

EXAMINATION ANSWER KEY

06-1 NRC Exam

1

ID: 06-1 NRC EXAM

Points: 1.00

Given the following set of conditions:

- Core Alterations are in progress.
- An irradiated fuel bundle being moved from the reactor cavity to the Spent Fuel Pool becomes ungrappled and falls into the reactor vessel downcomer area between the vessel wall and the shroud.
- Bundle integrity is maintained.

Which of the below describes the person at the greatest risk for radiation exposure?

- A. A Mechanic working on SRVs.
- B. The Refuel SRO on the Bridge.
- C. An EMD Technician working on the SBLC Skid.
- D. A Mechanic working on a Torus to Drywell Vacuum Breaker.

Answer: A

EXAMINATION ANSWER KEY

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Question 1 Details

Question Type:	Multiple Choice
Topic:	(001) 295023.K1.01
System ID:	13078
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 232F-01.08 Reference: SAMG K/A: 295023.AK1.01 3.6 / 4.1 Level: High Pedigree: Bank Explanation: The correct answer is the Mechanic working on the SRVs due to LOCATION in the drywell. The other 3 answers represent workers outside of the drywell who are shielded from the area where the Control Rod is setting.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

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2

ID: 06-1 NRC EXAM

Points: 1.00

What is the bases for performing an Emergency Depressurization during execution of DEOP 300-2 RADIATION RELEASE CONTROL?

Performing an Emergency Depressurization ensures the

- A. availability of equipment in the turbine building that may be necessary to mitigate the event is not challenged.
- B. isotopic mixture of radioactive materials deposited off-site will be within the bounds of the accident analysis.
- C. energy level of the radiation and the atmospheric dispersion factors fall within the bounds of the accident analysis.
- D. lowest possible driving head and flow of primary systems that are unisolated and discharging outside of containment.

Answer: D

EXAMINATION ANSWER KEY

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Question 2 Details

Question Type:	Multiple Choice
Topic:	(002) 295038.K3.04
System ID:	13080
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 29502LK058 Reference: EPG B-9-6 K/A: 295038.K3.04 3.6 / 3.9 Level: Memory Pedigree: Bank Explanation: Per the EPGs, RPV depressurization places the primary system in the lowest possible energy state and reduces the driving head and flow of primary systems that are unisolated and discharging outside of containment.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

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3

ID: 06-1 NRC EXAM

Points: 1.00

Given a DBA LOCA, which of the following would be the MINIMUM ECCS injection systems that would provide adequate core cooling?

- A. 'A' and 'B' LPCI pumps.
- B. 'A' LPCI pump and 'A' Core Spray pump.
- C. 'A' and 'B' LPCI pumps AND 'A' Core Spray pump.
- D. 'A', 'B' and 'C' LPCI pumps AND 'A' Core Spray pump.

Answer: C

EXAMINATION ANSWER KEY

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Question 3 Details

Question Type:	Multiple Choice
Topic:	(003) 203000.K5.02
System ID:	13081
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 299LN049-2 Reference: UFSAR Ch 6.3 and figures K/A: 203000.K5.02 3.5 / 3.7 Level: Memory Pedigree: Bank Explanation: The correct answer is A and B LPCI pumps and Core Spray A pump as described in the UFSAR.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

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4

ID: 06-1 NRC EXAM

Points: 1.00

Given the following conditions for Unit-2:

- Isolation Condenser is being used for pressure control.
- RR 2-1840-12, ISOL CONDR VENT RAD, recorder is reading 13 mrem/hr rising steadily.
- LI 2-1340-2, ISOL CONDR LVL, indicates 8 ft. rising slowly.

Analyzing these conditions and with no operator action, this would result in

- A. a loss of reactor water inventory.
- B. a potential Group 4 containment isolation.
- C. increased makeup flow to the Isolation Condenser.
- D. NO adverse consequences since these are normal indications.

Answer: A

EXAMINATION ANSWER KEY

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Question 4 Details

Question Type:	Multiple Choice
Topic:	(004) 207000.K3.02
System ID:	13082
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE207LN001.12 Reference: DOA 1300-01 K/A: 207000.K3.02 3.8 / 4.0 Level: High Pedigree: Bank Explanation: Per the symptoms of DOA 1300-01, the indications given show a IC tube leak in progress. This will result in a loss of reactor water inventory. Group 4 is for HPCI, not the Isolation Condenser. Makeup flow to the Isolation Condenser is NOT controlled automatically (stem says no operator action).

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

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5

ID: 06-1 NRC EXAM

Points: 1.00

Given the following conditions:

- Unit 2 is operating at rated power.
- A half scram is received due to a loss of an RPS Bus.

An NLO in the AEER reports the following:

- RPS MG Set is coasting to a stop.
- The associated EPAs are tripped and have NO indicating lights illuminated.
- The underfrequency relay on the bus has a red flag.
- The MG Set control switch lights are NOT lit.

Based on these conditions, the probable cause for this event is a(an) _____

- A. Trip of the thermal overloads on the RPS Bus.
- B. Overcurrent trip of the MG Set's feed breaker.
- C. Underfrequency condition sensed by the bus relaying.
- D. Undervoltage condition due to failure of the MG Set Voltage Regulator.

Answer: B

EXAMINATION ANSWER KEY

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Question 5 Details

Question Type:	Multiple Choice
Topic:	(005) 212000.K2.01
System ID:	13083
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE262LN005.03 Reference: DOA 0500-05, DOP 0500-03 K/A: 212000.K2.01 3.2 / 3.3 Level: High Pedigree: Bank Explanation: The EPAs have tripped and underfrequency flags, on the Bus, have come in due to the entire machine coasting down. The EPAs do not have any input or output voltage and the trip lights don't seal in, therefore there are no lights. The MG set control switch lights are out due to loss of power from MCC 29-2. If the thermal overloads OR underfrequency on the Bus had tripped, the MG Set would still be running, thus still have control switch light(s) illuminated.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

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6

ID: 06-1 NRC EXAM

Points: 1.00

Given the following set of conditions:

- The annunciator U2 OR U3 INST AIR COMP TRIP is received.
- U3 Service to Inst Air AO crosstie valve has auto opened.
- Current Unit 3 Instrument Air pressure is 75 psig and slowly recovering.

The annunciator was received due to _____.

- A. 3A IAC breaker trip at Bus 35.
- B. 3B IAC breaker trip at Bus 36.
- C. a high HP inlet air temperature condition on 3B IAC.
- D. a high jacket cooling water temperature condition on 3C IAC.

Answer: C

EXAMINATION ANSWER KEY

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Question 6 Details

Question Type:	Multiple Choice
Topic:	(006) 300000.A3.02
System ID:	13084
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE278LN001.06 Reference: DAN 923-1 B-5 K/A: 300000.A3.02 2.9 / 2.7 Level: Memory Pedigree: Bank Explanation: The correct answer to cause this trip alarm is 3B IAC HP inlet high temperature. If Bus 36 breaker did trip for 3A IAC, this condition would NOT cause this trip alarm, due to the annunciator circuitry being in parallel with the power supply. Bus 36 is not the power supply for 3B IAC (Bus 37). High jacket cooling water temperature is NOT an ATLAS COPCO compressor trip.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

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7

ID: 06-1 NRC EXAM

Points: 1.00

Automatic TIP traces are in progress on Unit 2 when a transient occurs resulting in the following conditions:

- RPV water level is +5 inches and rising.
- Drywell pressure is 1.5 psig and steady.

Concerning the TIP system you would verify _____ .

- A. the shear valve fires, isolating the TIP tube
- B. TIP withdrawal to In-Shield position and Ball valve closure
- C. the Group II Isolation status light on the TIP drawer is illuminated
- D. the Shear AND Squib Valve Monitor lights are illuminated after 5 minutes

Answer: B

EXAMINATION ANSWER KEY

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Question 7 Details

Question Type:	Multiple Choice
Topic:	(007) 215001.A3.03
System ID:	13085
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE215LN001.06 Reference: DAN 902-5, E-5, DOP 0700-06 K/A: 215001.A3.03 2.5 / 2.6 Level: Memory Pedigree: Bank Explanation: The Group II isolation signal (RPV level less than +8 inches) would cause any TIP detector NOT in its shield to shift to manual reverse and withdraw into its shield chamber. Then the Ball valve would automatically close. Verifying these actions is a requirement of DAN 902-5, E-5. The Group II Isolation status light on the TIP drawer is illuminated is not correct, as this is an indication of the Group II isolation being reset (which it is not with an RPV water level of + 5 inches).

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

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8

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 is operating at near rated power, with the following condition:

- 2A 125 VDC battery charger is taken OOS for maintenance.

Then the following occurred:

- Unit 2 experiences a loss of site power (LOOP).
- The Unit 2 125 VDC battery charger was damaged during the transient.
- A DC load shed was completed 30 minutes after the LOOP.

What is the MINIMUM time, after the LOOP, the battery is expected to maintain essential loads of 62 amps?

- A. 1 hour.
- B. 2 hours.
- C. 4 hours.
- D. 8 hours.

Answer: C

EXAMINATION ANSWER KEY

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Question 8 Details

Question Type:	Multiple Choice
Topic:	(008) 295003.K1.01
System ID:	13086
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 29501LK083 Reference: DGA 13 K/A: 295003.AK1.01 2.7 / 2.9 Level: Memory Pedigree: Bank Explanation: With a LOOP and a loss of all 125 VDC battery chargers, the immediate operator actions of DGA 13 load shedding must be complete within 30 minutes to ensure batteries supply a load of 62 amps for four hours.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

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9

ID: 06-1 NRC EXAM

Points: 1.00

What is the bases for the 'High Drywell Pressure' SCRAM function for the Reactor Protection System?

- A. To prevent fuel damage resulting from bulk power increases.
- B. To reduce the heat generation to terminate the pressure rise.
- C. To assure that the reactor is not operated without a path to the main heat sink.
- D. To minimize the energy which must be accommodated during a Loss of Coolant Accident.

Answer: D

EXAMINATION ANSWER KEY

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Question 9 Details

Question Type: Multiple Choice
Topic: (009) 295024.K3.06
System ID: 13087
User ID: 06-1 NRC EXAM
Status: Active
Always select on test: No
Authorized for practice: No
Difficulty: 1.00
Time to Complete: 2
Point Value: 1.00
Cross Reference Number:
Num Field 1:
Num Field 2:
Text Field:
Comments: Objective: 299LN049-2
Reference: UFSAR section 7.2.2.2
K/A: 295024.K3.06 4.0 / 4.1
Level: Memory
Pedigree: New
Explanation: The correct answer from the UFSAR. The incorrect choices are:

- Prevent fuel damage resulting from bulk power increases is from the High Neutron Flux Scram.
- To reduce the heat generation to terminate the pressure rise is from the High Reactor Pressure Scram.
- Assures that the reactor is not operated without a path to the main heat sink is from the MSIV closure Scram.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

10

ID: 06-1 NRC EXAM

Points: 1.00

Why is the required quantity of boron GREATER for COLD shutdown boron weight than it is for HOT shutdown boron weight?

- A. To overcome a greater RPV water level.
- B. To overcome the reduction in Xenon.
- C. To overcome the reduction in Samarium.
- D. To overcome a reduction in voids present in the core.

Answer: B

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 10 Details

Question Type:	Multiple Choice
Topic:	(010) 295037.K3.05
System ID:	13088
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 299LN049-2 Reference: EPG/SAG B-17 K/A: 295037.K3.05 3.2 / 3.7 Level: Memory Pedigree: New Explanation: Per the EPGs, Cold Shutdown boron weight is greater, because of the decrease in Xenon present, not samarium. RPV water and voids are assumed to be the same for both conditions.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

11

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 is operating at near rated power, when the following occurs:

- Bus 23-1 de-energizes due to an overcurrent condition.

What INITIAL Containment impacts are there with this loss?

- A. The Rx Building D/P increases.
- B. The Drywell to Torus D/P increases.
- C. The Drywell radiation level increases.
- D. The Rx Building to Torus D/P increases.

Answer: B

EXAMINATION ANSWER KEY

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Question 11 Details

Question Type: Multiple Choice
Topic: (011) 295012.K2.01
System ID: 13089
User ID: 06-1 NRC EXAM
Status: Active
Always select on test: No
Authorized for practice: No
Difficulty: 1.00
Time to Complete: 3
Point Value: 1.00
Cross Reference Number:
Num Field 1:
Num Field 2:
Text Field:
Comments: Objective: 262LN001.12
Reference: DANs 902-5 G-5, 902-4 G-17, DOP 6700-04, DOA 500-05
K/A: 295012.K2.01 3.4 / 3.5
Level: High
Pedigree: New
Explanation: The overcurrent on Bus 23-1 causes it to fully de-energize (EDG cannot close onto it). With Bus 23-1 de-energized, Bus 28 becomes de-energized. With Bus 28 de-energized, four of the Drywell Coolers (A, B, F, G) lose power, causing temperature to rise in the Drywell. As temperature rises, a corresponding rise in Drywell pressure will occur. With a Drywell pressure increase, the Drywell to Torus DP would increase, since Torus temperature and pressure will not be immediately affected. Reactor Building DP will actually decrease due to a loss of RB ventilation (loss of Bus 28) and subsequent start of SBT. With the Reactor Building DP decreasing, this will cause a decrease between Torus and Reactor Building DP. With the loss of Bus 28, a subsequent loss of MCC 28-2 will cause RPS Bus 'B' to de-energize, which will not result in Group I isolation valves closing, although half of the logic is made up.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

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12

ID: 06-1 NRC EXAM

Points: 1.00

The SRM "DRIVE IN" push button needs to be (1) in order to drive the SRM detectors into the core, and the SRM "DRIVE OUT" push button needs to be (2) in order to drive the SRM detectors out of the core.

- A. (1) continually held
(2) continually held
- B. (1) continually held
(2) momentarily depressed
- C. (1) momentarily depressed
(2) continually held
- D. (1) momentarily depressed
(2) momentarily depressed

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 12 Details

Question Type:	Multiple Choice
Topic:	(012) 215004.A4.04
System ID:	13090
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE215LN004.11 Reference: DOP 0700-01 K/A: 215004.A4.04 3.2 / 3.2 Level: Memory Pedigree: Bank Explanation: The "drive in" push button is a 'maintain' contact and the "drive out" is a 'momentary' contact.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

13

ID: 06-1 NRC EXAM

Points: 1.00

Given the following set of conditions:

- A Reactor startup in progress on Unit 3.
- NSO withdraws control rod G-7 from notch 12 to notch 14.
- Reactor period changes from 100 seconds to a stable 19 seconds.

Which of the following identifies the NEXT required action to be taken?

- A. Verify IRM/SRM overlap.
- B. Re-insert control rods as necessary to achieve sub-criticality.
- C. Do NOT move any additional rods until a Core Monitor is run.
- D. Re-insert control rod G-7 to obtain a stable period indication of greater than 60 seconds.

Answer: D

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 13 Details

Question Type:	Multiple Choice
Topic:	(013) Generic.2.1.07
System ID:	13091
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 20102LK005 Reference: DGP 1-1, DAN 902-5 E-4 K/A: Generic.2.1.07 3.7 / 4.4 Level: Memory Pedigree: Bank Explanation: Per DGP 1-1 the range for reactor period is 60-330 seconds. The DAN states that rods should be inserted until period is more than 60 seconds.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

14

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 is in a refuel outage, with the following conditions:

- Divers are needed to enter the Unit 2 Torus for the 4 year check for plugging of the ECCS strainers.
- Operations, Contract Personnel, and Engineering all have responsibilities associated with the performance of this evolution.

Of the positions listed below, who is the HIGHEST level of authority required to approve this evolution?

- A. Nuclear Station Operator
- B. Unit Supervisor
- C. Shift Manager
- D. Operations Director

Answer: D

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 14 Details

Question Type:	Multiple Choice
Topic:	(014) Generic.2.1.01
System ID:	13092
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 29900LK119 Reference: HU-AA-1211, OP-AA-101-111 K/A: Generic.2.1.01 3.7 / 3.8 Level: Memory Pedigree: New Explanation: Procedure HU-AA-1211 states that Senior Line Management approves evolutions that require HLA/IPA briefings. Torus Diving Operations are an activity that is outlined on HU-AA-1211, as requiring an IPA.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

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15

ID: 06-1 NRC EXAM

Points: 1.00

Which one of the following is a procedural PRECAUTION that exists to prevent an inadvertent and unmonitored release of potentially contaminated atmosphere to the Reactor Building during Primary Containment Purging/Deinerting?

Do NOT open ___(1)___, unless the Drywell and Torus pressure are ___(2)___ 0.0 psig.

- A. (1) AO 2(3)-1601-22 Vent Valve
(2) less than
- B. (1) AO 2(3)-1601-22 Vent Valve
(2) equal to
- C. (1) AO 2(3)-1601-23 DW Vent Valve, OR AO 2(3)-1601-60 Torus Vent Valve
(2) less than
- D. (1) AO 2(3)-1601-23 DW Vent Valve, OR AO 2(3)-1601-60 Torus Vent Valve
(2) equal to

Answer: A

EXAMINATION ANSWER KEY

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Question 15 Details

Question Type:	Multiple Choice
Topic:	(015) Generic.2.3.09
System ID:	13093
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 22301LP002 Reference: DOP 1600-07 K/A: Generic.2.3.9 2.5 / 3.4 Level: Memory Pedigree: Bank Explanation: As stated in the Precaution Section of DOP 1600-07, Primary Containment Deinerter, and as shown on station P&IDs, vent valve, AO 2(3)-1601-22, provides a flow path to the reactor building from piping that is connected to the Drywell (via 1601-21) and the Torus (via 1601-56).

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

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16

ID: 06-1 NRC EXAM

Points: 1.00

The following conditions exist on Unit 3:

- All rods are in.
- RPV water level is 26 inches and rising.
- RPV pressure is 1070 and steady.
- EHC pressure is 0 psig.
- The MSIVs are OPEN and the bypass valves are CLOSED.

With these indications the operating team should FIRST enter ___(1)___ and ___(2)___ .

- A. (1) DEOP 100, RPV Control
(2) restore level using HPCI
- B. (1) DEOP 100, RPV Control
(2) initiate the Isolation Condenser
- C. (1) DOA 600-1, Transient Level Control
(2) restore level by starting the standby Condensate/Condensate Booster pumps
- D. (1) DOA 5650-2, Pressure Regulator Failure
(2) reduce RPV pressure with pressure set

Answer: B

EXAMINATION ANSWER KEY

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Question 16 Details

Question Type:	Multiple Choice
Topic:	(016) 295025.G.4.04
System ID:	13094
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 29502LP002 Reference: DEOP 100 K/A: 295025.G.4.04 4.0 / 4.3 Level: High Pedigree: Bank Explanation: For the conditions given, the action that need to be taken first are restoring pressure in accordance with DEOP 100-1.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

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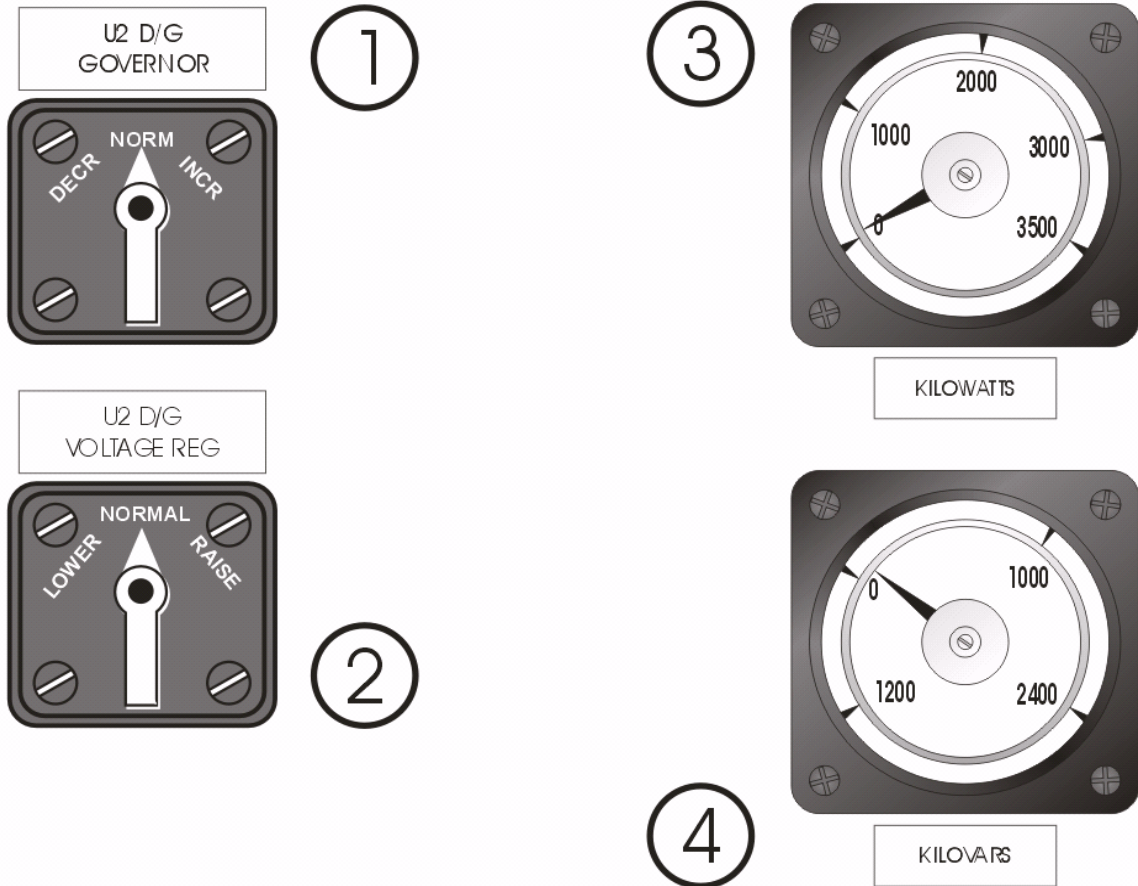
17

ID: 06-1 NRC EXAM

Points: 1.00

The NSO is performing a Unit 2 Emergency Diesel Generator surveillance. The D/G OUTPUT BREAKER has just been CLOSED.

Given the 902-8 panel indications below, to prevent a trip of the D/G OUTPUT BREAKER, the NSO must position Control Switch # ___(x)___ in the INCR / RAISE position, then observe the needle on meter # ___(y)___ move in the clockwise direction.



- A. (x) 1
(y) 3
- B. (x) 1
(y) 4
- C. (x) 2
(y) 4
- D. (x) 2
(y) 3

Answer: A

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 17 Details

Question Type:	Multiple Choice
Topic:	(017) 264000.A1.09
System ID:	13095
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 264L-S1-6 Reference: DOS 6600-01, DAN DG2 A-2 K/A: 264000.A1.09 Level: High Pedigree: New Explanation: By raising the Governor control switch the DG accepts some load to prevent a reverse power condition, indicated by the KILOWATT meter moving in the clockwise direction.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

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18

ID: 06-1 NRC EXAM

Points: 1.00

What is the operational concern with excessive moisture traveling downstream of the Off Gas Preheater per DOP 5400-23, 2A STEAM JET AIR EJECTOR/RECOMBINER STARTUP, OPERATION AND SHUTDOWN?

- A. Off Gas fire
- B. Overheating of the Recombiner
- C. Overpressurization of the Recombiner
- D. Reduction in Main Condenser vacuum

Answer: A and D

Following post exam comment review it was decided to accept two correct answers

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 18 Details

Question Type:	Multiple Choice
Topic:	(018) 271000.K5.06
System ID:	13096
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 299LN049-2 Reference: DOP 5400-23 K/A: 271000.K5.06 2.7 / 2.7 Level: High Pedigree: New Explanation: With excessive moisture traveling downstream of the Off Gas Preheater, water would be forced through the Catalytic Recombiner, resulting in high hydrogen concentrations downstream of the Recombiner, with the potential for an Off Gas fire. An overpressurization of the recombiner would not occur with water buildup. Condenser vacuum would be unaffected because the SJAES would still be functioning. The recombiner would NOT overheat, since water would quench the recombination process.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

19

ID: 06-1 NRC EXAM

Points: 1.00

Both units are operating at near rated power, with the following conditions:

- 2A, 2B, and 3B RBCCW pumps are operating, supplying their own Unit, and being powered from their normal power supply.
- The 2/3 RBCCW pump is operating, supplying Unit 3, and being powered from Unit 3.

Then Bus 34-1 trips on overcurrent.

What effect, if any, does this have on the 3B Pumpback compressor?

- A. NO cooling water has been lost.
- B. ALL cooling water has been lost.
- C. ONLY limited cooling water is being supplied, from the 2/3 RBCCW pump.
- D. ONLY limited cooling water is being supplied, from the 3B RBCCW pump.

Answer: A

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 19 Details

Question Type:	Multiple Choice
Topic:	(019) 295018.K2.01
System ID:	13097
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 223LN001.03 Reference: DOA 3700-01 K/A: 295018.K2.01 3.3 / 3.4 Level: High Pedigree: New Explanation: Cooling water for the Unit 3 pumpback compressors can ONLY be supplied from UNIT 2 (not Unit 3). When Bus 34-1 is lost, the 3B and 2/3 RBCCW pumps are lost, but there is no loss of cooling to the Pumpbacks.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

20

ID: 06-1 NRC EXAM

Points: 1.00

During an RPS failure to scram condition:

- The operator inserts control rods by initiating the ARI function per DGP 2-3 REACTOR SCRAM.

Which one of the following describes the change in control rod response and the reason for this difference?

The response, as a result of ARI initiation as compared to a normal RPS initiation, is that the Control Rods would take ___(1)___ time to insert, because ARI vents ___(2)___ .

- A. (1) less
(2) the scram air header
- B. (1) less
(2) each scram valve individually
- C. (1) more
(2) the scram air header
- D. (1) more
(2) each scram valve individually

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 20 Details

Question Type:	Multiple Choice
Topic:	(020) 295006.K1.03
System ID:	13098
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 212LN00211 Reference: UFSAR 7.8 K/A: 295006.K1.03 3.7 / 4.0 Level: High Pedigree: Bank Explanation: Distractors that state it would NOT take as long are incorrect due to RPS venting individual scram valves being quicker than the entire header. The distractors that states that ARI vents INDIVIDUAL scram valves are not correct, because ARI vents the header, not individual scram valves.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

21

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 has been shutdown for 30 hours, with the following set of conditions:

- 2A and 2C SDC pumps are running.
- 2A RBCCW pump is running.
- 2/3 RBCCW pump is running, lined up to Unit 2 and powered from Unit 2.

Then the following occurred:

- Due to a breaker malfunction, Bus 23-1 lost power and was subsequently re-powered.
- RBCCW parameters have stabilized two hours following the transient.

What will the current RBCCW pressure AND RBCCW temperature be compared to the pre-transient values?

Current RBCCW pressure

- A. will be the same and temperature will be the same.
- B. will be lower and temperature will be higher.
- C. will be the same and temperature will be lower.
- D. will be lower and temperature will be the same.

Answer: A

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 21 Details

Question Type:	Multiple Choice
Topic:	(021) 295021.A1.03
System ID:	13099
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 205LN001.12 Reference: DOA 3700-01, DOP 1000-06 K/A: 295021.A1.03 3.1 / 3.1 Level: High Pedigree: Bank Explanation: 2A and 2C SDC pumps are powered from Bus 23-1 and will load shed when Bus 23-1 goes under voltage. They will NOT remain connected to Bus 23-1 and therefore will NOT restart when Bus 23-1 is re-energized. 2A RBCCW pump is powered from Bus 23-1 and will STAY connected to Bus 23-1, since a Core Spray initiation signal is NOT present and WILL restart when Bus 23-1 is re-energized. 2/3 RBCCW pump is powered by Bus 24-1 in the above scenario and will NOT lose power. With both RBCCW pumps operating (after system is stable) there is no change in pressure.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

22

ID: 06-1 NRC EXAM

Points: 1.00

A reactor startup is in progress on Unit 3, when a fire completely de-energizes Unit 3 24/48 VDC Bus 3A.

Which IRMs will still be available for monitoring Reactor power?

- A. 11, 12, 13, 14
- B. 15, 16, 17, 18
- C. 11, 13, 15, 17
- D. 12, 14, 16, 18

Answer: B

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 22 Details

Question Type:	Multiple Choice
Topic:	(022) 215003.K2.01
System ID:	13100
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE215LN003.02 Reference: DOP 6900-03 K/A: 215003.K2.01 2.5 / 2.7 Level: Memory Pedigree: New Explanation: 3A powers channels 11, 12, 13, 14 (de-energized). 3B powers channels 15, 16, 17, 18 (energized).

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

23

ID: 06-1 NRC EXAM

Points: 1.00

Why is it NOT permissible to run the Mechanical Vacuum Pump when the reactor mode switch is in the RUN position?

- A. Because this would delay the Low Condenser Vacuum scram with the mode switch in RUN.
- B. Because this would provide an untreated release pathway for non-condensable to the Main Chimney.
- C. Because it shares a suction path with the SJAE's which are required to be on when the mode switch is in RUN.
- D. Because of the potential of Hydrogen fires and/or explosions due to the gases being admitted to the main condenser.

Answer: B

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 23 Details

Question Type:	Multiple Choice
Topic:	(023) Generic.2.3.11
System ID:	13101
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE271LN001.02 Reference: UFSAR 11.3, DAN 902-7 H-3 K/A: Generic.2.3.11 2.7 / 3.2 Level: Memory Pedigree: Bank Explanation: Not permissible in run due to bypassing the Off Gas System

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

24

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 is operating at near rated conditions. The Instrument Air system is in a normal system lineup with one compressor running.

A leak develops in the Unit 2 Instrument Air system that is slightly greater than the capacity of the running IA compressor.

Which of the following Control Room indications would the Unit NSO expect to observe?

U2 INST HDR PRESS will lower to _____ then stabilize or rise.

- A. 60 psi
- B. 85 psi
- C. 90 psi
- D. 95 psi

Answer: B

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 24 Details

Question Type:	Multiple Choice
Topic:	(024) 295019.A1.02
System ID:	13102
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE278LN001.06 Reference: DOA 4700-01, Lesson Plan DRE278LN001 K/A: 295019.AA1.01 3.5/3.3 Level: Memory Pedigree: New Explanation: The AO backup from the Service Air System will open at 85 psi. The 60 psi distractor is credible because that is when the dryers are automatically bypassed. The 90 psi distractor is credible because that is when the compressor loads. The 95 psi distractor is credible because that is when the Unit 1 IA system backup opens, but is normally isolated.

Required Reference: None

EXAMINATION ANSWER KEY

06-1 NRC Exam

25

ID: 06-1 NRC EXAM

Points: 1.00

Unit 3 is operating at near rated power, with the following equipment out of service:

- 2B CRD Pump.
- Unit 2 HPCI system.

Then the following sequence of events occur:

- 01:16:00, Rx Scram due to a feedwater malfunction.
- 01:16:30, 2A CRD Pump trips on overcurrent.
- 01:17:00, A Small Steam Line leak on 'A' Main Steam Line in the X Area.
- 01:17:00, Group 1 is NOT received due to logic system failures.
- 01:17:00, RPV water level is -19 inches.
- 01:19:30, RPV water level is -39 inches.
- 01:23:00, RPV water level is -59 inches.
- 01:24:00, RPV water level is -77 inches.

With no Operator action, what is the EARLIEST time that the ADS valves will OPEN?

- A. 01:25:00
- B. 01:25:30
- C. 01:31:30
- D. 01:33:30

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 25 Details

Question Type:	Multiple Choice
Topic:	(025) 218000.K5.01
System ID:	13103
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE218LN001.06 Reference: Electrical Print 12E-2461 K/A: 218000.K5.01 3.8 / 3.8 Level: High Pedigree: Bank Explanation: For a leak outside containment, ADS will provide HPCI a chance to recover level by waiting 8.5 minutes. If level does NOT recover to above -59" within 8.5 minutes, then an automatic blowdown will occur, provided permissives for blowdown are met (i.e., not inhibited, pump running, etc.).

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

26

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 was scrammed and the control room evacuated, due to a fire. RPV water level is -88 inches.

Based on the above, which of the following instrument racks is closest to the main Control Room and may be utilized to monitor current RPV water level?

- A. 2202-5 Instrument Rack.
- B. 2202-6 Instrument Rack.
- C. 2202-7 Instrument Rack.
- D. 2202-8 Instrument Rack.

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 26 Details

Question Type:	Multiple Choice
Topic:	(026) 295016.A1.06
System ID:	13104
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE216LN001.12 Reference: DSSP-100CR, Print M-2, DRE216LN001 K/A: 295016.A1.06 4.0 / 4.1 Level: High Pedigree: New Explanation: Per the above procedure, all 4 instrument racks (5, 6, 7, and 8) have remote level indication, but with RPV water level < -60 inches only the 7 and 8 racks will monitor level. The 2202-7 is the closest to the main Control Room (East side Rx Bldg 517') and the 2202-8 is farther (West side Rx Bldg 517').

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

27

ID: 06-1 NRC EXAM

Points: 1.00

Per the UFSAR, what is the reason for having LPCI pumps operating with the Torus CLG/TEST valves throttled open following Reactor vessel flooding?

- A. To ensure adequate mixing of the Torus water.
- B. To maintain Torus level in the normal operating band.
- C. To immediately terminate the increase in Torus temperature.
- D. To terminate the increase in Torus temperature after several hours.

Answer: D

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 27 Details

Question Type:	Multiple Choice
Topic:	(027) 295013.K3.01
System ID:	13105
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE203LN001.01 Reference: UFSAR 6.2, DOP 1500-02 K/A: 295013.K3.01 3.6 / 3.8 Level: Memory Pedigree: New Explanation: Per the above UFSAR section 6.2.1.3.4.1 page 6.2.33

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

28

ID: 06-1 NRC EXAM

Points: 1.00

Unit 3 is operating at near rated power, when the following occurs:

- Bus 34-1 experiences an overcurrent condition.
- A fire in 250VDC Turbine Building MCC 3 causes the MCC to become de-energized.

What effect, if any, does this have on the ESS Bus?

- A. The ESS ABT will transfer power to the ESS Bus, from the Inverter to MCC 38-2, via a Transformer.
- B. The ESS ABT will transfer power to the ESS Bus, from the Static Switch to MCC 38-2, via a Transformer.
- C. The ESS Static Switch will transfer power to the ESS Bus, from the Inverter to Bus 35, via a Voltage Regulator.
- D. The ESS Static Switch will transfer power to the ESS Bus, from the Inverter to Bus 36, via a Voltage Regulator.

Answer: D

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 28 Details

Question Type:	Multiple Choice
Topic:	(028) 262002.K4.01
System ID:	13106
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE262LN001.06 Reference: DAN 902-8 E-8, DOP 6800-01 K/A: 262002.K4.01 3.1 / 3.4 Level: High Pedigree: New Explanation: Upon a loss of Bus 34-1 (overcurrent), Bus 39 becomes de-energized. Subsequently with a loss of the TB 250 VDC MCC 3, the Inverter loses power. With no power into the Inverter, the Static Switch will transfer power to the ESS Bus, from the Inverter to Bus 36, via a Voltage Regulator.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

29

ID: 06-1 NRC EXAM

Points: 1.00

Unit 3 is operating at near rated power, with the following conditions:

- Bus 36 is out of service.
- 3B EHC Pump is operating.
- 3A Stator Cooling Pump is operating.

Then the following sequence of events occur:

- Time 0 min 00 sec: Bus 35 experiences an overcurrent condition.
- Time 3 min 07 sec: The Main Turbine/Generator trips.

What is the cause of the Main Turbine/Generator trip?

- A. BOTH EHC pumps have lost power and EHC reached the low oil pressure trip setpoint.
- B. BOTH Hydrogen Seal Oil pumps have lost power and the plant did NOT achieve a sufficient Turbine runback.
- C. BOTH Stator Cooling Pumps have lost power and the plant did NOT achieve a sufficient Turbine runback.
- D. BOTH Isolated Phase Bus Duct Cooler blowers have lost power and the Bus Duct temperatures reached the trip setpoint.

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 29 Details

Question Type:	Multiple Choice
Topic:	(029) 295005.K2.08
System ID:	13107
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE245LN001.08 Reference: DAN 902-7 D-4, 12E-3305 K/A: 295005.K2.08 3.2 / 3.3 Level: High Pedigree: Bank Explanation: With Bus 36 out of service and the overcurrent loss of Bus 35, this causes a loss of all Stator Cooling. Subsequently a Turbine runback is initiated. Without achieving the Turbine runback (stator amps < 7380) within 3 minutes, and the Unit at rated power, a Turbine trip is actuated.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

30

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 is operating at near rated power, when the following occurs:

- Bus 27 de-energizes due to a fire in the main feed breaker.
- Bus 29 experiences an overcurrent condition.

What effect, if any, does this have on the APRM channels?

Channels 1, 2, 3 would be ___(1)___ and channels 4, 5, 6 would be ___(2)___ .

- A. (1) Energized
(2) Energized
- B. (1) Energized
(2) De-energized
- C. (1) De-energized
(2) Energized
- D. (1) De-energized
(2) De-energized

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 30 Details

Question Type:	Multiple Choice
Topic:	(030) 215005.K2.02
System ID:	13108
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE215LN005.02 Reference: DOA 0500-05 K/A: 215005.K2.02 2.6 / 2.8 Level: Memory Pedigree: New Explanation: With an overcurrent on Bus 29, MCC 29-2 de-energizes, which causes a loss of RPS MG Set 'B', which powers RPS Bus 'A'. RPS Bus 'A' is the power supply to APRM channels 1, 2, and 3. Channels 4, 5, and 6 are unaffected, since they are power via RPS Bus 'B', via RPS MG Set 'A', via MCC 28-2.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

31

ID: 06-1 NRC EXAM

Points: 1.00

Given the following set of conditions:

- The Security Diesel Generator is O.O.S. for repairs.
- A loss of the NORMAL bus that feeds the Security Systems occurs.
- NO Emergency Diesel Generators automatically start.

What actions can be taken to power the Security Systems?

Attempt to start the

- A. Unit 2 EDG.
- B. Unit 2 SBO D/G.
- C. Unit 3 EDG.
- D. Unit 2/3 EDG.

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 31 Details

Question Type:	Multiple Choice
Topic:	(031) Generic.2.2.03
System ID:	13109
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE264LN001.12 Reference: DOA 6500-01, DOP 0080-03, DGA-12 K/A: Generic.2.2.03 3.1 / 3.3 Level: Memory Pedigree: New Explanation: Security MCC receive power from Unit 3 only, Bus 34-1. Bus 34-1 can only be powered from the Unit 3 EDG, given the conditions. The required actions are taken per DGA-12.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

32

ID: 06-1 NRC EXAM

Points: 1.00

Both units are operating at near rated power, with following initial conditions:

- 2A & 2B RBCCW Pumps and Heat Exchangers are in operation on Unit 2.
- 3A RBCCW Pump and Heat Exchanger are in operation on Unit 3.

Then the following occurs:

- An earthquake occurs causing steams leak inside BOTH Unit's Drywells.
- Unit 2 Drywell pressure is 1.45 psig and steady.
- Unit 3 Drywell pressure is 3.5 psig and steady.
- Bus 33-1 experiences an Overcurrent condition.

With regards to RBCCW, what is the NEXT required action?

- A. Manually scram Unit 2.
- B. Isolate RBCCW to the Unit 2 Drywell ONLY.
- C. Isolate RBCCW to the Unit 3 Drywell ONLY.
- D. Isolate RBCCW to BOTH Unit 2 AND Unit 3 Drywells.

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 32 Details

Question Type:	Multiple Choice
Topic:	(032) Generic.2.4.24
System ID:	13110
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE276LN001.08 Reference: DOA 3700-01 K/A: Generic.2.4.24 3.3 / 3.7 Level: High Pedigree: Bank Explanation: With a LOCA on Unit 3 AND Drywell pressure > 2.0 psig, and a loss of RBCCW (overcurrent on Bus 33-1) the required action is to isolate RBCCW to Unit 3 Drywell ONLY. Unit 2 has a LOCA, but does NOT have Drywell pressure > 2.0 psig . Manual scram of Unit 2 is NOT required, since RBCCW is not lost.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

33

ID: 06-1 NRC EXAM

Points: 1.00

Given the following conditions:

- An NLO has reported a fire in the Unit 3 Shutdown Cooling Pump Room
- Multiple 'fire messages' have been received on the XL3 system printer

In accordance with DOA 0010-10, FIRE/EXPLOSION, which describes the Immediate Operator Actions in response to these conditions?

Depress and release FIRE ALARM pushbutton and

- A. IMMEDIATELY announce the fire location on the plant PA system, AND notify Rad Protection to respond to the scene.
- B. IMMEDIATELY announce the fire location on the plant PA system, AND notify Mechanical Maintenance to respond to the scene.
- C. WAIT 10 seconds, then announce the fire location on the plant PA system, AND notify Rad Protection to respond to the scene.
- D. WAIT 10 seconds, then announce the fire location on the plant PA system, AND notify Mechanical Maintenance to respond to the scene.

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 33 Details

Question Type:	Multiple Choice
Topic:	(033) Generic.2.4.27
System ID:	13129
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 29501LK080 Reference: DOA 0010-10 K/A: Generic.2.4.27 3.0 / 3.5 Level: Memory Pedigree: Bank Explanation: Per DOA 0010-10 Immediate Operator Actions.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

34

ID: 06-1 NRC EXAM

Points: 1.00

You are a licensed NSO performing a JPM at a Unit 2 CRD accumulator as part of requalification training. You hear a continuous 2 minute siren followed by an announcement directing all personnel NOT having emergency assignments, to report to the CLOSEST assembly area.

To which of the following areas are you required to report?

- A. Main Control Room
- B. Operation Support Center (OSC)
- C. Unit 2 Turbine Building Main Corridor
- D. Administration Building Lunchroom/Foyer Area

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 34 Details

Question Type:	Multiple Choice
Topic:	(034) Generic.2.4.39
System ID:	13112
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 29501LP083 Reference: EP-AA-1004 K/A: Generic.2.4.39 3.3 / 3.1 Level: Memory Pedigree: New Explanation: Per EP-AA-1004, upon hearing a 2 minute continuous siren (EP assembly siren) all personnel not having emergency assignments have been instructed to assemble in predesignated assembly areas. Refer to figure 4-2. Per figure 4-2, the closest area from the Unit 2 accumulator banks is the Unit 2 turbine building main corridor. IF the licensed RO was on-shift, the assembly area would be the Main Control Room.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

35

ID: 06-1 NRC EXAM

Points: 1.00

Unit 3 is at 95% power, with all required OPRMS operable, when the following indications SUDDENLY change:

- Core flow has decreased.
- Thermal Power has decreased.
- Main Generator power has decreased.
- Core differential pressure has decreased.

Based on these indications what has occurred AND what must be done?

- A. Recirc pump trip has occurred;
Scram the Reactor, per DOA 0202-01 RECIRCULATION PUMP TRIP.
- B. Recirc pump trip has occurred;
CRAM rods must be inserted to reduce Rx power to 25 to 30% per DOA 0202-01, RECIRCULATION PUMP TRIP.
- C. Jet pump failure has occurred;
start unit shutdown, per DOA 0201-01 JET PUMP FAILURE/SHROUD ACCESS COVER FAILURE.
- D. Jet pump failure has occurred;
secure the affected recirc pump immediately per DOA 0201-01, JET PUMP FAILURE/SHROUD ACCESS COVER FAILURE.

Answer: B

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 35 Details

Question Type:	Multiple Choice
Topic:	(035) 295001.G.1.23
System ID:	13113
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 202LK016 Reference: DOA 0201-01, DOA 0202-01 K/A: 295001.G.1.23 3.9 / 4.0 Level: High Pedigree: Modified from Bank Explanation: These are the indications of a recirc pump trip. With FCL > 55%, the immediate action for a recirc pump trip is to insert CRAM rods per DOA 0202-01. If a jet pump failed the indicated core flow would go up.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

36

ID: 06-1 NRC EXAM

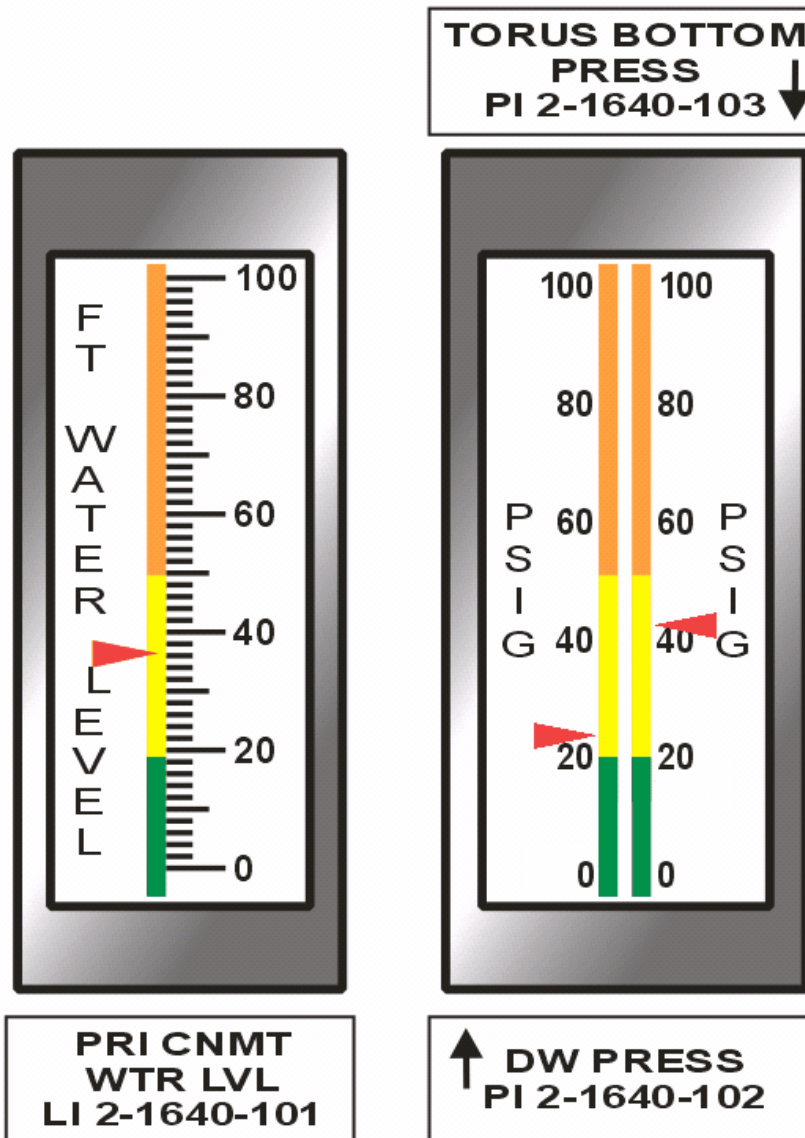
Points: 1.00

Unit 2 was operating at near rated power when the reactor scrammed on high Drywell pressure. The following conditions now exist:

- Drywell pressure is 23 psig and steady.
- Drywell Oxygen concentration is 2.0% and steady.
- Drywell Hydrogen concentration is 4.0% and steady.

The SRO has directed you to vent the Containment utilizing DEOP 0500-04, CONTAINMENT VENTING.

Given the indications below, which of the following actions are required?



EXAMINATION ANSWER KEY

06-1 NRC Exam

- A. Place the VENT ISOL SIGNAL BYPASS switch on the 902-5 panel to DRYWELL,
Open AO 2-1601-62, DW 2-INCH VENT VLV,
Open AO 2-1601-63 VENT TO SBGT as needed to maintain Primary Containment pressure.
- B. Place the VENT ISOL SIGNAL BYPASS switch on the 902-5 panel to TORUS,
Open AO 2-1601-61, TORUS 2-INCH VENT VLV,
Open AO 2-1601-63 VENT TO SBGT as needed to maintain Primary Containment pressure.
- C. Place the VENT ISOL SIGNAL BYPASS switch on the 902-5 panel to DRYWELL,
Open AO 2-1601-62, DW 2-INCH VENT VLV,
Open AO 2-1601-63 VENT TO SBGT.
- D. Place the VENT ISOL SIGNAL BYPASS switch on the 902-5 panel to TORUS,
Open AO 2-1601-61, TORUS 2-INCH VENT VLV,
Open AO 2-1601-63 VENT TO SBGT.

Answer: C

Question 36 Details

Question Type:	Multiple Choice
Topic:	(036) 500000.A1.03
System ID:	13114
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 29502LK068 Reference: DEOP 200-2, DEOP 0500-04 K/A: 500000.A1.03 3.4 / 3.2 Level: High Pedigree: New Explanation: Per DEOP 200-2, given the Hydrogen concentration and Torus level (> 30 feet on figure), the correct action is to vent the Drywell to SBGT per attachment 2 of DEOP 0500-04. The distractors are incorrect based on venting the Torus and/or using attachment 1 (which is for pressure control).

REQUIRED REFERENCES: DEOP 0500-04.

EXAMINATION ANSWER KEY

06-1 NRC Exam

37

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 was operating at near rated power with the 2B Core Spray pump O.O.S. when a transient occurred resulting in the following conditions:

- RPV pressure is 230 psig and steady.
- Drywell pressure is 4.5 psig and trending down.
- RPV water level is -80 inches and trending down.

After Core Spray automatically initiated and restored RPV water level, the following conditions exist:

- RPV pressure is 230 psig and steady.
- Drywell pressure is 3.0 psig and steady.
- RPV water level is +25 inches and steady.

The crew decided that Core Spray was no longer required for core cooling and placed the control switches for the PP DISCH VLV MO 2-1402-24A and 2-1402-25A to the CLOSE position.

Subsequently RPV water level lowered to -70 inches.

Which of the following describes the MINIMUM required crew actions to ensure Core Spray flow to the RPV is re-established?

- A. Verify automatic actions have occurred.
- B. Place ONLY the control switch for PP DISCH VLV MO 2-1402-24A to the OPEN position.
- C. Place ONLY the control switch for PP DISCH VLV MO 2-1402-25A to the OPEN position.
- D. Place BOTH the control switches for PP DISCH VLV MO 2-1402-24A and 2-1402-25A to the OPEN position.

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 37 Details

Question Type: Multiple Choice
Topic: (037) 209001.A2.02
System ID: 13115
User ID: 06-1 NRC EXAM
Status: Active
Always select on test: No
Authorized for practice: No
Difficulty: 2.00
Time to Complete: 3
Point Value: 1.00
Cross Reference Number:
Num Field 1:
Num Field 2:
Text Field:
Comments:

Objective: DRE209LN001.06
Reference: DOP 1400-02
K/A: 209001.A2.02 3.2 / 3.2
Level: High
Pedigree: New

Explanation: Core Spray initiation signals are +2 psig in the Drywell and -59 inches RPV water level. After Core Spray restored the RPV water level the Drywell pressure is still above the initiation setpoint. When the crew took place the 24 and 25 valve control switches to close, only the 25 valve went close, per system interlocks. With the 2-1402-25A valve closed with an initiation signal continuously present, the valve must be manually opened to establish flow. Opening the 2-1402-24A valve is not needed, since it did not go closed per system interlocks. The distractor with verifying auto actions is not correct, because the 2-1402-25A valve does not automatically open, once closed.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

38

ID: 06-1 NRC EXAM

Points: 1.00

Given the following conditions on Unit 2:

- An automatic AND manual Scram were attempted, but were unsuccessful.
- RPV pressure is 1063 psi and steady.
- RPV water level is +30" and steady.
- The Unit Supervisor has directed the Unit NSO to initiate SBLC per the hard card.

Which of the following describes the correct response of the 902-5 Panel SBLC pump discharge pressure indicator, during the SBLC System initiation?

Pressure will ramp up to approximately

- A. 1100 psi, then be maintained at that pressure.
- B. 1100 psi, then it will trend with reactor pressure.
- C. 1450 psi, then be maintained at that pressure.
- D. 1450 psi, then it will trend with reactor pressure.

Answer: B

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 38 Details

Question Type:	Multiple Choice
Topic:	(038) 211000.A3.01
System ID:	13116
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE211LN001.03 Reference: DOP 1100-02, DOS 1100-04 K/A: 211000.A3.01 3.6 / 3.5 Level: Memory Pedigree: Bank Explanation: The positive displacement pump discharge pressure will ramp up to reactor pressure then follow reactor pressure. It does not go up to a specific pressure or maintain a set pressure. At pressures > 1400, the relief valves will lift.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

39

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 is operating at near rated power, when the following set of events occur:

- A plant transient occurs which requires the injection of boron into the RPV using SBLC.
- The NSO places the SBLC INJECTION CONTROL keylock switch to the "SYS 1 & 2" position.

Then the following indications are observed:

- Pump 1 light: extinguished.
- Pump 2 light: illuminated.
- Squib A light: extinguished.
- Squib B light: extinguished.

If the SBLC Storage Tank INITIAL level was 3850 gallons *prior* to the transient, the EXPECTED level, 15 minutes after the SBLC system control switch was placed in the "SYS 1 & 2" position, would be _____ gallons.

- A. 1450
- B. 2650
- C. 3250
- D. 3850

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 39 Details

Question Type:	Multiple Choice
Topic:	(039) 211000.A1.01
System ID:	13117
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE211LN001.02 Reference: DOP 1100-02, DOS 1100-03 K/A: 211000.A1.01 3.6 / 3.7 Pedigree: New Level: High Explanation: Each pump AND squib has ~ a 40 gpm capacity. The squibs are downstream of a common discharge header from the pumps. With the indications provided, only ONE pump would be operating (passing flow), and BOTH squibs would be open (passing flow). Since only ONE pump is passing flow, at a rate of ~40 gpm, over a period of 15 minutes, the total drop in the storage tank level would be ~ 600 gpm, resulting in an ending tank level of ~3250 gallons. The other values would indicate the following: 1450 gallons - 2 pumps running for 30 minutes, 2650 gallons - 2 pumps running for 15 minutes, 3850 gallons - no pumps running.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

40

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 was operating at near rated power, when the following set of conditions occurred:

- The Bailey system experienced a transient, causing RPV water level to drop to -72 inches.
- After an Operator took manual control of feedwater, RPV water level returned to +30 inches.

After the PCIS isolation signal clears, and the unit is stable, what MINIMUM action(s) is (are) required to meet electrical logic requirements for the OUTBOARD MSIVs to be opened?

Take the GROUP ___(1)___ ISOL RESET switch to the CH ___(2)___ position(s).

- A. (1) 1
(2) "A" ONLY
- B. (1) 1
(2) "A" AND "B"
- C. (1) 2 and 3
(2) "A" ONLY
- D. (1) 2 and 3
(2) "A" AND "B"

Answer: B

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 40 Details

Question Type:	Multiple Choice
Topic:	(040) 223002.G.1.23
System ID:	13118
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE223LN005.06 Reference: DAN 902-5 D-4, DGP 2-3, 12E-2504A sht 1 K/A: 223002.G.1.23 3.9 / 4.0 Level: High Pedigree: New Explanation: An RPV water level low signal will cause a group 1, 2, and 3 isolation. After the condition is cleared, the isolations may be reset. Only the Group 1 reset switch is required the MSIVs to be opened. To reset the Isolation and allow opening of ALL MSIVs, the Group 1 switch is required to be taken to BOTH the channel "A" and "B" positions. The Group 2 and 3 switch (one switch) will not reset the MSIV closure signal signal.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

41

ID: 06-1 NRC EXAM

Points: 1.00

Both Units are operating at near rated power, with Bus 28 and Bus 38 out of service for Main Feed Breaker replacement, when the following occurs:

- Bus 29 experiences an overcurrent condition.

What is providing power to the Unit 2 Core Spray System I logic?

- A. Unit 3 125 VDC batteries
- B. Unit 2 125 VDC Battery Charger 2A
- C. Unit 2 125 VDC batteries
- D. Unit 3 125 VDC Battery Charger 3

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 41 Details

Question Type:	Multiple Choice
Topic:	(041) 295004.K2.02
System ID:	13182
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE263LN001.12 Reference: DOP 6900-06, DOA 6900-T1 K/A: 295004.K2.02 3.0 / 3.1 Level: High Pedigree: New Explanation: With Bus 28 O.O.S. and a loss of Bus 29, the Unit 2 125 VDC system is being supplied by the Unit 2 batteries. With Bus 38 O.O.S., the Unit 3 125 VDC system is being supplied by Charger 3. The candidate must know that the power supply to Core Spray Div I logic is dist panel 2A-1, which is supplied from the Unit 2 125VDC system and is now being power by the Unit 2 batteries (given the Bus losses in the stem).

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

42

ID: 06-1 NRC EXAM

Points: 1.00

Given the following conditions concerning Unit 2:

- All rods are in and the plant is in the process of being cooled down.
- The 2A and 2B SDC pumps are running.
- RPV temperature is presently 300°F, with Shutdown Cooling (SDC) controlling the cool down rate.
- The temperature element feeding 2A Recirc Loop temperature indicator spikes to 400°F.

Based on these conditions, the SDC _____ .

- A. pumps ONLY will trip
- B. system will isolate
- C. system will remain in service since 2B Recirc Loop temperature is 300°F
- D. system will remain in service since high temperature is not present at the SDC pump suction

Answer: B

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 42 Details

Question Type:	Multiple Choice
Topic:	(042) 205000.K1.03
System ID:	13120
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE205LN001.06 Reference: DAN 902-4 H-4 K/A: 205000.K1.03 3.4 / 3.5 Level: Memory Pedigree: Bank Explanation: High temp in either recirc loop will cause system isolation. High temp isolation switches use same signal that drive recorder and alarm. Note: Alarm is at 330 degrees; System isolation is at 345 degrees; Pump trip is at 345 degrees as sensed by temp switch at pump suction for each pump.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

43

ID: 06-1 NRC EXAM

Points: 1.00

Given the following set of conditions on Unit 2:

- Time 12:00:00: A Scram occurred on High Drywell pressure.
- Time 12:01:00: Drywell stabilized at 3.5 psig.
- Time 12:02:30: HPCI is being utilized for RPV pressure control.
- Time 12:05:00: RPV pressure is stable at 945 psig.
- Time 12:07:00: Unit 3 Turbine Building MCC 3 de-energizes, due to a fire.

How will the MCC loss affect RPV pressure AND why?

- A. RPV pressure decreases;
HPCI stop and control valves will drift open as oil pressure decreases.
- B. RPV pressure remains steady;
HPCI stop and control valves fail "as is" as oil pressure decreases.
- C. RPV pressure remains steady;
HPCI stop and control valves continue to function as oil pressure is maintained.
- D. RPV pressure increases;
HPCI stop and control valves will drift closed as oil pressure decreases.

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 43 Details

Question Type:	Multiple Choice
Topic:	(043) 206000.K3.02
System ID:	13121
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE206LN001.06 Reference: DOA 6900-04 K/A: 206000.K3.02 3.8 / 3.8 Level: High Pedigree: New Explanation: With a loss of Unit 3 250 VDC MCC 3 power is lost to Unit 2 Reactor Building MCCs 2A and 2B, which causes the Unit 2 Aux Oil pump to become de-energized. With HPCI already operating, HPCI will stay in its current mode of operation, due to high pressure oil being supplied by the Main Oil pump. With HPCI staying in its current mode of operation, RPV pressure will remain steady.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

44

ID: 06-1 NRC EXAM

Points: 1.00

T-Quenchers are used to mitigate condensation oscillation on which of the following components?

- A. Downcomers
- B. Safety valves
- C. Turbine Bypass valves
- D. Electromatic relief valves

Answer: D

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 44 Details

Question Type:	Multiple Choice
Topic:	(044) 239002.K4.04
System ID:	13122
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE239LN001.06 Reference: UFSAR 6.2.1.3.6.4.3 K/A: 239002.K4.04 3.4 / 3.6 Level: Memory Pedigree: New Explanation: Per the above reference, the electromatic relief and target rock (SRV) are designed with T- quencher to mitigate the effects of condensation oscillation.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

45

ID: 06-1 NRC EXAM

Points: 1.00

QUESTION DELETED FROM EXAM

A major fault occurs on the 2A Instrument Air Compressor (IAC), but it's feed breaker does NOT trip.

Bus ___(1)___ will de-energize and the ___(2)___ to re-energize the de-energized Bus.

- A. (1) 20;
(2) Bus 20 to Bus 24 cross-tie breaker(s) will AUTOMATICALLY close
- B. (1) 24;
(2) Operator will MANUALLY close the Bus 24 to Bus 24-1 cross-tie breaker(s)
- C. (1) 25;
(2) Operator will MANUALLY close the Bus 25 to Bus 27 cross-tie breaker(s)
- D. (1) 27;
(2) Bus 25 to Bus 27 cross-tie breaker(s) will AUTOMATICALLY close

Answer: C

QUESTION DELETED FROM EXAM

Post exam review resulted in this question being deleted as having no correct answer.

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 45 Details

Question Type:	Multiple Choice
Topic:	(045) 262001.A2.10
System ID:	13123
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE262LN001.06 Reference: DGA-12, DAN 902-8 A-5 K/A: 262001.A2.10 2.9 / 3.4 Level: High Pedigree: New Explanation: 2A IAC is powered from Bus 26. The overcurrent fault on the 2A IAC is seen on Bus 26. With a fault on Bus 26, its Feed Breaker (at Bus 24) trips, causing Bus 26 to go undervoltage. When the feed breaker to Bus 26 trips, this causes an auto closure of the Bus 25 to Bus 26 cross-tie breaker. The fault is now seen by Bus 25 and its feed breaker (at Bus 23) trips. To re-energize Bus 26, MANUALLY (only) close the Bus 25 to Bus 27 cross-tie breaker.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

46

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 is operating at near rated power, with Bus 25 OOS for maintenance, when the following occurs:

- Bus 28 experiences an overcurrent condition.

What affect (if any) does this have on the Unit 2 24/48 VDC system?

- A. None.
- B. ONLY the 'A' battery chargers lose their AC power.
- C. ONLY the 'B' battery chargers lose their AC power.
- D. BOTH the 'A' AND 'B' battery chargers lose their AC power.

Answer: D

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 46 Details

Question Type:	Multiple Choice
Topic:	(046) 263000.K1.01
System ID:	13124
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE263LN003.12 Reference: DOP 6800-02, DOA 6900-01 K/A: 263000.K1.01 3.3/3.5 Level: High Pedigree: New Explanation: All 4 (2 positive and 2 negative) chargers are powered from the Instrument Bus. With Bus 25 OOS, MCC 25-2 has no power. With Bus 28 going overcurrent, MCC 28-2 loses power. Without these two MCCs, the Instrument Bus has no power, and subsequently all 4 chargers lose AC power.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

47

ID: 06-1 NRC EXAM

Points: 1.00

The power supply to the Unit 2 Backup Scram Valve solenoid 302-19A is ___(1)___ and the power supply to the Unit 2 Backup Scram Valve Solenoid 302-19B is ___(2)___ .

- A. (1) Unit 2 RPS Bus A
(2) Unit 2 RPS Bus B
- B. (1) Unit 2 RPS Bus B
(2) Unit 2 RPS Bus A
- C. (1) 125 VDC Dist Panel 2B-1
(2) 125 VDC Dist Panel 2A-1
- D. (1) 125 VDC Dist Panel 2A-1
(2) 125 VDC Dist Panel 2B-1

Answer: D

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 47 Details

Question Type:	Multiple Choice
Topic:	(047) 201001.K2.03
System ID:	13125
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE201LN001.03 Reference: DOA 6900-T1 K/A: 201001.K2.03 3.5 / 3.6 Level: Memory Pedigree: New Explanation: The power supplies for the backup scram valve solenoids are listed in the above DOA. Distractors reflect common misconception, due to A RPS MG powering B RPS Bus.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

48

ID: 06-1 NRC EXAM

Points: 1.00

Which one of the following events would bring the HPCI pump closer to cavitation (lower the available NPSH), while taking a suction from the Torus?

- A. CST leaking into the Torus.
- B. Broken tailpipe on an Electromatic Relief Valve.
- C. Inadvertently opened Electromatic Relief Valve.
- D. A stuck open Torus to Drywell vacuum breaker.

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 48 Details

Question Type:	Multiple Choice
Topic:	(048) 295026.K1.01
System ID:	13126
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: Reference: UFSAR 6.3 K/A: 295026.K1.01 3.0 / 3.4 Level: High Pedigree: Bank Explanation: The open Relief Valve will cause the Torus water to heat up. Warmer water will lower pump NPSH, bringing the HPCI pump closer to cavitation. A stuck open Torus to Drywell vacuum breaker has no effect on NPSH. Broken tailpipe on a Relief Valve (not open) has no effect on the Torus water temperature. The CST leaking into the Torus will lower the water temperature, thus improving NPSH.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

49

ID: 06-1 NRC EXAM

Points: 1.00

Unit 3 is shutdown with the following conditions:

- Drywell temperature is 115°F.
- RPV pressure is 0 psig.
- No Recirc pumps are running.
- No Shutdown Cooling pumps are running.

Which of the following is the lowest usable level indication available at the 903-3 panel to the NSO?

- A. -39 inches
- B. -51 inches
- C. -60 inches
- D. -297 inches

Answer: D

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 49 Details

Question Type:	Multiple Choice
Topic:	(049) 295031.A2.01
System ID:	13127
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 29501LK002 Reference: DEOP 100 K/A: 295031.A2.01 4.6 / 4.6 Level: High Pedigree: Bank Explanation: Under the given conditions, -297 is readable at the 903-3 panel, via the Fuel Zone recorder.

REQUIRED REFERENCES: DEOP Charts with the entry conditions blanked out.

EXAMINATION ANSWER KEY

06-1 NRC Exam

50

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 is in a refuel outage.

Prior to beginning fuel moves, the Radiation Protection Department must place a high radiation lock and post NO ENTRY FUEL TRANSFER IN PROGRESS signs.

Per the Master Refuel Procedure, the locks and signs are posted on the access ladders to the Drywell ABOVE the _____ floor.

- A. 1st
- B. 2nd
- C. 3rd
- D. 4th

Answer: B

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 50 Details

Question Type:	Multiple Choice
Topic:	(050) Generic.2.2.28
System ID:	13128
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 234LK005 Reference: DFP 0800-01 K/A: Generic.2.2.28 2.6 / 3.5 Level: Memory Pedigree: New Explanation: Per the above procedure.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

51

ID: 06-1 NRC EXAM

Points: 1.00

Unit 3 is operating at 65% power, with the Recirc pumps operating at a 2% speed difference from each other.

A symptom of a failed Jet pump is an unexplained

- A. decrease in Recirc pump flow.
- B. increase in core thermal power.
- C. increase in indicated total core flow.
- D. individual Jet pump flow indicator which is significantly less stable than the other Jet pump flow indicators.

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 51 Details

Question Type:	Multiple Choice
Topic:	(051) 295001.A2.03
System ID:	13130
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE202LN001.12 Reference: DOA 0201-01 K/A: 295001.A2.03 3.3 / 3.3 Level: Memory Pedigree: Bank Explanation: One of the indications of a failed jet pump would be an increase in indicated total core flow. Individual Jet pump flow indicator would be MORE, not less, stable than the other Jet pump flow indicators. Recirc pump flow would INCREASE, not decrease. There would be a DECREASE in core thermal power, not an increase.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

52

ID: 06-1 NRC EXAM

Points: 1.00

Unit 3 was operating at ~ 60% power, when the following occurred:

- The 3C Feedwater Flow detector failed downscale.

The FWLC System will be controlling in

- A. Manual
- B. Manual Bypass
- C. Single Element
- D. Three Element

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 52 Details

Question Type:	Multiple Choice
Topic:	(052) 259002.K6.04
System ID:	13131
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE259LN002.06 Reference: DRE259LN002 K/A: 259002.K6.04 3.1 / 3.1 Level: Memory Pedigree: New Explanation: The Feedwater detector failing downscale returns a "bad quality" to the FWLC system, which will automatically transfer to single element control.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

53

ID: 06-1 NRC EXAM

Points: 1.00

Given the following set of conditions:

- Unit 3 is at near rated power.
- HPCI is currently on day 5 of a 14 day LCO due to MOV work on its injection valve (3-2301-8).
- 3-203-3E Electromatic Relief Valve (ERV) is declared INOPERABLE by the Unit Supervisor.

Which one of the following is REQUIRED to be performed within the next hour?

- A. Commence a unit shutdown.
- B. Verify remaining ADS valves OPERABLE.
- C. Verify Iso Condenser system is OPERABLE.
- D. Place Reactor MODE switch in SHUTDOWN.

Answer: A

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 53 Details

Question Type:	Multiple Choice
Topic:	(053) 218000.G.2.22
System ID:	13132
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE218LN001.07 Reference: Tech Spec 3.5.1 K/A: 218000.G.2.22 3.4 / 4.1 Level: High Pedigree: Bank Explanation: TS LCO 3.5.1 condition I states that with HPCI inop and one ADS valve inop, enter LCO 3.0.3 IMMEDIATELY apply LCO 3.0.3.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

54

ID: 06-1 NRC EXAM

Points: 1.00

Given the following conditions:

- Unit 2 is operating at near rated power.
- Lake temperature is 40°F.
- The 2A TBCCW pump and 2A TBCCW heat exchanger are in operation.
- A failure of the TBCCW 2-3905 Temperature Control Valve (TCV) positioner results in a loss of air to the valve actuator.

How will the TBCCW system respond AND what parameter (if any) is of primary concern?

- A. TBCCW system temperature DECREASES;
NO parameter of concern.
- B. TBCCW system temperature INCREASES;
EHC oil temperature.
- C. TBCCW system temperature INCREASES;
Bus Duct temperature.
- D. TBCCW system temperature INCREASES;
Exciter Cooler air temperature.

Answer: A

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 54 Details

Question Type:	Multiple Choice
Topic:	(054) 400000.K6.01
System ID:	13133
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 208L-S1-05 Reference: P&ID M-22 K/A: 400000.K6.01 2.7 / 2.8 Level: High Pedigree: New Explanation: Upon a loss of IA to the TCV, the valve will fail open allowing full service water flow to the heat exchanger. This will cause TBCCW shell side outlet temperature to lower.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

55

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 requires 3621 gpm per CCSW pump. Unit 3 requires 3500 gpm per CCSW pump.

This is because

- A. Unit 2 CCSW pumps also supply cooling water to the control room emergency HVAC system and this flow was determined to be 121 gpm.
- B. the analysis for Unit 2 pumps is in question and the plant is conservative in setting the required flow for Unit 2 at a higher flow.
- C. Unit 2 CCSW pumps can be used to supply 121 gpm to the LPCI corner room coolers in an emergency, Unit 3 is not able to perform this auxiliary function.
- D. the Unit 2 piping is arranged differently in the plant than Unit 3. This piping arrangement results in uneven flow to the two (2) HXs. If 3621 gpm can be shown then the HX that receives the lower flow is guaranteed to be 3500 gpm.

Answer: A

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 55 Details

Question Type:	Multiple Choice
Topic:	(055) Generic.2.2.04
System ID:	13134
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE277LN001.03 Reference: DOS 1500-02 discussion section K/A: Generic.2.2.04 2.8 / 3.0 Level: Memory Pedigree: Bank Explanation: Unit 2 CCSW PP flow requirement is higher because Unit 2 must be capable of supplying the backup Control Room HVAC refrigeration condensing unit (RCU) with its design flow of 102 gpm. Due to the piping configuration and orifice sizing, the actual flow to the RCU was determined to be 121 gpm. To ensure at least 3500 gpm is being supplied to the heat exchanger, a total pump flow of ≥ 3621 gpm is required.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

56

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 was operating at near rated power, when a leak developed inside containment, resulting in the following parameters:

- Drywell pressure of 2.2 psig.
- Drywell temperature of 180°F.

Which one of the following is a reason why Drywell Temperature is monitored and controlled by DEOP 200-1, PRIMARY CONTAINMENT CONTROL?

- A. Ensure NPSH limits for ECCS pumps are not exceeded.
- B. Verify proper operation of the Drywell Hydrogen detectors.
- C. Prevent or minimize inaccurate indications of RPV water level instruments.
- D. Prevent or minimize inaccurate indications of RPV pressure instruments.

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 56 Details

Question Type:	Multiple Choice
Topic:	(056) 295028.K3.04
System ID:	13135
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE223LN001.01 Reference: EPG B-7-25 and B-5-2 K/A: 295028.K3.04 3.6 / 3.8 Level: Memory Pedigree: Bank Explanation: Per the DEOP Bases, RPV water level indications may be unreliable or must be considered invalid due to the effects of increased Drywell temperatures. NPSH limit for ECCS pumps is ensured by Torus minimum level. Drywell temperature control is not a reason operation of the Hydrogen detectors is verified. Torus pool temperature is monitored, not air temperature.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

57

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 was operating at near rated power when the following occurred:

- A loss of Feedwater.
- High Pressure Coolant Injection (HPCI) automatically started and injected.
- When RPV Water level reached +53 inches, HPCI tripped.

The reason HPCI tripped is to prevent

- A. Flooding of the HPCI room.
- B. Overspeed of the HPCI turbine.
- C. Turbine damage from carry-over.
- D. HPCI pump damage from overheating.

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 57 Details

Question Type:	Multiple Choice
Topic:	(057) 295008.K3.05
System ID:	13136
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE206LN001.06 Reference: UFSAR 7.3 K/A: 295008.K3.05 3.5 / 3.6 Level: Memory Pedigree: Bank Explanation: Per the UFSAR section 7.3 page 7.3-43. Overspeed of the HPCI turbine - the turbine would not be expected to go faster with water as the moving medium. Flooding of the HPCI room - although potentially possible, this is not the reason for the isolation. HPCI pump damage from overheating - discharge bypass is controlled by differential pressure, not level.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

58

ID: 06-1 NRC EXAM

Points: 1.00

Unit 3 was operating at near rated power, with TIP traces being performed. The TIP is in the process of being driven to the full in-core position, in MANUAL.

Then the following occurs:

- A small leak develops inside the Drywell.
- Drywell pressure is 1.6 psig and steady.

Drywell Rad Monitors read as follows:

- 2-2419A: 16 R/hr
- 2-2419B: 25 R/hr

Without Operator action, what is the expected response of the TIP system?

- A. Detector will CONTINUE to full-in position, then stop.
- B. Detector will CONTINUE to full-in position, then REVERSE direction and the ball valve remains open.
- C. Detector will immediately REVERSE direction and ball valve will close when the detector is "in-shield".
- D. Detector will CONTINUE to full-in position, then REVERSE direction and the ball valve will close when the detector is "in-shield".

Answer: A

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 58 Details

Question Type:	Multiple Choice
Topic:	(058) 295010.A2.03
System ID:	13137
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE223LN005.02 Reference: DAN 902-5 E-5, DOP 0700-06 K/A: 295010.A2.03 3.3 / 3.6 Level: High Pedigree: New Explanation: While the Drywell pressure is an abnormal level (1.5 psig), it is not to the level to cause a Group II isolation (1.8 psig). TIPS will only withdraw to in-shield position, if a Group II was received (not received by Drywell pressure). Ball valves will close only if a Group II was received. The TIPS will not reverse direction given the conditions in the stem.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

59

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 was operating at near rated power, when the following occurred:

- NSO increased Recirc flow slightly, using MASTER RECIRC FLOW CONTRL.
- Oil pressure on 2A MG Set decreased to 25 psig for 3 seconds then returned to normal.
- Oil pressure on 2B MG Set decreased to 29 psig for 7 seconds then returned to normal.

Which of the following describes the actions (if any) that are required to be taken concerning the Recirc Flow Control System?

- A. NO action required.
- B. Place BOTH RECIRC PP SPEED CNTLRs in MAN. Dial BOTH RECIRC PP SPEED CONTRLs potentiometers to 30%.
- C. Place BOTH RECIRC PP SPEED CNTLRs in MAN. Dial the 2A RECIRC PP SPEED CONTRL potentiometer ONLY to 30%.
- D. Place BOTH RECIRC PP SPEED CNTLRs in MAN. NO adjustment to the RECIRC PP SPEED CONTRL potentiometers are required.

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 59 Details

Question Type:	Multiple Choice
Topic:	(059) 202002.A4.08
System ID:	13138
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE202LN001.08 Reference: DOP 0202-12, DAN 902-4 C-1 K/A: 202002.A4.08 3.3 / 3.3 Level: High Pedigree: Bank Explanation: With a scoop tube failure (low oil pressure of 27 psig) a scoop tube lockout will automatically occur. With a scoop tube lockout, the actions required would be to verify/place ALL controllers in MAN and to dial the affected (2A) controller to 30%.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

60

ID: 06-1 NRC EXAM

Points: 1.00

Which of the following does condensate go through FIRST after leaving the Condensate Pumps?

- A. Hotwell Reject tap
- B. Off Gas Condensers
- C. Low Pressure Heaters
- D. Condensate Demineralizers

Answer: B

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 60 Details

Question Type:	Multiple Choice
Topic:	(060) 256000.K1.09
System ID:	13139
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE259LN001.02 Reference: P&IDs M-15, M-16, M-43 K/A: 256000.K1.09 2.9 / 3.0 Level: Memory Pedigree: New Explanation: Per the above station drawings the order is OG cond, Cond Demins, Hotwell Reject tap, and Low Pressure Heaters.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

61

ID: 06-1 NRC EXAM

Points: 1.00

Given the following set of conditions:

- Unit 3 is operating at near rated power.
- Unit 2 was declared critical during a startup from a refuel outage, when it was scrammed due to a fuel manufacturer notice.
- Unit 2 began fuel moves 12 hours later.
- Two hours into fuel moves, noxious fumes are detected in the Main Control Room.
- The Unit Supervisor directs an NSO to place the Control Room Ventilation system CRM AIR FLOW CONTROL switch to OUTSIDE.

The Control Room team is required to IMMEDIATELY

- A. suspend fuel moves.
- B. start the "B" HVAC train.
- C. place the CRM ISOL switch to ISOLATE.
- D. verify that the B Air Handling Unit (AHU) automatically starts.

Answer: A

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 61 Details

Question Type:	Multiple Choice
Topic:	(061) 290003.G.1.32
System ID:	13140
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE288LN003.11 Reference: DOP 5750-05, TS 3.7.4 K/A: 290003.G.1.32 3.4 / 3.8 Level: High Pedigree: New Explanation: Placing the system in the "outside" position, renders the CREVs inoperable. Per the Tech, with the system inoperable during recently irradiated fuel moves in the secondary containment, the team must immediately suspend the fuel moves. Placing the CRM ISOL switch to ISOLATE is NOT applicable for this situation. Starting the "B" HVAC train is required IF Control Room temperature drops below 70°F OR rises above 80°F. Verifying that the B AHU starts is a requirement if the A AHU has tripped (not the case in the stem).

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

62

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 is operating at ~36% power, with load ascension in progress, when the following occurs:

- Time 03:05:00 - Stator Cooling INLET water flow to the Main Generator reaches 450 gpm.
- Time 03:05:03 - DAN 902-7 C-3 TURB STATOR COOLANT RUNBACK is received.
- Time 03:05:30 - The Aux NSO begins reducing Main Generator VARs.
- Time 03:06:15 - The Unit 2 NSO begins to decrease reactor power.
- Time 03:08:05 - Generator stator amps are observed as 7580.

Which of the following describes the additional actions (if any) that would be expected to automatically occur by 03:08:05?

- A. The standby Stator Coolant pump starts.
- B. The Main Turbine/Generator trips ONLY.
- C. No additional automatic actions would occur.
- D. The Main Turbine/Generator trips AND the Reactor Scrams.

Answer: B

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 62 Details

Question Type:	Multiple Choice
Topic:	(062) 245000.K4.06
System ID:	13141
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE253LN001.06 Reference: DOA 7400-01, DANs 902-7 B-10 & C-3 K/A: 245000.K4.06 2.7 / 2.8 Level: High Pedigree: New Explanation: When Stator Cooling water inlet flow is <496 gpm, a Stator Runback is received. If Stator amps are NOT <7380 stator amps within 3 minutes, a Turbine trip is initiated. The reactor does NOT scram since rated core thermal power was < 38.5%. The standby pump will only AUTO start if the running pump trips or its discharge pressure is <44 psig.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

63

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 is operating at near rated power, when the following occurs:

- RBCCW HEADER ISOL MO 2-3701 inadvertently goes closed.

What affect will occur on Unit 2 FIRST?

- A. The RBCCW pumps will trip.
- B. Drywell temperatures will begin to rise.
- C. Fuel Pool temperatures will begin to rise.
- D. Shutdown Cooling heat exchangers cooling flow will stop.

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 63 Details

Question Type:	Multiple Choice
Topic:	(063) 233000.K6.07
System ID:	13142
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	0.00
Time to Complete:	0
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE233LN001.12 Reference: M-20, DOA 1900-01, 902-4 A-23 K/A: 233000.K6.07 2.7 / 2.8 Level: High Pedigree: New Explanation: With MO 2-3701 going closed, this isolates RBCCW to loop 3 (Reactor Building loads). This causes a loss of cooling medium to the Fuel Pool heat exchangers, which will cause the Fuel Pool temperatures to rise. The RBCCW pumps trip on overcurrent or the supplying bus feed breaker open combined with an ECCS signal. The Drywell temperatures are unaffected since the Drywell coolers are supplied RBCCW via loop 1. 2-3704 is the loop 2 header isolation, and is normally closed.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

64

ID: 06-1 NRC EXAM

Points: 1.00

The CRM ISOL switch is required to be placed in the ISOLATE mode of operation, if

- A. smoke is detected in the Main Control Room.
- B. CO₂ is discharging into the Aux Electric Equipment Room (AEER).
- C. smoke is detected from the Control Room HVAC outside air supply.
- D. DAN 923-1 B-3, CONTROL ROOM BREATHING AIR PRESS HI/LO is received.

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 64 Details

Question Type:	Multiple Choice
Topic:	(064) 600000.A2.06
System ID:	13143
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE288LN003.11 Reference: DOA 5750-04, DANs 923-1 B-3, 923-5 H-2 K/A: 600000.A2.06 2.5 / 2.8 Level: Memory Pedigree: New Explanation: If a source of smoke is from Control Room HVAC outside air supply (not IN the Control Room), then place the CRM ISOL switch is required to be placed in ISOLATE. If Control Room breathing air low pressure alarm comes in, the actions are to check air cylinders or shift to air packs. If CO2 is discharging into the AEER, the action is to place the Control Room HVAC system to purge.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

65

ID: 06-1 NRC EXAM

Points: 1.00

Which of the following events would REQUIRE a notification to be made to the Load Dispatcher (LD)/Transmission System Operator (TSO) per OP-AA-101-111, ROLES AND RESPONSIBILITIES?

- A. A fire in the Waste Water Treatment building.
- B. A Hazardous Material Incident on the access road to the plant.
- C. An Operator being transported to the hospital by an off-site agency.
- D. An off-site release rate that is approaching the "General Emergency" level.

Answer: D

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 65 Details

Question Type:	Multiple Choice
Topic:	(065) 295017.G.1.14
System ID:	13144
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: 299000LK150 Reference: OP-AA-101-111, DEOP 300-2 K/A: 295017.G.1.14 2.5 / 3.3 Level: High Pedigree: New Explanation: Per DEOP 300-2, with an off-site release rate approaching a "General Emergency" level, the plant will need to be scrambled prior to reaching this level. Per OP-AA-101-111, the NSO would COMMUNICATE with the Load Dispatcher relative to immediate and impending changes in plant status.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

66

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 was operating at near rated power, when the following occurred sequentially:

- An inadvertent closure of all MSIVs caused Reactor pressure to climb to 1085 psig, for 30 seconds and then stabilize at 1005 psig.
- A fire in Unit 2 125 VDC Bus 2B-1 caused it to de-energize.

The effect this has on the plant is

- A. ALL Isolation Condenser isolation valves will close.
- B. ONLY the Isolation Condenser VENT valves will close.
- C. A loss of Control Room indications for components powered from Bus 23 AND Bus 24.
- D. A loss of Control Room indications for components powered from Bus 23-1 AND Bus 24-1.

Answer: A

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 66 Details

Question Type:	Multiple Choice
Topic:	(066) 223002.K6.05
System ID:	13145
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE207LN001.12 Reference: DAN 902-3 H-2, 12E-2506 sheets 1-3 K/A: 223002.K6.05 3.0 / 3.3 Level: High Pedigree: New Explanation: With reactor pressure of 1085 psig, for 30 seconds, the Isolation Condenser will have actuated (1070 for 17 seconds). The power supplies for the Group 5 (Iso Cond) isolation instrumentation is 125VDC 2A-1 & 2B-1. A Group 5 isolation is initiated whenever there is a loss of EITHER power supply circuits (de-energize to actuate). A Group 5 causes ALL isolation valves to close (NOT just the inlet valves). 2B-1 is ONLY the control power to (and a loss of control room indication would only happen for) Bus 24 and Bus 24-1, and NOT Bus 23 (2A-1) OR Bus 23-1 (Rx Bldg Dist Pnl).

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

67

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 is at 7% power with a RPV pressure of 970 psig. Control Rod H-5 did not move when given a withdraw signal from its current position of 12. Drive water pressure has been adjusted to 450 psid. All attempts to move the rod have been unsuccessful.

The NSO's next required action is to

- A. Attempt to move Control Rod H-5 by performing Double Clutching.
- B. Individually scram Control Rod H-5, then disarm it electrically and hydraulically.
- C. Raise Drive water pressure an additional 50 psid and attempt to withdraw Control Rod H-5.
- D. Recommend to the SRO to declare Control Rod H-5 INOPERABLE, then disarm it electrically and hydraulically.

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 67 Details

Question Type:	Multiple Choice
Topic:	(067) 201003.A2.01
System ID:	13146
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE201LN001.12 Reference: DOP 0400-01 K/A: 201003.A2.01 3.4 / 3.6 Level: High Pedigree: New Explanation: Per the DOP the correct action is to raise Drive water pressure an additional 50 psid and attempt to withdraw Control Rod H-5. Attempting to Double Clutch is only to be performed for rods at 00. Disarming Control Rod H-5 would only be used if the rod is not coupled.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

68

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 was operating at near rated power when a steam line rupture in the HPCI room occurred. A scram was attempted. An ATWS occurred, with the following conditions:

- 15 control rods are at position 24 or GREATER.
- All scram valves are open.
- CleanUp Pump Area temperature is 175°F.
- HPCI Room temperature is 235°F.
- HPCI Cubicle Rad Levels are 3750 mrem.
- East CRD Module Area rad levels are 2500 mrem.
- West CRD Module Area rad levels are 2800 mrem.

The Unit Supervisor has directed you to enter DEOP 0500-05, ALTERNATE INSERTION OF CONTROL RODS.

Which action is the PREFERRED method for inserting the control rods that are NOT at position 00?

- A. Vent the control rods' overpiston volumes.
- B. Bypass the RWM AND drive the control rods MANUALLY.
- C. Close the scram air header supply valve AND vent the scram air header.
- D. Close the scram discharge vents and drains AND pull power supply fuses for the scram solenoids.

Answer: B

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 68 Details

Question Type:	Multiple Choice
Topic:	(068) 215002.G.4.06
System ID:	13147
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE215LN002.06 Reference: DEOP 0300-01, DEOP 0500-05 K/A: 215002.G.4.06 3.1 / 4.0 Level: High Pedigree: New Explanation: Control rods should be manually inserted per DEOP 0500-05. Pulling the power supply fuses for the scram solenoids would not be viable, because the scram valves are already opened. Venting the scram air header or the individual overpiston areas are not viable, because of the high dose (greater than Max Safe) in the areas of the CRD module areas.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

69

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 is in MODE 4 when an inadvertent isolation of the RWCU system occurred. The following conditions exist:

- Unit 2 had been cooling down at a rate of 50°F/hour, prior to the isolation.
- Panel 902-21, TR 2-263-104, RX VESSEL METAL TEMP, Point 6 is reading 180°F.
- Panel 902-21, TR 2-263-104, RX VESSEL METAL TEMP, Point 9 is reading 170°F.
- "Tmod change" has been calculated to be 30°F.

Which of the following Bottom Head temperatures is required to be reported?

- A. 95°F
- B. 105°F
- C. 140°F
- D. 170°F

Answer: A

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 69 Details

Question Type:	Multiple Choice
Topic:	(069) 295020.K1.04
System ID:	13148
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE202LN001.12 Reference: DOP 1000-03 K/A: 295020.K1.04 2.5 / 2.8 Level: Bank Pedigree: High Explanation: With a RWCU isolation, there is no Recirc pump flow. Without flow through the temperature indication lines, vessel bottom head temperature indication CAN be used but will indicate HIGHER than actual inside metal surface temperature, due to bottom head stratification. The correct temperature indication is achieved by taking the point 9 reading and subtracting 75°F per DOP 100-03 attachment A "bottom head".

REQUIRED REFERENCES: DOP 1000-03.

EXAMINATION ANSWER KEY

06-1 NRC Exam

70

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 was operating at near rated power, when the following occurred:

- A LOCA occurred.
- RPV water level stabilized at -75 inches.
- Drywell pressure stabilized at 2.8 psig.
- LPCI Loop Select Logic selected to inject into the 'B' Recirc loop.

Thirteen (13) minutes later, the following parameters are observed:

- RPV water level is +25 inches and steady.
- Drywell pressure is 1.3 psig and steady.

What are the MINIMUM actions required to reset LPCI Loop Select Logic?

LPCI Loop Select Logic

- A. can be MANUALLY reset by depressing BOTH the 2A AND 2B LOOP SELECT LOGIC RESET pushbuttons.
- B. will AUTOMATICALLY reset when BOTH Drywell pressure AND RPV level initiation signals clear.
- C. can be MANUALLY reset by depressing ONLY the 2A LOOP SELECT LOGIC RESET pushbutton.
- D. can be MANUALLY reset by depressing ONLY the 2B LOOP SELECT LOGIC RESET pushbutton.

Answer: A

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 70 Details

Question Type:	Multiple Choice
Topic:	(070) 203000.A4.06
System ID:	13149
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE203LN001.06 Reference: DOP 1500-05, 12E-2437A K/A: 203000.A4.06 3.9 / 3.9 Level: Memory Pedigree: New Explanation: Upon either a RPV or Drywell initiation signal, the loop select logic selects a recirc loop. When BOTH the initiation signals clear the loop select logic may be MANUALLY reset by depressing BOTH loop reset pushbuttons. The <i>initiation signal</i> , NOT the <i>loop select logic</i> does auto resets.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

71

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 was operating at near rated power, when a spurious Group I initiation occurred.

With NO Operator action, what would be an indication of a successful scram signal being generated by RPS?

- A. Annunciator 902-5 A-15, CHANNEL B MANUAL TRIP is lit and solid.
- B. Annunciator 902-5 A-10, CHANNEL A MANUAL TRIP is lit and flashing.
- C. Annunciator 902-5 C-1, WEST SCRAM INST VOL NOT DRAINED is lit and solid.
- D. Annunciator 902-5 A-1, SCRAM VLV AIR SUPPLY PRESS LO, is lit and flashing.

Answer: D

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 71 Details

Question Type:	Multiple Choice
Topic:	(071) 212000.A3.07
System ID:	13150
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	1.00
Time to Complete:	2
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE201LN001.10 Reference: DAN 902-5 A-1 K/A: 212000.A3.07 3.6 / 3.6 Level: Memory Pedigree: New Explanation: Upon a scram signal, the scram dump, backup scram and scram pilot valves reposition to bleed pressure from the scram air header (allowing rods to move into the core). When the scram air header pressure bleeds off, DAN 902-5 A-1 will be lit and flashing (since no operator action was taken to acknowledge the alarms. The distractors with lit and solid are incorrect because with no operator action, this would indicate no change in annunciator status. The distractors with manual scram are incorrect, because this was an automatic scram (without operator action).

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

72

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 has experienced the following transient:

- A fire causes MCC 28-3 to become de-energized.
- Torus water level is 12.5 feet.

With the current conditions, which one of the following Control Room indicators will provide the most accurate value when monitoring Torus water level?

- A. Narrow Range level indicator, TORUS LVL LI 2-1640-3, on the 902-3 panel
- B. Wide Range level indicator, TORUS LVL LI 2-1640-10A, on the 902-3 panel
- C. Wide Range level indicator, TORUS LVL LI 2-1640-10B, on the 902-3 panel
- D. Wide Range level indicator, WR DW PRESS TORUS LVL P/LR 2-1640-13A, on the 902-2 panel

Answer: C

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 72 Details

Question Type:	Multiple Choice
Topic:	(072) 295030.A2.01
System ID:	13151
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE223LN001.09 Reference: 12E-2312, 12E-6587 K/A: 295030.A2.01 4.1 / 4.2 Level: High Pedigree: Bank Explanation: 2-1640-10B Wide Range is the only useable level indicator based on the following. With Torus water level at 12.5 feet, this is below the narrow range water level indicator 2-1602-3 (13 feet 4 inches). 2-1640-10A and 2-1640-13A are supplied via LT 2-1641-5A (12E-6587). The student must utilize 12E-2312 to see that with MCC 28-3 not powered, the panel FP-2 via breaker 2C-3 is not powered and therefore both the 'A' division level indicators in the Control Room are unable to give a proper signal. REQUIRED REFERENCES: Electrical prints 12E-2312 and 12E-6587.

EXAMINATION ANSWER KEY

06-1 NRC Exam

73

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 is operating at 40% reactor power, with the following conditions:

- Primary Containment inerting with purge via SBGT began 2 hours ago.
- The DW PRESS CONTRL PIC 2-8540-1 is in MANUAL.
- Drywell pressure is stable.

Then a loss of feedwater caused RPV water level to decrease to -10 inches.

What is the effect on Drywell pressure and why?

- A. Drywell pressure will remain STABLE due to isolation of Nitrogen inerting AND SBGT.
- B. Drywell pressure will remain STABLE due to Nitrogen inerting and SBGT still being aligned.
- C. Drywell pressure will DECREASE due to isolation of Nitrogen inerting WHILE SBGT still being aligned.
- D. Drywell pressure will INCREASE due to isolation of SBGT WHILE Nitrogen inerting still being aligned.

Answer: A

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 73 Details

Question Type:	Multiple Choice
Topic:	(073) 261000.A1.02
System ID:	13152
User ID:	06-1 NRC EXAM
Status:	Active
Always select on test:	No
Authorized for practice:	No
Difficulty:	2.00
Time to Complete:	3
Point Value:	1.00
Cross Reference Number:	
Num Field 1:	
Num Field 2:	
Text Field:	
Comments:	Objective: DRE271LN001.06 Reference: Print M-25, DOP 1600-05, DAN 902-5 E-5 K/A: 261000.A1.02 3.1 / 3.2 Level: High Pedigree: New Explanation: With SGBT being used to inert the Drywell and a subsequent Group II isolation signal (+6 inches RPV water level), all valves from Nitrogen inerting and to SGBT receive an isolation signal. This will cause Drywell pressure to stabilize with no supply or return flow.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

74

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 is operating at near rated power. Last shift a packing leak was identified on MO 2-3102C, 2C3 EXTRACTION MOV. This shift the Chemistry department reported that previous samples of Reactor Water carryover results for Sodium-24 were 0.08% and are currently 1.5%.

Which of the following describes the consequences of the situation described above AND reason for that consequence?

- A. Higher off-site dose rates because of potential Steam Dryer damage.
- B. A decrease in core power because of increased Feedwater temperature.
- C. An increase in plant efficiency because of the loss of Feedwater heating.
- D. 2C3 emergency drain AOV will open because of lower pressure in the 2C3 heater.

Answer: A

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 74 Details

Question Type: Multiple Choice
Topic: (074) 290002.K3.05
System ID: 13153
User ID: 06-1 NRC EXAM
Status: Active
Always select on test: No
Authorized for practice: No
Difficulty: 2.00
Time to Complete: 3
Point Value: 1.00
Cross Reference Number:
Num Field 1:
Num Field 2:
Text Field:
Comments: Objective: DRE223LN001.12
Reference: General Electric Service Information Letter
644, CY-DR-120-0001
K/A: 290002.K3.05 2.9 / 3.2
Level: High
Pedigree: New
Explanation: Based on industry and Dresden OPEX, an increase of Sodium-24 above 0.1% is an indication of a potential Steam Dryer damage, due to carryover. The Sodium-24 will settle in the Feedwater heaters. With a steam leak on the 2C3 extraction MOV, this will increase radiation levels in the low pressure heater bay. The turbine building ventilation draws from the heater bay and exits to the 310' chimney. This has the potential for an increase in off-site radiation levels. A decrease in core power because of increased Feedwater temperature, is the opposite of what will happen. With a leak of extraction steam, the Feedwater is being heated less and subsequently a lower temperature water is introduced into the vessel (raising reactor power). 2C3 heater level will not rise, but will go down due to less steam (due to leak) being admitted into it. Thus the emergency drain will not open.

REQUIRED REFERENCES: None.

EXAMINATION ANSWER KEY

06-1 NRC Exam

75

ID: 06-1 NRC EXAM

Points: 1.00

Unit 2 was operating at 85% power when the "A" Recirc pump tripped. "B" Recirc pump speed was dialed to 35% per DOA 0202-01, RECIRCULATION PUMP TRIP-ONE.

The following indications are observed:

- "B" Recirc pump speed is 35%.
- Loop "A" flow indicates 11%.
- Loop "B" flow indicates 47%.

The Unit Supervisor directs you to calculate actual core flow (in Mlb/hr) to the nearest tenth.

Core flow is _____ Mlb/hr.

- A. 16.5
- B. 17.9
- C. 26.3
- D. 28.2

Answer: D

EXAMINATION ANSWER KEY

06-1 NRC Exam

Question 75 Details

Question Type: Multiple Choice
Topic: (075) 202001.A1.03
System ID: 13154
User ID: 06-1 NRC EXAM
Status: Active
Always select on test: No
Authorized for practice: No
Difficulty: 2.00
Time to Complete: 3
Point Value: 1.00
Cross Reference Number:
Num Field 1:
Num Field 2:
Text Field:
Comments: Objective: DRE202LN002.03
Reference: DGP 03-03, DOA 0202-01
K/A: 202001.A1.03 3.6 / 3.6
Level: High
Pedigree: Bank
Explanation: This calculation is made per DGP 3-3. Since B recirc pump speed is 30-40% rated, there is forward flow in the inactive loop (A) due to low flow in the active loop and the influence of natural circulation. Thus, per DGP 3-3, the correct formula is $WT_{SLO} = (0.49) [(\% \text{ loop flow active}) + (0.95) (\% \text{ loop flow inactive})]$. $(0.49) [(47) + (0.95)(11)] = 28.2 \text{ Mlb/hr}$. The distractor 26.3 would be obtained if the active and inactive loop flows are reversed (in forward flow). The two distractors 16.5 and 17.9 would be obtained if using the reverse flow in the inactive loop calculation.

REQUIRED REFERENCES: DGP 03-03.