;  
ILLUMINATED

14.

**Unit 2** is in the process of a Reactor Startup.

- o The Reactor Mode Switch is in START/HOT STBY
- o All SRM indicate between 220 and 240 cps
- o All IRM channels are on Range 1
- o SRM/IRM Drive Control "Power On" light is illuminated
- o The ONLY neutron detector button illuminated is "SRM A SELECT"

At 12:00, the "Drive Out" push button for SRM/IRM Drive Control is depressed and then released.

At 12:10, the "Drive In" push button for SRM/IRM Drive Control is depressed and then released.

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

At 12:00, the SRM A detector \_\_\_\_\_ continue to withdraw until fully withdrawn.

At 12:10, the SRM A detector will \_\_\_\_\_ .

- A. will;  
continue to insert until fully inserted
- B. will;  
stop moving as soon as the "Drive In" button is released
- C. will NOT;  
continue to insert until fully inserted
- D. will NOT;  
stop moving as soon as the "Drive In" button is released

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15.

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

At 10:00, an "A" level LPRM fails downscale.

At 10:10, Operations bypasses the failed downscale LPRM leaving a TOTAL of 17 LPRMs OPERABLE to the associated APRM.

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

At 10:01, the associated APRM Flux (%) value on Panel 1H11-P603 will \_\_\_\_\_ .

At 10:11, alarm ROD OUT BLOCK, 603-238, \_\_\_\_\_ be ALARMING.

- A. be lower;  
will
- B. be lower;  
will NOT
- C. remain the same;  
will
- D. remain the same;  
will NOT



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16.

Which ONE of the choices below completes the following statement?

The power supply to the 2E51-C002-2, RCIC Barometric Condenser Vacuum Pump, is \_\_\_\_\_ .

- A. 2R25-S001, 125V DC Distribution Cabinet 2A Control Building
- B. 2R25-S002, 125V DC Distribution Cabinet 2B Control Building
- C. 2R24-S021, 250V DC MCC 2A Reactor Building Feeder
- D. 2R24-S022, 250V DC MCC 2B Reactor Building Feeder

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17.

**Unit 2** was operating at 100% RTP when a Cable Spreading Room fire required control room evacuation.

The following procedures are in progress:

- o 31RS-OPS-001-2, Shutdown From Outside Control Room
- o 34AB-X43-001-2, Fire Procedure, Attachment 1, Safe Shutdown Actions, have been completed

At 13:00, the following conditions exist:

- o 2R22-S017, 125/250V DC SWITCHGEAR 2B      De-energized
- o 2R25-S001, 125VDC Bus 2A                      De-energized

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

The TOTAL number of ADS valves that will be AVAILABLE to AUTOMATICALLY OPEN is \_\_\_\_\_ .

- A. seven (7)
- B. five (5)
- C. two (2)
- D. zero (0)

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18.

**Unit 2** was operating at 100% RTP with the 2C RHR pump out of service (inop).

A loss of offsite power occurred on **Unit 2** and the following plant conditions currently exist at time  $t = 0$ :

- o 4160 VAC buses 2E and 2G are DE-ENERGIZED
- o Drywell pressure peaked at 1.5 psig and is slowly lowering
- o RWL is -120 inches and steady with RCIC.

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

The Automatic Depressurization System (ADS) will \_\_\_\_\_ .

- A. Auto-initiate at  $t = 12.7$  minutes.
- B. Auto-initiate at  $t = 1.7$  minutes
- C. NOT auto-initiate because the RHR pump running permissive is not met.
- D. NOT auto-initiate because the Core Spray pump running permissive is not met.

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19.

**Unit 2** is operating at 100% RTP with a leaking SRV.

IAW 34SO-E11-010-2, Residual Heat Removal System, RHR Loop B is in Torus Cooling.

At 11:00, Torus temperature is 93°F, lowering at 0.1 degrees / minute.

At 11:05, 2E11-N017B and N017D, RHRSW HX B Inlet Pressure Switches, fails downscale.  
due to a broken instrument line.

At 11:10, 2R24-S012, 600/208V MCC 2B, de-energizes.

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

After 11:05, the Torus water temperature will \_\_\_\_\_ .

At 11:10, RHR flow, as indicated on 2E11-R603B, RHR Flow Indicator, \_\_\_\_\_  
REMAIN the same.

- A. continue to lower at the current rate;  
will
- B. continue to lower at the current rate;  
will NOT
- C. start to go up;  
will
- D. start to go up;  
will NOT

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20.

**Unit 2** was operating at 100% RTP when an event occurs resulting in the following plant conditions:

- o RPV Pressure 850 psig (lowest reached)
- o RWL -30 inches (lowest reached)

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

2G11-F019 and 2G11-F020, Drywell Equipment Drain Valves, \_\_\_\_\_ receive an automatic closure signal.

2G11-F019 and 2G11-F020 position indications \_\_\_\_\_ be monitored from Safety Parameter Display System.

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

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21.

**Unit 2** is operating at 100% RTP when Reactor Protection System (RPS) M/G Set 2A trips.

Which ONE of the following choices below completes the following statement?

Two (2) minutes later, the \_\_\_\_\_ .

- A. RWCU flow will STILL be the same
- B. Steam Packing Exhauster will STILL be in service
- C. H<sub>2</sub>/O<sub>2</sub> Analyzer Isolation valves will STILL be open
- D. RBCCW flow to the Drywell will STILL be the same

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22.

**Unit 2** is operating at 25% RTP starting up from a refueling outage.

Fuel pool temperatures have been slowly rising since outage completion.

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

IAW 34SO-G41-003-2, Fuel Pool Cooling System, if the Unit 2 FPC heat exchanger outlet temperature reaches 130°F, \_\_\_\_\_.

The SC-Secondary Containment Control fuel pool temperature entry set point is \_\_\_\_\_.

- A. RHR will be placed in Assisted Fuel Pool Cooling;  
140°F
- B. RHR will be placed in Assisted Fuel Pool Cooling;  
150°F
- C. the Unit 1 Fuel Pool Cooling System will be cross-connect with Unit 2;  
140°F
- D. the Unit 1 Fuel Pool Cooling System will be cross-connect with Unit 2;  
150°F

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23.

Which ONE of the choices below completes the following statements?

IAW **Unit 1** TS 3.7.8, Spent Fuel Pool Water Level, irradiated fuel assemblies seated in the Spent Fuel Pool Storage Racks are required to be covered by at LEAST \_\_\_\_\_ feet of water.

There are \_\_\_\_\_ in the piping prior to the diffusers that return to the Fuel Pool from the Fuel Pool Cooling demineralizers to prevent siphoning.

- A. 21;  
check valves
- B. 21;  
holes
- C. 23;  
check valves
- D. 23;  
holes



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24.

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

A spurious Group I signal is received.

Subsequently, RPV pressure value is indicated below and LOWERING:



2B21-R623B  
RX Water Level/RX Press



2B21-R623A  
RX Water Level/RX Press

Which ONE of the choices below completes the following statements?

Based on the above conditions, currently, the TOTAL number of SRVs open is \_\_\_\_\_.

2B21-R623A/B, Rx Water Level/ Rx Pressure, recorders are located on Panel \_\_\_\_\_.

- A. zero (0);  
2H11-P601
- B. zero (0);  
2H11-P603
- C. one (1);  
2H11-P601
- D. one (1);  
2H11-P603

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25.

**Unit 2** is operating at 15% RTP with the Main Turbine in "CHEST WARMING".

Subsequently, the throttle pressure signal input to the Pressure Regulator fails.

All Main Turbine Bypass Valves travel FULLY OPEN.

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

The Main Turbine Bypass valves \_\_\_\_\_ CLOSE when selecting the "Close Valves" button on the Turbine HMI Speed Control screen.

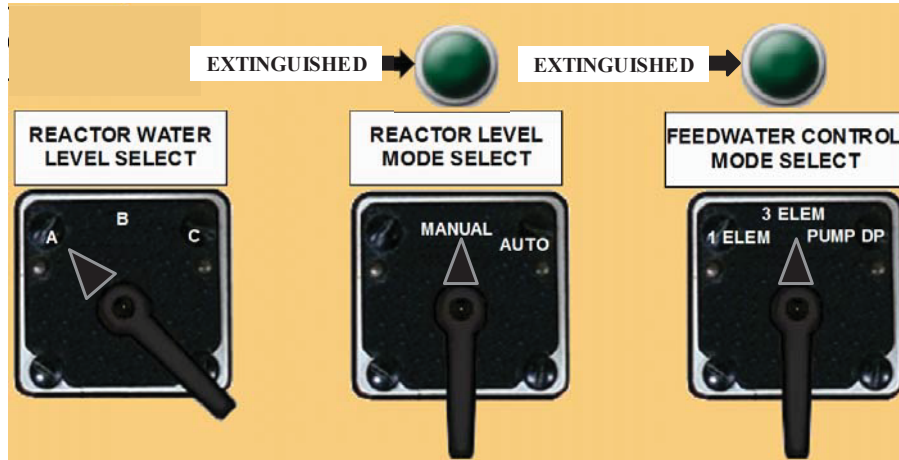
2N32-N301 A/B/C, Main Steam Pressure Transmitters, used to control Bypass valve position, sense pressure \_\_\_\_\_ .

- A. will;  
just after the Main Turbine Control Valves
- B. will;  
just prior to the Main Turbine Stop Valves
- C. will NOT;  
just after the Main Turbine Control Valves
- D. will NOT;  
just prior to the Main Turbine Stop Valves

26.

**Unit 2** is operating at 75% RTP.

2C32-R600, FW Master Controller, is operating in AUTOMATIC with the following RWLC System indications:



Based on the above conditions,

2C32-R600, FW Master Controller, is using the \_\_\_\_\_ as its value for RWL.

The FW Master Controller is operating in \_\_\_\_\_ Control.

- A. 2C32-N004A, Reactor Water Level Differential Pressure Transmitter A; Single Element
- B. 2C32-N004A, Reactor Water Level Differential Pressure Transmitter A; Three Element
- C. 2C32-K648, Reactor Water Level Median Level Selector, output; Single Element
- D. 2C32-K648, Reactor Water Level Median Level Selector, output; Three Element

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27.

**Unit 2** is operating at 100% RTP and an automatic start of the SBGT system occurred.

The NPO secured SBGT 2B by first placing control switch 2T46-D001B to the OFF position, and then placing 2T46-D001B to the STBY position.

Subsequently, 2A SBGT FLTR DIFF PRESS HIGH, 657-055, ALARMS.

Continued SBGT operation is required.

Based on the above conditions, which ONE of the choices below completes the following statements IAW 657-055?

2T46-R603A, SBGT 2A filter differential pressure indicator, is located on Panel \_\_\_\_\_ .

IF the 2A SBGT trips, THEN the 2B SBGT \_\_\_\_\_ auto-start.

- A. 2H11-P654;  
will NOT
- B. 2H11-P654;  
will
- C. 2H11-P700;  
will NOT
- D. 2H11-P700;  
will

28.

**Unit 1** is operating at 50% RTP.

4160 VAC 1E, 1R22-S005, is powered from Startup Auxiliary Transformer (SAT) 1C.

Subsequently, the Unit 1 Main Turbine trips.

Which ONE of the following completes the statements concerning the Station Service Buses?

After the Main Generator trips, the MAXIMUM number of Station Service Buses that will be energized is \_\_\_\_\_ .

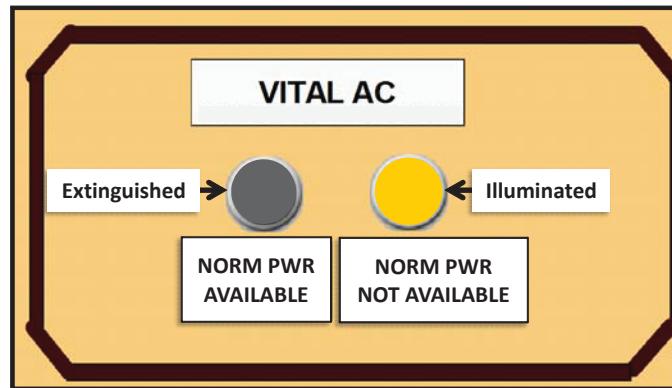
At this time, 34SO-R22-001-1, 4160V AC System Operation, can be used to MANUALLY re-energize 4160V Buses \_\_\_\_\_ .

- A. zero (0);  
1C and 1D
- B. zero (0);  
1A and 1B
- C. two (2);  
1C and 1D
- D. two (2);  
1A and 1B

29.

The **Unit 2** Vital AC System is currently being powered from the Alternate AC source due to planned Maintenance on the Inverter.

The following indications currently exist at Panel 2H11-P651:



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

The "NORM PWR AVAILABLE" light above will illuminate when the Vital AC \_\_\_\_\_ .

- A. Static Inverter DC Input Breakers are closed
- B. Source Selector Switch is in the INV position
- C. Return Mode switch is placed in the AUTO position
- D. Battery Charger (Rectifier AC Input) Breakers are closed

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30.

**Unit 2** is operating at 100% RTP and Control Building ventilation is lost.

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

The design of the Station Service Battery Chargers is such that they \_\_\_\_\_ automatically trip due to high temperature.

IAW 34AB-T41-001-2, Loss of ECCS, MCREC or Area Ventilation System(s), Emergency Exhaust Fans, 2Z41-C014 & 2Z41-C015 on 2H11-P657 and 2H11-P654 \_\_\_\_\_ REQUIRED to be manually started.

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

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31.

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

34SV-R43-004-2, Diesel Generator 2A Semi-Annual Test, is in progress.

Based on the above conditions and IAW 34SV-R43-004-2,

The Plant Hatch Administrative Limit for Diesel Generator 2A Main Storage Tank  
is \_\_\_\_\_ gallons.

- A. 29,520
- B. 33,320
- C. 35,000
- D. 40,000



32.

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

EDG 2A has automatically started and is supplying power to the associated Emergency Bus.

Subsequently, 2R43-R016A, Lube Oil Engine Header pressure indicates at the listed time:

At 12:00, 2R43-R016A, is 24.5 psig

At 12:02, 2R43-R016A, is 20.5 psig

At 12:04, 2R43-R016A, is 19.5 psig

At 12:06, 2R43-R016A, is 17.5 psig

Based on the above conditions,

The EARLIEST listed time that EDG 2A should have automatically shutdown  
is \_\_\_\_\_ .

- A. 12:00
- B. 12:02
- C. 12:04
- D. 12:06

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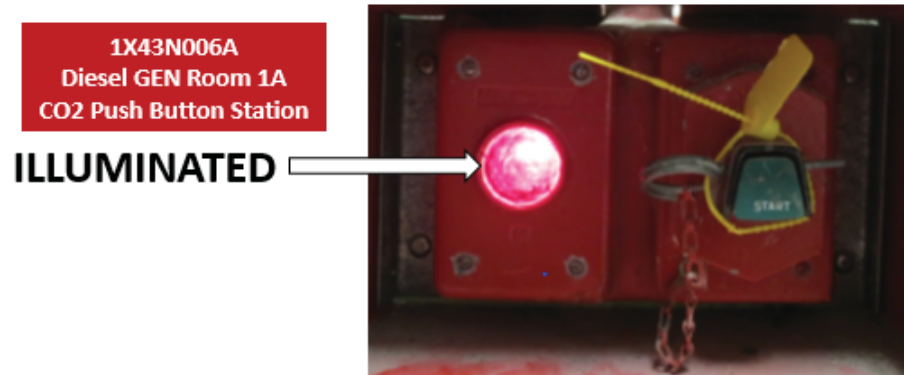
33.

At 14:00, FIRE ALARM, 651-160-1, ALARMS and the following fire alarm is reported:

- o 1X43130C02 DG Room 1A NEW ALARM

At 14:02, an operator arrives in the hallway outside the EDG 1A room and reports the following:

- o A fire exists in EDG 1A room
- o The below indication



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

The EDG 1A CO<sub>2</sub> Fire Suppression System \_\_\_\_\_ automatically actuated.

The associated 4160V Switchgear Room is equipped with \_\_\_\_\_ actuated CO<sub>2</sub> Fire Suppression system.

- A. has;  
a Manually
- B. has;  
an Automatically
- C. has NOT;  
a Manually
- D. has NOT;  
an Automatically

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34.

Which ONE of the following is designed to ensure the vessel can be reflooded and coolant level maintained at 2/3 core height following a DBA LOCA?

- A. Jet Pumps
- B. Core Spray Spargers
- C. Recirculation Pump discharge valve auto closure signal
- D. Containment Spray Valve Manual Override Keylock Permissive (2/3 Core Height)

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35.

**Unit 1** is operating at 70% power when the following valid annunciator alarms:

CR OUTSIDE AIR INLET RADIATION HIGH, 601-132

Based on the above conditions, and IAW 34SO-Z41-001-1, Control Room Ventilation System,

1Z41-F015, Roll Filter Bypass, at C70 MCR Door, \_\_\_\_\_ automatically OPEN.

The operator \_\_\_\_\_ REQUIRED to place one of the Recirculation fans (1Z41-C012A or C012B) in the STANDBY position.

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

36.

**Unit 2** is operating at 24.5% RTP performing a startup.

Subsequently, One (1) Recirc Pump trips.

Reactor power stabilizes at 23.5% RTP.

The operating point on the Power-To-Flow Map is confirmed IAW 34AB-B31-001-2, Reactor Recirculation Pump(S) Trip, Or Recirc Loops Flow Mismatch, Or ASD Power Cell Failure.

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

Tech Spes Thermal Limit LCOs are \_\_\_\_\_ APPLICABLE.

Core Flow Recorder, 2B21-R613, will give a misleading \_\_\_\_\_ core flow value.

- A. still;  
high
- B. still;  
low
- C. no longer;  
high
- D. no longer;  
low

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37.

**Unit 1 and 2** are operating at 100% RTP with all 4KV busses normally aligned.

A fault occurs on Startup Auxiliary Transformer (SAT) 1C resulting in SAT 1C being de-energized and locked out.

Based on the above conditions and IAW TS 3.8.1 AC Sources - Operating,

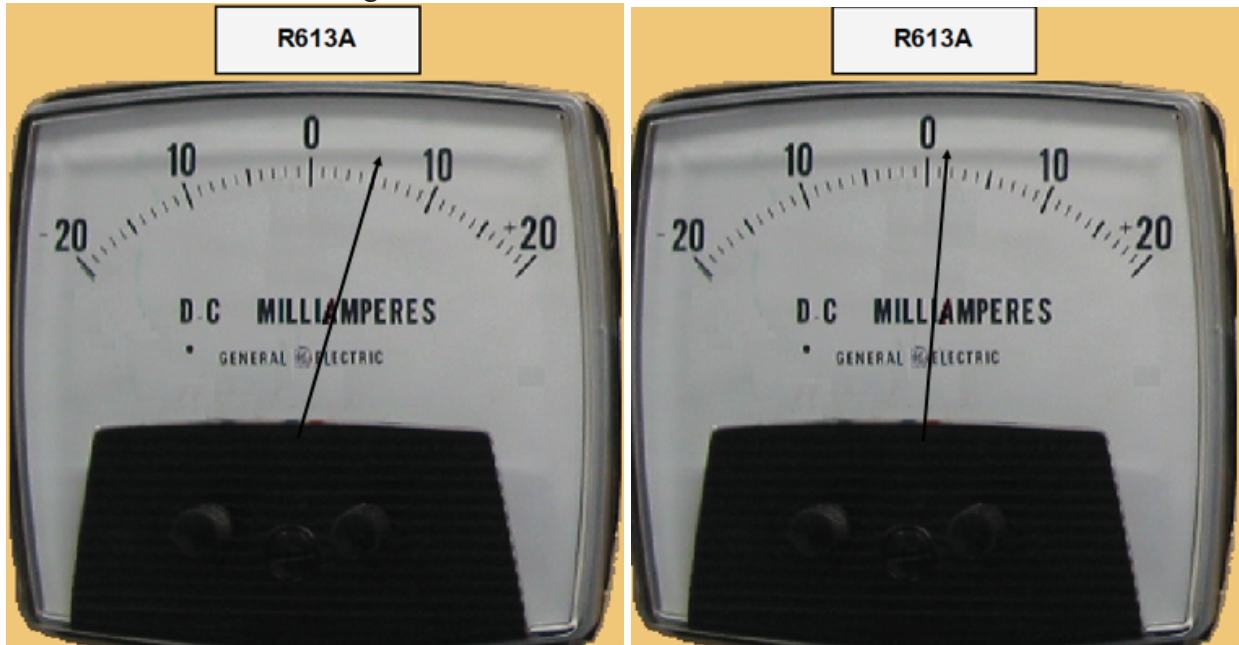
The FIRST performance of 34SV-SUV-013-0, Weekly Breaker Alignment Checks, is REQUIRED to be completed NO LATER THAN \_\_\_\_\_ from entry into the Required Action Statement (RAS).

- A. 15 minutes
- B. 20 minutes
- C. 30 minutes
- D. 60 minutes

38.

**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 On 2H11-P655, the Battery Ground Detection System meter 2R42-R613A indicates the following:



**SELECT SWITCH POS 1**

**SELECT SWITCH POS 2**

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

The ground resistance is \_\_\_\_\_.

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

**Reference Provided**

- A. 15,000 ohms;  
can
- B. 15,000 ohms;  
can NOT
- C. 25,000 ohms;  
can
- D. 25,000 ohms;  
can NOT

39.

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

At 12:00, the Main Turbine received a spurious trip signal.

ONLY RC-1 has been completed.

At 12:03, the following conditions exist:

- o Turbine Stop valves                      CLOSED
- o Turbine Control valves                  CLOSED
- o One Turbine Bypass valve stuck at 50% OPEN
- o RPV pressure                              1020 psig lowering 10 psig/ minute
- o RWL    20 inches

At 13:00, RPV pressure reaches 450 psig.

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

At 12:03, IAW 34AB-C71-001-2, Reactor Scram, the REQUIRED action is to \_\_\_\_\_ .

At 13:00, the MAXIMUM **Unit 2** Tech Spec Pressure Temperature Limits Report allowable cooldown rate \_\_\_\_\_ been EXCEEDED.

**Reference Provided**

- A. trip both EHC pumps;  
has NOT
- B. trip both EHC pumps;  
has
- C. lower Load Set to "0" percent;  
has NOT
- D. lower Load Set to "0" percent;  
has



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40.

**Unit 2** was at 30% RTP when a spurious reactor scram occurred.

- o RPV pressure peaked at 1050 psig
- o RWL reached a minimum of 12 inches

ALL Control Rods fully inserted with the following EXCEPTIONS:

| Control Rod | Position |
|-------------|----------|
| 26-31       | 02       |
| 26-23       | 02       |
| 22-35       | 02       |
| 22-27       | 02       |
| 50-27       | 48       |

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

The reactor \_\_\_\_\_ assured to remain shutdown under ALL conditions.

31EO-EOP-010-2, RC RPV Control, (Non ATWS) \_\_\_\_\_ REQUIRED to be entered.

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

41.

**Unit 2** is starting up ascending to 100% RTP.

Current reactor power is 2523 MWTH.

IAW 34GO-OPS-005-2, Power Changes, Attachment 7, Reactor Steam Dome Pressure vs Percent Core Thermal Power, is being used adjusting RPV pressure.

After the RPV pressure adjustment, REACTOR VESSEL PRESSURE HIGH, 603-114, ALARMS.

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

The setpoint for 603-114 is \_\_\_\_\_ .

IAW Attachment 7, RPV pressure is REQUIRED to be adjusted to \_\_\_\_\_ for the current RTP.

**Reference Provided**

- A. 1055 psig;  
1030 psig
- B. 1055 psig  
1045 psig
- C. 1070 psig;  
1030 psig
- D. 1070 psig;  
1045 psig

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42.

**Unit 2** is operating at 22% RTP when the following occurs:

- o 2C32-R600, Master Feedwater Controller, OUTPUT signal fails UPSCALE
- o RWL peaks at 58 inches

Which ONE of the following completes the following statement if NO operator actions are taken?

The FIRST RPS scram signal is \_\_\_\_\_ .

- A. REACTOR VESSEL HIGH PRESSURE TRIP, 603-105
- B. REACTOR VESSEL LOW LEVEL TRIP, 603-108
- C. TURB STOP VLV CLOSURE TRIP, 603-103
- D. MSIVS NOT FULL OPEN TRIP, 603-104

43.

**Unit 2** is operating at 90% RTP.

- o Drywell pressure is 0.5 psig
- o At 10:00, DW pressure begins going up at 0.05 psig/minute

Based on the above conditions and IAW Tech Spec Limiting Condition for Operation (LCO) 3.6.1.4, Drywell Pressure, which ONE of the following completes the following statements?

The EARLIEST listed time that **REQUIRES** entry into a Required Action Statement (RAS) based on Drywell pressure is \_\_\_\_\_ .

Drywell pressure is **REQUIRED** to be restored to within limit **NO** later than \_\_\_\_\_ from entering the RAS.

- A. 10:28;  
fifteen (15) minutes
- B. 10:28;  
one (1) hour
- C. 10:26;  
fifteen (15) minutes
- D. 10:26;  
one (1) hour

44.

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

A transient occurs resulting in feedwater temperature LOWERING.

- o NPO enters 34AB-N21-001-2, Loss of Feedwater Heating

Based on the above conditions,

IAW 34AB-N21-001-2, the Immediate Operator Action is to maintain  
Reactor power  $\geq 1\%$  BELOW the \_\_\_\_\_ .

Final Feedwater temperatures will be monitored on 2N21- R608, 4<sup>TH</sup> STG HTR "A/B"  
FDWTR DISCH TEMP, recorder located on Panel \_\_\_\_\_ .

- A. load limit rod line;  
2H11-P650
- B. load limit rod line;  
2H11-P656
- C. pre-event power level;  
2H11-P650
- D. pre-event power level;  
2H11-P656

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45.

The control room has been abandoned and 31RS-OPS-001-2, Shutdown From Outside Control Room, is being implemented.

Prior to exiting the Control Room RCIC was placed in service for RWL control.

Based on the above conditions and IAW 31RS-OPS-001-2, which ONE of the choices below completes the following statements?

To transfer control of RCIC from the Control Room to the Remote Shutdown Panel, the control switches at the 2C82-P001 panel must be aligned \_\_\_\_\_ taking Transfer Switches to Emergency.

2C82-P001, Remote Shutdown Panel, \_\_\_\_\_ contain a RCIC flow controller.

- A. prior to;  
does
- B. prior to;  
does NOT
- C. after;  
does
- D. after;  
does NOT

ILT-12 NRC Exam (RO)

46.

**Unit 2** is operating at 18% RTP with SJAE 2A in service.

The following occurs:

- o POSTTREATMENT O/G RADIATION HI-HI-HI/INOP, 601-405, ALARMS
- o O/G AVG ANNUAL REL LIMIT WILL BE EXCEEDED, 601-406, ALARMS
- o POSTTREATMENT O/G RADIATION HI-HI, 601-411, ALARMS
- o POSTTREATMENT O/G RADIATION HI, 601-417, ALARMS

The following indications are observed:

- o 2D11-K601, Pre-Treatment radiation monitor reads 200 mr/hr and slowly rising
- o 2D11-K615A & 2D11-K615B, Off Gas Post-Treatment radiation monitors, rises to just above the HI-HI-HI alarm setpoint

Based on the above conditions and IAW the above ARPs,

The NPO is REQUIRED to ensure closed \_\_\_\_\_ at Panel 2N62-P600.

- A. 2N62-F057, Stack Inlet valve,
- B. 2N62-F003A, Prehtr Inlet, valve
- C. 2N62-F501A, SJAE 2A Disch valve,
- D. 2N62-F042, Offgas Inlet to Adsorber valve,

ILT-12 NRC Exam (RO)

47.

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

- o RBCCW pump 2A inservice
- o RBCCW pump 2B inservice
- o RBCCW pump 2C in standby

Subsequently the following occurs:

At 11:00, RBCCW pump 2A trips (Restart attempt FAILED)  
RBCCW pump 2C auto starts

At 11:05, RBCCW pump 2B trips (Restart attempt FAILED)

At 11:10, 2G31-C001B, RWCU Sealless Pump, motor temperature is 142°F

At 11:15, ASD B FATAL FAULT, 602-202, ALARMS

At 11:20, RBCCW pump 2C trips (Restart attempt FAILED)

Based on the above conditions and IAW 34AB-P42-001-2, Loss of RBCCW,

The EARLIEST listed time that entry into 34AB-C71-001-2, Scram Procedure, is REQUIRED is \_\_\_\_\_ .

- A. 11:05
- B. 11:10
- C. 11:15
- D. 11:20



ILT-12 NRC Exam (RO)

48.

**Unit 2** is operating at 25% RTP when a rupture occurs on the Non-Essential Instrument Air header.

Based on the above conditions and IAW 34AB-P51-001-2, Loss Of Instrument And Service Air System Or Water Intrusion Into The Service Air System,

The 2P51-F017, Service Air Isolation Valve, control switch \_\_\_\_\_ REQUIRED to be placed in the CLOSE position.

The NPO is REQUIRED to \_\_\_\_\_ in the OPEN position.

- A. is;  
place control switch for 2N21-F125, S/U Level Control Isol Valve,
- B. is;  
override 2P52-F565, Rx Bldg Inst N2 To Non-Int Air El. 185 Isol Valve,
- C. is NOT;  
place control switch for 2N21-F125, S/U Level Control Isol Valve,
- D. is NOT;  
override 2P52-F565, Rx Bldg Inst N2 To Non-Int Air El. 185 Isol Valve,

## ILT-12 NRC Exam (RO)

49.

**Unit 2** is in Mode 3 when several actuations and auto valve closures occurred including the following:

- o 2E11-F009, SDC Suction valve
- o 2B31-F019, Rx Water Sample valve
- o 2G11-F003, Drywell Floor Drain valve
- o 2G11-F019, Drywell Equipment Drain valve
- o 2D11-F051, Pri Cnmt Fis Prod Mon Inboard Isolation

Based on the above conditions and IAW the associated Abnormal procedure, which ONE of the choices below completes the following statement?

The NPO is REQUIRED to enter \_\_\_\_\_ .

ONCE the affected bus has been re-energized, the NPO is REQUIRED to restore \_\_\_\_\_ .

- A. 34AB-C71-002-2, Loss of RPS Bus;  
Control Room ventilation to the desired mode of operation
- B. 34AB-C71-002-2, Loss of RPS Bus;  
Off-Gas flow through 2N62-F057, Off Gas Stack Inlet Valve
- C. 34AB-R25-002-2, Loss of Instrument Buses;  
Control Room ventilation to the desired mode of operation
- D. 34AB-R25-002-2, Loss of Instrument Buses;  
Off-Gas flow through 2N62-F057, Off Gas Stack Inlet Valve

50.

**Unit 2** is shutdown in Mode 4 with RHR Loop A aligned for Shutdown Cooling (SDC) with the following conditions:

- |                    |                   |
|--------------------|-------------------|
| o Reactor Shutdown | Two (2) days ago  |
| o RWCU             | Not Available     |
| o RWL              | Normal level band |

Subsequently, 2E11-F008, RHR SDC Suction Valve, fails closed and cannot be opened.

34AB-E11-001-2, Loss of Shutdown Cooling, is entered.

Based on the above conditions and IAW 34AB-E11-001-2,

One Alternate SDC flow path is \_\_\_\_\_ .

If an Alternate SDC method is NOT aligned, RWL is expected to reach the Top of Active fuel in \_\_\_\_\_ .

**REFERENCE PROVIDED**

- A. to raise RWL to fill the Main Steam Lines to drain to the Main Condenser thru the MSIVs;  
5 hours 46 minutes
- B. to raise RWL to fill the Main Steam Lines to drain to the Main Condenser thru the MSIVs;  
6 hours 36 minutes
- C. RHR loop A re-aligned to the suppression pool through a SRV;  
5 hours 46 minutes
- D. RHR loop A re-aligned to the suppression pool through a SRV;  
6 hours 36 minutes

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51.

**Unit 2** is in Mode 5, with fuel movement in progress.

An irradiated fuel bundle drops from the grapple and lands on the top of the core.

Two (2) Refuel Floor Area Radiation Monitors (ARM) are indicating 40 mr/hr.

34AB-J11-001-2, Irradiated Fuel Damage During Handling, is entered.

Based on the above conditions and IAW 34AB-J11-001-2, which ONE of the choices below completes the following statements?

The 130' to 203' elevations of the Reactor Building \_\_\_\_\_ REQUIRED to be evacuated.

34AB-T22-003-2, Secondary Containment Control, \_\_\_\_\_ REQUIRED to be entered.

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

ILT-12 NRC Exam (RO)

52.

**Unit 2** was operating at 100% RTP when an event occurred resulting in the following:

- o Drywell pressure            57 psig and slowly rising

The Shift Supervisor has ordered the Drywell to be Emergency Vented.

31EO-EOP-101-2, Emergency Containment Venting, Section 4.4, Drywell Emergency Vent Path, has been entered.

Based on the above conditions and IAW 31EO-EOP-101-2, which ONE of the choices below completes the following statement?

To Emergency Vent the Drywell, the NPO will operate 2T48-F082, Suppression Chamber Emergency Vent Valve, from Panel \_\_\_\_\_ and maintain Suppression Chamber Pressure below a MAXIMUM of \_\_\_\_\_ .

- A. 2H11-P601;  
54 psig
- B. 2H11-P601;  
56 psig
- C. 2H11-P654;  
54 psig
- D. 2H11-P654;  
56 psig

53.

**Unit 2** has experienced an ATWS.

At 07:45

- o Main Generator 135 MWe
- o RPV Pressure 1020 psig
- o RWL - 80 inches
- o SBLC Tank Level 40%
- o RCIC is operating

At 08:00, the Main Turbine is manually tripped.

Based on the above conditions,

At 08:00, IAW 31EO-EOP-011-2, RCA EOP flow chart, RPV Pressure is REQUIRED to be stabilized below a MAXIMUM value of \_\_\_\_\_ using Main Turbine Bypass valves.

- A. 300 psig
- B. 845 psig
- C. 960 psig
- D. 1074 psig

ILT-12 NRC Exam (RO)

54.

IAW 31EO-EOP-001-0, EOP General Information, which ONE of the choices below completes the following statement?

One of the definitions of the \_\_\_\_\_ Curve is the Torus Temperature at which \_\_\_\_\_ .

- A. Heat Capacity Temperature Limit (HCTL);  
a manual scram is required by Tech Specs
- B. Heat Capacity Temperature Limit (HCTL);  
Boron injection assures Cold Shutdown Boron weight will be injected
- C. Boron Injection Initiation Temperature (BIIT);  
a manual scram is required by Tech Specs
- D. Boron Injection Initiation Temperature (BIIT);  
Boron injection assures Cold Shutdown Boron weight will be injected

ILT-12 NRC Exam (RO)

55.

**Unit 2** was operating at 100% RTP when a pipe break occurred inside the Drywell (DW).

The DW/T leg of the 31EO-EOP-012-2, PC Primary Containment Control, flowchart is in progress.

At 12:00, the following conditions now exist:

- o DW pressure is 7 psig
- o Bulk Average Drywell Temperature is 255°F

At 12:20, the bulk Drywell temperature reaches 348°F.

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

At 12:00, IAW 31EO-EOP-100-2, Miscellaneous Emergency Overrides, the DW Chillers \_\_\_\_\_ ALLOWED to be re-started.

At 12:20, IAW 31EO-EOP-012-2 DW/T leg, the ADS Solenoid temperature limit \_\_\_\_\_ been reached.

- A. were;  
has
- B. were:  
has NOT
- C. were NOT;  
has
- D. were NOT;  
has NOT



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56.

**Unit 2** is operating at 100% RTP when a leak in the Drywell occurs.

The High Pressure Coolant Injection (HPCI) system is being used to control RWL.

|                     |                               |                    |
|---------------------|-------------------------------|--------------------|
| o HPCI flow rate    | 3500 gpm                      |                    |
| o RWL               | -80 inches and steady         | 3rd bullet changed |
| o RPV pressure      | 500 psig (lowering 50°F/hour) | to 50 psig/hr      |
| o RHR Loop A        | Torus Cooling                 | [8-29-19 blc]      |
| o Torus level       | 135 inches                    |                    |
| o Torus temperature | 210°F                         |                    |
| o Torus Pressure    | 6 psig                        |                    |

Based on the above conditions,

HPCI pump operation is \_\_\_\_\_ acceptable NPSH Limits and \_\_\_\_\_ .

**Reference Provided**

- A. within;  
flow is REQUIRED to be raised
- B. within;  
flow must be MAINTAINED at or below its current flow rate
- C. outside of;  
reducing flow to 3000 gpm will NOT restore acceptable operation for NPSH limits
- D. outside of;  
reducing flow to 3000 gpm will RESTORE acceptable operation for NPSH limits

ILT-12 NRC Exam (RO)

57.

**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 4300 gpm

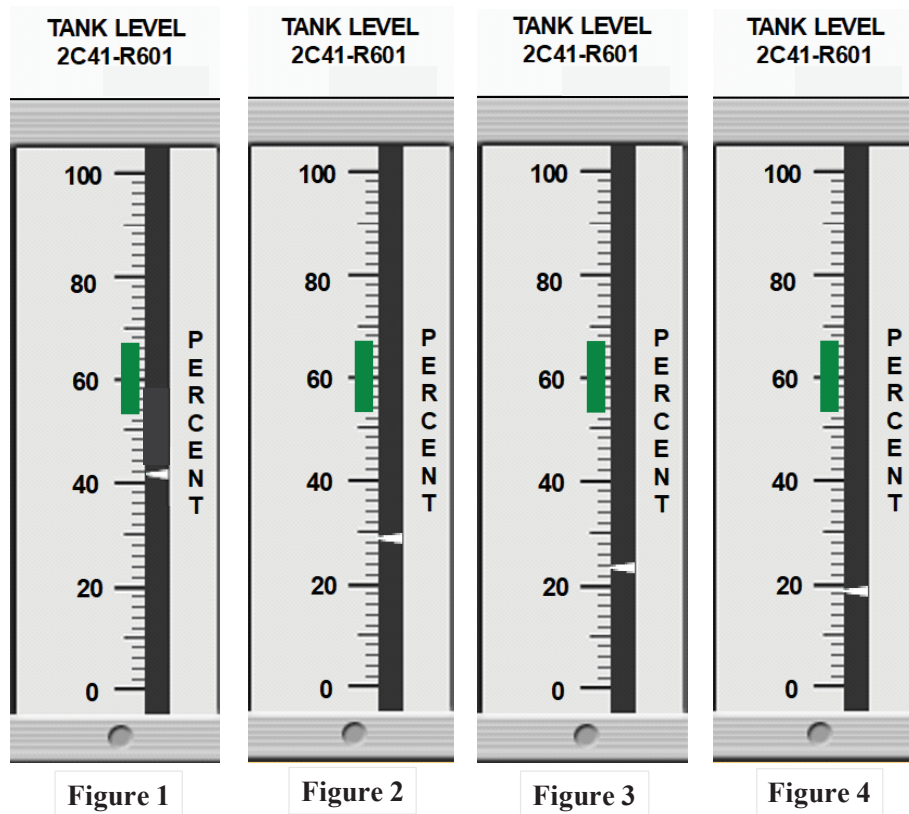
Based on the above conditions and IAW 31EO-EOP-010-2, RC (Non-ATWS), RC/L Path, which ONE of the choices below completes the following statement?

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

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

58.

An ATWS exists on **Unit 2** with boron injection in progress.



Based on the above conditions and IAW 31EO-EOP-011-2, RCA EOP flowchart,

The Figure which indicates the HIGHEST SBLC Tank level that will result in maintaining the Reactor shutdown under ALL conditions is \_\_\_\_\_ .

- A. Figure 1
- B. Figure 2
- C. Figure 3
- D. Figure 4

ILT-12 NRC Exam (RO)

59.

An event has occurred on **Unit 2** and a high Offsite release rate exists.

An emergency is declared based on the high Offsite release rate at the following times:

At 10:00, Unusual Event (RU1)

At 11:00, Alert (RA1)

Based on the above conditions, and IAW 31EO-EOP-014-2, SC-Rad Release Control, EOP Flowchart, which ONE of the choices below completes both statements?

The EARLIEST listed time that an entry condition existed into the Radioactivity Release Control (RR) portion of 31EO-EOP-014-2 is \_\_\_\_\_ .

The LOWEST listed Offsite Release Rate that REQUIRES the Reactor to be Emergency Depressurized is \_\_\_\_\_ .

- A. 10:00;  
5000 mR/hr
- B. 10:00;  
1000 mR/hr
- C. 11:00;  
5000 mR/hr
- D. 11:00;  
1000 mR/hr

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60.

**Unit 2** is in startup at 30% RTP with the following Station Service Air Compressor (SSAC) lineup:

- o SSAC 2C in Service
- o SSAC 2B in Auto/Standby
- o SSAC 2A in PTL/OFF (Danger Tagged out of service)

Subsequently, SSAC 2C trips and the SSAC 2B fails to start automatically or manually.

Actions to restore SSAC 2C and SSAC 2B have been unsuccessful.

Based on the above conditions and IAW 34AB-P51-001-2, Loss Of Instrument And Service Air System Or Water Intrusion Into The Service Air System,

The combination of alarms that **REQUIRES** a reactor scram to be inserted is \_\_\_\_\_ .

- A. SCRAM VLV PILOT AIR HDR PRESS HIGH/LOW (603-131) coincident with CHARGING WATER PRESSURE HIGH, (603-139)
- B. SCRAM VLV PILOT AIR HDR PRESS HIGH/LOW (603-131) coincident with CRD HYD TEMP HIGH, (603-140)
- C. CRD ACCUMULATOR PRESS LOW OR LEVEL HIGH (603-148) coincident with CHARGING WATER PRESSURE HIGH, (603-139)
- D. CRD ACCUMULATOR PRESS LOW OR LEVEL HIGH (603-148) coincident with CRD HYD TEMP HIGH, (603-140)

ILT-12 NRC Exam (RO)

61.

**Unit 2** is operating at 50% RTP when the following occurs:

- o Instrument Air After Filter, 2P52-D102A develops a leak
- o Air pressure DOWNSTREAM of the After Filters is 35 psig as indicated on 2P52-R600, Control Air, at Panel 2H11-P650

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

Service Air Header Pressure, 2P51-R600 as indicated on 2H11-P650 \_\_\_\_\_ remain in its NORMAL band.

2B21-F028A-D, Outboard MSIVs, will \_\_\_\_\_ .

- A. will NOT;  
remain open
- B. will NOT;  
drift closed
- C. will;  
remain open
- D. will;  
drift closed

62.

**Unit 2** was operating at 100% RTP when a partial loss of Reactor Building Closed Cooling Water (RBCCW) occurred.

Based on the above conditions,

The LOWEST RBCCW temperature that will cause the operating RWCU Pump to automatically trip is \_\_\_\_\_ .

When the operating RWCU Pump trips, BOTH Group 5 isolation valves \_\_\_\_\_ AUTOMATICALLY close.

- A. 100°F;  
will NOT
- B. 100°F;  
will
- C. 140°F;  
will NOT
- D. 140°F;  
will

ILT-12 NRC Exam (RO)

63.

**Unit 2** has experienced an accident that results in these Primary Containment parameters:

- |                  |                           |
|------------------|---------------------------|
| o DW pressure    | 14 psig and slowly rising |
| o Torus pressure | 13 psig and slowly rising |
| o Torus level    | 150 inches                |

The following procedures are in progress:

31EO-EOP-012-2, Primary Containment Control, PC/G leg

31EO-EOP-104-2, Primary Containment Venting For Hydrogen and Oxygen Control

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

When Hydrogen concentration FIRST reaches \_\_\_\_\_, the operator is REQUIRED to vent the \_\_\_\_\_.

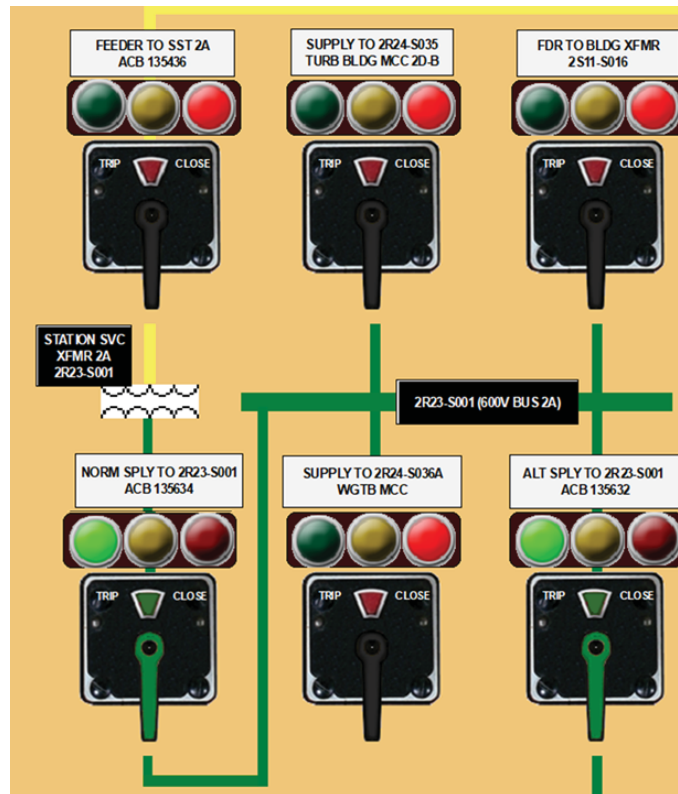
- A. 3.0%;  
Drywell
- B. 3.0%;  
Torus
- C. 1.5%;  
Drywell
- D. 1.5%;  
Torus



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64.

**Unit 2** is operating at 100% RTP when 2R23-S001, 600V Bus 2A, is involved in a fire.



IAW 34AB-X43-001-2, Fire Procedure, the Normal Supply to 600V Bus 2A (ACB 135634) has been opened.

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

IAW 34AB-X43-001-2, 600V Bus Station Service Transformer 2A \_\_\_\_\_ ALLOWED to remain ENERGIZED.

After 600V Bus 2A is de-energized, Main Generator stator amps \_\_\_\_\_ REQUIRED to be lowered to  $\leq 14000$  amps.

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

ILT-12 NRC Exam (RO)

65.

**Unit 1** is operating at 100% RTP when a grid disturbance results in all 4160 VAC Emergency Buses indicating 3700 VAC.

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

IAW 34AB-S11-001-0, Operation With Degraded Voltage, if the Unit 1 4160 VAC Bus voltages are NOT restored to acceptable levels WITHIN 30 minutes, THEN \_\_\_\_\_ is REQUIRED to be manually started.

After the affected 4160 VAC Bus Normal and Alternate Supply Breakers are manually opened and the EDG Output breaker automatically closes, the ROD OUT BLOCK, 603-238, annunciator on 1H11-P603, \_\_\_\_\_ be ALARMING.

- A. EDG 1A;  
will
- B. EDG 1A;  
will NOT
- C. EDG 1C;  
will
- D. EDG 1C;  
will NOT

66.

The EOPs are being implented on **Unit 1**.

IAW NMP-OS-007-001, Conduct of Operations Standards and Expectations, which ONE of the choices below completes the following statements?

Simultaneously operating the RHR 1E11-F017A and 1E11-F017B during the EOPs \_\_\_\_\_ an example listed in NMP-OS-007-001, Attachment 2, Two Handed Operations Examples.

During a Crew Brief, it \_\_\_\_\_ PERMISSIBLE to delay implementation of an Annunciator Response Procedure (ARP) after acknowledging an alarm that occurs during the Brief.

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

ILT-12 NRC Exam (RO)

67.

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

RCIC has tripped on overspeed and is required to be reset locally.

A NPO is being dispatched to reset the RCIC Mechanical Overspeed trip and to monitor RCIC 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 RCIC Diagonal, is \_\_\_\_\_ .

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

68.

**Unit 2** is operating at 100% RTP when an event occurs.

The OATC generates a 3D Monicore Periodic Log- Monitor Case.

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

The limit for \_\_\_\_\_ has been EXCEEDED.

**Reference Provided**

- A. MFLCPR
- B. MFLPD
- C. MAPRAT
- D. PCRAT

69.

**Unit 1** is in day 20 of a 27 day planned Refueling outage.

Motor replacement is complete for 1E11-F007B, RHR Minimum Flow valve, and 34SV-E11-002-1, RHR Valve Operability, is being performed to stroke the valve for its post maintenance test.

Which ONE of the following completes BOTH choices?

FULL Stroke time is that time interval from when the \_\_\_\_\_ until the Green light extinguishes.

When 1E11-F007B has traveled OPEN, the valve stem position indication \_\_\_\_\_  
REQUIRED to be confirmed LOCALLY.

- A. control switch is placed to OPEN;  
is
- B. control switch is placed to OPEN;  
is NOT
- C. red light illuminates;  
is
- D. red light illuminates;  
is NOT

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70.

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

An operator is entering a room that is posted as a High Radiation Area to investigate an alarm.

Based on the above conditions and IAW NMP-HP-206, Issuance, Use, and Control of Radiation Work Permits, which ONE of the choices below completes BOTH statements?

The operator will be REQUIRED to log in on a \_\_\_\_\_ RWP.

A continuous Radiation Protection (RP) escort \_\_\_\_\_ REQUIRED.

- A. red;  
is
- B. red;  
is NOT
- C. yellow;  
is
- D. yellow;  
is NOT

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71.

On **Unit 2** the annunciator card for the following has been PULLED and DE-ACTIVATED:

- o TURBINE TROUBLE, 650-105

Based on the above condition and IAW 31GO-OPS-014-0, Annunciator and Plant Component Control,

With 650-105 de-activated, a \_\_\_\_\_ magnetic tile will be installed beside the annunciator number label under the annunciator window.

The installed magnetic tile will be \_\_\_\_\_ .

- A. yellow;  
labeled with a "P"
- B. yellow;  
blank
- C. white;  
labeled with a "P"
- D. white;  
blank



72.

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

The control room is performing a switching order to remove PCB 179400 (Vidalia Line) from service for a planned maintenance activity.

Based on the above conditions and IAW NMP-AD-014-GL01, Guidelines for Compliance with NERC Standards,

A \_\_\_\_\_ message is REQUIRED to be sent to the Power Coordination Center (PCC).

The PRIMARY system used to transmit this message is \_\_\_\_\_ .

- A. Transmission type;  
GENCOMM
- B. Transmission type;  
SECON
- C. Compliance type;  
GENCOMM
- D. Compliance type;  
SECON

73.

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

The OSC & the TSC are manned.

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.

Which ONE of the choices below completes the following statements?

The effluent from the Turbine Building Ventilation System will be directed to the \_\_\_\_\_.

IAW 34SO-U41-001-2, the reason the Turbine Building Ventilation Exhaust Fans were restarted is to maintain the radiological habitability of the \_\_\_\_\_ within limits.

- A. Reactor Building Stack;  
Operation Support Center (OSC)
- B. Reactor Building Stack;  
Main Control Room (MCR)
- C. Main Stack;  
Operation Support Center (OSC)
- D. Main Stack;  
Main Control Room (MCR)

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74.

Which ONE of the choices below completes both statements regarding EOP entry conditions?

The parameters and setpoints that cause 2E11-F015A, RHR Inboard Injection Valve, to auto CLOSE \_\_\_\_\_ entry condition setpoints for RC (Non-ATWS) EOP flowchart.

The water level that causes 2G41-C001, Fuel Pool Cooling Pump, to auto trip \_\_\_\_\_ an entry condition setpoint for SC EOP flowchart.

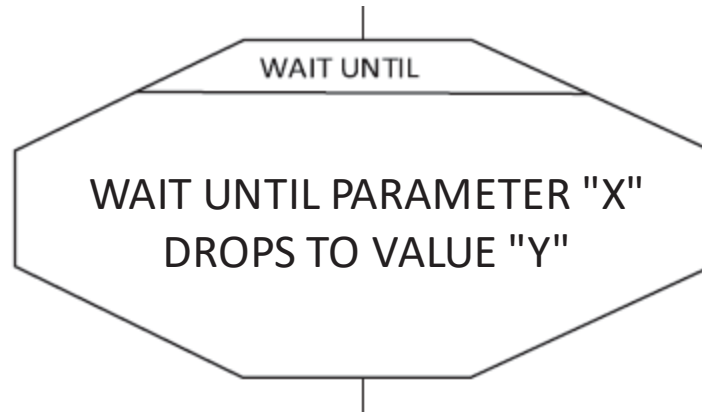
- A. are also;  
is also
- B. are also;  
is NOT
- C. are NOT;  
is also
- D. are NOT;  
is NOT

75.

The EOPs are in progress on **Unit 2**.

SPDS is unavailable.

The crew encounters the following EOP Logic Symbol:



Currently, PARAMETER "X" is trending toward VALUE "Y".

IAW 30AC-OPS-013-0, Use Of Emergency Operating Procedures, which ONE of the choices below completes the following statements?

When the EOP graphs from the binders are being used to manually plot a reading, the Operators \_\_\_\_\_ ALLOWED to interpolate the EOP graphs.

The actions below the EOP Logic Symbol \_\_\_\_\_ be performed before VALUE "Y" is reached.

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

**You have completed the test!**

# **NRC RO REFERENCES**

## **RO EXAM**

1. Pressure & Temperature Limits Report, Unit 1 Page 16 of 40 & Unit 2 Page 16 of 40
2. 34AB-R42-001-0, Location of Grounds, Attachment 2
3. 34SO-B31-001-2, Reactor Recirculation System, Attachment 1
4. 34GO-OPS-005-2, Power Changes, Attachment 7, Reactor Steam Dome Pressure vs Percent Core Thermal Power
5. 34AB-E11-001-2, Loss of Shutdown Cooling, Attachment 1
6. Unit 2 EOP Graphs 17A & 17B
7. Unit 2 3D Monicore printout

**ANSWER KEY REPORT**  
for ILT-12 NRC Exam (RO) Test Form: 0

|    |                  | Answers |
|----|------------------|---------|
| #  | ID               | 0       |
| 1  | 201001K2.05 1    | B       |
| 2  | 201002G2.1.20 10 | D       |
| 3  | 201003A4.02 5    | D       |
| 4  | 203000K1.02 5    | C       |
| 5  | 204000K6.08 1    | C       |
| 6  | 205000A1.06 10   | C       |
| 7  | 205000A2.11 5    | D       |
| 8  | 206000K4.06 1    | A       |
| 9  | 209001K6.01 5    | B       |
| 10 | 211000K4.07 5    | D       |
| 11 | 212000A3.01 5    | C       |
| 12 | 215002A1.01 5    | C       |
| 13 | 215003K3.01 1    | D       |
| 14 | 215004A1.01 6    | C       |
| 15 | 215005A3.04 6    | B       |
| 16 | 217000K2.04 1    | C       |
| 17 | 218000K3.02 5    | D       |
| 18 | 218000K6.05 5    | A       |
| 19 | 219000K3.01 5    | C       |
| 20 | 223002K1.14 5    | A       |
| 21 | 223002K1.19 5    | D       |
| 22 | 233000K5.06 5    | D       |
| 23 | 234000K5.04 5    | A       |
| 24 | 239002A4.05 5    | C       |
| 25 | 241000K1.34 10   | D       |
| 26 | 259002K5.01 5    | A       |
| 27 | 261000G2.4.50 5  | D       |
| 28 | 262001A2.01 1    | A       |
| 29 | 262002A4.01 5    | D       |
| 30 | 263000A2.02 11   | C       |
| 31 | 264000G2.2.12 1  | C       |
| 32 | 264000K6.03 6    | B       |
| 33 | 286000A3.03 5    | C       |
| 34 | 290002K4.01 1    | A       |
| 35 | 290003A2.01 5    | A       |
| 36 | 295001AK1.03 5   | D       |
| 37 | 295003G2.2.39 1  | D       |
| 38 | 295004AK3.02 5   | C       |
| 39 | 295005AA1.05 5   | A       |
| 40 | 295006AA2.02 10  | D       |
| 41 | 295007AK1.03 6   | A       |
| 42 | 295008AK3.02 5   | B       |
| 43 | 295010G2.2.22 5  | D       |
| 44 | 295014AA1.07 5   | C       |
| 45 | 295016AK2.01 5   | A       |
| 46 | 295017AK3.01 5   | A       |
| 47 | 295018AK3.02 5   | A       |

**ANSWER KEY REPORT**  
for ILT-12 NRC Exam (RO) Test Form: 0

|    |                  | Answers |
|----|------------------|---------|
| #  | ID               | 0       |
| 48 | 295019AA1.04 1   | B       |
| 49 | 295020AA2.06 6   | A       |
| 50 | 295021AK3.05 11  | C       |
| 51 | 295023AA2.04 6   | C       |
| 52 | 295024G2.1.30 10 | D       |
| 53 | 295025EK2.09 5   | B       |
| 54 | 295026EK1.02 6   | C       |
| 55 | 295028EK1.02 5   | C       |
| 56 | 295030EK1.02 1   | D       |
| 57 | 295031G2.1.20 1  | C       |
| 58 | 295037EK3.05 1   | B       |
| 59 | 295038EA2.03 10  | D       |
| 60 | 300000K5.01 1    | B       |
| 61 | 300000K5.13 5    | A       |
| 62 | 400000K3.01 5    | C       |
| 63 | 500000EK2.07 6   | D       |
| 64 | 600000AK2.04 10  | A       |
| 65 | 700000AA1.04 10  | A       |
| 66 | G2.1.6 5         | A       |
| 67 | G2.3.4 1         | B       |
| 68 | G2.1.19 5        | A       |
| 69 | G2.2.2 5         | A       |
| 70 | G2.3.7 5         | D       |
| 71 | G2.2.14 1        | A       |
| 72 | G2.2.17 10       | A       |
| 73 | G2.3.11 10       | B       |
| 74 | G2.4.2 5         | B       |
| 75 | G2.4.13 6        | C       |