

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

2004 DRESDEN WRITTEN EXAM SRO-I ANSWER KEY

| RO | RO | RO | SRO Only |
|------|------|------|--------------|
| 1-B | 26-C | 51-C | 76-C |
| 2-D | 27-C | 52-D | 77-A |
| 3-B | 28-D | 53-C | 78-C |
| 4-D | 29-A | 54-A | 79-D |
| 5-B | 30-D | 55-B | 80-B |
| 6-B | 31-A | 56-A | 81-A deleted |
| 7-C | 32-A | 57-C | 82-A |
| 8-D | 33-C | 58-D | 83-A |
| 9-B | 34-B | 59-C | 84-D |
| 10-C | 35-A | 60-A | 85-A |
| 11-C | 36-C | 61-A | 86-C |
| 12-D | 37-B | 62-C | 87-B |
| 13-B | 38-D | 63-A | 88-A |
| 14-C | 39-A | 64-B | 89-B |
| 15-A | 40-B | 65-B | 90-B |
| 16-B | 41-D | 66-C | 91-D |
| 17-A | 42-B | 67-C | 92-A |
| 18-D | 43-C | 68-D | 93-A |
| 19-C | 44-D | 69-B | 94-D |
| 20-B | 45-D | 70-B | 95-D |
| 21-A | 46-C | 71-B | 96-A |
| 22-A | 47-A | 72-B | 97-A |
| 23-C | 48-C | 73-D | 98-B |
| 24-C | 49-B | 74-B | 99-B |
| 25-B | 50-B | 75-C | 100-C |

Questions 1-75 comprise the RO portion of the exam.

Questions 76-100 comprise the SRO portion of the exam.

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

1

ID: 03-1 NRC-5874

Points: 1.00

<QQ 5874(1410)><<Given the following conditions:

- Unit 2 is operating at 55% power.

While single notching a control rod from notch position 18 to 20, the RMCS timer PLC freezes with the "rod out" logic made up.

Annunciator 902-5 D-3, TIMER MALFUNCTION ROD SELECT BLOCK, would be expected upon timer failure _____ after directional control valves are energized.>>

- A. <QQ 5874(1480)><<immediately>>
- B. <QQ 5874(1480)><<2 - 3 seconds>>
- C. <QQ 5874(1480)><<5 - 6 seconds>>
- D. <QQ 5874(1480)><<8 - 9 seconds>>

Answer: <QQ 5874(1419)><>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 1 Details

Question Type: <QQ 5874(1401)><<Multiple Choice>>
Topic: <QQ 5874(1400)><<1 DOPSS.201LN002.06 RMCS:
Timer Malfunction>>
System ID: <QQ 5874(1445)><<5874>>
User ID: <QQ 5874(1404)><<03-1 NRC-5874>>
Status: <QQ 5874(1405)><<Active>>
Must Appear: <QQ 5874(1406)><<No>>
Difficulty: <QQ 5874(1407)><<3.00>>
Time to Complete: <QQ 5874(1408)><<2>>
Point Value: <QQ 5874(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5874(1414)><<0.00>>
User Number 2: <QQ 5874(1415)><<0.00>>
Comment: <QQ 5874(1411)><<Objective: DRE201LN002.06
Reference: LP DRE201LN002 and DAN 902-5 D-3
K/A: 201002 A3.04 2.8 / 2.8
Level: Recall
Explanation: As described in the LP. Once the RMCS
timer begins its sequence, all "normal" rod blocks are
essentially bypassed. The logic assumes the timer will
complete its sequence. The 115 (rod out) contacts are
monitored by the 130 relay. If they remain closed for
more than 2 seconds (and a continuous withdraw
signal is not present) the 130 relay will energize. The
130 relay de-energizes the rod out bus causing rod
motion to stop and annunciator 902-5 D-3 to alarm.
Pedigree: Modified from Dresden Bank (123296)>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

2

ID: 03-1 NRC-5820

Points: 1.00

<QQ 5820(1410)><<The following conditions exist on Unit 3:

- Reactor pressure is 360 psig and steady.
- The CRD pumps have tripped and cannot be started.
- The accumulators nitrogen side pressures range from 550 to 600 psig.

A scram has been inserted by the Unit 3 NSO.

What will be the response of the control rods?

The controls rods will..

>>

- A. <QQ 5820(1480)><<fully insert FASTER than when at 1000 psig reactor pressure.>>
- B. <QQ 5820(1480)><<fully insert SLOWER than when at 1000 psig reactor pressure.>>
- C. <QQ 5820(1480)><<fully insert at the SAME rate as when at 1000 psig reactor pressure.>>
- D. <QQ 5820(1480)><<NOT fully insert.>>

Answer: <QQ 5820(1419)><<D>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 2 Details

Question Type: <QQ 5820(1401)><<Multiple Choice>>
Topic: <QQ 5820(1400)><<2 DILTS.201LN003.12 CRD: Rx pressure only scram>>
System ID: <QQ 5820(1445)><<5820>>
User ID: <QQ 5820(1404)><<03-1 NRC-5820>>
Status: <QQ 5820(1405)><<Active>>
Must Appear: <QQ 5820(1406)><<No>>
Difficulty: <QQ 5820(1407)><<0.00>>
Time to Complete: <QQ 5820(1408)><<0>>
Point Value: <QQ 5820(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5820(1414)><<0.00>>
User Number 2: <QQ 5820(1415)><<0.00>>
Comment: <QQ 5820(1411)><<Objective:201LN003.12 Reference: LP DRE 201LN003 K/A: 201003 K6.02 3.0/ 3.0 Level: High Explanation: per LP, during a reactor pressure only scram, the drive cannot be scrambled below 400 psig. The pressure in the accumulators will be of no use to the CRD since they are already discharged with the piston all of the way at the top. (Rx pressure is given as 360 psig) Pedigree: New for ILT 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

3

ID: 03-1 NRC-5822

Points: 1.00

<QQ 5822(1410)><<Following the Control Rod Sequence Package, rod H-4 is the next rod to be inserted.

Rod H-4 is at position 48.

Which of the following would an Operator expect to see on the Rod Worth Minimizer screen when rod H-4 is selected for movement?>>

- A. <QQ 5822(1480)><<"++" in white inverse video.>>
- B. <QQ 5822(1480)><<"++" in green inverse video.>>
- C. <QQ 5822(1480)><<"48" in white inverse video.>>
- D. <QQ 5822(1480)><<"48" in green inverse video.>>

Answer: <QQ 5822(1419)><>

Question 3 Details

Question Type: <QQ 5822(1401)><<Multiple Choice>>
Topic: <QQ 5822(1400)><<3 DILTS.201LN006.11 RWM: Indications of a selected rod at 48>>
System ID: <QQ 5822(1445)><<5822>>
User ID: <QQ 5822(1404)><<03-1 NRC-5822>>
Status: <QQ 5822(1405)><<Active>>
Must Appear: <QQ 5822(1406)><<No>>
Difficulty: <QQ 5822(1407)><<0.00>>
Time to Complete: <QQ 5822(1408)><<0>>
Point Value: <QQ 5822(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5822(1414)><<0.00>>
User Number 2: <QQ 5822(1415)><<0.00>>
Comment: <QQ 5822(1411)><<Objective: DRE201LN006.11 Reference: DOP 0400-02 Rod Worth Minimizer K/A: 201006 A4.06 3.2 / 3.2 4.0 / 4.0 Level: High Explanation: Per the procedure, "The control rods in the current latched step are green", "Rods at position 48 will show two (++) symbols", and "The selected rod will be shown in inverse video". Pedigree: new for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

4

ID: 03-1 NRC-5802

Points: 1.00

<QQ 5802(1410)><<Given the following conditions:

- At time =0, Unit 2 is at full power.
- At time +10 seconds, Drywell pressure increased to +2.1 psig.
- At time +12 seconds, annunciator "4 KV Bus 23-1 OVERCURRENT" alarms.
- At time +15 seconds, 345kv BT 2-3 CB and 345kv BT 3-4 CB opened.

What is the expected status of LPCI pumps 2A and 2D at time +30 seconds?

A D>>

- A. <QQ 5802(1480)><<Running Running>>
- B. <QQ 5802(1480)><<Stopped Stopped>>
- C. <QQ 5802(1480)><<Running Stopped>>
- D. <QQ 5802(1480)><<Stopped Running>>

Answer: <QQ 5802(1419)><<D>>

Question 4 Details

Question Type: <QQ 5802(1401)><<Multiple Choice>>
Topic: <QQ 5802(1400)><<4 DILTS.203LN001.12 LPCI:
ECCS Pumps available with LOOP & Loss of 23-1>>
System ID: <QQ 5802(1445)><<5802>>
User ID: <QQ 5802(1404)><<03-1 NRC-5802>>
Status: <QQ 5802(1405)><<Active>>
Must Appear: <QQ 5802(1406)><<No>>
Difficulty: <QQ 5802(1407)><<0.00>>
Time to Complete: <QQ 5802(1408)><<0>>
Point Value: <QQ 5802(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5802(1414)><<0.00>>
User Number 2: <QQ 5802(1415)><<0.00>>
Comment: <QQ 5802(1411)><<Objective: 203LN001-12
Reference: LP DRE203LN001
K/A: 203000 K2.01 3.5/3.5
Level: High
After a loss of offsite power with a LOCA signal all
pumps will attempt to start. The loss of Bus 23-1, due
to the overcurrent condition, prevents 2A and 2B from
starting. 2C and 2D are powered from 24-1
approximately 8 seconds after bus 24-1 goes
undervoltage and the EDG picks up the bus.
Pedigree: Dresden Bank>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

5

ID: 03-1 NRC-5862

Points: 1.00

<QQ 5862(1410)><<The following conditions exist:

- Unit 2 was operating at 912 MWe for 412 days.
- Unit 2 has been shutdown for 48 hours.
- 2A SDC is lined up for cooling.
- 2B SDC is lined up for mixing.
- 2C SDC is out of service for heat exchanger tube plugging.
- SDC is taking a suction on the A Recirc Loop and discharging into the B Recirc Loop.
- B Recirc Loop temperature is currently 320°F.

Which of the following describes the effect on Reactor pressure if the B Recirc Loop temperature sensor fails high?

Reactor pressure will (1) because (2) .>>

- A. <QQ 5862(1480)><<increase, **ONLY** 2A SDC has tripped.>>
- B. <QQ 5862(1480)><<increase, the SDC system has isolated.>>
- C. <QQ 5862(1480)><<remain the same, **ONLY** 2B SDC has tripped.>>
- D. <QQ 5862(1480)><<remain the same, the SDC system is unaffected.>>

Answer: <QQ 5862(1419)><>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 5 Details

Question Type: <QQ 5862(1401)><<Multiple Choice>>
Topic: <QQ 5862(1400)><<5 DILTS.205LN001.12 SDC:
Recirc loop temp sensor failing high effect on SDC and
Rx pressure>>
System ID: <QQ 5862(1445)><<5862>>
User ID: <QQ 5862(1404)><<03-1 NRC-5862>>
Status: <QQ 5862(1405)><<Active>>
Must Appear: <QQ 5862(1406)><<No>>
Difficulty: <QQ 5862(1407)><<0.00>>
Time to Complete: <QQ 5862(1408)><<0>>
Point Value: <QQ 5862(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5862(1414)><<0.00>>
User Number 2: <QQ 5862(1415)><<0.00>>
Comment: <QQ 5862(1411)><<Objective: DRE205LN001.12
Reference: DOA 1000-01
K/A: 205000 K3.01 3.3 / 3.3
Level: High
Explanation: All SDC is lost in this event due to the
recirc loop temp sensor exceeding 350°F. The SDC
system will isolate when EITHER recirc loop exceeds
the setpoint. Due to the short time after shutdown and
the loss of SDC, reactor water temp will go up and
since the vessel is a saturated system at this point,
reactor vessel pressure will in turn go up. Both pumps
will trip on low suction pressure when isolated.
Pedigree: New for 03-1 NRC Exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

6

ID: 03-1 NRC-5803

Points: 1.00

<QQ 5803(1410)><<Given the following plant conditions exist on Unit 3:

- A LOCA has occurred and HPCI has initiated.
- The HPCI system was aligned for injection.
- Drywell pressure is 6.5 psig and rising 0.25 psig per minute.
- Reactor water level reached +47".
- Reactor water level is currently +40" and dropping one inch per minute.
- The SRO has directed you to maintain RPV water level +8" to +48" using the HPCI system.

What must be done to the HPCI system in order to maintain the specified water level?>>

- A. <QQ 5803(1480)><<Depress the HPCI AUTO INITIATE pushbutton and control level with the HPCI FLOW CONTROLLER.>>
- B. <QQ 5803(1480)><<Depress the TURB TRIP RESET pushbutton and control level with the HPCI FLOW CONTROLLER.>>
- C. <QQ 5803(1480)><<Nothing, HPCI will automatically re-initiate to maintain RPV water level within the specified band.>>
- D. <QQ 5803(1480)><<Nothing, HPCI is already maintaining RPV water level within the specified band.>>

Answer: <QQ 5803(1419)><>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 6 Details

Question Type: <QQ 5803(1401)><<Multiple Choice>>
Topic: <QQ 5803(1400)><<6 DILTS.206LN001.06 HPCI: High RPV/L turb trip - How to reset to maintain RPV/L>>
System ID: <QQ 5803(1445)><<5803>>
User ID: <QQ 5803(1404)><<03-1 NRC-5803>>
Status: <QQ 5803(1405)><<Active>>
Must Appear: <QQ 5803(1406)><<No>>
Difficulty: <QQ 5803(1407)><<0.00>>
Time to Complete: <QQ 5803(1408)><<0>>
Point Value: <QQ 5803(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5803(1414)><<0.00>>
User Number 2: <QQ 5803(1415)><<0.00>>
Comment: <QQ 5803(1411)><<Objective: DRE206LN001.06 Reference: LP DRE206LN001 and DAN 902-3 A-9 K/A: 206000 K4.03 4.2/4.1 Level: High - Analysis & Application Explanation: The HPCI turbine trip will reset itself at – 59” following a high level trip and will trip again on a high level. In order to maintain the specified water level +8 to +48, the Operator will have to depress the TURB TRIP RESET pushbutton and manually control HPCI turbine speed to control the injection flowrate. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

7

ID: 03-1 NRC-5901

Points: 1.00

<QQ 5901(1410)><<With Unit-2 at 100% power, the following sequence of events occur:

- A small steam leak causes HPCI area temperature to peak at 240°F and has now stabilized at 160°F.
- Subsequently, a loss of feedwater causes RPV water level to drop to -85 inches.

HPCI Injection valve (2-2301-8) will ...>>

- A. <QQ 5901(1480)><<NOT open automatically until the high temperature condition clears; then HPCI will auto initiate.>>
- B. <QQ 5901(1480)><<NOT open automatically until HPCI is manually initiated in accordance with DOA 2300-02, HPCI Fast Startup.>>
- C. <QQ 5901(1480)><<NOT open automatically until the isolation signal is reset in accordance with DAN 902-3 C-7, HPCI AUTO ISOL INITIATED.>>
- D. <QQ 5901(1480)><<open automatically and level can be controlled in accordance with DOP 2300-03, High Pressure Coolant Injection System Manual Startup and Operation.>>

Answer: <QQ 5901(1419)><<C>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 7 Details

Question Type: <QQ 5901(1401)><<Multiple Choice>>
Topic: <QQ 5901(1400)><<7 DILTS.206LN001.12 HPCI: High Area Temperature Isolation Seal-In>>
System ID: <QQ 5901(1445)><<5901>>
User ID: <QQ 5901(1404)><<03-1 NRC-5901>>
Status: <QQ 5901(1405)><<Active>>
Must Appear: <QQ 5901(1406)><<No>>
Difficulty: <QQ 5901(1407)><<0.00>>
Time to Complete: <QQ 5901(1408)><<0>>
Point Value: <QQ 5901(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5901(1414)><<0.00>>
User Number 2: <QQ 5901(1415)><<0.00>>
Comment: <QQ 5901(1411)><<Objective: DRE206LN001.06 Reference: LP Fig 20600-01, DAN 902(3)-3 C-7 K/A: 206000 A2.11 4.1 / 4.2 Level: High Explanation: The HPCI high area temperature isolation signal is SEAL-IN. The RESET pushbutton must be depressed before the 4 and 5 valves will re-open. The HPCI area high temperature is 173^oF so the signal is clear. The signal automatically resets, the valve closure interlock does NOT. Manually initiating HPCI will not work, the 4 and 5 valves are still interlocked closed. Injection valve will NOT automatically open until discharge pressure is above the minimum for injection. The Injection valve is the HPCI 8 vlv and the HPCI turbine doesn't spin until the 4 & 56 valves are open. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

8

ID: 03-1 NRC-5888

Points: 1.00

<QQ 5888(1410)><<While performing panel walkdowns with the Unit at rated power, the NSO noticed that the 2-1301-17, Iso Cond Vent Vlv, was closed.

What is the concern with this valve being closed for an extended period of time?

Upon Isolation Condenser initiation...>>

- A. <QQ 5888(1480)><<a water hammer event will occur due to partially drained condensate return lines.>>
- B. <QQ 5888(1480)><<steam flow will be reduced due to non-condensed steam having nowhere to vent.>>
- C. <QQ 5888(1480)><<air and non-condensable gases will have built up in the shell side reducing the heat removal capacity.>>
- D. <QQ 5888(1480)><<air and non-condensable gases will be forced into the tube side reducing the heat removal capacity.>>

Answer: <QQ 5888(1419)><<D>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 8 Details

Question Type: <QQ 5888(1401)><<Multiple Choice>>
Topic: <QQ 5888(1400)><<8 DILTS.207LN001.12 Iso Cond:
Implication of vent valve shut during stby ops>>
System ID: <QQ 5888(1445)><<5888>>
User ID: <QQ 5888(1404)><<03-1 NRC-5888>>
Status: <QQ 5888(1405)><<Active>>
Must Appear: <QQ 5888(1406)><<No>>
Difficulty: <QQ 5888(1407)><<0.00>>
Time to Complete: <QQ 5888(1408)><<0>>
Point Value: <QQ 5888(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5888(1414)><<0.00>>
User Number 2: <QQ 5888(1415)><<0.00>>
Comment: <QQ 5888(1411)><<Objective: 207LN001.12
Reference: DRE LP207LN001
K/A: 207000 K5.10 3.0 / 3.2
Level: Recall
Explanation: The lesson plan states: "The Steamline
Vent Valves provide a path to vent non-condensable
gases to the "A" main steamline. The driving force for
flow is the pressure drop across the Main Steam line
flow restrictors and the MSIVs" and "If non-
condensable gases were allowed to accumulate in the
isolation condenser steam lines, they would be forced
into the tube bundles upon initiation of the system.
This would limit or prevent steam condensation and
hence natural circulation. As a result, Isolation
Condenser heat removal rate would be reduced".
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

9

ID: 03-1 NRC-5827

Points: 1.00

<QQ 5827(1410)><<A loss of off-site power has occurred with the following events on Unit 2:

- The U2/3 Diesel Generator jacket water temperature is 205⁰F.
- Annunciator 902-8 H-8, U-2 Diesel Gen Diff Fault, is in alarm.
- NO Operator actions have been taken yet.
- All equipment responded as expected.

At this time, which Core Spray pumps are available?>>

- A. <QQ 5827(1480)><<BOTH Core Spray pumps are available.>>
- B. <QQ 5827(1480)><<2A Core Spray ONLY.>>
- C. <QQ 5827(1480)><<2B Core Spray ONLY.>>
- D. <QQ 5827(1480)><<NEITHER Core Spray pump is available.>>

Answer: <QQ 5827(1419)><>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 9 Details

Question Type: <QQ 5827(1401)><<Multiple Choice>>
Topic: <QQ 5827(1400)><<9 DILTS.209LN001.03 CS: Power Supplies - Analyze Transient/Givens - Determine Pumps Available>>
System ID: <QQ 5827(1445)><<5827>>
User ID: <QQ 5827(1404)><<03-1 NRC-5827>>
Status: <QQ 5827(1405)><<Active>>
Must Appear: <QQ 5827(1406)><<No>>
Difficulty: <QQ 5827(1407)><<0.00>>
Time to Complete: <QQ 5827(1408)><<0>>
Point Value: <QQ 5827(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5827(1414)><<0.00>>
User Number 2: <QQ 5827(1415)><<0.00>>
Comment: <QQ 5827(1411)><<Objective: DRE203LN001.03 and DRE209LN001.03
Reference: LP DRE209LN001, 264LN001, DWG 262LN001-02, DAN 902-8 A-7 and DAN DG2A B-4
K/A: 209001 K6.02 3.8 / 3.9
Level: High
Explanation: Since the 2/3 EDG received an autostart signal from the undervoltage on the 4kv-1 buses due to the station blackout, the high engine temperature trip has been bypassed therefor the 2/3 EDG is still loaded onto bus 23-1. Unit 2 EDG did NOT pick up 24-1 so only 2A CS pump is currently running. The EDG High Diff Current is NOT bypassed under any condition, so the Unit 2 EDG is tripped.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

10

ID: 03-1 NRC-5804

Points: 1.00

<QQ 5804(1410)><<Besides the FLOW light, which of the following would also be indications of Standby Liquid Control Injection flow into the reactor?>>

1. SBLC SQUIB A and SQUIB B continuity lights lit.
2. SBLC PUMP 1 AND PUMP 2 lights lit.
3. SBLC Pump Discharge Pressure slightly ABOVE Reactor Pressure.
4. Annunciator 902-5 H-6, SBLC SQUIB VLV CKT FAILURE is clear.>>

- A. <QQ 5804(1480)><<BOTH 1 AND 2>>
- B. <QQ 5804(1480)><<BOTH 1 AND 3>>
- C. <QQ 5804(1480)><<BOTH 2 AND 3>>
- D. <QQ 5804(1480)><<BOTH 2 AND 4>>

Answer: <QQ 5804(1419)><<C>>

Question 10 Details

Question Type: <QQ 5804(1401)><<Multiple Choice>>
Topic: <QQ 5804(1400)><<10 DILTS.211LN001.11 SBLC True indications of flow to reactor>>
System ID: <QQ 5804(1445)><<5804>>
User ID: <QQ 5804(1404)><<03-1 NRC-5804>>
Status: <QQ 5804(1405)><<Active>>
Must Appear: <QQ 5804(1406)><<No>>
Difficulty: <QQ 5804(1407)><<0.00>>
Time to Complete: <QQ 5804(1408)><<0>>
Point Value: <QQ 5804(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5804(1414)><<0.00>>
User Number 2: <QQ 5804(1415)><<0.00>>
Comment: <QQ 5804(1411)><<Objective: DRE211LN001.11 Reference: LP DRE211LN001 K/A: 211000 A1.06 3.8/3.9 Level: High - Analysis & Application Explanation: A and B not correct - if squib valve continuity lights are still lit, no path exists to the reactor for SBLC flow. D not correct - if both pump lights lit and annunciator 902-5 H-6 is clear, the squib valves have NOT fired. C is correct - the pump discharge pressure slightly above reactor pressure and both pumps running would be the best indication that there is flow to the reactor vessel. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

11

ID: 03-1 NRC-5805

Points: 1.00

<QQ 5805(1410)><<While at power, the actual water level in the Unit 2 West Scram Instrument Volume (SIV) exceeds the high level setpoint resulting in the following annunciator, 902-5 A-14, CHANNEL A/B INST VOL LVL HI.

In addition to alarms, which of the following will result, AND what action(s) by the Unit NSO will be necessary to mitigate the consequences of the condition? >>

- A. <QQ 5805(1480)><<Only a ROD OUT BLOCK; manually open all Scram Instrument Volume vent and drain valves per DAN 902-5 C-1, SCRAM INST VOL HI LVL ROD BLOCK .>>
- B. <QQ 5805(1480)><<Only a half scram; manually open the WEST side Scram Instrument Volume vent and drain valves and reset the half scram per DOP 500-7, INSERTION/RESET OF MANUAL HALF SCRAM.>>
- C. <QQ 5805(1480)><<A full reactor scram; press scram buttons, place the mode switch to SHUTDOWN, per DGP-2-3, REACTOR SCRAM.>>
- D. <QQ 5805(1480)><<The SDV vent and drain valves open automatically; re-close the valves when the high level condition clears per DAN 902-5 D-1, WEST SCRAM INST VOL NOT DRAINED.>>

Answer: <QQ 5805(1419)><<C>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 11 Details

Question Type: <QQ 5805(1401)><<Multiple Choice>>
Topic: <QQ 5805(1400)><<11 DILTS.212LN001.10 Scram
Inst Vol High level - result>>
System ID: <QQ 5805(1445)><<5805>>
User ID: <QQ 5805(1404)><<03-1 NRC-5805>>
Status: <QQ 5805(1405)><<Active>>
Must Appear: <QQ 5805(1406)><<No>>
Difficulty: <QQ 5805(1407)><<0.00>>
Time to Complete: <QQ 5805(1408)><<0>>
Point Value: <QQ 5805(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5805(1414)><<0.00>>
User Number 2: <QQ 5805(1415)><<0.00>>
Comment: <QQ 5805(1411)><<Objective: DRE212LN001.10
Reference: LP DRE212LN001 p. 16 and DAN 902-5 A-
14, CHANNEL A/B INST VOL LVL HI
K/A: 212000 A2.12 3.9/4.0
Level: Recall
Explanation: DAN 902-5 A-14, a full reactor scram will
occur when this alarm comes in.
Pedigree: Modified from 1996 Nine Mile Point question:

*While at power, the actual water level in ONE Scram
Discharge Volume (SDV) exceeds the high-high level
setpoint (49 inches). In addition to alarms, which of the
following will result?*

A full reactor scram.

Only a half reactor scram.

The SDV vent and drain valves open

Only a control rod block>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

12

ID: 03-1 NRC-5825

Points: 1.00

<QQ 5825(1410)><<Unit 3 has just been declared critical.
ALL Full In position indications for rod J-8 have been lost.

Which of the following Tech Spec LCOs is applicable for the above situation?

>>

- A. <QQ 5825(1480)><<3.9.3, Control Rod Position AND 3.9.4, Control Rod Position Indication.>>
- B. <QQ 5825(1480)><<3.9.3, Control Rod Position ONLY.>>
- C. <QQ 5825(1480)><<3.1.3, Control Rod Operability AND 3.9.4, Control Rod Position Indication.>>
- D. <QQ 5825(1480)><<3.1.3, Control Rod Operability ONLY.>>

Answer: <QQ 5825(1419)><<D>>

Question 12 Details

Question Type: <QQ 5825(1401)><<Multiple Choice>>
Topic: <QQ 5825(1400)><<12 DILTS.201LN002.08 RPIS:
Loss of position indication for 1 rod, which LCO is applicable>>
System ID: <QQ 5825(1445)><<5825>>
User ID: <QQ 5825(1404)><<03-1 NRC-5825>>
Status: <QQ 5825(1405)><<Active>>
Must Appear: <QQ 5825(1406)><<No>>
Difficulty: <QQ 5825(1407)><<0.00>>
Time to Complete: <QQ 5825(1408)><<0>>
Point Value: <QQ 5825(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5825(1414)><<0.00>>
User Number 2: <QQ 5825(1415)><<0.00>>
Comment: <QQ 5825(1411)><<Objective: 201LN002.08
Reference: TS 3.1.3
K/A: 214000 2.1.33 3.4 / 4.0
Level: High
Explanation: The examinee must know that Tech Spec 3.9.3 and 3.9.4 are for Mode 5 only and do not apply since the stem stated the reactor was in Mode 2 (just critical). TS 3.1.3 is applicable in Modes 1 and 2.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

13

ID: 03-1 NRC-5875

Points: 1.00

<QQ 5938(1410)><<Unit 3 is at 270 MWe with a power ascension in progress.

- APRM 3 is reading 31.5%.
- APRM 4 is reading 29.5%.
- 3 LPRM inputs to RBM 7 are operable for rod J-6.
- 4 LPRM inputs to RBM 8 are operable for rod J-6.

Predict the effects that will occur when the Operator selects rod J-6 and the actions required for those effects.>>

- A. <QQ 5938(1480)><<Rod Out Block initiated by RBM 8 due to low APRM reference signal, verify RBM trip occurred per DOA 0700-03, Rod Out Blocks.>>
- B. <QQ 5938(1480)><<Rod Out Block initiated by RBM 7 due to too few inputs, verify RBM trip occurred per DOA 0700-03, Rod Out Blocks.>>
- C. <QQ 5938(1480)><<RBM 7 will auto bypass due to the number of inputs and rod selected, continue rod withdrawal per DGP 3-4, Control Rod Movements.>>
- D. <QQ 5938(1480)><<RBM 8 will auto bypass due to low APRM reference signal, continue rod withdrawal per DGP 3-4, Control Rod Movements.>>

Answer: <QQ 5938(1419)><>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 13 Details

Question Type: <QQ 5938(1401)><<Multiple Choice>>
Topic: <QQ 5938(1400)><<13 DILTS.215LN002.10 RBM:
Results of <50% inputs and actions.>>
System ID: <QQ 5938(1445)><<5938>>
User ID: <QQ 5938(1404)><<03-1 NRC-5875>>
Status: <QQ 5938(1405)><<Active>>
Must Appear: <QQ 5938(1406)><<No>>
Difficulty: <QQ 5938(1407)><<0.00>>
Time to Complete: <QQ 5938(1408)><<0>>
Point Value: <QQ 5938(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5938(1414)><<0.00>>
User Number 2: <QQ 5938(1415)><<0.00>>
Comment: <QQ 5938(1411)><<Objective: DRE215LN002.10
Reference: DAN 902-5 A-7, C-3, and DOA 700-03
K/A: 215002 A2.05 3.2 / 3.3
Level: High
Explanation: <50% inputs (3 of 8) to RBM 7 will cause
a RBM HI/INOP alarm and also cause a ROD OUT
BLOCK. DOA 700-03 directs the operator to verify that
an RBM INOP trip has occurred. RBM 8 still has half of
its inputs (4 of 8) so it is incorrect. J-6 is NOT an edge
rod so 8 LPRM inputs should be available for each
RBM channel.
Pedigree: New for 03-1 NRC Exam>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

14

ID: 03-1 NRC-5823

Points: 1.00

<QQ 5823(1410)><<Given the following conditions:

- The mode switch is in RUN
- IRM 14 and 18 have failed up-scale and are bypassed.
- APRM Channel 5 has failed downscale and is bypassed.
- APRM Channel 3 is downscale and is NOT bypassed.

Which of the following would subsequently cause a half scram?>>

- A. <QQ 5823(1480)><<Bypassing APRM Channel 3.>>
- B. <QQ 5823(1480)><<Taking APRM Channel 5 out of bypass.>>
- C. <QQ 5823(1480)><<Taking IRM 14 out of bypass.>>
- D. <QQ 5823(1480)><<Taking IRM 18 out of bypass.>>

Answer: <QQ 5823(1419)><<C>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 14 Details

Question Type: <QQ 5823(1401)><<Multiple Choice>>
Topic: <QQ 5823(1400)><<14 DILTS.215LN003.06 IRM:
Moving IRM 14 out of bypass with APRM 3
downscale>>
System ID: <QQ 5823(1445)><<5823>>
User ID: <QQ 5823(1404)><<03-1 NRC-5823>>
Status: <QQ 5823(1405)><<Active>>
Must Appear: <QQ 5823(1406)><<No>>
Difficulty: <QQ 5823(1407)><<0.00>>
Time to Complete: <QQ 5823(1408)><<0>>
Point Value: <QQ 5823(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5823(1414)><<0.00>>
User Number 2: <QQ 5823(1415)><<0.00>>
Comment: <QQ 5823(1411)><<Objective: DRE215LN003.06
Reference: DOP 0700-02, LP DRE215LN003, and
DRE215LN005
K/A: 215003 A1.03 3.7 / 3.7
Level: High - Comprehension & Application
Explanation: APRM 3 is the companion APRM to IRM
"14". With IRM "14" failed up-scale and taken out of
bypass, and it's companion APRM downscale a half-
scram will be generated. One APRM failed downscale
per channel will NOT cause a half scram nor will a
single IRM failed up-scale with the Mode Switch in
RUN. Bypassing APRM 3 will clear the APRM Ch 3
DWNSCL OR INOP light.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

15

ID: 03-1 NRC-5896

Points: 1.00

<QQ 5896(1410)><<Unit 3 is in a startup with power increase in progress.

IRMs indicate 30 on range 6.

Positioning IRM CH 11 RANGE SWITCH from range 6 to 7 will automatically change the scale on IRM-APRM recorder, RR 2-750-10A to (1) and the recorder will now read (2).

1 2>>

- A. <QQ 5896(1480)><<0 - 40 3.0>>
- B. <QQ 5896(1480)><<0 - 40 30>>
- C. <QQ 5896(1480)><<0 - 125 3.0>>
- D. <QQ 5896(1480)><<0 - 125 30>>

Answer: <QQ 5896(1419)><<A>>

Question 15 Details

Question Type: <QQ 5896(1401)><<Multiple Choice>>
Topic: <QQ 5896(1400)><<15 DILTS.215LN003.11 IRM: Changes to IRM recorder scale and IRM reading change from 6 to 7>>
System ID: <QQ 5896(1445)><<5896>>
User ID: <QQ 5896(1404)><<03-1 NRC-5896>>
Status: <QQ 5896(1405)><<Active>>
Must Appear: <QQ 5896(1406)><<No>>
Difficulty: <QQ 5896(1407)><<0.00>>
Time to Complete: <QQ 5896(1408)><<0>>
Point Value: <QQ 5896(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5896(1414)><<0.00>>
User Number 2: <QQ 5896(1415)><<0.00>>
Comment: <QQ 5896(1411)><<Objective: 215LN003.11 Reference: DRE LP215LN003 K/A: 215003 A3.01 3.3 / 3.3 Level: High Explanation: Odd number ranges have a scale of 0-40, even ranges have a scale of 0 -125. Ranges 5 and 6 are paired and would both read 30. Ranges 6 and 7 vary by a factor of 10, so ranging the IRM up would change the indication on the recorder top 3.0. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

16

ID: 03-1 NRC-5890

Points: 1.00

<QQ 5890(1410)><<Currently SRM 22 and 23 are being trended on recorder RR 2-750-2, Source Range Monitor Level.

To trend SRM 21 on the recorder, the Operator would...>>

- A. <QQ 5890(1480)><<enter program 22 on Process Computer to select SRM 21.>>
- B. <QQ 5890(1480)><<place the SRM recorder channel selector switch below the recorder to "21".>>
- C. <QQ 5890(1480)><<depress the SRM 21 "Channel Select" pushbutton on the horizontal portion of the 902-5 panel.>>
- D. <QQ 5890(1480)><<press the MENU button on the recorder until SRM 21 was displayed and then press ENTER to trend.>>

Answer: <QQ 5890(1419)><>

Question 16 Details

Question Type: <QQ 5890(1401)><<Multiple Choice>>
Topic: <QQ 5890(1400)><<16 DILTS.215LN004.11 SRM: How to trend SRM 21 reading on recorder>>
System ID: <QQ 5890(1445)><<5890>>
User ID: <QQ 5890(1404)><<03-1 NRC-5890>>
Status: <QQ 5890(1405)><<Active>>
Must Appear: <QQ 5890(1406)><<No>>
Difficulty: <QQ 5890(1407)><<0.00>>
Time to Complete: <QQ 5890(1408)><<0>>
Point Value: <QQ 5890(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5890(1414)><<0.00>>
User Number 2: <QQ 5890(1415)><<0.00>>
Comment: <QQ 5890(1411)><<Objective: 215LN004.11 Reference: DRE LP215LN004 K/A: 215004 A4.02 3.0 / 3.1 Level: Recall Explanation: Per the lesson plan and recorder installation in the Main Control Room, to display SRM 21 trend on the SRM recorder, the SRM selector switch can be switched/placed in the "21" position. Program 22 on the process computer is how the Operators change the parameters monitored on the overhead screens NOT the recorders. There is no way to choose the SRM to display inside the recorder. The SRM channel select pushbutton is for the detector drive. Pedigree: New for ILT 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

17

ID: 03-1 NRC-5806

Points: 1.00

<QQ 5806(1410)><<Which one of the following design features is utilized to offset the effects of LPRM detector aging?>>

- A. <QQ 5806(1480)><<The LPRM flux amplifier gain can be increased.>>
- B. <QQ 5806(1480)><<The LPRM detector chamber is filled with a high pressure argon gas.>>
- C. <QQ 5806(1480)><<The LPRM ion chamber high voltage power supply can be decreased.>>
- D. <QQ 5806(1480)><<The LPRM detector chamber is coated with enriched U-235.>>

Answer: <QQ 5806(1419)><<A>>

Question 17 Details

Question Type: <QQ 5806(1401)><<Multiple Choice>>
Topic: <QQ 5806(1400)><<17 DILTS.215LN006.03 Effects of detector aging on APRM readings>>
System ID: <QQ 5806(1445)><<5806>>
User ID: <QQ 5806(1404)><<03-1 NRC-5806>>
Status: <QQ 5806(1405)><<Active>>
Must Appear: <QQ 5806(1406)><<No>>
Difficulty: <QQ 5806(1407)><<0.00>>
Time to Complete: <QQ 5806(1408)><<0>>
Point Value: <QQ 5806(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5806(1414)><<0.00>>
User Number 2: <QQ 5806(1415)><<0.00>>
Comment: <QQ 5806(1411)><<Objective: DRE215LN006.03
Reference: LP DRE215LN006 p. 8
K/A: 215005 K4.06 2.6/2.8
Level: Recall
Explanation: per the lesson plan.
Pedigree: Perry 2002 Exam question.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

18

ID: 03-1 NRC-5824

Points: 1.00

<QQ 5824(1410)><<Unit 2 is operating at 912 MWe.
APRM 5 is currently bypassed due to maintenance.
Which of the following conditions will result in the LCO requirements for Tech Spec 3.3.1.1,
Reactor Protection System (RPS) Instrumentation NOT being met?>>

- A. <QQ 5824(1480)><<3 of 6 LPRMs are currently bypassed which input into the "A" core level of APRM 4 .
Another LPRM input to the "A" core level of APRM 4 fails and cannot be restored.>>
- B. <QQ 5824(1480)><<4 of 6 LPRMs are currently bypassed which input into the "A" core level of APRM 3 .
Another LPRM input to the "A" core level of APRM 3 fails and cannot be restored.>>
- C. <QQ 5824(1480)><<9 LPRMs are currently bypassed which input into APRM 3.
Two additional LPRM inputs to APRM 3 fails and cannot be restored.>>
- D. <QQ 5824(1480)><<9 LPRMs are currently bypassed which input into APRM 4.
Two additional LPRM inputs to APRM 4 fails and cannot be restored.>>

Answer: <QQ 5824(1419)><<D>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 18 Details

Question Type: <QQ 5824(1401)><<Multiple Choice>>
Topic: <QQ 5824(1400)><<18 DILTS.215LN005.08 APRM: 1 bypassed and 9 LPRM inputs to another bypassed>>
System ID: <QQ 5824(1445)><<5824>>
User ID: <QQ 5824(1404)><<03-1 NRC-5824>>
Status: <QQ 5824(1405)><<Active>>
Must Appear: <QQ 5824(1406)><<No>>
Difficulty: <QQ 5824(1407)><<0.00>>
Time to Complete: <QQ 5824(1408)><<0>>
Point Value: <QQ 5824(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5824(1414)><<0.00>>
User Number 2: <QQ 5824(1415)><<0.00>>
Comment: <QQ 5824(1411)><<Objective: 215LN005.08 Reference: DOP 700-08 and TS 3.3.1.1 K/A: 215005 2.1.33 3.4 / 4.0 Level: High Explanation: Per TS 3.3.1.1 in mode 1, 2 of the 3 APRM channels per trip system need to be available to meet the LCO. With 9 inputs to APRM channel 4 bypassed, it is no longer operable. With APRM channel 5 bypassed there are not enough APRM channels available to meet the LCO. Per DOP 0700-08 at least 2 LPRMs per core level must be available. Since APRM 3 and 5 are in different channels, <2 operable in APRM 3 still meets the requirements of the LCO. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

19

ID: 03-1 NRC-5807

Points: 1.00

<QQ 5807(1410)><<The Reactor is operating at 70% power when a LOCA condition develops in the Drywell.

The following is a timeline of ADS associated events:

- 17:15:00, Division I, 2 psig High Drywell Pressure
- 17:15:30, Division II, -59" Low Low Reactor Water Level
- 17:15:35, Division I, -59" Low Low Reactor Water Level
- 17:16:00, Division I, ECCS >100 psig Discharge Permissive

Without operator action, at what time will ADS initiate?>>

- A. <QQ 5807(1480)><<17:17:00>>
- B. <QQ 5807(1480)><<17:17:30>>
- C. <QQ 5807(1480)><<17:17:35>>
- D. <QQ 5807(1480)><<17:18:00>>

Answer: <QQ 5807(1419)><<C>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 19 Details

Question Type: <QQ 5807(1401)><<Multiple Choice>>
Topic: <QQ 5807(1400)><<19 DILTS.218LN001.06 ADS: Initiation Logic>>
System ID: <QQ 5807(1445)><<5807>>
User ID: <QQ 5807(1404)><<03-1 NRC-5807>>
Status: <QQ 5807(1405)><<Active>>
Must Appear: <QQ 5807(1406)><<No>>
Difficulty: <QQ 5807(1407)><<0.00>>
Time to Complete: <QQ 5807(1408)><<0>>
Point Value: <QQ 5807(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5807(1414)><<0.00>>
User Number 2: <QQ 5807(1415)><<0.00>>
Comment: <QQ 5807(1411)><<Objective: DRE218LN001.06 Reference: LP DRE218LN001 K/A: 218000 K1.04 3.9/4.2 Level: High Objective: 218L-S1-05 Explanation: Unit 2 ADS Initiation Logic requires the following conditions for initiation:

High Drywell Pressure and Low-Low Level signals in the same division for 120 seconds + any division's ECCS pump >100# - These conditions are met at 17:17:35

17:17:00 is wrong because the 120 second timer doesn't start until both signals are received in the same division.
17:17:30 is wrong because the 120 second timer doesn't start until both signals are received in the same division.
17:18:00 is wrong because the ECCS pump doesn't affect the timer
Pedigree: Dresden Bank>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

20

ID: 03-1 NRC-5808

Points: 1.00

<QQ 5808(1410)><<Of the four actions listed below, which action would prevent a Unit 2 Div II ADS logic actuation to occur as designed?>>

- A. <QQ 5808(1480)><<Placing ALL Div II ECCS pump control switches in PTL.>>
- B. <QQ 5808(1480)><<Depressing and holding the ADS Timer Reset Pushbutton.>>
- C. <QQ 5808(1480)><<Placing ALL five ADS valve keylock switches to OFF.>>
- D. <QQ 5808(1480)><<Loss of 125 Vdc Dist. Pnl. 2B-1.>>

Answer: <QQ 5808(1419)><>

Question 20 Details

Question Type: <QQ 5808(1401)><<Multiple Choice>>
Topic: <QQ 5808(1400)><<20 DILTS.218LN001.11 ADS: Preventing/Inhibiting Initiation/Logic>>
System ID: <QQ 5808(1445)><<5808>>
User ID: <QQ 5808(1404)><<03-1 NRC-5808>>
Status: <QQ 5808(1405)><<Active>>
Must Appear: <QQ 5808(1406)><<No>>
Difficulty: <QQ 5808(1407)><<0.00>>
Time to Complete: <QQ 5808(1408)><<0>>
Point Value: <QQ 5808(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5808(1414)><<0.00>>
User Number 2: <QQ 5808(1415)><<0.00>>
Comment: <QQ 5808(1411)><<Objective: 218LN001-11 Reference: LP DRE218LN001 K/A: 218000 K5.01 3.8/3.8 Level: High Explanation: Placing all of the Div II ECCS pumps in PTL will not prevent an ADS actuation due to the system still seeing 100 psig from the Div I pumps. Continually holding the ADS Timer Reset Pushbutton DOES prevent the ADS function. ADS is an 'energize to actuate' system -both initiation relays in one or both divisions must energize to cause an ADS blowdown. Losing 2B-1 removes Normal power to Div II ADS logic circuitry however 2A-1 is the backup supply. The OFF position of the individual switches for each valve removes the RELIEF function, NOT the ADS function. This is a commonly confused point. Pedigree: Modified from Dresden Bank DILT-252982>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

21

ID: 03-1 NRC-5826

Points: 1.00

<QQ 5939(1410)><<The following plant conditions exist:

- RPV level is -240" and trending up slowly.
- RPV pressure is 560 psig and trending down slowly.
- Drywell pressure is 10.5 psig and trending up slowly.
- 318 in "MANUAL OVERRIDE"

The Unit Supervisor then orders initiation of drywell sprays.

Considering only electrical interlocks, under these conditions, the drywell spray valves can be opened with which of the following switch alignments?

Note: "316" is the Containment Spray Permissive Keylock Switch
"317" is the 2/3 Core Coverage Override Keylock Switch
"318" is the CCSW Pump Start Permissive Keylock>>

- A. <QQ 5939(1480)><<316 in "MANUAL" and 317 in "MANUAL OVERRIDE">>
- B. <QQ 5939(1480)><<316 in "NORMAL" and 317 in "MANUAL OVERRIDE">>
- C. <QQ 5939(1480)><<316 in "MANUAL" and 317 in "OFF">>
- D. <QQ 5939(1480)><<316 in "NORMAL" and 317 in "OFF">>

Answer: <QQ 5939(1419)><<A>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 21 Details

Question Type: <QQ 5939(1401)><<Multiple Choice>>
Topic: <QQ 5939(1400)><<21 DILTS.203LN001.06 LPCI:
Conditions required to allow Drywell Spray>>
System ID: <QQ 5939(1445)><<5939>>
User ID: <QQ 5939(1404)><<03-1 NRC-5826>>
Status: <QQ 5939(1405)><<Active>>
Must Appear: <QQ 5939(1406)><<No>>
Difficulty: <QQ 5939(1407)><<0.00>>
Time to Complete: <QQ 5939(1408)><<0>>
Point Value: <QQ 5939(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5939(1414)><<0.00>>
User Number 2: <QQ 5939(1415)><<0.00>>
Comment: <QQ 5939(1411)><<Objective: 203LN001-06
Reference: LP DRE203LN001
K/A: 219000 K4.03 3.8 / 3.8
Level: High - Comprehension
Without proper control switch position, water is prevented from being diverted from the vessel. Drywell pressure must be above 1 psig in order to open drywell spray valves with a LPCI initiation signal present - that condition is met in the givens. With an initiation signal present, the 316 must be placed in MANUAL in order to spray the drywell, and with RPV level below 2/3 core height (i.e. less than minus 191), the 317 must ALSO be placed in MANUAL OVERRIDE (correct answer - 316 and 317 operated to Manual & Manual Override respectively).
Pedigree: Modified from Dresden bank.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

22

ID: 03-1 NRC-5809

Points: 1.00

<QQ 5809(1410)><<Unit 3 HPCI is being run for Post Maintenance Test (PMT). The Unit 3 HPCI steam flow instrument fails high causing a SPURIOUS Group IV isolation.

Which of the following valves are DIRECTLY affected by the Group IV signal?>>

- A. <QQ 5809(1480)><<MO 3-2301-4, STM ISOL VLV, and MO 3-2301-35, TORUS SUCT VLV>>
- B. <QQ 5809(1480)><<MO 3-2301-3, TURB STM SUPPLY, and MO 3-2301-8, PP DISCH VLV>>
- C. <QQ 5809(1480)><<MO 3-2301-3, TURB STM SUPPLY, and MO 3-2301-4, STEAM ISOL VLV>>
- D. <QQ 5809(1480)><<MO 3-2301-8, PP DISCH VLV, and MO 3-2301-9, PP DISCH VLV>>

Answer: <QQ 5809(1419)><<A>>

Question 22 Details

Question Type: <QQ 5809(1401)><<Multiple Choice>>
Topic: <QQ 5809(1400)><<22 DOPSS.223LN005.02 PCIS: Group IV Isol Results>>
System ID: <QQ 5809(1445)><<5809>>
User ID: <QQ 5809(1404)><<03-1 NRC-5809>>
Status: <QQ 5809(1405)><<Active>>
Must Appear: <QQ 5809(1406)><<No>>
Difficulty: <QQ 5809(1407)><<0.00>>
Time to Complete: <QQ 5809(1408)><<0>>
Point Value: <QQ 5809(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5809(1414)><<0.00>>
User Number 2: <QQ 5809(1415)><<0.00>>
Comment: <QQ 5809(1411)><<Objective: DRE223LN005.02 Reference: LP 223LN005 and DAN 902-3 C-7 K/A: 223002 K1.04 3.5/3.8 Level: Recall Explanation: As described in training material/LP. Pedigree: Dresden Bank>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

23

ID: 03-1 NRC-5811

Points: 1.00

<QQ 5811(1410)><<The contents from the Fuel Pool Cooling Demineralizer vessel are transferred directly to the _____.>>

- A. <QQ 5811(1480)><<Resin Cleaner Sludge Tank>>
- B. <QQ 5811(1480)><<Main Concentrated Waste Tank>>
- C. <QQ 5811(1480)><<Spent Resin Tank>>
- D. <QQ 5811(1480)><<Unit 3 Mix and Hold Tank>>

Answer: <QQ 5811(1419)><<C>>

Question 23 Details

Question Type: <QQ 5811(1401)><<Multiple Choice>>
Topic: <QQ 5811(1400)><<23 DILTS.233LN001.02 FPC: spent resins destination>>
System ID: <QQ 5811(1445)><<5811>>
User ID: <QQ 5811(1404)><<03-1 NRC-5811>>
Status: <QQ 5811(1405)><<Active>>
Must Appear: <QQ 5811(1406)><<No>>
Difficulty: <QQ 5811(1407)><<0.00>>
Time to Complete: <QQ 5811(1408)><<0>>
Point Value: <QQ 5811(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5811(1414)><<0.00>>
User Number 2: <QQ 5811(1415)><<0.00>>
Comment: <QQ 5811(1411)><<Objective: 233LN001.01
References: LP DRE233LN001, 268LN001, and DOP 1900-08
K/A: 233000 K1.12 2.5/2.6
Level: Recall
per the lesson plan and DOP 1900-08 the exhausted resins may be sent directly to the Spent Resin Tank. The resins may be sent to the mix and hold but must be sent to the catex tank first. The Resin Cleaner Sludge tank is where the SRT gets decanted to. There is no direct path for the FPC resins to get to the main concentrated waste tank.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

24

ID: 03-1 NRC-5893

Points: 1.00

<QQ 5893(1410)><<How will a complete loss of nitrogen system pressure in the drywell affect the ability of the ADS valves to depressurize the Reactor Vessel on a valid initiation signal?

Automatic depressurization will...

>>

- A. <QQ 5893(1480)><<NOT occur.>>
- B. <QQ 5893(1480)><<occur at approximately 20% design capacity.>>
- C. <QQ 5893(1480)><<occur at approximately 80% design capacity.>>
- D. <QQ 5893(1480)><<occur at design capacity.>>

Answer: <QQ 5893(1419)><<C>>

Question 24 Details

Question Type: <QQ 5893(1401)><<Multiple Choice>>
Topic: <QQ 5893(1400)><<24 DILTS.239LN001.03 MS: loss of all N2 pressue in the drywell, effect on ability to ED>>
System ID: <QQ 5893(1445)><<5893>>
User ID: <QQ 5893(1404)><<03-1 NRC-5893>>
Status: <QQ 5893(1405)><<Active>>
Must Appear: <QQ 5893(1406)><<No>>
Difficulty: <QQ 5893(1407)><<0.00>>
Time to Complete: <QQ 5893(1408)><<0>>
Point Value: <QQ 5893(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5893(1414)><<0.00>>
User Number 2: <QQ 5893(1415)><<0.00>>
Comment: <QQ 5893(1411)><<Objective: 239LN001.03
Reference: DRE LP239LN001
K/A: 239002 K3.03 4.3 / 4.4
Level: High
Explanation: A complete loss of nitrogen pressure in the drywell will only affect the target rock valve, making it inoperable. The remaining 4 electromagnetic relief valves will NOT be affected as they are solenoid actuated.
Pedigree: New for ILT 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

25

ID: 03-1 NRC-5828

Points: 1.00

<QQ 5940(1410)><<Unit 3 was operating at 912 MWe with the following conditions:

- The Auxiliary Power system was in a normal configuration.
- Due to a problem with the Turbine Oil system, the Main Turbine tripped.

Which of the following describes the Main Control Room indication of voltage response on Bus 35?

Voltage will...

>>

- A. <QQ 5940(1480)><<remain relatively constant and will be energized from Bus 36.>>
- B. <QQ 5940(1480)><<remain relatively constant and will be energized from Bus 33.>>
- C. <QQ 5940(1480)><<drop to zero for 1 to 2 seconds and return to normal and will be energized from Bus 33.>>
- D. <QQ 5940(1480)><<drop to zero for 1 to 2 seconds and return to normal and will be energized from Bus 36.>>

Answer: <QQ 5940(1419)><>

Question 25 Details

Question Type: <QQ 5940(1401)><<Multiple Choice>>
Topic: <QQ 5940(1400)><<25 DILTS.262LN001.12 Aux Pwr: Trip of Main Gen, power to Bus 35>>
System ID: <QQ 5940(1445)><<5940>>
User ID: <QQ 5940(1404)><<03-1 NRC-5828>>
Status: <QQ 5940(1405)><<Active>>
Must Appear: <QQ 5940(1406)><<No>>
Difficulty: <QQ 5940(1407)><<0.00>>
Time to Complete: <QQ 5940(1408)><<0>>
Point Value: <QQ 5940(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5940(1414)><<0.00>>
User Number 2: <QQ 5940(1415)><<0.00>>
Comment: <QQ 5940(1411)><<Objective: DRE262LN001.12 Reference: DRE LP262LN001 K/A: 245000 K3.01 3.4 / 3.7 Level: High Explanation: Bus 33 will fast transfer to TR 32 without an interruption in power, therefore Bus 35 will NOT see a voltage drop and will be powered from Bus 33. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

26

ID: 03-1 NRC-5810

Points: 1.00

<QQ 5810(1410)><<While operating at 95% power with both main feedwater regulating valves (FWRVs) in service controlling reactor vessel water level, the air line supplying FWRV 2B pulse positioner ruptures (air pressure to the four way solenoid valve in local cabinet goes to zero psig).

Which one of the following statements identifies the response of the 2B FWRV?>>

- A. <QQ 5810(1480)><<The valve fails full open.>>
- B. <QQ 5810(1480)><<The valve will continue to operate normally for up to 30 minutes.>>
- C. <QQ 5810(1480)><<The valve "locks up" in its present position.>>
- D. <QQ 5810(1480)><<The valve transfers to 'Manual Bypass' mode.>>

Answer: <QQ 5810(1419)><<C>>

Question 26 Details

Question Type: <QQ 5810(1401)><<Multiple Choice>>
Topic: <QQ 5810(1400)><<26 DILTS.25902LN002.06 FWLC: FRV Lock Up on Loss of Air at Pulse Positioner>>
System ID: <QQ 5810(1445)><<5810>>
User ID: <QQ 5810(1404)><<03-1 NRC-5810>>
Status: <QQ 5810(1405)><<Active>>
Must Appear: <QQ 5810(1406)><<No>>
Difficulty: <QQ 5810(1407)><<0.00>>
Time to Complete: <QQ 5810(1408)><<0>>
Point Value: <QQ 5810(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5810(1414)><<0.00>>
User Number 2: <QQ 5810(1415)><<0.00>>
Comment: <QQ 5810(1411)><<Objective: 259LN002.06
References: LP DRE259LN002, DWG 259LN001-001, DAN 902-6 E-10
K/A: K/A 259002 K4.13 3.5/3.6
Level: High - Application & Analysis
The valve locks up due to loss of air pressure (< 65 psig), i.e., the pulse positioner will not move and the pressure at the actuator will not change - so the valve locks up 'as is'. The 30 minute nitrogen backup can't be supplied with a line break as describe in the question. Since the valve locks up, it will not fail open or closed. Auto transfer to 'Manual Bypass' happens on loss of communication between M/A station and Bailey OR M/A station output failure - neither is true. Pedigree: Dresden Bank.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

27

ID: 03-1 NRC-5832

Points: 1.00

<QQ 5832(1410)><<The following conditions exist on Unit 3:

- A partial loss of Drywell cooling has occurred.
- As directed by DEOP 200-1, Primary Containment Control, Drywell is being vented through "B" SBTG using DOP 1600-01 NORMAL PRESSURE CONTROL OF THE DRYWELL OR TORUS.
- "A" SBTG fan control switch is in "A STBY".
- "B" SBTG fan control switch is in "START B"
- Drywell pressure peaked at 1.6 psig and is now steady at 1.5 psig.
- NO Group II OR Secondary Containment isolation signals are present.
- Reactor Building Ventilation system remains running.

What is the effect on Drywell pressure if the "B" SBTG motor and fan become uncoupled?

Drywell pressure will...>>

- A. <QQ 5832(1480)><<rise due to an automatic flow path isolation.>>
- B. <QQ 5832(1480)><<remains steady because "A" SBTG train auto starts.>>
- C. <QQ 5832(1480)><<remain relatively stable but vented gases will be untreated.>>
- D. <QQ 5832(1480)><<rise due to an increased differential pressure across the charcoal.>>

Answer: <QQ 5832(1419)><<C>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 27 Details

Question Type: <QQ 5832(1401)><<Multiple Choice>>
Topic: <QQ 5832(1400)><<27 DILTS.261LN001.06 SGBT:
Effects on drywell pressure when venting and lose
power to heater>>
System ID: <QQ 5832(1445)><<5832>>
User ID: <QQ 5832(1404)><<03-1 NRC-5832>>
Status: <QQ 5832(1405)><<Active>>
Must Appear: <QQ 5832(1406)><<No>>
Difficulty: <QQ 5832(1407)><<0.00>>
Time to Complete: <QQ 5832(1408)><<0>>
Point Value: <QQ 5832(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5832(1414)><<0.00>>
User Number 2: <QQ 5832(1415)><<0.00>>
Comment: <QQ 5832(1411)><<Objective: 261LN001.06
Reference: LP261LN001, DOP 1600-01, and DOP
7500-01
K/A: 261000 K3.03 3.2 / 3.4
Level: High
Explanation: Since B was the running train, per DOP
7500-01 and since there is no auto initiation signal, the
Standby train (A) will not Auto-start. Since the valves
will not isolate, a flow path still exists thru the B train.
Since RBV is still operating, the purged gases will go
thru the RBV stack at a relatively unchanged rate since
the system will not isolate.
Pedigree: New for ILT 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

28

ID: 03-1 NRC-5835

Points: 1.00

<QQ 5835(1410)><<125 Vdc Reserve Bus 2B is being fed from its Alternate feed.
A loss of 125 Vdc Main Bus 2A-1 occurs.

If Bus 24 voltage drops 5 volts per minute, the BUS 24 TO BUS 24-1 TIE ACB at Bus 24 will ...>>

- A. <QQ 5835(1480)><<open when bus voltage reaches 2930 volts with NO time delay.>>
- B. <QQ 5835(1480)><<open when bus voltage reaches 3870 volts with NO time delay.>>
- C. <QQ 5835(1480)><<open 5 minutes after bus voltage reaches 3870 volts.>>
- D. <QQ 5835(1480)><<NOT open.>>

Answer: <QQ 5835(1419)><<D>>

Question 28 Details

Question Type: <QQ 5835(1401)><<Multiple Choice>>
Topic: <QQ 5835(1400)><<28 DOPSS.262LN001.03 Aux Power: 125 Vdc Reserve Bus 3B-1 on alt feed, effect on bus 34>>
System ID: <QQ 5835(1445)><<5835>>
User ID: <QQ 5835(1404)><<03-1 NRC-5835>>
Status: <QQ 5835(1405)><<Active>>
Must Appear: <QQ 5835(1406)><<No>>
Difficulty: <QQ 5835(1407)><<0.00>>
Time to Complete: <QQ 5835(1408)><<0>>
Point Value: <QQ 5835(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5835(1414)><<0.00>>
User Number 2: <QQ 5835(1415)><<0.00>>
Comment: <QQ 5835(1411)><<Objective: DRE262LN001.03 Reference: LP DRE263LN001, 262LN004, DWG - 263LN002-001, DAN 902-8 E-3 and H-10. K/A: 262001 K6.01 3.1 / 3.4 Level: High Explanation: 125 Vdc Reserve Bus 2B's reserve power supply is Main Bus 2A-1. The control power supply to Bus 24 feed breaker to bus 24-1 is 2B-1. Since 2B-1 has been lost due to the loss of power to its' reserve power supply, the breaker will not open on any protective signal. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

29

ID: 03-1 NRC-5829

Points: 1.00

<QQ 5829(1410)><<The Bus 29 feed breaker has opened on a fault.
Which of the following indications in the Main Control Room would alert the Operator to this fault?>>

- A. <QQ 5829(1480)><<902-8 E-8, ESS UPS ON DC OR ALTERNATE AC, annunciator in alarm ONLY.>>
- B. <QQ 5829(1480)><<902-8 E-10, 120/240V AC ESS BUS ON EMERG SPLY, annunciator in alarm ONLY.>>
- C. <QQ 5829(1480)><<902-8 E-8, ESS UPS ON DC OR ALTERNATE AC, annunciator in alarm AND a momentary loss of power to the ESS loads.>>
- D. <QQ 5829(1480)><<902-8 E-10, 120/240V AC ESS BUS ON EMERG SPLY, annunciator in alarm AND a momentary loss of power to the ESS loads.>>

Answer: <QQ 5829(1419)><<A>>

Question 29 Details

Question Type: <QQ 5829(1401)><<Multiple Choice>>
Topic: <QQ 5829(1400)><<29 DILTS.262LN005.02 Vow Volt AC: ESS UPS feed breaker from 29 opens, indications>>
System ID: <QQ 5829(1445)><<5829>>
User ID: <QQ 5829(1404)><<03-1 NRC-5829>>
Status: <QQ 5829(1405)><<Active>>
Must Appear: <QQ 5829(1406)><<No>>
Difficulty: <QQ 5829(1407)><<0.00>>
Time to Complete: <QQ 5829(1408)><<0>>
Point Value: <QQ 5829(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5829(1414)><<0.00>>
User Number 2: <QQ 5829(1415)><<0.00>>
Comment: <QQ 5829(1411)><<Objective: DRE262LN005.02 Reference: DAN 902-8 E-8 and LP262LN005 K/A: 262002 A3.01 2.8 / 3.1 Level: Recall Explanation: DAN 902-8 E-8, ESS UPS ON DC OR ALTERNATE AC, warns the operator that the ESS UPS is no longer being powered from Bus 29. As stated in the lesson plan, the static switch "automatically transfers between its two feeds without missing a cycle, thus making a bumpless transfer." DAN 902-8 E-10, 120/240V AC ESS BUS ON EMERG SPLY, indicates that the ABT has transferred and the ESS Bus is being supplied from MCC 28(38)-2. Pedigree: New for ILT 03-1 NRC Exam>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

30

ID: 03-1 NRC-5837

Points: 1.00

<QQ 5837(1410)><<Unit 2 is operating with the 125 Vdc batteries on an equalizing charge.

A loss of ventilation to the Unit 2 125 Vdc Battery Room has occurred and repairs will take a minimum of 8 hours to complete.

Radiation Protection has reported there is currently NO buildup of hydrogen in the battery room.

According to DOA 5750-01, Ventilation System Failure, what is the danger with the loss of the battery room ventilation AND what actions need to be taken?

DANGER

ACTIONS>>

- | | | |
|----|--|--|
| A. | <QQ 5837(1480)><<Buildup of heat and pressure in the charger until battery cells. | Secure the battery temporary ventilation is established.>> |
| B. | <QQ 5837(1480)><<Buildup of heat and pressure in the normal charge. battery cells.>> | Place the battery on a |
| C. | <QQ 5837(1480)><<Buildup of hydrogen in the battery charger until room. | Secure the battery temporary ventilation is established.>> |
| D. | <QQ 5837(1480)><<Buildup of hydrogen in the battery normal charge. room.>> | Place the battery on a |

Answer: <QQ 5837(1419)><<D>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 30 Details

Question Type: <QQ 5837(1401)><<Multiple Choice>>
Topic: <QQ 5837(1400)><<30 DILTS.288LN002.12 DC Systems: Loss of Battery room vent while performing an equalizing charge>>
System ID: <QQ 5837(1445)><<5837>>
User ID: <QQ 5837(1404)><<03-1 NRC-5837>>
Status: <QQ 5837(1405)><<Active>>
Must Appear: <QQ 5837(1406)><<No>>
Difficulty: <QQ 5837(1407)><<0.00>>
Time to Complete: <QQ 5837(1408)><<0>>
Point Value: <QQ 5837(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5837(1414)><<0.00>>
User Number 2: <QQ 5837(1415)><<0.00>>
Comment: <QQ 5837(1411)><<Objective: DRE288LN002.12 Reference: DOA 5750-01 K/A: 263000 A2.02 2.6 / 2.9 Level: High Explanation: Per DOA 5750-01 "IF ventilation to a battery room will be lost for an extended period of time AND an affected battery is undergoing an Equalizing Battery Charge, Service Test OR Performance Test THEN place the battery on a normal charge." and in the discussion section, "During an Equalizing Battery Charge, Service Test or Performance Test significant amounts of hydrogen are generated. A loss of battery room ventilation during one of these evolutions can result in the build up of a hazardous concentration of hydrogen in the battery room in a short period of time." Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

31

ID: 03-1 NRC-5813

Points: 1.00

<QQ 5813(1410)><<The following conditions exist:

- The 2/3 Emergency Diesel Generator Cooling Water Pump Power Source Selector Switch is in the 'U2 AUTO' position.
- The 2/3 EDG has been started for a surveillance on Unit 3 but has NOT been closed in on Bus 33-1.

The 2/3 Emergency Diesel Generator Cooling Water Pump is currently receiving power from...>>

- A. <QQ 5813(1480)><<MCC 28-3.>>
- B. <QQ 5813(1480)><<MCC 38-3.>>
- C. <QQ 5813(1480)><<MCC 29-2.>>
- D. <QQ 5813(1480)><<MCC 39-2.>>

Answer: <QQ 5813(1419)><<A>>

Question 31 Details

Question Type: <QQ 5813(1401)><<Multiple Choice>>
Topic: <QQ 5813(1400)><<31 DILTS.264LN004.06 EDG Aux: power supply to 2/3 DGCWP>>
System ID: <QQ 5813(1445)><<5813>>
User ID: <QQ 5813(1404)><<03-1 NRC-5813>>
Status: <QQ 5813(1405)><<Active>>
Must Appear: <QQ 5813(1406)><<No>>
Difficulty: <QQ 5813(1407)><<0.00>>
Time to Complete: <QQ 5813(1408)><<0>>
Point Value: <QQ 5813(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5813(1414)><<0.00>>
User Number 2: <QQ 5813(1415)><<0.00>>
Comment: <QQ 5813(1411)><<Objective: DRE264LN004.06 Reference: LP DRE 264LN004 K/A: 264000 A3.06 3.1 / 3.2 Level: High - Comprehension Explanation: Since the 2/3 diesel generator cooling water pump was started for a surveillance and has NOT been loaded onto the Unit 3 bus 33-1, the DGCWP will not swap power supplies to unit 3. It will remain powered from unit 2 (MCC 28-3) Pedigree: Dresden Bank.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

32

ID: 03-1 NRC-5935

Points: 1.00

<QQ 5935(1410)><<The following conditions exist:

- Unit 3 is at 912 MWe.
- Unit 3 Hydrogen addition flow rate is 14 scfm.
- Unit 3 Oxygen Injection FCV has reduced oxygen flowrate from 7 scfm to 5.25 scfm.

Which of the following indications would alert the NSO to this situation?

>>

- A. <QQ 5935(1480)><<Off Gas Chimney flow increasing.>>
- B. <QQ 5935(1480)><<Hydrogen gas concentration decreasing.>>
- C. <QQ 5935(1480)><<Preheater outlet temperature decreasing.>>
- D. <QQ 5935(1480)><<Annunciator 903-65 B-5, H2 INJ FLOW HI, in alarm.>>

Answer: <QQ 5935(1419)><<A>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 32 Details

Question Type: <QQ 5935(1401)><<Multiple Choice>>
Topic: <QQ 5935(1400)><<32 DILTS.271LN001.03 Off Gas:
O2 FCV going closed>>
System ID: <QQ 5935(1445)><<5935>>
User ID: <QQ 5935(1404)><<03-1 NRC-5935>>
Status: <QQ 5935(1405)><<Active>>
Must Appear: <QQ 5935(1406)><<No>>
Difficulty: <QQ 5935(1407)><<0.00>>
Time to Complete: <QQ 5935(1408)><<0>>
Point Value: <QQ 5935(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5935(1414)><<0.00>>
User Number 2: <QQ 5935(1415)><<0.00>>
Comment: <QQ 5935(1411)><<Objective: DRE271LN001.03
Reference: LP DRE271LN001and Dan 903-65 B-5
K/A: 271000 A1.14 2.7 / 2.8
Level: High
Explanation: Oxygen injection rate will not effect
preheater temperature. Off gas flow will go up due to
more free hydrogen exiting the recombiner, this would
also increase hydrogen gas concentration. The
hydrogen addition system will NOT try and compensate
for the lower oxygen flow, it positions according to
feedwater flow rate. 903-65 B-5 will not alarm because
hydrogen flow is tied to feedwater flow NOT H2
setpoint or O2 flow. It is plausible because H2 flow past
the recombiner will increase.
Pedigree: Modified from 03-1 Cert exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

33

ID: 03-1 NRC-5858

Points: 1.00

<QQ 5858(1410)><<Which one of the following describes how the Reactor Building Ventilation System maintains the required 0.25 inches of negative water pressure in the Reactor Building during normal operation of the system?>>

- A. <QQ 5858(1480)><<A d/p controller regulates a recirculation damper position.>>
- B. <QQ 5858(1480)><<At least one (1) more exhaust fan than supply fan is operated.>>
- C. <QQ 5858(1480)><<A variable vane controller positions movable vanes on the operating exhaust fans based on Building D/P.>>
- D. <QQ 5858(1480)><<A variable vane controller positions movable vanes on the operating supply fans based on Building D/P.>>

Answer: <QQ 5858(1419)><<C>>

Question 33 Details

Question Type: <QQ 5858(1401)><<Multiple Choice>>
Topic: <QQ 5858(1400)><<33 DILTS.288LN001.03 RBV: Proper dp maintained by>>
System ID: <QQ 5858(1445)><<5858>>
User ID: <QQ 5858(1404)><<03-1 NRC-5858>>
Status: <QQ 5858(1405)><<Active>>
Must Appear: <QQ 5858(1406)><<No>>
Difficulty: <QQ 5858(1407)><<0.00>>
Time to Complete: <QQ 5858(1408)><<0>>
Point Value: <QQ 5858(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5858(1414)><<0.00>>
User Number 2: <QQ 5858(1415)><<0.00>>
Comment: <QQ 5858(1411)><<Objective: DRE288LN001 Reference: DRE LP 288LN001 and DOP 5750-02 K/A: 288000 K5.02 3.2 / 3.4 Level: Recall Explanation: The reactor building is maintained at a negative pressure by controlling the variable vanes on the exhaust fans NOT the supply fans. DOP 5750-02 has the operator start 2 supply and 2 exhaust fans for a normal system startup. The reactor building ventilation system does NOT use a recirc damper, the reactor feed pump ventilation system has a recirc damper for temperature control. Pedigree: Cooper 1999 NRC exam>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

34

ID: 03-1 NRC-5876

Points: 1.00

<QQ 5876(1410)><<The following conditions exist:

- Unit 2 and 3 are operating at 912MWe.
- The NSO reports that Reactor Building differential pressure is at 0 inches of water AND going up.

As a result, during a design basis loss of coolant accident...>>

- A. <QQ 5876(1480)><<the torus could be overpressurized.>>
- B. <QQ 5876(1480)><<an unmonitored release could occur.>>
- C. <QQ 5876(1480)><<reactor water level instrumentation may read lower.>>
- D. <QQ 5876(1480)><<the secondary containment interlock doors may NOT function.>>

Answer: <QQ 5876(1419)><>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 34 Details

Question Type: <QQ 5876(1401)><<Multiple Choice>>
Topic: <QQ 5876(1400)><<34 DILTS.288LN001.10
Containment: Reason for keeping at a vacuum.>>
System ID: <QQ 5876(1445)><<5876>>
User ID: <QQ 5876(1404)><<03-1 NRC-5876>>
Status: <QQ 5876(1405)><<Active>>
Must Appear: <QQ 5876(1406)><<No>>
Difficulty: <QQ 5876(1407)><<0.00>>
Time to Complete: <QQ 5876(1408)><<0>>
Point Value: <QQ 5876(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5876(1414)><<0.00>>
User Number 2: <QQ 5876(1415)><<0.00>>
Comment: <QQ 5876(1411)><<Objective: DRE288LN001.10
Reference: DAN 923-5 C-1, DOA 5750-01, DRE LP
295LS03
K/A: 290001 2.1.32 3.4 / 3.8
Level: Recall
Explanation: Per the DAN, DOA and Lesson Plan, a building DP that is not negative will result in a potential unmonitored release, especially during a LOCA when primary containment may be breached. If reactor building pressure was higher, the pressure on the outside of the torus would be higher, lowering DP. This will have a minimal positive effect on overpressure of torus during a LOCA. The only level instrument that would be affected by a change in RB pressure would be Refueling level indication and it has such a large level band, the change would NOT be noticeable on any level instrument. A 0.25 inch of water difference across the access doors will NOT significantly limit access to the reactor building.
Pedigree: Modified from Duane Arnold 2002 Exam

During movement of a large component on the Refuel floor the component contacted the outside wall and opened a large hole in the wall to atmosphere. The Reactor Building Supply fans are all OFF. The Reactor Building to Atmosphere DP has stabilized at 0.1 inches of water with the Reactor Building Exhaust Fans EF 1, 2, and 3 running. HPs report there are NO abnormal radiation level readings.

Which ONE of the following states the adverse consequences that has/will occur in this situation and what procedure directs the actions for this event?

In the event of a design basis Loss of Coolant Accident (LOCA) an unmonitored release could occur. T.S. directs actions (Shutdown using IPOI 4 "Shutdown" or

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

IPOI 5 "Reactor Scram") if secondary containment operability can not be restored.

The Drywell pressure instrumentation is inoperable. ARP 1C23C A-6 "Main Plant Exhaust Plenum HI Pressure" directs re-calibration of the Drywell pressure instruments.

Refuel Floor integrity has been lost to atmosphere with spent fuel in the Fuel Pool. EOP 4 is entered to prevent Radioactive release to the environment.

The differential pressure across the Reactor Building doors will prevent access to the Secondary Containment. EOP 3 is entered on loss of Secondary Containment access.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

35

ID: 03-1 NRC-5921

Points: 1.00

<QQ 5921(1410)><<Unit 3 is at 500 MWe.

The 3C ERV pressure controller PC 3-203-3C begins momentarily spiking high every 2 seconds.

For the first ten seconds of this transient, steam dryer differential pressure will...>>

- A. <QQ 5921(1480)><<increase one time and return to normal.>>
- B. <QQ 5921(1480)><<decrease one time and return to normal.>>
- C. <QQ 5921(1480)><<increase every two seconds and return to normal.>>
- D. <QQ 5921(1480)><<decrease every two seconds and return to normal.>>

Answer: <QQ 5921(1419)><<A>>

Question 35 Details

Question Type: <QQ 5921(1401)><<Multiple Choice>>
Topic: <QQ 5921(1400)><<35 DILTS.216LN001.12 NBI:
Press controller effect on stm dryer dp>>
System ID: <QQ 5921(1445)><<5921>>
User ID: <QQ 5921(1404)><<03-1 NRC-5921>>
Status: <QQ 5921(1405)><<Active>>
Must Appear: <QQ 5921(1406)><<No>>
Difficulty: <QQ 5921(1407)><<0.00>>
Time to Complete: <QQ 5921(1408)><<0>>
Point Value: <QQ 5921(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5921(1414)><<0.00>>
User Number 2: <QQ 5921(1415)><<0.00>>
Comment: <QQ 5921(1411)><<Objective: DRE216LN001.12
Reference: DRE LP 239LN001
K/A: 290002 K6.08 2.9 / 3.2
Level: High
Explanation: When the pressure controller spikes high the 3C ERV will open. The opening of the valve will initially increase steam flow from the Reactor and raise steam dryer dp. The ERV will not cycle on a 2 second frequency because the 3C ERV has a ten second time delay, once open, before it will open again.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

36

ID: 03-1 NRC-5834

Points: 1.00

<QQ 5834(1410)><<According to DOA 4700-01, Instrument Air System Failure, where does the Operator monitor Instrument Air system pressure for the manual scram initiation setpoint?

Panel...>>

- A. <QQ 5834(1480)><<901-2>>
- B. <QQ 5834(1480)><<902(3)-4>>
- C. <QQ 5834(1480)><<923-1>>
- D. <QQ 5834(1480)><<902(3)-6>>

Answer: <QQ 5834(1419)><<C>>

Question 36 Details

Question Type: <QQ 5834(1401)><<Multiple Choice>>
Topic: <QQ 5834(1400)><<36 DILTS.278LN001.11 IA: Location of header pressure gages used for scram criteria>>
System ID: <QQ 5834(1445)><<5834>>
User ID: <QQ 5834(1404)><<03-1 NRC-5834>>
Status: <QQ 5834(1405)><<Active>>
Must Appear: <QQ 5834(1406)><<No>>
Difficulty: <QQ 5834(1407)><<0.00>>
Time to Complete: <QQ 5834(1408)><<0>>
Point Value: <QQ 5834(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5834(1414)><<0.00>>
User Number 2: <QQ 5834(1415)><<0.00>>
Comment: <QQ 5834(1411)><<Objective: DRE278LN001.11 Reference: DOA 4700-01 K/A: 300000 A4.01 2.6 / 2.7 Level: Recall Explanation: DOA 4700-01 states "IF at panel 923-1, U2(3) IA HDR PRESS, drops to 55 psig, THEN manually scram U2(3) reactor (DGP 02-03)." The 902(3)-6 panel contains FRV backup air active annunciator. The 901-2 panel has U1 instrument air header pressure gage. 902(3)-4 panel has pumpback system air receiver pressure. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

37

ID: 03-1 NRC-5836

Points: 1.00

<QQ 5836(1410)><<The following conditions exist:

The Switchyards were in a normal lineup with both Unit 2 and 3 on-line.
345 KV LN 1221 developed a fault.
345 KV BT 2-3 CB failed to open.
The rest of the electrical system operated as designed.

Which of the following is a result of the above transient?

Loss of power to...>>

- A. <QQ 5836(1480)><<Transformer 21>>
- B. <QQ 5836(1480)><<Transformer 22>>
- C. <QQ 5836(1480)><<138 KV Bus 2>>
- D. <QQ 5836(1480)><<138 KV Bus 4>>

Answer: <QQ 5836(1419)><>

Question 37 Details

Question Type: <QQ 5836(1401)><<Multiple Choice>>
Topic: <QQ 5836(1400)><<37 DILTS.262LN001.12 Aux Pwr: Fault on line in 345 yd, 1 breaker fails to open>>
System ID: <QQ 5836(1445)><<5836>>
User ID: <QQ 5836(1404)><<03-1 NRC-5836>>
Status: <QQ 5836(1405)><<Active>>
Must Appear: <QQ 5836(1406)><<No>>
Difficulty: <QQ 5836(1407)><<0.00>>
Time to Complete: <QQ 5836(1408)><<0>>
Point Value: <QQ 5836(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5836(1414)><<0.00>>
User Number 2: <QQ 5836(1415)><<0.00>>
Comment: <QQ 5836(1411)><<Objective: DRE262LN001.12 Reference: LP DRE 262LN001, 262LN003, and DWG 262LN003-001 K/A: 262001 K2.01 3.3 / 3.6 Level: High Explanation: If a fault on Line 1221 occurs and CB 2-3 doesn't open, the next breaker downstream will open to try and protect the system. This will cause CB 3-4 to open causing the loss of the feed to TR-22, our normal supply of offsite power to Bus 22 and 24. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

38

ID: 03-1 NRC-5816

Points: 1.00

<QQ 5816(1410)><<Unit 2 is operating at 750 MWe.
Annunciator 923-1 D-1, U2 OR U3 RBCCW PRESS LO, is received.
In accordance with DOA 3700-1, "LOSS OF COOLING BY REACTOR BUILDING CLOSED
COOLING WATER (RBCCW) SYSTEM", if RBCCW pressure CANNOT be restored within one
minute you should secure the:>>

- A. <QQ 5816(1480)><<Drywell Coolers>>
- B. <QQ 5816(1480)><<Fuel Pool Cooling System>>
- C. <QQ 5816(1480)><<Reactor Water Cleanup System>>
- D. <QQ 5816(1480)><<Reactor Recirculation Pumps>>

Answer: <QQ 5816(1419)><<D>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 38 Details

Question Type: <QQ 5816(1401)><<Multiple Choice>>
Topic: <QQ 5816(1400)><<38 DILTS.208LN001.12 RBCCW:
Loss of pressure for > 1 min, trip recirc pumps>>
System ID: <QQ 5816(1445)><<5816>>
User ID: <QQ 5816(1404)><<03-1 NRC-5816>>
Status: <QQ 5816(1405)><<Active>>
Must Appear: <QQ 5816(1406)><<No>>
Difficulty: <QQ 5816(1407)><<0.00>>
Time to Complete: <QQ 5816(1408)><<0>>
Point Value: <QQ 5816(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5816(1414)><<0.00>>
User Number 2: <QQ 5816(1415)><<0.00>>
Comment: <QQ 5816(1411)><<Objective: DRE208LN001.12
Reference: LP DRE 208LN001 and DOA 3700-01
K/A: 400000 2.1.2 3.0 / 4.0
Level: Recall
Explanation: Per the DOA and lesson plan, IF RBCCW
flow is lost and CANNOT be restored within one
minute, THEN perform the following: If the Mode switch
is in RUN, THEN manually scram the reactor AND
enter DGP 2-3, Reactor Scram and perform
concurrently with this procedure. Trip the Recirculation
Pumps AND enter DOA 202-01, Recirculation (Recirc)
Pump Trip - One or Both Pumps and perform
concurrently with this procedure.

Bank from Quad 1996 Exam:

*Annunciator 912-1 D-1, "REACTOR BLDG COOLING
WATER LOW PRESSURE", is received. In accordance
with QCOA 3700-1, "RBCCW LOW PRESSURE",
within one minute you should shutdown the:*

Reactor recirculation pumps.

Drywell Coolers

Fuel Pool Cooling System.

Reactor Water Cleanup System>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

39

ID: 03-1 NRC-5809

Points: 1.00

<QQ 5908(1410)><<A malfunction in the EHC system has caused Reactor pressure to increase.

A and C Reactor pressure transmitters from Division 1 sense 1192 psig.

B Reactor pressure transmitter from Division 2 senses 1250 psig.

D Reactor pressure transmitter from Division 2 senses 1193 psig.

Which of the following describes the response of the Recirc pumps?>>

- A. <QQ 5908(1480)><<Both Recirc Pumps will continue to operate.>>
- B. <QQ 5908(1480)><<Both Recirc pumps will trip immediately.>>
- C. <QQ 5908(1480)><<Only the B Recirc pump will trip immediately.>>
- D. <QQ 5908(1480)><<Both Recirc pumps will trip after a 9 second time delay.>>

Answer: <QQ 5908(1419)><<A>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 39 Details

Question Type: <QQ 5908(1401)><<Multiple Choice>>
Topic: <QQ 5908(1400)><<39 DILTS.212LN002.06 ATWS:
Response to ATWS Initiation from high reactor
pressure.>>
System ID: <QQ 5908(1445)><<5908>>
User ID: <QQ 5908(1404)><<03-1 NRC-5809>>
Status: <QQ 5908(1405)><<Active>>
Must Appear: <QQ 5908(1406)><<No>>
Difficulty: <QQ 5908(1407)><<0.00>>
Time to Complete: <QQ 5908(1408)><<0>>
Point Value: <QQ 5908(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5908(1414)><<0.00>>
User Number 2: <QQ 5908(1415)><<0.00>>
Comment: <QQ 5908(1411)><<Objective: DRE212LN002.07
Reference: 12E6582F, LP DRE212LN002
K/A: 295001 K2.04 3.3/ 3.3
Level: Recall
Explanation: The high reactor pressure setpoint in
Division 1 has not been exceeded, so no signal to trip
the Recirc pumps has been received. In Division 2,
only one transmitter in each channel has been
energized so the circuit is not made up to trip the recirc
pumps. While a single channel can cause a trip, it
takes two transmitters in a channel to trip the recirc
pumps. A mod was installed to allow either division to
trip both Recirc pumps. The nine second time delay is
only applicable to the low low level trip, not the high
reactor pressure trip.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

40

ID: 03-1 NRC-5920

Points: 1.00

<QQ 5920(1410)><<A loss of ALL AC power has occurred on Unit 2 from rated conditions.

Which of the following describes the response of the Isolation Condenser to this event AND the reason for that response?

The Isolation Condenser will initiate...>>

- A. <QQ 5920(1480)><<immediately due to de-energization of its initiation logic.>>
- B. <QQ 5920(1480)><<after a short time delay due to the closure of the MSIVs.>>
- C. <QQ 5920(1480)><<immediately due to the closure of the turbine stop valves.>>
- D. <QQ 5920(1480)><<after a short time delay due to the EDGs re-energizing its initiation logic.>>

Answer: <QQ 5920(1419)><>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 40 Details

Question Type: <QQ 5920(1401)><<Multiple Choice>>
Topic: <QQ 5920(1400)><<40 DILTS.207LN001.06 Iso Cond:
reason the Iso initaites on Loss of all AC>>
System ID: <QQ 5920(1445)><<5920>>
User ID: <QQ 5920(1404)><<03-1 NRC-5920>>
Status: <QQ 5920(1405)><<Active>>
Must Appear: <QQ 5920(1406)><<No>>
Difficulty: <QQ 5920(1407)><<0.00>>
Time to Complete: <QQ 5920(1408)><<0>>
Point Value: <QQ 5920(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5920(1414)><<0.00>>
User Number 2: <QQ 5920(1415)><<0.00>>
Comment: <QQ 5920(1411)><<Objective: DRE207LN001.06
Reference: DOP 1300-02, DAN 902(3)-5 F-1, DAN
902(3)-5 H-4, DAN 902(3)-7 G-5, DRE LP207LN001
K/A: 295003 AK3.07 3.8 / 4.0
Level: Recall
Explanation: Following a loss of all offsite power, the
MSIVs will close and pressure will rapidly rise in the
RPV due to the loss of the normal heat sink and after a
time delay of 15 seconds, the isolation condenser will
automatically initiate. The isolation condenser will not
initiate on a turbine stop valve closure because there is
a 15 second time delay on Iso initiation and the MSIVs
will close in 3-5 seconds, additionally the bypass valves
will open to control Rx pressure with just turbine stop
valve closure. The initiation logic is de-energize to
actuate but since it is DC, it will not lose power during
this event.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

41

ID: 03-1 NRC-5872

Points: 1.00

<QQ 5872(1410)><<The following conditions exist:

- Unit 2 and Unit 3 were at 912 MWe.
- Unit 3 experienced a loss of 250 Vdc Turbine Building Bus 3.
- Five minutes later a spurious Unit 2 Group I isolation occurs.

The Unit 2 Isolation Condenser MO 2-1301-3, Rx Inlet Isol valve...>>

- A. <QQ 5872(1480)><<Can be opened by using control switch located in plant.>>
- B. <QQ 5872(1480)><<Will operate as designed upon auto initiation signal.>>
- C. <QQ 5872(1480)><<Will open when swapped to it's alternate power supply.>>
- D. <QQ 5872(1480)><<Can only be opened through local manual operation.>>

Answer: <QQ 5872(1419)><<D>>

Question 41 Details

Question Type: <QQ 5872(1401)><<Multiple Choice>>
Topic: <QQ 5872(1400)><<41 DILTS.207LN001.12 ISO: How to operate Iso with a loss of 250 VDC Bus 2A>>
System ID: <QQ 5872(1445)><<5872>>
User ID: <QQ 5872(1404)><<03-1 NRC-5872>>
Status: <QQ 5872(1405)><<Active>>
Must Appear: <QQ 5872(1406)><<No>>
Difficulty: <QQ 5872(1407)><<0.00>>
Time to Complete: <QQ 5872(1408)><<0>>
Point Value: <QQ 5872(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5872(1414)><<0.00>>
User Number 2: <QQ 5872(1415)><<0.00>>
Comment: <QQ 5872(1411)><<Objective: 207LN001.12 Reference: DRE207LN001 K/A: 295004 A1.02 3.8 / 4.1 Level: Recall Explanation: With a loss of U3 250 VDC TB Bus 3, the U2 250 VDC RB Bus 2A and 2B have lost power. U2 RB Bus 2A is the power supply to the U2 Iso 3 vlv so the valve has to be locally opened manually since it has no power. Swapping of power supplies capability and local control switches are provided in the U 2/3 EDG for the Iso 1 and 4 valves. Pedigree: Dresden Bank (276629)>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

42

ID: 03-1 NRC-5852

Points: 1.00

<QQ 5852(1410)><<Unit 3 was at 912 MWe when Annunciator 903-7 G-4, TURB TRIPPED MOIST SEP TK LVL HI-HI, alarm came in and would not clear for 15 seconds.

Which of the following describes the expected status of the Main Turbine Stop Valves and The Combined Intermediate Stop Valves?

| | Main Turbine Stop Valves | Combined Intermediate Stop Valves |
|----|--------------------------|-----------------------------------|
| >> | | |
| A. | <QQ 5852(1480)><< Closed | Open>> |
| B. | <QQ 5852(1480)><< Closed | Closed>> |
| C. | <QQ 5852(1480)><< Open | Open>> |
| D. | <QQ 5852(1480)><< Open | Closed>> |

Answer: <QQ 5852(1419)><>

Question 42 Details

| | |
|-------------------|---|
| Question Type: | <QQ 5852(1401)><<Multiple Choice>> |
| Topic: | <QQ 5852(1400)><<42 DILTS.245LN001.04 Main Gen: Positions of Turbine stop and CIVs when conditions exist>> |
| System ID: | <QQ 5852(1445)><<5852>> |
| User ID: | <QQ 5852(1404)><<03-1 NRC-5852>> |
| Status: | <QQ 5852(1405)><<Active>> |
| Must Appear: | <QQ 5852(1406)><<No>> |
| Difficulty: | <QQ 5852(1407)><<0.00>> |
| Time to Complete: | <QQ 5852(1408)><<0>> |
| Point Value: | <QQ 5852(1441)><<1.00>> |
| Cross Reference: | |
| User Text: | |
| User Number 1: | <QQ 5852(1414)><<0.00>> |
| User Number 2: | <QQ 5852(1415)><<0.00>> |
| Comment: | <QQ 5852(1411)><<Objective: DRE245LN001.09 Reference: DAN 902-7 G-4 K/A: 295005 A2.03 3.1 / 3.1 Level: Recall Explanation: Per the DAN, the turbine will trip when MSDT level reaches 24 inches from the bottom of the tank with a 10 second time delay. A turbine trip always causes a generator trip. The stop valves and CIVs go closed on a turbine trip. Pedigree: New for ILT 03-1 NRC Exam>> |

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

43

ID: 03-1 NRC-5853

Points: 1.00

<QQ 5853(1410)><<Which of the following is NOT a purpose of a reactor scram?>>

- A. <QQ 5853(1480)><<Preserve the integrity of the fuel cladding.>>
- B. <QQ 5853(1480)><<Preserve the integrity of the primary system.>>
- C. <QQ 5853(1480)><<Bring the reactor to a shutdown condition from full power at any time during core life independent of the Control Rod Drive Hydraulic System.>>
- D. <QQ 5853(1480)><<Minimize the energy that must be absorbed, and prevent criticality following a Loss Of Coolant Accident (LOCA).>>

Answer: <QQ 5853(1419)><<C>>

Question 43 Details

Question Type: <QQ 5853(1401)><<Multiple Choice>>
Topic: <QQ 5853(1400)><<43 DILTS.212LN001.01 SCRAM: function of a reactor scram>>
System ID: <QQ 5853(1445)><<5853>>
User ID: <QQ 5853(1404)><<03-1 NRC-5853>>
Status: <QQ 5853(1405)><<Active>>
Must Appear: <QQ 5853(1406)><<No>>
Difficulty: <QQ 5853(1407)><<0.00>>
Time to Complete: <QQ 5853(1408)><<0>>
Point Value: <QQ 5853(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5853(1414)><<0.00>>
User Number 2: <QQ 5853(1415)><<0.00>>
Comment: <QQ 5853(1411)><<Objective: 212LN001.01 Reference: DRE LP212LN001 K/A: 295006 2.1.27 2.8 / 2.9 Level: Recall Explanation: Per the lesson plan, a reactor scram is designed to: "Preserve the integrity of the fuel cladding, Preserve the integrity of the primary system, and Minimize the energy that must be absorbed, and prevent criticality following a Loss Of Coolant Accident (LOCA)." The purpose of SBLC is to "bring the reactor to a shutdown condition from full power at any time during core life independent of the Control Rod Drive Hydraulic System." Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

44

ID: 03-1 NRC-5831

Points: 1.00

<QQ 5831(1410)><<Given the following information:

- Unit 2 was operating at 700MWe.
- The 2A and 2B RFPs were operating with B RFP being the last RFP started.
- The 2C RFP was selected for standby.
- A transient caused Reactor water level to increase to 54 inches.
- Reactor water level is now 45 inches and lowering at 1 inch per minute.

What will be 2C RFP's response to this transient?

2C RFP will...

>>

- A. <QQ 5831(1480)><<auto start as soon as level is below the trip setpoint.>>
- B. <QQ 5831(1480)><<remain in STBY until the high level trip seal-in signal is reset and then auto start.>>
- C. <QQ 5831(1480)><<start and immediately trip and will auto start after the high level trip seal in signal is reset.>>
- D. <QQ 5831(1480)><<start and immediately trip and must be manually restarted after level is below the trip setpoint.>>

Answer: <QQ 5831(1419)><<D>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 44 Details

Question Type: <QQ 5831(1401)><<Multiple Choice>>
Topic: <QQ 5831(1400)><<44 DOPSS.259LN001.06 FW:
Actions to restore RFP after high RPV water level>>
System ID: <QQ 5831(1445)><<5831>>
User ID: <QQ 5831(1404)><<03-1 NRC-5831>>
Status: <QQ 5831(1405)><<Active>>
Must Appear: <QQ 5831(1406)><<No>>
Difficulty: <QQ 5831(1407)><<0.00>>
Time to Complete: <QQ 5831(1408)><<0>>
Point Value: <QQ 5831(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5831(1414)><<0.00>>
User Number 2: <QQ 5831(1415)><<0.00>>
Comment: <QQ 5831(1411)><<Objective: DRE259LN001.06
Reference: DOA 0600-01, DAN 902(3)-6 H-6
K/A: 259008 AA1.08 3.5/3.5
Level: High
Explanation: The RPV water level has exceeded the
trip setpoint. As described in training material/LP.
Standby pump will receive a start signal when one or
both of the running pumps trip - its breaker will auto-
close. Due to high level, as soon as the breaker
closes, it will receive a auto-trip signal. There is no auto
restart on a RFP when the high level condition clears.
2B RFP being the last pump started, only comes into
play on selective tripping on low suction pressure, NOT
on RFP auto start.
Pedigree: New for ILT 03-1 NRC Exam>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

45

ID: 03-1 NRC-5830

Points: 1.00

<QQ 5936(1410)><<Unit 2 is at 210 MWe with the following conditions:

- Power ascension in progress.
- FWLC system is maintaining RPV water level at +30 inches.
- EHC system is maintaining RPV pressure is 980 psig.
- Annunciator 902-4 D-18, DIV 2 TORUS WTR LOCAL TEMP HI, has alarmed due to 2B ERV leaking by.

Per DAN 902-4 D-18, DIV 2 TORUS WTR LOCAL TEMP HI, the expected Operator actions would be to first verify the alarm is valid by checking local Torus temperatures on the Torus Temperature Recorder on panel (1) and then placing the 2B ERV control switch in (2)

1 2>>

- A. <QQ 5936(1480)><<902-4 "MAN">>
- B. <QQ 5936(1480)><<902-4 "OFF">>
- C. <QQ 5936(1480)><<902-36 "MAN">>
- D. <QQ 5936(1480)><<902-36 "OFF">>

Answer: <QQ 5936(1419)><<D>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 45 Details

Question Type: <QQ 5936(1401)><<Multiple Choice>>
Topic: <QQ 5936(1400)><<45 DILTS.223LN001.10 Cont:
Torus local temp hi, where to verify and actions to
take>>
System ID: <QQ 5936(1445)><<5936>>
User ID: <QQ 5936(1404)><<03-1 NRC-5830>>
Status: <QQ 5936(1405)><<Active>>
Must Appear: <QQ 5936(1406)><<No>>
Difficulty: <QQ 5936(1407)><<0.00>>
Time to Complete: <QQ 5936(1408)><<0>>
Point Value: <QQ 5936(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5936(1414)><<0.00>>
User Number 2: <QQ 5936(1415)><<0.00>>
Comment: <QQ 5936(1411)><<Objective: DRE223LN001.10
Reference: DAN 902-4 D-18
K/A: 295013 2.4.50 3.3 / 3.3
Level: Recall
Explanation: DAN 902(3)-4 D-18, DIV 2 TORUS WTR
LOCAL TEMP HI, states "Check TIRS 2-1640-200B,
Torus Water Temperature Recorder, on Panel 902-36
to determine which alarm sensor(s) generated the
alarm." and "IF a high temperature condition exists,
THEN verify bulk torus water temperature using the
following recorders: TIRS 2-1640-200B on Panel 902-
36 and TR 2(3)-1641-9 on Panel 902-4." The Temp
Recorder TR 2-1641-9 on the 902-4 panel will only give
BULK temp, not local temp. For Operator Actions the
DAN states "IF a relief valve is open, THEN close the
valve." Taking the control switch to MAN will OPEN the
valve. Taking the control switch to OFF will CLOSE the
valve.
Pedigree: New for ILT 03-1 NRC Exam>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

46

ID: 03-1 NRC-5841

Points: 1.00

<QQ 5841(1410)><<DSSP 0100-CR, Control Room Evacuation, is in progress.

Due to damage in the control room wiring for the 2-1301-1, U2 ISOLATION CONDENSER RX OUTLET ISOL VLV, has gone closed.

How would the Unit 2 Aux NSO re-open the 2-1301-1 valve?

Proceed to (1) and open the valve at the (2) .

1

2>>

- A. <QQ 5841(1480)><<Reactor Building 3rd floor 2202-76, UNIT 2 ISOLATION CONDENSER VALVES CONTROL panel>>
- B. <QQ 5841(1480)><<Reactor Building 3rd floor MO 2-1301-1, U2 ISOL COND RX OUTLET ISOL VLV pushbutton control station>>
- C. <QQ 5841(1480)><<2/3 EDG Room 2202-76, UNIT 2 ISOLATION CONDENSER VALVES CONTROL panel>>
- D. <QQ 5841(1480)><<2/3 EDG Room MO 2-1301-1, U2 ISOL COND RX OUTLET ISOL VLV pushbutton control station>>

Answer: <QQ 5841(1419)><<C>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 46 Details

Question Type: <QQ 5841(1401)><<Multiple Choice>>
Topic: <QQ 5841(1400)><<46 DILTS.207LN001.05 Iso Cond:
Where to locally operate Iso 4 valve>>
System ID: <QQ 5841(1445)><<5841>>
User ID: <QQ 5841(1404)><<03-1 NRC-5841>>
Status: <QQ 5841(1405)><<Active>>
Must Appear: <QQ 5841(1406)><<No>>
Difficulty: <QQ 5841(1407)><<0.00>>
Time to Complete: <QQ 5841(1408)><<0>>
Point Value: <QQ 5841(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5841(1414)><<0.00>>
User Number 2: <QQ 5841(1415)><<0.00>>
Comment: <QQ 5841(1411)><<Objective: DRE07LN001.05
Reference: DSSP 0100-CR
K/A: 295016 AK2.02 4.0 / 4.1
Level: Recall
Explanation: Per DOA 5750-01 "Perform the following
at 2202-76 UNIT 2 ISOLATION CONDENSER
VALVES CONTROL panel (2/3 D/G room top of stairs)
to verify U2 Isolation Condenser Valves are open..."
The 2-1301-3 valve would be operated from the 3rd
floor of the reactor building. Only the 2-1301-10 valve
has a MOV local pushbutton control station.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

47

ID: 03-1 NRC-5817

Points: 1.00

<QQ 5817(1410)><<The following conditions exist:

- 3A Pumpback compressor is operating normally.
- 2A RBCCW pump is running.
- 2/3 RBCCW pump is lined up to Unit 2 and is being powered by Unit 3 due to maintenance being performed on the Unit 2 breaker that supplies the RBCCW pump.
- 3A and 3B RBCCW pumps are running.
- Bus 33-1 trips on overcurrent.

How does this affect the cooling water supply to the 3A Pumpback compressor?>>

- A. <QQ 5817(1480)><<NO cooling water has been lost.>>
- B. <QQ 5817(1480)><<Limited cooling water is being supplied from 2/3 RBCCW pump.>>
- C. <QQ 5817(1480)><<Limited cooling water is being supplied from 3B RBCCW pump.>>
- D. <QQ 5817(1480)><<ALL cooling water has been lost.>>

Answer: <QQ 5817(1419)><<A>>

Question 47 Details

Question Type: <QQ 5817(1401)><<Multiple Choice>>
Topic: <QQ 5817(1400)><<47 DILTS.208LN001.12 RBCCW: Loss of 34-1 on U3 Pumpback compressor cooling>>
System ID: <QQ 5817(1445)><<5817>>
User ID: <QQ 5817(1404)><<03-1 NRC-5817>>
Status: <QQ 5817(1405)><<Active>>
Must Appear: <QQ 5817(1406)><<No>>
Difficulty: <QQ 5817(1407)><<0.00>>
Time to Complete: <QQ 5817(1408)><<0>>
Point Value: <QQ 5817(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5817(1414)><<0.00>>
User Number 2: <QQ 5817(1415)><<0.00>>
Comment: <QQ 5817(1411)><<Objective: DRE208LN001.12 Reference: LP DRE 208LN001 K/A: 295018 AK2.01 3.3 / 3.4 Level: High Explanation: Cooling water for the Unit 3 pumpback compressors is supplied from UNIT 2, NOT Unit 3, and 2/3 RBCCW pump is supplied from 34-1 in this case. Therefore NO cooling water is lost. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

48

ID: 03-1 NRC-5814

Points: 1.00

<QQ 5814(1410)><<The following conditions exist on Unit 2:

- Operating at 912 MWe.
- 2A Instrument Air compressor is running.
- 3C Instrument Air compressor is secured and lined up to Unit 2.
- The Instrument Air system is in a normal lineup and all systems operate as designed.

What is the FIRST automatic response when Instrument Air pressure drops to the actuation setpoint of Annunciator 923-1 F-4, U2 INST AIR PRESS LO **AND** what is the reason for the automatic action?>>

- A. <QQ 5814(1480)><<The Nitrogen Backup Supply Isolation valve will automatically open to keep the MSIVs open.>>
- B. <QQ 5814(1480)><<The 3C Instrument Air Compressor will automatically start in an attempt to restore Instrument Air pressure.>>
- C. <QQ 5814(1480)><<The Service Air to Instrument Air crosstie valve will automatically open in an attempt to restore Instrument Air pressure.>>
- D. <QQ 5814(1480)><<The Instrument Air dryer bypass valve will automatically open to minimize the loads on the Instrument Air system.>>

Answer: <QQ 5814(1419)><<C>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 48 Details

Question Type: <QQ 5814(1401)><<Multiple Choice>>
Topic: <QQ 5814(1400)><<48 DILTS.278LN001.06 Inst Air: Response to sys lo press alarm and reason>>
System ID: <QQ 5814(1445)><<5814>>
User ID: <QQ 5814(1404)><<03-1 NRC-5814>>
Status: <QQ 5814(1405)><<Active>>
Must Appear: <QQ 5814(1406)><<No>>
Difficulty: <QQ 5814(1407)><<0.00>>
Time to Complete: <QQ 5814(1408)><<0>>
Point Value: <QQ 5814(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5814(1414)><<0.00>>
User Number 2: <QQ 5814(1415)><<0.00>>
Comment: <QQ 5814(1411)><<Objective: DRE278LN001.06 Reference: LP DRE 278LN001 and DANs 923-1 F-4 and E-4 K/A: 295019 AK3.01 3.3 / 3.4 Level: Recall Explanation: Per the DAN 923-1 F-4, when the alarm is received, the SA-IA xtie valve will open (<85# IA header press). The IA dryer bypass valve will open at ~ 60 psig downstream of the dryer, well below the setpoint of the SA-IA xtie actuation. The 3C IA compressor can be manually started but will NOT auto start. The N2 backup supply valve will open when a low pressure condition is sensed in the drywell pneumatic system (~70 psig) Pedigree: Modified from Quad 2001 Exam

What is the automatic response, if any, when instrument air pressure drops low enough to energize Annunciator 912-1 A-11, U1A INST AIR LOW PRESSURE?

The Service air back-up valve will automatically open in an attempt to restore instrument air pressure.

The Drywell Pneumatic Compressor will automatically start to maintain control air for the MSIVs and the Target Rock Valve.

The 1 / 2 Instrument Air Compressor will automatically start in an attempt to restore instrument air pressure.

The air supply to non-critical systems will automatically isolate to conserve instrument air pressure.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

49

ID: 03-1 NRC-5877

Points: 1.00

<QQ 5877(1410)><<The following conditions exist on Unit 3:

- A spurious Group I isolation has occurred.
- RPV level is 10 inches and lowering 1 inch per minute.
- RPV pressure is 1070 and increasing 1 psig per minute.
- All rods are in.
- EHC pressure is 0 psig.

The Operators FIRST concern is (1) by (2) .

1

2>>

- | | | |
|----|--|--------------------------|
| A. | <QQ 5877(1480)><<lowering RPV pressure valves>> | opening the bypass |
| B. | <QQ 5877(1480)><<lowering RPV pressure Condenser>> | initiating the Isolation |
| C. | <QQ 5877(1480)><<raising RPV water level | injecting with HPCI>> |
| D. | <QQ 5877(1480)><<raising RPV water level feedwater>> | injecting with |

Answer: <QQ 5877(1419)><>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 49 Details

Question Type: <QQ 5877(1401)><<Multiple Choice>>
Topic: <QQ 5877(1400)><<49 DILTE.29501LK019 EHC
Failure: actions to take to control containment
pressure>>
System ID: <QQ 5877(1445)><<5877>>
User ID: <QQ 5877(1404)><<03-1 NRC-5877>>
Status: <QQ 5877(1405)><<Active>>
Must Appear: <QQ 5877(1406)><<No>>
Difficulty: <QQ 5877(1407)><<0.00>>
Time to Complete: <QQ 5877(1408)><<0>>
Point Value: <QQ 5877(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5877(1414)><<0.00>>
User Number 2: <QQ 5877(1415)><<0.00>>
Comment: <QQ 5877(1411)><<Objective: 29501LK019
Reference: LP 295L-S1 and DEOP 100
K/A: 295020 K1.01 3.7 / 3.9
Level: High - Application
Explanation: Entry for DEOP 100 is 1060 psig and 8
inches. For the conditions given, the action that need to
be taken **first** are restoring pressure in accordance
with DEOP 100-1. Since EHC is NOT available, the
bypass valves are unable to be opened.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

50

ID: 03-1 NRC-5927

Points: 1.00

<QQ 5927(1410)><<2C SDC pump motor developed a short circuit direct to ground but the motor supply breaker did NOT trip.
All other AC distribution components worked as designed.

Where AND how would the Operator be expected to obtain Drywell Temperature?>>

- A. <QQ 5927(1480)><<Process computer ONLY since the 902-3 panel indication would be lost.>>
- B. <QQ 5927(1480)><<Directly off Temperature Recorder TR 2-1340-1, ISOL COND/DW ATMOS TEMPS on the 902-3 panel.>>
- C. <QQ 5927(1480)><<Installation of a fluke at the 902-3 panel to read the RTD's for TR 2-1340-1, ISOL COND/DW ATMOS TEMPS.>>
- D. <QQ 5927(1480)><<Operator reports from the local drywell temperature monitoring panel since ALL Main Control Room indication would be lost.>>

Answer: <QQ 5927(1419)><>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 50 Details

Question Type: <QQ 5927(1401)><<Multiple Choice>>
Topic: <QQ 5927(1400)><<50 DILTS.223LN001.12 SDC pump fault effect on ability to monitor torus temp.>>
System ID: <QQ 5927(1445)><<5927>>
User ID: <QQ 5927(1404)><<03-1 NRC-5927>>
Status: <QQ 5927(1405)><<Active>>
Must Appear: <QQ 5927(1406)><<No>>
Difficulty: <QQ 5927(1407)><<0.00>>
Time to Complete: <QQ 5927(1408)><<0>>
Point Value: <QQ 5927(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5927(1414)><<0.00>>
User Number 2: <QQ 5927(1415)><<0.00>>
Comment: <QQ 5927(1411)><<Objective: DRE223LN001.12 Reference: Fig 262LN005-001 and 262LN001-002, LP 22LN001and 205LN001 K/A: 295021 A1.06 2.8 / 3.0 Level: High Explanation: When the faulted SDC pump breaker fails to trip, it will trip the Bus 23-1 feed breaker and lockout Bus 23-1 on over-current. When Bus 23-1 deenergizes, Bus 28 loses power which causes MCC 28-2 to lose power. When MCC 28-2 loses power, the Instrument Bus ABT will swap to MCC 25-2, which is still powered. Therefore, NO drywell temperature recorder will lose power, though the drywell temperature recorders will temporarily lose power while the Inst. Bus ABT swaps. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

51

ID: 03-1 NRC-5926

Points: 1.00

<QQ 5926(1410)><<During a fuel move from the core to the spent fuel pool, a fuel bundle is dropped rupturing the Drywell to RPV bellows.

As a result fuel pool level will...>>

- A. <QQ 5926(1480)><<remain constant.>>
- B. <QQ 5926(1480)><<drop to the level of the skimmer surge tank weirs.>>
- C. <QQ 5926(1480)><<drop to approximately 3 feet above the top of the spent fuel.>>
- D. <QQ 5926(1480)><<drop to approximately 19 feet above the top of the spent fuel.>>

Answer: <QQ 5926(1419)><<C>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 51 Details

Question Type: <QQ 5926(1401)><<Multiple Choice>>
Topic: <QQ 5926(1400)><<51 DILTS.233LN001.03 FPC:
RPV to Drywell bellows broke, resultant fuel pool
level>>
System ID: <QQ 5926(1445)><<5926>>
User ID: <QQ 5926(1404)><<03-1 NRC-5926>>
Status: <QQ 5926(1405)><<Active>>
Must Appear: <QQ 5926(1406)><<No>>
Difficulty: <QQ 5926(1407)><<0.00>>
Time to Complete: <QQ 5926(1408)><<0>>
Point Value: <QQ 5926(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5926(1414)><<0.00>>
User Number 2: <QQ 5926(1415)><<0.00>>
Comment: <QQ 5926(1411)><<Objective: DRE233LN001.03
Reference: Fig 233LN001.001, LP 233LN001
K/A: 295023 AA2.02 3.4 / 3.7
Level: High
Explanation: Since a fuel bundle is being moved from
the Reactor vessel to the fuel pool, the shielding blocks
and fuel pool gates are removed. If a RPV to Drywell
bellows is ruptured there would be nothing stopping the
level from dropping to the level of the bottom of the
cattle shoot. This would have the same effect as
draining the RPV with the fuel pool gates removed, so
level will drop to approximately 3 feet above the top of
the spent fuel in the racks. If the puncture was in the
fuel pool skimmer surge tank, level would drop to the
level of the skimmer surge tank weirs. 19 feet above
the top of the spent fuel is the Tech Spec required
minimum water level above irradiated fuel.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

52

ID: 03-1 NRC-5819

Points: 1.00

<QQ 5819(1410)><<The following conditions exist on Unit 3:

- A loss of RBCCW has occurred.
- The reactor mode switch has been placed in shutdown.
- All APRMs are downscale.
- During the transient, reactor water level dropped to 15 inches and is currently 24 inches and going up 0.5 inches per minute.
- Drywell pressure is 2.2 psig and going up 0.2 psig per minute.
- All ECCS pumps have automatically started.

The NSO should notify the Unit Supervisor that entry conditions have been met for which of the following?>>

- A. <QQ 5819(1480)><<DGP 2-3, Reactor Scram ONLY.>>
- B. <QQ 5819(1480)><<DEOP 100, RPV Control and DGP 2-3, Reactor Scram ONLY.>>
- C. <QQ 5819(1480)><<DEOP 200-1, Primary Containment Control and DGP 2-3, Reactor Scram ONLY.>>
- D. <QQ 5819(1480)><<DEOP 100, RPV Control, DEOP 200-1, Primary Containment Control, and DGP 2-3, Reactor Scram.>>

Answer: <QQ 5819(1419)><<D>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 52 Details

Question Type: <QQ 5819(1401)><<Multiple Choice>>
Topic: <QQ 5819(1400)><<52 DILTS.295L034 Drywell Press:
Determine procedures to enter given conditions
100,200-1,DGP 2-3>>
System ID: <QQ 5819(1445)><<5819>>
User ID: <QQ 5819(1404)><<03-1 NRC-5819>>
Status: <QQ 5819(1405)><<Active>>
Must Appear: <QQ 5819(1406)><<No>>
Difficulty: <QQ 5819(1407)><<0.00>>
Time to Complete: <QQ 5819(1408)><<0>>
Point Value: <QQ 5819(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5819(1414)><<0.00>>
User Number 2: <QQ 5819(1415)><<0.00>>
Comment: <QQ 5819(1411)><<Objective: 295L034
Reference: DEOP 100, 200-1, and DGP 2-3
K/A: 295024 2.4.4 4.0/4.3
Level: Recall
Explanation: Given the following conditions, DEOP 100
and 200-1 must be entered based on drywell pressure
>2#. DGP 2-3 is entered any time a scram is initiated.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

53

ID: 03-1 NRC-5928

Points: 1.00

<QQ 5928(1410)><<A concern during the performance of DEOP 100 is the occurrence of swell and shrink causing RPV level fluctuations. These level fluctuations can then complicate level control actions.

Which of the following is performed to minimize RPV shrink and swell?>>

- A. <QQ 5928(1480)><<Verify FWLCS in automatic.>>
- B. <QQ 5928(1480)><<Inhibit ADS and initiate IC.>>
- C. <QQ 5928(1480)><<Initiate IC and open ADSVs to lower RPV pressure to 945 psig.>>
- D. <QQ 5928(1480)><<Maximize injection using Condensate/Feedwater or other preferred injection system.>>

Answer: <QQ 5928(1419)><<C>>

Question 53 Details

Question Type: <QQ 5928(1401)><<Multiple Choice>>
Topic: <QQ 5928(1400)><<53 DILTS.29501LK025 Pressure effects on RPV water level>>
System ID: <QQ 5928(1445)><<5928>>
User ID: <QQ 5928(1404)><<03-1 NRC-5928>>
Status: <QQ 5928(1405)><<Active>>
Must Appear: <QQ 5928(1406)><<No>>
Difficulty: <QQ 5928(1407)><<0.00>>
Time to Complete: <QQ 5928(1408)><<0>>
Point Value: <QQ 5928(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5928(1414)><<0.00>>
User Number 2: <QQ 5928(1415)><<0.00>>
Comment: <QQ 5928(1411)><<Objective: DRE29501LK025 Reference: DRE LP295L-S1 K/A: 295025 EK1.06 3.5 / 3.6 Level: Recall Explanation: SRV cycling at high reactor pressure will result in swell and shrink from pressure fluctuations. The swell and shrink will then result in RPV level fluctuations. The SRV cycling is stopped by initiating the IC and opening ADSVs to lower reactor pressure below the opening setpoint of the SRVs. Pedigree: Dresden 2001 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

54

ID: 03-1 NRC-5905

Points: 1.00

<QQ 5905(1410)><<Torus temperature is maintained below 206°F in order to avoid _____ an emergency depressurization.>>

- A. <QQ 5905(1480)><<over-pressurizing the Torus during>>
- B. <QQ 5905(1480)><<loss of all RPV level instruments after>>
- C. <QQ 5905(1480)><<damaging SRV downstream piping during>>
- D. <QQ 5905(1480)><<excessive hydrodynamic loading on downcomer piping during>>

Answer: <QQ 5905(1419)><<A>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 54 Details

Question Type: <QQ 5905(1401)><<Multiple Choice>>
Topic: <QQ 5905(1400)><<54 DILTS.29501LK007 HCL curve: Basis for limiting torus temp.>>
System ID: <QQ 5905(1445)><<5905>>
User ID: <QQ 5905(1404)><<03-1 NRC-5905>>
Status: <QQ 5905(1405)><<Active>>
Must Appear: <QQ 5905(1406)><<No>>
Difficulty: <QQ 5905(1407)><<0.00>>
Time to Complete: <QQ 5905(1408)><<0>>
Point Value: <QQ 5905(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5905(1414)><<0.00>>
User Number 2: <QQ 5905(1415)><<0.00>>
Comment: <QQ 5905(1411)><<Objective: DRE29501LK007 Reference: DRE LP295LC01 K/A: 295026 EK2.03 3.2 / 3.6 Level: Recall Explanation: The bases for the torus temperature limit as described in the lesson plan is to prevent overpressurization of the torus in the event of an Emergency Depressurization. This limit is unrelated to SRV tailpipes. The level instrumentation is affected by drywell temperature. Hydrodynamic loading on downcomers is not relevant to HCL. Pedigree: Vermont Yankee 2002 NRC exam.

If torus temperature or RPV pressure cannot be maintained below the Heat Capacity Temperature Limit, EOP-3, Primary Containment Control, requires RPVED. This action is performed to avoid:

overpressurizing the Primary Containment during RPV Emergency Depressurization.

damaging SRV downstream piping during RPV Emergency Depressurization.

loss of all RPV level instruments after RPV Emergency Depressurization.

excessive hydrodynamic loading on downcomer piping during RPV Emergency Depressurization.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

55

ID: 03-1 NRC-5898

Points: 1.00

<QQ 5898(1410)><<What is the reason the RPV may have to be flooded when Drywell temperatures become excessive?>>

- A. <QQ 5898(1480)><<The ADS valves may be unreliable.>>
- B. <QQ 5898(1480)><<RPV water level instruments may be unreliable.>>
- C. <QQ 5898(1480)><<Increase NPSH to Recirc pumps to prevent cavitation.>>
- D. <QQ 5898(1480)><<Provide additional cooling by establishing a flow path to the main condenser.>>

Answer: <QQ 5898(1419)><>

Question 55 Details

Question Type: <QQ 5898(1401)><<Multiple Choice>>
Topic: <QQ 5898(1400)><<55 DILTS.29501LK001 RPV water level inst relationship to drywell temp>>
System ID: <QQ 5898(1445)><<5898>>
User ID: <QQ 5898(1404)><<03-1 NRC-5898>>
Status: <QQ 5898(1405)><<Active>>
Must Appear: <QQ 5898(1406)><<No>>
Difficulty: <QQ 5898(1407)><<0.00>>
Time to Complete: <QQ 5898(1408)><<0>>
Point Value: <QQ 5898(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5898(1414)><<0.00>>
User Number 2: <QQ 5898(1415)><<0.00>>
Comment: <QQ 5898(1411)><<Objective: DRE29501LK001 Reference: DRE LP295LC-01 and Fig A on DEOP charts.
K/A: 295028 K3.02
Level: Recall
Explanation: Per the DEOP chart fig A, with elevated drywell temperatures, boiling may occur in the instrument runs rendering them unreliable. The recirc pumps will be tripped when drywell temperatures are high enough to affect RPV level instruments so cavitation of the recirc pumps is NOT a concern. The ADS valves become a concern when the conditions for a blowdown exist. The main steam lines are isolated during RPV flooding so there would be no way to use the main condenser for additional cooling.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

56

ID: 03-1 NRC-5942

Points: 1.00

<QQ 5942(1410)><<The Unit Supervisor has directed opening the ADS valves due to high Drywell temperature.

Which of the following lights on the Acoustic Monitors would indicate that the ADS valves are OPEN?>>

- A. <QQ 5942(1480)><<Red **AND** Amber>>
- B. <QQ 5942(1480)><<Red **AND** Green>>
- C. <QQ 5942(1480)><<Green **AND** Amber>>
- D. <QQ 5942(1480)><<Amber **ONLY**>>

Answer: <QQ 5942(1419)><<A>>

Question 56 Details

Question Type: <QQ 5942(1401)><<Multiple Choice>>
Topic: <QQ 5942(1400)><<56 DILTS.239LN001.09 ADS: Indications available to determine if ERV open.>>
System ID: <QQ 5942(1445)><<5942>>
User ID: <QQ 5942(1404)><<03-1 NRC-5942>>
Status: <QQ 5942(1405)><<Active>>
Must Appear: <QQ 5942(1406)><<No>>
Difficulty: <QQ 5942(1407)><<0.00>>
Time to Complete: <QQ 5942(1408)><<0>>
Point Value: <QQ 5942(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5942(1414)><<0.00>>
User Number 2: <QQ 5942(1415)><<0.00>>
Comment: <QQ 5942(1411)><<Objective: DRE239LN001.09 Reference: DOS 250-06 K/A: 295028 EK3.06 3.4 / 3.7 Level: Recall Explanation: DOS 250-06 states that The RED (OPEN) and AMBER (MEMORY) lights will be lit when the valve is open. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

57

ID: 03-1 NRC-5925

Points: 1.00

<QQ 5925(1410)><<Torus water level is 18.5 feet and going up 1 inch every 10 minutes.

What is the reason the Unit Supervisor orders a scram?

Torus water level has reached the point where...>>

- A. <QQ 5925(1480)><<the Torus to Drywell vacuum breakers have become flooded preventing them from opening at the correct pressure.>>
- B. <QQ 5925(1480)><<pressure will drop below the design Drywell scram setpoint if torus sprays are initiated.>>
- C. <QQ 5925(1480)><<the Torus design load will be exceeded if SRVs are opened.>>
- D. <QQ 5925(1480)><<equipment necessary for safe shutdown will fail.>>

Answer: <QQ 5925(1419)><<C>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 57 Details

Question Type: <QQ 5925(1401)><<Multiple Choice>>
Topic: <QQ 5925(1400)><<57 DILTS.29501LK009 Torus
Water Level: reason to scram>>
System ID: <QQ 5925(1445)><<5925>>
User ID: <QQ 5925(1404)><<03-1 NRC-5925>>
Status: <QQ 5925(1405)><<Active>>
Must Appear: <QQ 5925(1406)><<No>>
Difficulty: <QQ 5925(1407)><<0.00>>
Time to Complete: <QQ 5925(1408)><<0>>
Point Value: <QQ 5925(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5925(1414)><<0.00>>
User Number 2: <QQ 5925(1415)><<0.00>>
Comment: <QQ 5925(1411)><<Objective: DRE29501LK009
Reference: BWROG EPGs/SAG, DRE LP295LC-01
K/A: 295029 EK3.03 3.4 / 3.5
Level: Recall
Explanation: BWROG EPGs/SAG describes one of the
inputs to developing the Pressure Suppression
Pressure curve as being the Maximum Pressure
Suppression Primary Containment Water Level. The
design of the PSP curve is to ensure if SRVs are
opened Torus design load is not exceeded. The
concern with the evaporative cooling pressure drop is
associated with the Drywell Spray Initiation Limit
(EPG/SAG 17.4). The concern with level reaching safe
shutdown equipment is the Max Safe Operating Water
Level for the secondary containment, NOT the torus.
Dresden's Torus to Drywell vacuum breakers are
outside the Torus, not inside so flooding of the vacuum
breakers will not occur until the Torus is completely
flooded.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

58

ID: 03-1 NRC-5889

Points: 1.00

<QQ 5937(1410)><<The following plant conditions exist following a LOCA with a leak in the Torus:

- Torus Water Temperature is 150°F and stable.
- Torus Water level is 9.5 feet and stable after the Torus leak was isolated.
- Torus Bottom Pressure is 11 psig and stable.
- Reactor Pressure is 250 psig and slowly going down.

Under which of the following conditions should the Operator be MOST concerned with cavitation in the ECCS pumps?>>

- A. <QQ 5937(1480)><<2 LPCI pumps injecting at 5000 gpm each.>>
- B. <QQ 5937(1480)><<2 LPCI **AND** 2 CS pumps injecting at 3000 gpm each.>>
- C. <QQ 5937(1480)><<2 LPCI pumps **AND** 1 CS pump injecting at 3500 gpm each.>>
- D. <QQ 5937(1480)><<2 LPCI pumps injecting at 4000 gpm each **AND** 2 CS pumps injecting at 3000 gpm each.>>

Answer: <QQ 5937(1419)><<D>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 58 Details

Question Type: <QQ 5937(1401)><<Multiple Choice>>
Topic: <QQ 5937(1400)><<58 DILTS.29501LK003 ECCS vortex limit on low torus water level.>>
System ID: <QQ 5937(1445)><<5937>>
User ID: <QQ 5937(1404)><<03-1 NRC-5889>>
Status: <QQ 5937(1405)><<Active>>
Must Appear: <QQ 5937(1406)><<No>>
Difficulty: <QQ 5937(1407)><<0.00>>
Time to Complete: <QQ 5937(1408)><<0>>
Point Value: <QQ 5937(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5937(1414)><<0.00>>
User Number 2: <QQ 5937(1415)><<0.00>>
Comment: <QQ 5937(1411)><<Objective: 29501LK003
Reference: DEOP 200-1 **Provide the students with a copy of the DEOP charts with the entry conditions blanked out.**
K/A: 295030 EA1.01 3.6 / 3.8
Level: High
Explanation: With the given conditions, torus level and total flow will be the closest to the ECCS Vortex Limit with 2 LPCI pumps @ 4000gpm and 2 CS pumps @ 3000. With 2 LPCI pumps at 5000 gpm, fig W is used. With 2 LPCI and 2 CS at 3000 gpm each, fig. X is used. With 2 LPCI and 1 CS pump @3500 gpm, fig. X is used. All are below the NPSH curves.
Pedigree: Modified from Fermi 2001 exam.
The following plant conditions exist following a LOCA event:

| | |
|---------------------------|-----------------------|
| - Torus Water Temperature | 180F and stable |
| - Torus Water level | -70 inches and stable |
| - Torus Pressure | 0 psig and stable |
| - Reactor Pressure | 0 psig and stable |

Which one of the following describes the effect that these conditions has on the operation of ECCS pump for RPV level control?

Single pump LPCI flow is limited to 10,000 gpm to ensure vortex limits are not exceeded.

Continued operation of HPCI is allowed if the suction is aligned to the CST to provide adequate suction pressure.

Total core spray loop flow must be limited to 7000 to ensure adequate NPSH.

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

*RCIC operation is allowed up to 650 gpm as long as
torus level remains above
-105 inches.>>*

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

59

ID: 03-1 NRC-5884

Points: 1.00

<QQ 5884(1410)><<A DBA LOCA accompanied by a partial ATWS has occurred resulting in only 2/3 of the core being covered.

Which of the following LPRMs would provide the LEAST accurate indication of power?>>

- A. <QQ 5884(1480)><<1C-32-57>>
- B. <QQ 5884(1480)><<3B-08-33>>
- C. <QQ 5884(1480)><<4D-56-33>>
- D. <QQ 5884(1480)><<5A-48-25>>

Answer: <QQ 5884(1419)><<C>>

Question 59 Details

Question Type: <QQ 5884(1401)><<Multiple Choice>>
Topic: <QQ 5884(1400)><<59 DILTS.215LN006.09 LPRM: 2/3 core coverage, which LPRMs would be most accurate>>
System ID: <QQ 5884(1445)><<5884>>
User ID: <QQ 5884(1404)><<03-1 NRC-5884>>
Status: <QQ 5884(1405)><<Active>>
Must Appear: <QQ 5884(1406)><<No>>
Difficulty: <QQ 5884(1407)><<0.00>>
Time to Complete: <QQ 5884(1408)><<0>>
Point Value: <QQ 5884(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5884(1414)><<0.00>>
User Number 2: <QQ 5884(1415)><<0.00>>
Comment: <QQ 5884(1411)><<Objective: 215LN006.09 Reference: DRE LP 215LN006 K/A: 295031 EA2.02 4.0 / 4.2 Level: High Explanation: LPRMs with a level designation of "D" are closest to the top of the core. Since this is the portion of the core that has no/little moderator to slow down neutrons, the LPRM will be less accurate. 2/3 core coverage would be near notch position 16. "C" level LPRMs monitor notch position 18. "B" level - notch position 30 and "A" - notch position 42. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

60

ID: 03-1 NRC-5916

Points: 1.00

<QQ 5916(1410)><<The HPCI room radiation level has increased to 180 mRem/hr following an automatic HPCI initiation.

As a result of the above condition, the ARM system will...>>

- A. <QQ 5916(1480)><<alarm the 902-11 panel indicator and trip unit AND annunciator 902-3 A-1, RX BLDG RAD HI.>>
- B. <QQ 5916(1480)><<alarm annunciator 902-3 A-1, RX BLDG RAD HI, **ONLY**.>>
- C. <QQ 5916(1480)><<alarm the 902-11 panel indicator and trip unit **ONLY**.>>
- D. <QQ 5916(1480)><<**NOT** alarm.>>

Answer: <QQ 5916(1419)><<A>>

Question 60 Details

Question Type: <QQ 5916(1401)><<Multiple Choice>>
Topic: <QQ 5916(1400)><<60 DILTS.272LN001.10 ARM: Indications of a high rad condition in the HPCI room.>>
System ID: <QQ 5916(1445)><<5916>>
User ID: <QQ 5916(1404)><<03-1 NRC-5916>>
Status: <QQ 5916(1405)><<Active>>
Must Appear: <QQ 5916(1406)><<No>>
Difficulty: <QQ 5916(1407)><<0.00>>
Time to Complete: <QQ 5916(1408)><<0>>
Point Value: <QQ 5916(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5916(1414)><<0.00>>
User Number 2: <QQ 5916(1415)><<0.00>>
Comment: <QQ 5916(1411)><<Objective: DRE272LN001.10 Reference: DAN 902(3) A-1, 12E-2480, Main Control Room ARM placard K/A: 295033 EK2.01 3.8 / 4.0 Level: Recall Explanation: The radiation level present in the HPCI Cubicle is above the setpoint for ARM alarm (150 mRem/hr). This will send a signal to BOTH the MCR indicator and trip unit on the 902-11 panel and alarm the 902-3 A-1 annunciator. Pedigree: New for ILT 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

61

ID: 03-1 NRC-5915

Points: 1.00

<QQ 5915(1410)><<The following actions automatically occurred as the result of high radiation condition:

- Reactor Building ventilation has tripped and isolated on BOTH units.
- SBGT started.

Based on the information provided above, choose the parameter and radiation level that caused the automatic actions.>>

- A. <QQ 5915(1480)><<RX BLDG VENT CH B RAD at 4 mRem/hr.>>
- B. <QQ 5915(1480)><<REFUEL FLOOR RAD at 8 mRem/hr.>>
- C. <QQ 5915(1480)><<U2/3 RX VENT CH A/B RAD at 5,000 cpm.>>
- D. <QQ 5915(1480)><<U2/3 CHIMNEY NOBLE GAS at 12,000 cpm.>>

Answer: <QQ 5915(1419)><<A>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 61 Details

Question Type: <QQ 5915(1401)><<Multiple Choice>>
Topic: <QQ 5915(1400)><<61 DILTS.288LN001.06 What caused RB vent to isolate and SGBT>>
System ID: <QQ 5915(1445)><<5915>>
User ID: <QQ 5915(1404)><<03-1 NRC-5915>>
Status: <QQ 5915(1405)><<Active>>
Must Appear: <QQ 5915(1406)><<No>>
Difficulty: <QQ 5915(1407)><<0.00>>
Time to Complete: <QQ 5915(1408)><<0>>
Point Value: <QQ 5915(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5915(1414)><<0.00>>
User Number 2: <QQ 5915(1415)><<0.00>>
Comment: <QQ 5915(1411)><<Objective: DRE288LN001.06 Reference: DAN 902(3)-3 A-3 K/A: 295034 A2.01 3.8 / 4.2 Level: Recall Explanation: The RX BLDG VENT CH B RAD HI HI alarm at 4 mRem/hr is the only one of the alarms that would correspond to a trip and isolation of Rx Bldg ventilation. The other alarms have no automatic effect on Rx Bldg ventilation. Pedigree: Modified from Fermi 2001 NRC exam. The following actions automatically occurred as the result of high radiation:

- Reactor Building HVAC tripped
- SGTS started
- Control Center HVAC aligned to recirculation mode

Based on the information provided above, CHOOSE the radiation monitor and indicated radiation level that caused the automatic actions.

Fuel Pool Vent Exhaust = 7.3 mRem.

Reactor Building Vent Exhaust = 14,500 cpm.

Turbine Building Vent Exhaust = 11,500 cpm.

Radwaste Building Vent Exhaust = 14.5 mRem.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

62

ID: 03-1 NRC-5907

Points: 1.00

<QQ 5907(1410)><<Unit 3 is in Mode 2, withdrawing control rods for a Unit startup with the following conditions:

- APRM 1, 3, 4, 5 indicate 11.2% power.
- APRM 2 and 6 indicate 17.5% power.

Based on the above conditions the NSO's next action should be to...>>

- A. <QQ 5907(1480)><<place the Mode switch in RUN.>>
- B. <QQ 5907(1480)><<manually drive in the last control rod withdrawn.>>
- C. <QQ 5907(1480)><<scram the Reactor and place the Mode switch in S/D.>>
- D. <QQ 5907(1480)><<stop the withdrawal of control rods and check APRM GAFs.>>

Answer: <QQ 5907(1419)><<C>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 62 Details

Question Type: <QQ 5907(1401)><<Multiple Choice>>
Topic: <QQ 5907(1400)><<62 DILTS.215LN005.06 SCRAM:
2 channels of APRMs high in S/U and no scram>>
System ID: <QQ 5907(1445)><<5907>>
User ID: <QQ 5907(1404)><<03-1 NRC-5907>>
Status: <QQ 5907(1405)><<Active>>
Must Appear: <QQ 5907(1406)><<No>>
Difficulty: <QQ 5907(1407)><<0.00>>
Time to Complete: <QQ 5907(1408)><<0>>
Point Value: <QQ 5907(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5907(1414)><<0.00>>
User Number 2: <QQ 5907(1415)><<0.00>>
Comment: <QQ 5907(1411)><<Objective: DRE215LN005.06
Reference: DRE LP215LN005, DAN 902-5 C-12, OP-
AA-101-111, TS 3.3.1.1295037
K/A: 295037 2.1.33 3.4/ 4.0
Level: High
Explanation: The Tech Spec setpoint for an APRM Hi
flux scram in mode other than run has been exceeded.
A scram should have occurred and did not. OP-AA-101-
111, states that an RO will shutdown the reactor "when
operating parameters exceed any of the reactor
protection circuit setpoints and automatic shutdown
does **not** occur". NO procedure guidance for placing
the mode switch to RUN or driving in the last control
rod withdrawn.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

63

ID: 03-1 NRC-5815

Points: 1.00

<QQ 5815(1410)><<The following conditions exist at Dresden.

- A Tornado Warning is in effect for the area that includes Dresden.
- Reactor Building crane lifts are in progress to move material from the 517 foot elevation of the reactor building to the refuel floor.
- Dresden Security personnel have sighted a tornado.
- The Main Control Room Team has entered DOA 10-2, Tornado Warning/Severe Winds

Which of the following must be performed per DOA 10-2 as a result of these conditions?>>

- A. <QQ 5815(1480)><<Verify blowout panels are in place on both Unit 2 and 3 Reactor Buildings.>>
- B. <QQ 5815(1480)><<Start EDG's in anticipation of a loss of off-site power.>>
- C. <QQ 5815(1480)><<Open ALL Unit 2 and 3 Turbine Building doors to equalize building pressure.>>
- D. <QQ 5815(1480)><<Stop crane lifts ONLY if a local assessment determines the tornado will hit on site.>>

Answer: <QQ 5815(1419)><<A>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 63 Details

Question Type: <QQ 5815(1401)><<Multiple Choice>>
Topic: <QQ 5815(1400)><<63 DILTS.29501LK063 Off Site Release: Met effects on>>
System ID: <QQ 5815(1445)><<5815>>
User ID: <QQ 5815(1404)><<03-1 NRC-5815>>
Status: <QQ 5815(1405)><<Active>>
Must Appear: <QQ 5815(1406)><<No>>
Difficulty: <QQ 5815(1407)><<0.00>>
Time to Complete: <QQ 5815(1408)><<0>>
Point Value: <QQ 5815(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5815(1414)><<0.00>>
User Number 2: <QQ 5815(1415)><<0.00>>
Comment: <QQ 5815(1411)><<Objective: DRE29501LK063 Reference: DOA 0010-02 Tornado Warning / Severe Winds K/A: 295038 EK1.03 2.8 / 3.8 Level: Recall Explanation: Verifying the blowout panels is the required action per DOA 10-2. Answers b and c are items the procedure directs NOT to do and all crane lifts are stopped whether or not the tornado will impact on site. This would affect the off-site release rate due to a loss of secondary containment. Pedigree: Dresden 2001 Exam>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

64

ID: 03-1 NRC-5902

Points: 1.00

<QQ 5902(1410)><<Containment venting is being established on Unit 2 to reduce hydrogen concentration in the Drywell following a LOCA per DEOP 500-04, Containment Venting.

Placing the AUGMENTED PRI CNMT VENT MODE SWITCH to the APCV position will allow the Operator to open...>>

- A. <QQ 5902(1480)><<AO 2-1601-63, VENT TO SBTG.>>
- B. <QQ 5902(1480)><<AO 2-1601-92, VENT TO MAIN CHIMNEY.>>
- C. <QQ 5902(1480)><<AO 2-1601-23, DW VENT VALVE, with a Group 2 isolation signal present.>>
- D. <QQ 5902(1480)><<AO 2-1601-60, TORUS VENT VLV, with a Group 2 isolation signal present.>>

Answer: <QQ 5902(1419)><>

Question 64 Details

Question Type: <QQ 5902(1401)><<Multiple Choice>>
Topic: <QQ 5902(1400)><<64 DILTS.223LN003.11 CAC: APCV mode control switch operation.>>
System ID: <QQ 5902(1445)><<5902>>
User ID: <QQ 5902(1404)><<03-1 NRC-5902>>
Status: <QQ 5902(1405)><<Active>>
Must Appear: <QQ 5902(1406)><<No>>
Difficulty: <QQ 5902(1407)><<0.00>>
Time to Complete: <QQ 5902(1408)><<0>>
Point Value: <QQ 5902(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5902(1414)><<0.00>>
User Number 2: <QQ 5902(1415)><<0.00>>
Comment: <QQ 5902(1411)><<Objective: DRE223LN003.11 Reference: DOA 6800-01, LP DRE223LN003 K/A: 500000 EA1.03 3.4 / 3.2 Level: Recall Explanation: The APCV mode control switch controls the operation of the 1601-63, 91 and 92 valves. In the APCV position, the 63 and 91 cannot be opened. In the NORMAL position, the 92 cannot be opened. The CNMT ISOLATION GROUP 2 OVER RIDE switches allow the 23 and 60 valves to be opened with a GROUP 2 isolation signal present. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

65

ID: 03-1 NRC-5880

Points: 1.00

<QQ 5880(1410)><<A mechanic has reported a fire with a 10 foot radius surrounding TR-28 due to an oil leak.

The Unit supervisor has ordered Bus 28 be de-energized.

Attempts to de-energize Bus 28 from the Main Control Room have been unsuccessful.

The NSO would direct the NLO to go to... >>

- A. <QQ 5880(1480)><<RB 570 foot elevation (3rd floor) and open the Bus 28 feed breaker at Bus 23-1.>>
- B. <QQ 5880(1480)><<RB 545 foot elevation (2nd floor) and open the Bus 28 feed breaker at Bus 23-1.>>
- C. <QQ 5880(1480)><<RB 570 foot elevation (3rd floor) and open the Bus 28 main feed breaker at Bus 28.>>
- D. <QQ 5880(1480)><<RB 545 foot elevation (2nd floor) and open the Bus 28 main feed breaker at Bus 28.>>

Answer: <QQ 5880(1419)><>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 65 Details

Question Type: <QQ 5880(1401)><<Multiple Choice>>
Topic: <QQ 5880(1400)><<65 DILTO.LOJIP00.26205LP005
DOP 6700-01: Fire at TR-28 where to go to deenergize
Bus 28.>>
System ID: <QQ 5880(1445)><<5880>>
User ID: <QQ 5880(1404)><<03-1 NRC-5880>>
Status: <QQ 5880(1405)><<Active>>
Must Appear: <QQ 5880(1406)><<No>>
Difficulty: <QQ 5880(1407)><<0.00>>
Time to Complete: <QQ 5880(1408)><<0>>
Point Value: <QQ 5880(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5880(1414)><<0.00>>
User Number 2: <QQ 5880(1415)><<0.00>>
Comment: <QQ 5880(1411)><<Objective: 26205LP005
Reference: DSSP 0100-CR
K/A 600000 AK2.04 2.5 / 2.6
Level: High
Explanation: Since there is a fire in TR-28, and Bus 28
is right next to TR-28, the NSO will dispatch the
operator to Bus 23-1 to deenergize the the Bus. Bus
23-1 is located on the 2nd floor of the RB elevation
545.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

66

ID: 03-1 NRC-5895

Points: 1.00

| <QQ 5895(1410)>< < | | Floor Drain Leakage (FDL) | Equipment Drain Leakage (EDL) |
|-----------------------|------|-----------------------------------|-----------------------------------|
| Day | Time | Integrator Reading Gallons Pumped | Integrator Reading Gallons Pumped |
| THU | 2000 | 1195 | 401 |
| | 1600 | 1162 | 398 |
| | 1200 | 1038 | 395 |
| | 0800 | 963 | 400 |
| | 0400 | 847 | 415 |
| | 0000 | 688 | 408 |

Unit 3 is 912 MWe.

Which of the following statements is correct concerning the above readings taken from this weeks Appendix A, Unit NSO Daily Surveillance Log for Unit 3? >>

- A. <QQ 5895(1480)><<NO leakage limits have been exceeded.>>
- B. <QQ 5895(1480)><<The unidentified leakage limit has been exceeded.>>
- C. <QQ 5895(1480)><<The increase in unidentified leakage limit has been exceeded.>>
- D. <QQ 5895(1480)><<The total leakage over a 24 hour period limit has been exceeded.>>

Answer: <QQ 5895(1419)><<C>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 66 Details

Question Type: <QQ 5895(1401)><<Multiple Choice>>
Topic: <QQ 5895(1400)><<66 DILTS.298L050 Determine if Reactor Coolant leakage is within TS limits.>>
System ID: <QQ 5895(1445)><<5895>>
User ID: <QQ 5895(1404)><<03-1 NRC-5895>>
Status: <QQ 5895(1405)><<Active>>
Must Appear: <QQ 5895(1406)><<No>>
Difficulty: <QQ 5895(1407)><<0.00>>
Time to Complete: <QQ 5895(1408)><<0>>
Point Value: <QQ 5895(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5895(1414)><<0.00>>
User Number 2: <QQ 5895(1415)><<0.00>>
Comment: <QQ 5895(1411)><<Objective: 298L0509
Reference: Appendix A, TS 3.4.4
K/A: Generic 2.1.12 2.9 / 4.0
Level: High
Explanation: The change from Thurs 0000 (2.86 gpm) until 2000 (4.97 gpm) is 2.11 gpm. The TS limit for increase in unidentified leakage (from the Floor Drains) is 2 gpm. 25 gpm is the total leakage limit (FDL + EDL). FDL limit is 5 gpm.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

67

ID: 03-1 NRC-5845

Points: 1.00

<QQ 5845(1410)><<Unit 2 was at 912 MWe when Main Steam line pressure dropped to 810 psig due to a rupture.

The reactor scrammed prior to any Operator action.

Reactor water level dropped to -20 inches and is currently at +5 inches and going up 0.5 inches per minute.

Which of the following conditions would be indicated by a RED Primary Containment Isolation Status box on SPDS?>>

- A. <QQ 5845(1480)><<2-2301-5, HPCI Steam Isol Vlv is OPEN.>>
- B. <QQ 5845(1480)><<2-2301-5, HPCI Steam Isol Vlv is CLOSED.>>
- C. <QQ 5845(1480)><<2-0203-2B, 2B Outboard MSIV is OPEN.>>
- D. <QQ 5845(1480)><<2-0203-2B, 2B Outboard MSIV is CLOSED.>>

Answer: <QQ 5845(1419)><<C>>

Question 67 Details

Question Type: <QQ 5845(1401)><<Multiple Choice>>
Topic: <QQ 5845(1400)><<67 DILTS.283LN001.10 SPDS: Meaning of Red PCIS box>>
System ID: <QQ 5845(1445)><<5845>>
User ID: <QQ 5845(1404)><<03-1 NRC-5845>>
Status: <QQ 5845(1405)><<Active>>
Must Appear: <QQ 5845(1406)><<No>>
Difficulty: <QQ 5845(1407)><<0.00>>
Time to Complete: <QQ 5845(1408)><<0>>
Point Value: <QQ 5845(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5845(1414)><<0.00>>
User Number 2: <QQ 5845(1415)><<0.00>>
Comment: <QQ 5845(1411)><<Objective: DRE283LN001.10 Reference: DOP 9900-205 K/A: Generic 2.1.19 3.0 / 3.0 Level: High Explanation: Per DOP 9900-205, " The PCIS box will be red if a Group I or II isolation demand signal is present and the valve positions do not indicate a completion of the isolation." The given conditions will cause Group I, 2, and 3 Isolations. Only Group I and 2 have an input to the Primary Containment Isolation box on SPDS. The HPCI valve is a Group 4 valve. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

68

ID: 03-1 NRC-5859

Points: 1.00

<QQ 5859(1410)><<During a core off-load, which one of the following Spent Fuel Pool water levels is the LOWEST level which would allow irradiated fuel handling activities per DGP 4-1, Fuel Moves and Refueling?>>

- A. <QQ 5859(1480)><<10' 4">>
- B. <QQ 5859(1480)><<19'>>
- C. <QQ 5859(1480)><<23'>>
- D. <QQ 5859(1480)><<37' 7">>

Answer: <QQ 5859(1419)><<D>>

Question 68 Details

Question Type: <QQ 5859(1401)><<Multiple Choice>>
Topic: <QQ 5859(1400)><<68 DILTS.299L042 Refueling: Minimum FP level to allow irradiated fuel movements>>
System ID: <QQ 5859(1445)><<5859>>
User ID: <QQ 5859(1404)><<03-1 NRC-5859>>
Status: <QQ 5859(1405)><<Active>>
Must Appear: <QQ 5859(1406)><<No>>
Difficulty: <QQ 5859(1407)><<0.00>>
Time to Complete: <QQ 5859(1408)><<0>>
Point Value: <QQ 5859(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5859(1414)><<0.00>>
User Number 2: <QQ 5859(1415)><<0.00>>
Comment: <QQ 5859(1411)><<Objective: DRE299L042 Reference: DGP 4-1 K/A: Generic 2.2.27 2.6 / 3.5 Level: Recall Explanation: Per DGP 4-1 the minimum level for moving irradiated fuel inside secondary containment is 37' 7". 10' 4" is the minimum allowed suppression pool level. 19' is the minimum water level permitted in the Spent Fuel pool by Tech Spec 3.7.8. 23' is the minimum reactor water level above the top of the RPV flange when in refueling. Pedigree: Palisades 2003 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

69

ID: 03-1 NRC-5860

Points: 1.00

<QQ 5860(1410)><<Which one of the following is a responsibility of the Reactor Operator during core alterations?>>

- A. <QQ 5860(1480)><<Perform verification of in-core coordinates.>>
- B. <QQ 5860(1480)><<Observe Source Range Monitors for rising counts.>>
- C. <QQ 5860(1480)><<Observe and directly supervise Core Alterations.>>
- D. <QQ 5860(1480)><<Maintain the official copy of the Special Nuclear Material Move Sheets.>>

Answer: <QQ 5860(1419)><>

Question 69 Details

Question Type: <QQ 5860(1401)><<Multiple Choice>>
Topic: <QQ 5860(1400)><<69 DILTS.215L016 Generic: RO responsibilities during refueling operations>>
System ID: <QQ 5860(1445)><<5860>>
User ID: <QQ 5860(1404)><<03-1 NRC-5860>>
Status: <QQ 5860(1405)><<Active>>
Must Appear: <QQ 5860(1406)><<No>>
Difficulty: <QQ 5860(1407)><<0.00>>
Time to Complete: <QQ 5860(1408)><<0>>
Point Value: <QQ 5860(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5860(1414)><<0.00>>
User Number 2: <QQ 5860(1415)><<0.00>>
Comment: <QQ 5860(1411)><<Objective: 215L016 Reference: DFP 800-01 K/A: Generic 2.2.30 3.5 / 3.3 Level: Recall Explanation: Per DFP 800-01, the NSO shall: "IF the component move will affect core reactivity, THEN check SRM response." A is the responsibility of SNM Custodian / Nuclear Engineer. C is the responsibility of Bridge Operator, Spotter, Refuel SRO. D is the responsibility of Refuel SRO. Pedigree: Clinton 2002 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

70

ID: 03-1 NRC-5850

Points: 1.00

<QQ 5850(1410)><<You have received no dose for the current calendar year.
Your Administrative Dose Control Level has been raised to the MAXIMUM allowed by the
Radiation Protection Manager and your Work Group Supervisor per RP-AA-203 Exposure Control
and Authorization.
The dose field you will be working in is 500 mRem/hr.

What is your MAXIMUM stay time in the area?

>>

- A. <QQ 5850(1480)><<4 hours.>>
- B. <QQ 5850(1480)><<6 hours.>>
- C. <QQ 5850(1480)><<8 hours.>>
- D. <QQ 5850(1480)><<10 hours.>>

Answer: <QQ 5850(1419)><>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 70 Details

Question Type: <QQ 5850(1401)><<Multiple Choice>>
Topic: <QQ 5850(1400)><<70 DILTS. Generic Administrative exposure limits and extensions>>
System ID: <QQ 5850(1445)><<5850>>
User ID: <QQ 5850(1404)><<03-1 NRC-5850>>
Status: <QQ 5850(1405)><<Active>>
Must Appear: <QQ 5850(1406)><<No>>
Difficulty: <QQ 5850(1407)><<0.00>>
Time to Complete: <QQ 5850(1408)><<0>>
Point Value: <QQ 5850(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5850(1414)><<0.00>>
User Number 2: <QQ 5850(1415)><<0.00>>
Comment: <QQ 5850(1411)><<Objective: NGET
Reference: Nuclear General Employee Training, Rev 28 and RP-AA-203
K/A: Generic 2.3.4 2.5 / 3.1
Level: High
Explanation: Per NGET material and RP-AA-203, the administrative limit for exposure is 2000 mRem/yr TEDE. Exposure levels may be authorized by the Radiation Protection Manager up to 3000 mRem/yr. To raise the level to 4000 mrem/yr requires the Station/Plant Manager's permission as well. 3000 mRem/500mRem per hr = 6 mins. 2000 mRem is the current authorized ADCL. 4000 mRem is an allowed extension by takes Plant Manager permission as well.
Pedigree: New for 03-1 NRC Exam>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

71

ID: 03-1 NRC-5818

Points: 1.00

<QQ 5818(1410)><<In order to purge the containment to the Reactor Building Ventilation system, sample results for which of the following must be below the prescribed limits?>>

- A. <QQ 5818(1480)><<Iodine 131 and Alpha (total particulate).>>
- B. <QQ 5818(1480)><<Iodine 131 and Beta/Gamma (total particulate).>>
- C. <QQ 5818(1480)><<Nitrogen 16 and Alpha (total particulate).>>
- D. <QQ 5818(1480)><<Nitrogen 16 and Beta/Gamma (total particulate).>>

Answer: <QQ 5818(1419)><>

Question 71 Details

Question Type: <QQ 5818(1401)><<Multiple Choice>>
Topic: <QQ 5818(1400)><<71 Generic.2.3.9: Containment purge through Rx Bldg vent requirements>>
System ID: <QQ 5818(1445)><<5818>>
User ID: <QQ 5818(1404)><<03-1 NRC-5818>>
Status: <QQ 5818(1405)><<Active>>
Must Appear: <QQ 5818(1406)><<No>>
Difficulty: <QQ 5818(1407)><<0.00>>
Time to Complete: <QQ 5818(1408)><<0>>
Point Value: <QQ 5818(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5818(1414)><<0.00>>
User Number 2: <QQ 5818(1415)><<0.00>>
Comment: <QQ 5818(1411)><<Objective: 223LN001.02
Reference: DOP 1600-07
K/A: Generic 2.3.9 2.5 / 3.4
Level: Recall
Explanation: Per DOP 1600-07, "Purge Containment to the Reactor Building Ventilation System ONLY if sample results indicate that release rates are LESS THAN the following limits: Iodine 131: 7.2 X 10 E-9 uCi/cubic centimeter (uCi/cc). Beta/Gamma (total particulate): 1.8 X 10 E-7 uCi/cc."
Pedigree: Dresden 00-1 NRC Exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

72

ID: 03-1 NRC-5861

Points: 1.00

<QQ 5861(1410)><<Unit 2 Drywell venting through Reactor Building Ventilation is in progress per DOP 1600-01, NORMAL PRESSURE CONTROL OF THE DRYWELL OR TORUS due to Drywell pressure approaching 1.3 psig.

Annunciator 902-4 B-17, DRYWELL EQUIP SUMP LVL HI, alarms. 15 seconds later annunciator 902-4 A-17, DRYWELL EQUIP SUMP LVL HI-HI, alarms.

Based on the above conditions, the Operator should...

>>

- A. <QQ 5861(1480)><<re-align the vent path through SBGT.>>
- B. <QQ 5861(1480)><<stop the venting until the drywell atmosphere is resampled.>>
- C. <QQ 5861(1480)><<continue venting but have the drywell atmosphere resampled.>>
- D. <QQ 5861(1480)><<continue venting but closely monitor Rx Bldg Vent Rad levels for changes.>>

Answer: <QQ 5861(1419)><>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 72 Details

Question Type: <QQ 5861(1401)><<Multiple Choice>>
Topic: <QQ 5861(1400)><<72 DILTS.223L001 Rad Release: Actions to control radiation release.>>
System ID: <QQ 5861(1445)><<5861>>
User ID: <QQ 5861(1404)><<03-1 NRC-5861>>
Status: <QQ 5861(1405)><<Active>>
Must Appear: <QQ 5861(1406)><<No>>
Difficulty: <QQ 5861(1407)><<0.00>>
Time to Complete: <QQ 5861(1408)><<0>>
Point Value: <QQ 5861(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5861(1414)><<0.00>>
User Number 2: <QQ 5861(1415)><<0.00>>
Comment: <QQ 5861(1411)><<Objective: DRE223L001 Reference: DOP 1600-01, DAN 902-4 A-17, and DOA 40-1 K/A: Generic 2.3.11 2.7 / 3.2 Level: High Explanation: The Operator will realize that a leak has occurred in the drywell somewhere. DAN 902-4 A-17 directs the operator to enter DOA 40-1. DOP 1600-01 states, "IF drywell/torus conditions change while venting, THEN: Terminate the venting process. Resample to verify conditions prior to reinitiating the venting process." If the containment pressure limit was approaching, the operator could vent regardless of release rate. Pedigree: New for ILT 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

73

ID: 03-1 NRC-5864

Points: 1.00

<QQ 5864(1410)><<Unit 2 is being refueled with 2A loop of SDC in use and NO Recirculation Pumps running.

2B SDC loop is in the Fuel Pool Cooling mode of operation.

Which of the following describes Operator's actions if Reactor Vessel Level decreased from +50 inches to +3 inches?>>

- A. <QQ 5864(1480)><<Enter DOA 1000-01, RESIDUAL HEAT REMOVAL ALTERNATIVES, verify the running Shutdown Cooling Suction Inboard and Outboard Isolation Valves isolate and verify the 2A **AND** 2B SDC Pumps trip.>>
- B. <QQ 5864(1480)><<Enter DOA 600-01 TRANSIENT LEVEL CONTROL, verify the Shutdown Cooling Suction Inboard and Outboard Isolation Valves isolate and verify the 2A **AND** 2B SDC pumps trip.>>
- C. <QQ 5864(1480)><<Verify DAN for 902-5 F-8 RPV LVL LO, and verify Shutdown Cooling continues unaffected.>>
- D. <QQ 5864(1480)><<Enter DEOP 100 RPV Control, and verify the Shutdown Cooling Suction Inboard and Outboard Isolation Valves isolate and verify **ONLY** the 2A SDC Pump trips.>>

Answer: <QQ 5864(1419)><<D>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 73 Details

Question Type: <QQ 5864(1401)><<Multiple Choice>>
Topic: <QQ 5864(1400)><<73 DILTS.295LK019 Generic: Actions if SDC on and level drops to +4">>
System ID: <QQ 5864(1445)><<5864>>
User ID: <QQ 5864(1404)><<03-1 NRC-5864>>
Status: <QQ 5864(1405)><<Active>>
Must Appear: <QQ 5864(1406)><<No>>
Difficulty: <QQ 5864(1407)><<0.00>>
Time to Complete: <QQ 5864(1408)><<0>>
Point Value: <QQ 5864(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5864(1414)><<0.00>>
User Number 2: <QQ 5864(1415)><<0.00>>
Comment: <QQ 5864(1411)><<Objective: 295LK019 Reference: DEOP 100, DOA 600-01, DAN 902-5 D-5 K/A: Generic 2.4.9 3.3 / 3.9 Level: High Explanation: The Operators will enter DEOP 100 on RPV level \leq +8 inches. The SDC system will isolate due to a Group 3 isolation (RPV level +6). The 2A SDC pump will trip due to low suction pressure sensed when the system isolation occurs. The 2B pump will NOT trip due to it being lined up to FPC (takes it's suction from FPC). Pedigree: Modified from Susquehanna 2003 NRC exam question.

The reactor is shut down with one loop of shutdown cooling in use and NO Recirculation Pumps running.

How would the Control Room operators respond if Reactor Vessel Level decreased from +50 inches to +4 inches?

Enter EO-100-102 RPV Control, maximize CRD and check the Shutdown Cooling Suction Inboard and Outboard Isolation Valves isolate, the operating RHR Pump will trip.

Enter ON-149-001, Loss of Shutdown Cooling, maximize RHR keepfill, check the Shutdown Cooling Suction Inboard and Outboard Isolation Valves isolate, the operating RHR Pump remain running.

Verify alarm response for RX WATER HI-LO LEVEL AR-101-B17, verify Shutdown Cooling continues unaffected.

Verify alarm response for HV-151-F006A/C AND HV-151-F007A OPEN DRAINS RX VESSEL AR-109-C09, verify the Shutdown Cooling Suction Inboard and

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Outboard Isolation Valves isolate, the operating RHR Pump will trip, HV-151-F015A will open, remaining RHR Pumps auto start.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

74

ID: 03-1 NRC-5863

Points: 1.00

<QQ 5863(1410)><<A reactor scram has occurred and not all rods have inserted.

Which of the following conditions would allow the SRO to make the determination that the "Reactor will remain shutdown under all conditions?">>

- A. <QQ 5863(1480)><<Power is in the source range and decreasing on ALL channels.>>
- B. <QQ 5863(1480)><<One control rod remains withdrawn at 48. ALL other control rods are at 00.>>
- C. <QQ 5863(1480)><<The only control rods which remain withdrawn are at position 06 or less.>>
- D. <QQ 5863(1480)><<No more than one control rod remains withdrawn in any 5 x 5 array.>>

Answer: <QQ 5863(1419)><>

Question 74 Details

Question Type: <QQ 5863(1401)><<Multiple Choice>>
Topic: <QQ 5863(1400)><<74 DILTS.29501LK020 Generic: Meaning of Reactor will remain shutdown>>
System ID: <QQ 5863(1445)><<5863>>
User ID: <QQ 5863(1404)><<03-1 NRC-5863>>
Status: <QQ 5863(1405)><<Active>>
Must Appear: <QQ 5863(1406)><<No>>
Difficulty: <QQ 5863(1407)><<0.00>>
Time to Complete: <QQ 5863(1408)><<0>>
Point Value: <QQ 5863(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5863(1414)><<0.00>>
User Number 2: <QQ 5863(1415)><<0.00>>
Comment: <QQ 5863(1411)><<Objective: DRE29501LK020 Reference: LP DRE 295L-S1 K/A: Generic 2.4.17 3.1 / 3.8 Level: Recall Explanation: Reference: all rods at 02 or 00; "Shutdown margin check"- one rod can be fully withdrawn from the core provided all others are at 00. Answer a and c don't meet this check, answer d would allow multiple rods to be withdrawn. Pedigree: LaSalle 2000 NRC exam>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

75

ID: 03-1 NRC-5821

Points: 1.00

<QQ 5821(1410)><<According to HU-AA-104-101, Procedure Use and Adherence, which of the following may be performed from memory?>>

- A. <QQ 5821(1480)><<Procedures that have less than or equal to 5 steps.>>
- B. <QQ 5821(1480)><<Actions that are instinctive and simple to remember.>>
- C. <QQ 5821(1480)><<Actions to manually duplicate an automatic action that has failed to occur.>>
- D. <QQ 5821(1480)><<Evolutions that an Operator has performed before and has been briefed by his Supervisor.>>

Answer: <QQ 5821(1419)><<C>>

Question 75 Details

Question Type: <QQ 5821(1401)><<Multiple Choice>>
Topic: <QQ 5821(1400)><<75 DILTS.Generic: Actions that can be taken from memory>>
System ID: <QQ 5821(1445)><<5821>>
User ID: <QQ 5821(1404)><<03-1 NRC-5821>>
Status: <QQ 5821(1405)><<Active>>
Must Appear: <QQ 5821(1406)><<No>>
Difficulty: <QQ 5821(1407)><<0.00>>
Time to Complete: <QQ 5821(1408)><<0>>
Point Value: <QQ 5821(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5821(1414)><<0.00>>
User Number 2: <QQ 5821(1415)><<0.00>>
Comment: <QQ 5821(1411)><<Objective: DRE299L081
Reference: HU-AA-104-101
K/A: 2.4.49 4.0 / 4.0
Level: Recall
Explanation: per HU-AA-104-101"Actions required to manually duplicate an automatic action that has failed to automatically occur may be performed from memory".
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

76

ID: 03-1 NRC-5919

Points: 1.00

<QQ 5919(1410)><<MO 2-1501-32A and 32B LPCI XTIE VLVs allow the 'A' LPCI loop to use the 'B' LPCI loop's (1). If MO 2-1501-32A cannot be returned to full open following DOS 1500-01, LPCI System Valve Operability and Timing, the Unit Supervisor will declare (2).

1

2>>

- | | | |
|----|--|-------------------------|
| A. | <QQ 5919(1480)><<heat exchanger inoperable>> | BOTH LPCI subsystems |
| B. | <QQ 5919(1480)><<heat exchanger inoperable>> | ONLY 'A' LPCI subsystem |
| C. | <QQ 5919(1480)><<injection piping inoperable>> | BOTH LPCI subsystems |
| D. | <QQ 5919(1480)><<injection piping inoperable>> | ONLY 'A' LPCI subsystem |

Answer: <QQ 5919(1419)><<C>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 76 Details

Question Type: <QQ 5919(1401)><<Multiple Choice>>
Topic: <QQ 5919(1400)><<76 DILTS.203LN001.02 LPCI: 32 valve purpose and operability.>>
System ID: <QQ 5919(1445)><<5919>>
User ID: <QQ 5919(1404)><<03-1 NRC-5919>>
Status: <QQ 5919(1405)><<Active>>
Must Appear: <QQ 5919(1406)><<No>>
Difficulty: <QQ 5919(1407)><<0.00>>
Time to Complete: <QQ 5919(1408)><<0>>
Point Value: <QQ 5919(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5919(1414)><<0.00>>
User Number 2: <QQ 5919(1415)><<0.00>>
Comment: <QQ 5919(1411)><<Objective: DRE203LN001.02 Reference: M-29, TS 3.5.1 and Bases K/A: 203000 K4.12 3.6 Level: Recall Explanation: The LPCI 32A and 32B valves allow each loop to use the other loops injection path if necessary. The flow coming from the opposite unit uses its own HX and does not flow through the redundant loops HX. TS 3.5.1 Bases state that if the LPCi cross-tie valves are not both full open, BOTH LPCI subsystems must be declared inoperable due to needing 3 pumps for adequate core cooling.. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

77

ID: 03-1 NRC-5911

Points: 1.00

<QQ 5911(1410)><<Unit 3 is shutting down per DGP 2-1, Unit Shutdown. Shutdown cooling is being placed in service per DOP 1000-03, Shutdown Cooling Mode of Operation as directed by DGP 2-1.

- Both Recirc pumps are secured.
- Two SDC loop operation is desired.
- 3A SDC loop is operating.
- 3C SDC heat exchanger is OOS for tube repair.
- While attempting to throttle open MO 3-1001-4B, 3B SDC PP DISCH VLV, the NSO reported the valve did NOT open and position indication was lost.
- An NLO sent to investigate reports that the cable powering the MOV has burned up and EMD estimates repairs to take at least 8 hours.
- MMD reports there is no damage to the valve.

Based on the above information, the Unit Supervisor should...

>>

- A. <QQ 5911(1480)><<direct the NLO to manually throttle open the 3B pump discharge valve to lineup the system for cooling and consider the 3B SDC loop OPERABLE.>>
- B. <QQ 5911(1480)><<lineup FPC to the 3B SDC loop and consider the 3B SDC loop OPERABLE.>>
- C. <QQ 5911(1480)><<direct the NLO to manually throttle open the 3B pump discharge valve to lineup the system for mixing and declare the 3B SDC loop INOPERABLE.>>
- D. <QQ 5911(1480)><<isolate the 3B SDC loop and declare the 3B SDC loop INOPERABLE.>>

Answer: <QQ 5911(1419)><<A>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 77 Details

Question Type: <QQ 5911(1401)><<Multiple Choice>>
Topic: <QQ 5911(1400)><<77 DILTS.205LN001.07 SDC:
actions and operability call if SDC pp suct vlv won't
open electrically>>
System ID: <QQ 5911(1445)><<5911>>
User ID: <QQ 5911(1404)><<03-1 NRC-5911>>
Status: <QQ 5911(1405)><<Active>>
Must Appear: <QQ 5911(1406)><<No>>
Difficulty: <QQ 5911(1407)><<0.00>>
Time to Complete: <QQ 5911(1408)><<0>>
Point Value: <QQ 5911(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5911(1414)><<0.00>>
User Number 2: <QQ 5911(1415)><<0.00>>
Comment: <QQ 5911(1411)><<Objective: DRE205LN001.07
Reference:DAN 902(3)-5 H-3DAN 902(3)-5 H-3DAN
902(3)-5 H-3DAN 902(3)-5 H-3 TS 3.4.7
K/A: 205000 2.1.23 4.0
Level: High
Explanation: With Recirc pumps running, 2 SDC
subsystems are required to be operable. The repairs
will take more than 2 hours to complete, which exceeds
the 2 hours allowed by a note in the LCO.The Bases
state that a SDC subsystem is considered operable if it
can be aligned remotely or locally in the SDC mode for
the removal of decay heat. The operator can still locally
open the SDC pump discharge valve. There is NO
procedure guidance to line up FPC to SDC.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

78

ID: 03-1 NRC-5914

Points: 1.00

<QQ 5914(1410)><<Unit 2 is at rated conditions.

An NLO reported to the control room that he heard an abnormal noise near the 2A RPS MG. The NLO subsequently reported 2A RPS MG and associated RPS Bus voltage are both 105v and stable.

APRM channels ___(1)___ are impacted by the NLO's report and ___(2)___.

1

2>>

- A. <QQ 5914(1480)><<1, 2, and 3 the affected RPS bus must be transferred to its reserve power supply in accordance with DOP 500-03, Reactor Protection System Operation within 1 hour>>
- B. <QQ 5914(1480)><<1, 2, and 3 a manual half scram must be inserted on the affected RPS channel within 1 hour in accordance with DOA 500-02, Partial 1/2 or Full Scram Actuation, until the affected EPA can be repaired>>
- C. <QQ 5914(1480)><<4, 5, and 6 the affected RPS bus must be transferred to its reserve power supply in accordance with DOP 500-03, Reactor Protection System Operation within 1 hour>>
- D. <QQ 5914(1480)><<4, 5, and 6 a manual half scram must be inserted on the affected RPS channel within 1 hour in accordance with DOA 500-02, Partial 1/2 or Full Scram Actuation, until the affected EPA can be repaired>>

Answer: <QQ 5914(1419)><<C>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 78 Details

Question Type: <QQ 5914(1401)><<Multiple Choice>>
Topic: <QQ 5914(1400)><<78 DILTS.262LN005.08 RPS
EPA: failure to trip, actions to take.>>
System ID: <QQ 5914(1445)><<5914>>
User ID: <QQ 5914(1404)><<03-1 NRC-5914>>
Status: <QQ 5914(1405)><<Active>>
Must Appear: <QQ 5914(1406)><<No>>
Difficulty: <QQ 5914(1407)><<0.00>>
Time to Complete: <QQ 5914(1408)><<0>>
Point Value: <QQ 5914(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5914(1414)><<0.00>>
User Number 2: <QQ 5914(1415)><<0.00>>
Comment: <QQ 5914(1411)><<Objective: DRE262LN005.08
Reference: TS 3.3.8.2 and Bases and DOA 0500-05
K/A: 215005 A2.01 3.1
Level: High
Explanation: The A RPS MG powers the B RPS Bus
which is the power supply to APRM channels 4, 5, and
6. Common confusion is that RPS MG A powers RPS
Bus A. Since EPAs 2A-1 and 2A-2 did NOT trip on low
voltage as required (greater than or equal to 106.3v)
the in service power supply must be removed from
service within 1 hour. The bases allow the RPS Bus to
be powered from the alternate power supply to regain
operability to the affected RPS bus. A half scram does
NOT need to be inserted while the EPA is being
repaired.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

79

ID: 03-1 NRC-5910

Points: 1.00

<QQ 5910(1410)><<During the Unit 2 NLOs round, he notices breaker C-4 on MCC 29-3 which feeds the Unit 2 Refueling Platform receptacle is damaged.

Unit 3 Refueling Platform is OOS.

Because of the failure described above ___(1)__. Fuel moves may be performed by ___(2)___ in accordance with DFP 0800-21, Refueling Platform and Fuel Handling Grapple Operation.

1

2>>

- A. <QQ 5910(1480)><<only the frame mounted and connecting to the Unit 3 refueling monorail hoists lose power platform receptacle>>
- B. <QQ 5910(1480)><<only the frame mounted and connecting to a welding receptacle monorail hoists lose power>>
- C. <QQ 5910(1480)><<all power to the refueling platform connecting to the Unit 3 refueling is lost platform receptacle>>
- D. <QQ 5910(1480)><<all power to the refueling platform connecting to a welding receptacle is lost>>

Answer: <QQ 5910(1419)><<D>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 79 Details

Question Type: <QQ 5910(1401)><<Multiple Choice>>
Topic: <QQ 5910(1400)><<79 DILTS.23400LK014 Loss of power to the refueling platform.>>
System ID: <QQ 5910(1445)><<5910>>
User ID: <QQ 5910(1404)><<03-1 NRC-5910>>
Status: <QQ 5910(1405)><<Active>>
Must Appear: <QQ 5910(1406)><<No>>
Difficulty: <QQ 5910(1407)><<0.00>>
Time to Complete: <QQ 5910(1408)><<0>>
Point Value: <QQ 5910(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5910(1414)><<0.00>>
User Number 2: <QQ 5910(1415)><<0.00>>
Comment: <QQ 5910(1411)><<Objective: DRE23400LK014 Reference:DAN 902(3)-5 H-3DAN 902(3)-5 H-3DAN 902(3)-5 H-3DAN 902(3)-5 H-3 DFP 0800-21 K/A: 234000 A2.03 3.1 Level: Recall Explanation: There is only one breaker that supplies the refueling platform, that is from 29-3 Cub C-4, so all power will be lost to the refueling platform. DFP 0800-21 provides guidance to provide temporary power to the refueling platform from a welding receptacle. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

80

ID: 03-1 NRC-5873

Points: 1.00

<QQ 5873(1410)><<The following conditions exist on Unit 3:

- The drywell is being vented to control H₂ and O₂.
- Torus level is 31 feet.
- The following values were noted prior to initiating venting:

| | Drywell | Torus |
|----------|---------|-------|
| Hydrogen | 7% | 6% |
| Oxygen | 5% | 7% |

- The NSO reports that A SBGT train has tripped and the B SBGT train will **NOT** start.
- The NSO then reports Nitrogen purge is **NOT** controlling hydrogen and oxygen concentrations.

Given the above conditions, how will the Oxygen and Hydrogen concentrations be lowered?

>>

- A. <QQ 5873(1480)><<Purge the Torus per DEOP 500-4 "Containment Venting", Attachment 5 through the Augmented Primary Containment Vent.>>
- B. <QQ 5873(1480)><<Purge the Drywell per DEOP 500-4 "Containment Venting", Attachment 4 through the Augmented Primary Containment Vent.>>
- C. <QQ 5873(1480)><<Secure the venting per DEOP 500-4 "Containment Venting", Attachment 5 and purge the Torus using the Nitrogen Inerting path .>>
- D. <QQ 5873(1480)><<Secure the venting per DEOP 500-4 "Containment Venting", Attachment 4 and purge the Drywell using the Nitrogen Inerting path .>>

Answer: <QQ 5873(1419)><>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 80 Details

Question Type: <QQ 5873(1401)><<Multiple Choice>>
Topic: <QQ 5873(1400)><<80 DILTS.29502LK068 Venting
Pri Cont when SBGT unavailable.>>
System ID: <QQ 5873(1445)><<5873>>
User ID: <QQ 5873(1404)><<03-1 NRC-5873>>
Status: <QQ 5873(1405)><<Active>>
Must Appear: <QQ 5873(1406)><<No>>
Difficulty: <QQ 5873(1407)><<5.00>>
Time to Complete: <QQ 5873(1408)><<4>>
Point Value: <QQ 5873(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5873(1414)><<0.00>>
User Number 2: <QQ 5873(1415)><<0.00>>
Comment: <QQ 5873(1411)><<Objective: 29502LK068
Reference: DEOP 0200-02 and DEOP 0500-04
K/A: 261000 K3.06 3.3
Level: High
Explanation: Torus level is too high to allow venting of
the Torus so attachment 5 cannot be used. A Limitation
and Action (F.2) in DEOP 500-4 states that purging
without venting is NOT allowed. Attachment 4 Step 11
states that "If the Drywell hydrogen and oxygen
concentrations cannot be controlled using SBGT and
nitrogen purge, then purge with air as follows:" a
description on how to line up APCV system follows.
Pedigree: Modified from Dresden 01-1 NRC exam.

**Provide DEOP 200-2 and DEOP 500-4 with Section
H blanked out.>>**

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

81

ID: 03-1 NRC-5891

Points: 1.00

<QQ 5891(1410)><<Unit 3 is in a refuel outage with the following conditions:

- ~~A fuel shuffle is currently in progress inside the vessel.~~
- ~~DOS 5750-06, Control Room Train A Ventilation Automatic and Manual Smoke Purge System Test, is in progress.~~

~~When the CRM AIR FLOW CONTROL switch at the 923-9 panel was taken to OUTSIDE to perform the smoke purge test, the following damper positions were noted:~~

~~Intake Damper, 2/3-9472-023 OPEN
Recirc Damper, 2/3-9472-024 OPEN
Exhaust Damper, 2/3-5741-XCV-053A CLOSED
Intake Damper, 2/3-5741-XCV-053B OPEN 2000 cfm~~

~~What is the impact of the ventilation configuration on fuel shuffle operations?~~

~~Fuel moves are...>>~~

- A. ~~<QQ 5891(1480)><<suspended immediately.>>~~
- B. ~~<QQ 5891(1480)><<suspended within 15 minutes.>>~~
- C. ~~<QQ 5891(1480)><<suspended within 30 minutes.>>~~
- D. ~~<QQ 5891(1480)><<allowed to continue.>>~~

Answer: ~~<QQ 5891(1419)><<A>>~~

QUESTION DELETED

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 81 Details

Question Type: <QQ 5891(1401)><<Multiple Choice>>
Topic: <QQ 5891(1400)><<81 DILTS.288LN003.02, 07
CREVS: inoperable smoke purge mode during fuel
moves>>
System ID: <QQ 5891(1445)><<5891>>
User ID: <QQ 5891(1404)><<03-1 NRC-5891>>
Status: <QQ 5891(1405)><<Active>>
Must Appear: <QQ 5891(1406)><<No>>
Difficulty: <QQ 5891(1407)><<0.00>>
Time to Complete: <QQ 5891(1408)><<0>>
Point Value: <QQ 5891(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5891(1414)><<0.00>>
User Number 2: <QQ 5891(1415)><<0.00>>
Comment: <QQ 5891(1411)><<Objective: DRE288LN003.02, 07
Reference: TS 3.7.4, DOS 5750-06, Fig. 288LN003-
001
K/A: 288000 2.2.32 3.3
Level: High
Explanation: For the smoke purge mode the air is taken
in from the outside and exhausted back to the outside.
The recirc damper should be closed and the exhaust
damper should be open. This does not meet the
acceptance criteria of the surveillance. The CREV
system is required to be operable during core
alterations. If it is not, fuel movements are to be
suspended immediately per TS 3.7.4.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

82

ID: 03-1 NRC-5869

Points: 1.00

<QQ 5869(1410)><<Unit 3 was at 95% power when the following indications SUDDENLY changed:

- Indicated total core flow increased.
- Core thermal power decreased.
- Main Generator power has decreased.
- Core differential pressure has decreased.

Based on these indications what has occurred and what must be done?>>

- A. <QQ 5869(1480)><<Jet pump failure has occurred and the affected recirc pump must be secured.>>
- B. <QQ 5869(1480)><<Jet pump failure has occurred and the scoop tube for the affected recirc pump must be locked up.>>
- C. <QQ 5869(1480)><<Steam dryer bypass flow has occurred, verify Reactor power is less than maximum rated thermal power.>>
- D. <QQ 5869(1480)><<Steam dryer bypass flow has occurred, reduce power to pre-EPU power levels.>>

Answer: <QQ 5869(1419)><<A>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 82 Details

Question Type: <QQ 5869(1401)><<Multiple Choice>>
Topic: <QQ 5869(1400)><<82 DILTS.202LK016 Failed jet pump indication & actions to take>>
System ID: <QQ 5869(1445)><<5869>>
User ID: <QQ 5869(1404)><<03-1 NRC-5869>>
Status: <QQ 5869(1405)><<Active>>
Must Appear: <QQ 5869(1406)><<No>>
Difficulty: <QQ 5869(1407)><<0.00>>
Time to Complete: <QQ 5869(1408)><<0>>
Point Value: <QQ 5869(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5869(1414)><<0.00>>
User Number 2: <QQ 5869(1415)><<0.00>>
Comment: <QQ 5869(1411)><<Objective: 202LK016 Reference: LP ILTS026 K/A: 295001 AA2.05 3.4 Level: High - Application Explanation: These are the indications of a failed jet pump. If the steam dryer shifted, core flow and core DP would NOT diverge. The action for a sudden jet pump failure is to secure the affected recirc pump per DOA 0201-01. (SRO Only per criteria 5 the conditions must be assessed and the correct procedure entered to take the right actions) Pedigree: Dresden Bank (DSROA-273142)>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

83

ID: 03-1 NRC-5899

Points: 1.00

<QQ 5899(1410)><<With Unit 2 at 912 MWe the following conditions exist:

- Annunciator 902-8 G-9, 120V INST BUS TRANSFER TO EMERG SPLY, alarmed.
- An investigation revealed that MCC 28-2 lost power but has been re-energized.
- Annunciator 902-8 G-9 will NOT reset.
- The NLO sent to investigate reports that the Instrument Bus ABT is lined up to MCC 25-2.

Based on the information given to him, the Unit Supervisor will...>>

- A. <QQ 5899(1480)><<dispatch EMD to investigate the failure of the ABT and declare the Instrument Bus INOPERABLE.>>
- B. <QQ 5899(1480)><<dispatch EMD to investigate the failure of the ABT and declare the Instrument Bus OPERABLE.>>
- C. <QQ 5899(1480)><<dispatch an Operator to RESET the Instrument Bus ABT and declare the Instrument Bus INOPERABLE.>>
- D. <QQ 5899(1480)><<dispatch an Operator to RESET the Instrument Bus ABT and consider the Instrument Bus OPERABLE.>>

Answer: <QQ 5899(1419)><<A>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 83 Details

Question Type: <QQ 5899(1401)><<Multiple Choice>>
Topic: <QQ 5899(1400)><<83 DILTS.264LN004.07 Inst Bus:
Failure of ABT, DAN actions and TS call>>
System ID: <QQ 5899(1445)><<5899>>
User ID: <QQ 5899(1404)><<03-1 NRC-5899>>
Status: <QQ 5899(1405)><<Active>>
Must Appear: <QQ 5899(1406)><<No>>
Difficulty: <QQ 5899(1407)><<0.00>>
Time to Complete: <QQ 5899(1408)><<0>>
Point Value: <QQ 5899(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5899(1414)><<0.00>>
User Number 2: <QQ 5899(1415)><<0.00>>
Comment: <QQ 5899(1411)><<Objective: DRE262LN005.07
Reference: DAN 902(3)-8 G-9, DOP 6800-02, and TS
3.8.7 and Bases
K/A: 295003 2.4.31 3.4
Level: High
Explanation: The Inst Bus ABT is a normal seeking
ABT which should swap back to its normal power
supply, 28-2 when re-energized. The ESS Bus ABT
has to be transferred manually by using the RESET
toggle switch. The Tech Specs say that the ABT is not
required to be Operable to consider the Inst Bus
operable however, it is NOT being powered from a
safety bus so it is INOPERABLE.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

84

ID: 03-1 NRC-5903

Points: 1.00

<QQ 5903(1410)><<Given the following conditions on Unit 3:

- Unit 3 had been operating at rated capacity for 412 days.
- An electrical malfunction caused all Turbine stop and control valves to go full open.
- The Reactor automatically scrammed.
- The NSO reported the Mode switch will NOT move out of RUN.

Which of the following should the Unit Supervisor direct in order to remove the LEAST amount of decay heat from the Reactor and still maintain a cooldown rate 10 minutes after the scram?

>>

- A. <QQ 5903(1480)><<Jack open two of the Turbine Bypass valves per DGP 2-1, Unit Shutdown.>>
- B. <QQ 5903(1480)><<Initiate HPCI in pressure control mode per DOP 2300-03, High Pressure Coolant Injection System Manual Startup and Operation.>>
- C. <QQ 5903(1480)><<Initiate RWCU blowdown per DOP 1200-02, RWCU System Operation with the Reactor at Pressure.>>
- D. <QQ 5903(1480)><<Initiate the Isolation Condenser to maximum flow per DOP 1300-03, Manual Operation of the Isolation Condenser.>>

Answer: <QQ 5903(1419)><<D>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 84 Details

Question Type: <QQ 5903(1401)><<Multiple Choice>>
Topic: <QQ 5903(1400)><<84 DILTS.29501LK046 DOA
1000-01: decay heat removal options after scram>>
System ID: <QQ 5903(1445)><<5903>>
User ID: <QQ 5903(1404)><<03-1 NRC-5903>>
Status: <QQ 5903(1405)><<Active>>
Must Appear: <QQ 5903(1406)><<No>>
Difficulty: <QQ 5903(1407)><<0.00>>
Time to Complete: <QQ 5903(1408)><<0>>
Point Value: <QQ 5903(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5903(1414)><<0.00>>
User Number 2: <QQ 5903(1415)><<0.00>>
Comment: <QQ 5903(1411)><<Objective: 29501LK046
References: DOA 1000-01, GP Reactor Theory LP
K/A: 295006 AK1.01 3.9
Level: High
Explanation: 10 minutes after the scram decay heat is
approximately 59 MWth (2% of 2957 MWth). Initiating
the Isolation Condenser to max will remove 74 MWth.
With the Mode switch in run and a low main steam line
pressure, the MSIVs will go closed on a Group 1
isolation and will not open without the installation of
jumpers so the bypass valves are not available
immediately and jacking open 2 of the bypass valves
would remove 224 MWth. Increasing RWCU flow rate
to the maximum will remove approximately 10 MWth.
Initiating HPCI in the pressure control mode will
remove approximately 37 MWth.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

85

ID: 03-1 NRC-5913

Points: 1.00

<QQ 5913(1410)><<An accident has occurred on Unit 3.

- Three control rods are at position 04, all others are at position 00.
- Feed pumps have been tripped and cannot be restarted.
- Two Condensate/Condensate Booster pumps are running.
- ALL RPV water level indications have been determined to be unreliable.
- The Unit Supervisor has ordered all 5 ADS valves opened.
- The NSO reported **ONLY** the Target Rock opened.
- Annunciator 903-3 B-11, HPCI TURB INLET DRN POT LVL HI, is in alarm.

RPV pressure is 60 psig and slowly rising.
Drywell pressure is 2.5 psig.

The NSO reports Target Rock tail-pipe temperature is 230°F.

Based on the above indications, the Unit Supervisor will order the NSO to...>>

- A. <QQ 5913(1480)><<isolate all the steam lines.>>
- B. <QQ 5913(1480)><<initiate the Isolation Condenser.>>
- C. <QQ 5913(1480)><<slowly raise injection flowrate with LPCI.>>
- D. <QQ 5913(1480)><<isolate all the steam lines **EXCEPT** HPCI.>>

Answer: <QQ 5913(1419)><<A>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 85 Details

Question Type: <QQ 5913(1401)><<Multiple Choice>>
Topic: <QQ 5913(1400)><<85 DILTS.29502LP023 DEOP 400-1 actions based on indications>>
System ID: <QQ 5913(1445)><<5913>>
User ID: <QQ 5913(1404)><<03-1 NRC-5913>>
Status: <QQ 5913(1405)><<Active>>
Must Appear: <QQ 5913(1406)><<No>>
Difficulty: <QQ 5913(1407)><<0.00>>
Time to Complete: <QQ 5913(1408)><<0>>
Point Value: <QQ 5913(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5913(1414)><<0.00>>
User Number 2: <QQ 5913(1415)><<0.00>>
Comment: <QQ 5913(1411)><<Objective: DRE29502LP023 Reference: DEOP 0400-01, 100, and DEOP 10 **Give Examinee copy of DEOP 400-01 and DEOP 100 with entry conditions blanked out and a copy of the steam tables.** K/A: 295008 EA2.01 3.9 Level: High Explanation: DEOP 400-01 should begin at 26 since DEOP 100 states if all all control rods are at 04 or less, continue on in DEOP 100. With only 1 ADS valve open, no RFP available, and RPV pressure is NOT greater than 66 psig above drywell pressure, the direction is given to flood up to the MSLs. The indication given by the NSO is that the RPV is flooded to the MSLs based on Target Rock tail-pipe temperature below saturation temperature for RPV pressure and the HPCI drain pot level Hi alarm. The IC will not be initiated due to pressure already being low in the RPV. The HPCI steam line would NOT be left unisolated because HPCI is NOT needed for injection and would be isolated (below 100 psig RPV pressure). LPCI is NOT needed for injection since indications are that RPV level is up to the MSLs using only the available Cond/Cond Booster pumps. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

86

ID: 03-1 NRC-5849

Points: 1.00

<QQ 5849(1410)><<Which of the following REQUIRES notification of the Site Vice President per OP-AA-106-101, Significant Event Reporting?>>

- A. <QQ 5849(1480)><<The NRC has requested a copy of the Unit 3 Abnormality Log.>>
- B. <QQ 5849(1480)><<An Operator cuts his finger requiring on-site medical attention.>>
- C. <QQ 5849(1480)><<An ENS call is made regarding plant entry into an Unusual Event.>>
- D. <QQ 5849(1480)><<Chemistry reports that two RWCU samples have Action Level 1 parameters.>>

Answer: <QQ 5849(1419)><<C>>

Question 86 Details

Question Type: <QQ 5849(1401)><<Multiple Choice>>
Topic: <QQ 5849(1400)><<86 DILTS.299L136 Generic: Requirements to notify the Site VP>>
System ID: <QQ 5849(1445)><<5849>>
User ID: <QQ 5849(1404)><<03-1 NRC-5849>>
Status: <QQ 5849(1405)><<Active>>
Must Appear: <QQ 5849(1406)><<No>>
Difficulty: <QQ 5849(1407)><<0.00>>
Time to Complete: <QQ 5849(1408)><<0>>
Point Value: <QQ 5849(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5849(1414)><<0.00>>
User Number 2: <QQ 5849(1415)><<0.00>>
Comment: <QQ 5849(1411)><<Objective: DRE299L136 Reference: OP-AA-106-101 and EP-MW-114-100 K/A: 295017 2.1.14 3.3 Level: Recall Explanation: Per OP-AA-106-101, When an ENS phone call is made, the Site VP must be notified. Chemistry levels must be at action level II, off-site medical attention needed, and the NRC non-routine and major enforcement actions require Site VP notifications. Pedigree: New for ILT 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

87

ID: 03-1 NRC-5922

Points: 1.00

<QQ 5922(1410)><<Instrument Air on Unit 3 has been lost to the Scram Discharge Volume (SDV) vent and drain valves.

Unit 3 remains at 100% power.

It is expected that the SDV vent and drain valves will fail...

>>

- A. <QQ 5922(1480)><<CLOSED and be INOPERABLE since the SDV would be isolated from the scram outlet header.>>
- B. <QQ 5922(1480)><<CLOSED and be INOPERABLE since proper venting and draining of the SDV could NOT be assured.>>
- C. <QQ 5922(1480)><<CLOSED and remain OPERABLE since the reactor coolant system would be isolated from the containment.>>
- D. <QQ 5922(1480)><<OPEN and be INOPERABLE since the reactor coolant system could NOT be isolated from the containment.>>

Answer: <QQ 5922(1419)><>

Question 87 Details

Question Type: <QQ 5922(1401)><<Multiple Choice>>
Topic: <QQ 5922(1400)><<87 DILTS.278LN001.12 IA: Loss of inst air to SDV vent and drain vlvs, operability call.>>
System ID: <QQ 5922(1445)><<5922>>
User ID: <QQ 5922(1404)><<03-1 NRC-5922>>
Status: <QQ 5922(1405)><<Active>>
Must Appear: <QQ 5922(1406)><<No>>
Difficulty: <QQ 5922(1407)><<0.00>>
Time to Complete: <QQ 5922(1408)><<0>>
Point Value: <QQ 5922(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5922(1414)><<0.00>>
User Number 2: <QQ 5922(1415)><<0.00>>
Comment: <QQ 5922(1411)><<Objective: DRE203LN001.02 Reference: DOA 4700-01 and ITS 3.1.8 BasesDOA 4700-01 and ITS 3.1.8 BasesDOA 4700-01 and ITS 3.1.8 BasesDOA 4700-01 and ITS 3.1.8 Bases. K/A: 295019 2.1.28 2.9 Level: High Explanation: The SDV would close, for them to be operable they must be able to be opened and closed. Pedigree: Dresden 2002 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

88

ID: 03-1 NRC-5886

Points: 1.00

<QQ 5886(1410)><<DOS 2300-03, High Pressure Coolant Injection System Operability and Quarterly IST Verification Test, is in progress.

Unit 2 is at rated conditions with recorder TIRS 2-1640-200A, TORUS TEMP MON DIV I OOS due to a failed power supply.

TIRS 2-1640-200B currently indicates the following:

| | | | |
|----------------------|-------|---------------------|-------|
| Point 1 Torus Bay 14 | 110°F | Point 5 Torus Bay 6 | 111°F |
| Point 2 Torus Bay 13 | 104°F | Point 6 Torus Bay 5 | 109°F |
| Point 3 Torus Bay 10 | 108°F | Point 7 Torus Bay 2 | 104°F |
| Point 4 Torus Bay 9 | 103°F | Point 8 Torus Bay 1 | 107°F |

Given the current conditions, the Torus is (1) and (2).

1

2>>

- A. <QQ 5886(1480)><<operable immediately suspend DOS 2300-03.>>
- B. <QQ 5886(1480)><<inoperable immediately place the Mode Switch in Shutdown.>>
- C. <QQ 5886(1480)><<inoperable immediately reduce thermal power to less than or equal to
1% RTP.>>
- D. <QQ 5886(1480)><<operable NO actions are required at this time.>>

Answer: <QQ 5886(1419)><<A>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 88 Details

Question Type: <QQ 5886(1401)><<Multiple Choice>>
Topic: <QQ 5886(1400)><<88 DILTS.Torus temp monitor A
oos, TS requirements with HPCI surv in progress>>
System ID: <QQ 5886(1445)><<5886>>
User ID: <QQ 5886(1404)><<03-1 NRC-5886>>
Status: <QQ 5886(1405)><<Active>>
Must Appear: <QQ 5886(1406)><<No>>
Difficulty: <QQ 5886(1407)><<0.00>>
Time to Complete: <QQ 5886(1408)><<0>>
Point Value: <QQ 5886(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5886(1414)><<0.00>>
User Number 2: <QQ 5886(1415)><<0.00>>
Comment: <QQ 5886(1411)><<Objective: 223L-S1-9
Reference: ITS 3.6.2.1 and 295L-S2
K/A: 295026 AA1.03 4.0
Level: High
Explanation: Bulk water temperature is the average of
points 1 through 8. Average water temperature would
be 107°F. Immediately suspend all testing that adds
heat to the suppression pool. The requirement of ITS
section 3.6.2.1 specifically states that the temperature
is average temperature, not the highest of any one
area. Since Torus temp remains within the required
actions of TS 3.6.2.1, the torus remains operable.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

89

ID: 03-1 NRC-5871

Points: 1.00

<QQ 5871(1410)><<The following conditions exist:

- Unit 3 Recirc piping has a leak.
- Drywell pressure is 11 psig and steady.
- The LPCI system is being used for Torus sprays.
- RPV pressure is 250 psig and steady.
- RFPs are NOT available.
- HPCI is being used for pressure and level control.
- RPV water level is +20 inches and steady.

The Unit 3 NSO reports Torus water level has been trending up and is now 18.5 feet.

Based on the above conditions, what are the Unit Supervisors actions?>>

- A. <QQ 5871(1480)><<Leave HPCI running, it is needed for core cooling.>>
- B. <QQ 5871(1480)><<Secure HPCI injection **ONLY**. Control level with LPCI.>>
- C. <QQ 5871(1480)><<Secure HPCI injection and blow down. Control level with the Condensate system.>>
- D. <QQ 5871(1480)><<Secure HPCI injection **AND** Torus sprays. Control level with the Condensate system.>>

Answer: <QQ 5871(1419)><>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 89 Details

Question Type: <QQ 5871(1401)><<Multiple Choice>>
Topic: <QQ 5871(1400)><<89 DILTS.206L007 High level in torus, Unit Supervisor actions.>>
System ID: <QQ 5871(1445)><<5871>>
User ID: <QQ 5871(1404)><<03-1 NRC-5871>>
Status: <QQ 5871(1405)><<Active>>
Must Appear: <QQ 5871(1406)><<No>>
Difficulty: <QQ 5871(1407)><<0.00>>
Time to Complete: <QQ 5871(1408)><<0>>
Point Value: <QQ 5871(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5871(1414)><<0.00>>
User Number 2: <QQ 5871(1415)><<0.00>>
Comment: <QQ 5871(1411)><<Objective: DRE206L007
Reference: DEOP 200-1 **Give the examinees a copy of DEOP 200-01 with the entry conditions blanked out.**
K/A: 295029 A1.01 3.5
Level: High
Explanation: DEOP 200-1 has the Operators stop injection from outside the primary containment not needed for core cooling or to shut down the reactor. Reactor pressure is low enough that the LPCI system can provide water for injection and pressure can be controlled with the iso cond. The Torus sprays should not be secured due to drywell pressure being 11 psig. They do not need to be secured since their suction source is from the torus. HPCI is NOT needed for core cooling, LPCI can provide that function. There is no need to blow down yet since level should NOT continue to rise since water from outside containment is no longer being used for vessel makeup. Condensate system would not be used for makeup since it would be making the torus level problem worse.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

90

ID: 03-1 NRC-5892

Points: 1.00

<QQ 5892(1410)><<The following conditions exist:

- Unit 2 and 3 are at full rated power.
- 2/3 A SBTG SELECT control switch is in A PRI.
- 2/3 B SBTG SELECT control switch is in B STBY.

The NSO reports:

- RX BLDG VENT CH A AND B process rad monitors on the 902-10 panel indicate 16 mR/hr.
- B SBTG train is running.
- RX BLDG TO ATMOS DP, 2-5740-22, indicates -0.1 inch of water and is steady.
- B SBTG system flow is 3000 scfm.

Based on the above conditions the Unit Supervisor will direct:>>

- A. <QQ 5892(1480)><<Placing an OPERABLE SGT subsystem in operation immediately.>>
- B. <QQ 5892(1480)><<Restoring one SGT subsystem to OPERABLE status within 1 hour.>>
- C. <QQ 5892(1480)><<Restoring SGT subsystem to OPERABLE status within 7 days.>>
- D. <QQ 5892(1480)><<Monitoring the SGT system for proper operation.>>

Answer: <QQ 5892(1419)><>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 90 Details

Question Type: <QQ 5892(1401)><<Multiple Choice>>
Topic: <QQ 5892(1400)><<90 DILTS.261LN001.07 SBTG:
Operability with failure to start and low rx bldg dp>>
System ID: <QQ 5892(1445)><<5892>>
User ID: <QQ 5892(1404)><<03-1 NRC-5892>>
Status: <QQ 5892(1405)><<Active>>
Must Appear: <QQ 5892(1406)><<No>>
Difficulty: <QQ 5892(1407)><<0.00>>
Time to Complete: <QQ 5892(1408)><<0>>
Point Value: <QQ 5892(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5892(1414)><<0.00>>
User Number 2: <QQ 5892(1415)><<0.00>>
Comment: <QQ 5892(1411)><<Objective: DRE261LN001.07
Reference: TS 3.6.4.3, DAN 902(3)-3 A-3 **Provide a
copy of TS3.6.4.3 with IMMEDIATE completion
times blanked out.**
K/A: 295034 EA1.04 4.2
Level: High
Explanation: Per surveillance requirement 3.6.4.3.3 a
SGT subsystem must actuate on an actual or simulated
initiation signal. The rad level is above the RBV
setpoint for tripping and the SGT system to start (≤ 4
mR/hr). The A SGT train should have started since it
was in PRI. Since it did not it is inoperable. The SGT
system is designed to maintain the secondary
containment at a negative pressure of ≥ 0.25 inches of
water per 3.6.4.3 Bases, so the B SGT train is also
inoperable. This meets the requirements for Condition
D, and requires the restoration of one SGT subsystem
to operable within 1 hr.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

91

ID: 03-1 NRC-5918

Points: 1.00

<QQ 5918(1410)><<An ATWS condition exists on Unit 3 with the following conditions:

- RPV pressure is 1000 psig.
- RPV water level has been lowered to -140 inches.
- APRMs indicate Reactor power is 5.8%.

Based on the above conditions, the Unit Supervisor will order the NSO to...>>

- A. <QQ 5918(1480)><<immediately begin lowering RPV water level until the APRMs indicate downscale to ensure the Reactor is shutdown.>>
- B. <QQ 5918(1480)><<immediately begin depressurizing the RPV in order to facilitate raising RPV water level to ensure the core has adequate cooling.>>
- C. <QQ 5918(1480)><<wait until RPV pressure is less than 850 psig and then raise RPV water level to ensure the core is adequately cooled.>>
- D. <QQ 5918(1480)><<wait until SBLC tank level drops to 14% prior to depressurizing the RPV to ensure the Reactor will stay shutdown once the cooldown begins.>>

Answer: <QQ 5918(1419)><<D>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 91 Details

Question Type: <QQ 5918(1401)><<Multiple Choice>>
Topic: <QQ 5918(1400)><<91 DILTS.29502LK039 DEOP
400-5: US actions and reason for cold shutdown boron
weight>>
System ID: <QQ 5918(1445)><<5918>>
User ID: <QQ 5918(1404)><<03-1 NRC-5918>>
Status: <QQ 5918(1405)><<Active>>
Must Appear: <QQ 5918(1406)><<No>>
Difficulty: <QQ 5918(1407)><<0.00>>
Time to Complete: <QQ 5918(1408)><<0>>
Point Value: <QQ 5918(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5918(1414)><<0.00>>
User Number 2: <QQ 5918(1415)><<0.00>>
Comment: <QQ 5918(1411)><<Objective: DRE29502LK039
Reference: DEOP 400-5, DRE LP295L-S08, DAN
902(3)-5 C-6 **Give the student a copy of the DEOP
charts with the entry conditions and SBLC tank
percent values for cold shutdown boron weight
14% blanked out.**
K/A: 295037 EK3.05 3.7
Level: High
Explanation: When the SBLC tank has lowered to 14%,
the cold shutdown weight of boron has been injected
and the Reactor will remain shutdown under all
conditions irregardless of rod position or RPV water
temp. There is No guidance to continue lowering water
level until IRMs indicate below Range 7.
The water level has been intentionally lowered to -140
inches in an attempt to lower Reactor power so the Unit
Supervisor will NOT want to raise level yet.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

92

ID: 03-1 NRC-5924

Points: 1.00

<QQ 5924(1410)><<Unit 3 is operating at rated conditions.

- HPCI is running for a surveillance.
- CRD exercising is in progress.
- RWCU is rejecting 100 gpm to the Main Condenser for a post maintenance test.
- Off Gas system is in a normal lineup.

The FIRST offsite release indication due to a Fuel Element Failure would come from the (1).
If the combined release rate has been stable at $9.0E+5$ μ Ci/sec for 20 minutes, the Unit Supervisor would order the NSO to isolate (2).

1

2>>

- A. <QQ 5924(1480)><<2/3 Chimney SPING blowdown **AND** HPCI>> Isolate RWCU
- B. <QQ 5924(1480)><<2/3 Chimney SPING blowdown **ONLY**>> Isolate RWCU
- C. <QQ 5924(1480)><<Reactor Building Chimney SPING blowdown **AND** HPCI>> Isolate RWCU
- D. <QQ 5924(1480)><<Reactor Building Chimney SPING blowdown **ONLY**>> Isolate RWCU

Answer: <QQ 5924(1419)><<A>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 92 Details

Question Type: <QQ 5924(1401)><<Multiple Choice>>
Topic: <QQ 5924(1400)><<92 DILTS.29502LP016 DEOP
300-1: Identify possible source of leak and actions to
take.>>
System ID: <QQ 5924(1445)><<5924>>
User ID: <QQ 5924(1404)><<03-1 NRC-5924>>
Status: <QQ 5924(1405)><<Active>>
Must Appear: <QQ 5924(1406)><<No>>
Difficulty: <QQ 5924(1407)><<0.00>>
Time to Complete: <QQ 5924(1408)><<0>>
Point Value: <QQ 5924(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5924(1414)><<0.00>>
User Number 2: <QQ 5924(1415)><<0.00>>
Comment: <QQ 5924(1411)><<Objective: DRE29502LP016
Reference: DEOP 300-2, EP-AA-1004 Table R-1 of DR
3-6 **Give the examinees a copy of table R1 from EP-
AA-1004 of DR 3-6**
K/A: 295038 A2.04 4.5
Level: High
Explanation: The HPCI system is drawing steam
directly off of the Reactor and SBGT is running
discharging to the 2/3 Chimney so that is where the
offsite release will be noticed first. Off Gas will have to
go through the 6 hr holdup volume prior to going
through the stack. The CRD exercising will not elevate
release rates at all since no breach of containment is
indicated. DEOP 300-2 directs isolating all primary
system discharges outside the primary and secondary
containment, HPCI test flow path is to CST and RWCU
discharge to the main condenser.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

93

ID: 03-1 NRC-5885

Points: 1.00

<QQ 5885(1410)><<Unit 2 is in cold shutdown for a Main Turbine outage.
Unit 3 is in hot shutdown.

- A large fire occurred between the turbine lube oil reservoirs due to an oil leak.
- The fire brigade was on the scene and covered the equipment in the area with water and foam.
- ALL fire suppression piping in the area was damaged and had to be isolated.

Based on the equipment damaged by the fire and fire fighting activities, which of the following describes the fire watch requirements, if any?

>>

- A. <QQ 5885(1480)><<Continuous fire watch with backup fire suppression equipment.>>
- B. <QQ 5885(1480)><<Hourly fire watch with backup fire suppression equipment.>>
- C. <QQ 5885(1480)><<Once per 8 hour fire watch with backup fire suppression equipment.>>
- D. <QQ 5885(1480)><<A fire watch is NOT required.>>

Answer: <QQ 5885(1419)><<A>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 93 Details

Question Type: <QQ 5885(1401)><<Multiple Choice>>
Topic: <QQ 5885(1400)><<93 DILTS.299L019 Fire at SGBT, fire watch requirements.>>
System ID: <QQ 5885(1445)><<5885>>
User ID: <QQ 5885(1404)><<03-1 NRC-5885>>
Status: <QQ 5885(1405)><<Active>>
Must Appear: <QQ 5885(1406)><<No>>
Difficulty: <QQ 5885(1407)><<0.00>>
Time to Complete: <QQ 5885(1408)><<0>>
Point Value: <QQ 5885(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5885(1414)><<0.00>>
User Number 2: <QQ 5885(1415)><<0.00>>
Comment: <QQ 5885(1411)><<Objective: 299L019
References: TRM 3.7.j and Tech Spec 3.6.4.3 **Give examinees a copy of TRM3.7.j**
K/A: 600000 AA2.14 3.6
Level: High
Explanation: Per TS 3.6.4.3, SGBT is required to be operable when a Unit is in Mode 1, 2, 3. Given Unit 3 is currently in Mode 3 (Hot Shutdown) it is required to be operable. Given that ALL fire suppression piping on 534' elevation is inoperable, TRM 3.7.j states a continuous fire watch with backup fire fire suppression equip must be established within 1 hour whenever equipment protected by the suppression system is required to be operable.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

94

ID: 03-1 NRC-5865

Points: 1.00

<QQ 5865(1410)><<Following the Unit 3 quarterly SBLC flow test for the 'A' SBLC pump, you receive a report that the results of the required concentration analysis are as follows:

- Tank Volume is 3890 gallons.
- Sodium Pentaborate Concentration is 15.6%.
- Tank Temperature is 103^o F.

Select the statement below that describes the actions required by the Technical Specifications:>>

- A. <QQ 5865(1480)><<Restore concentration of boron in solution to within acceptable operating region within 8 hours of failure to meet the LCO, or else place the plant in cold shutdown within 12 hours.>>
- B. <QQ 5865(1480)><<Restore concentration of boron in solution to within acceptable operating region within 7 days of failure to meet the LCO, or else place the plant in hot shutdown within 12 hours.>>
- C. <QQ 5865(1480)><<Restore concentration of boron in solution to within acceptable operating region within 8 hours of failure to meet the LCO, or else place the plant in hot shutdown within 12 hours.>>
- D. <QQ 5865(1480)><<No actions are required. Power operations may continue.>>

Answer: <QQ 5865(1419)><<D>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 94 Details

Question Type: <QQ 5865(1401)><<Multiple Choice>>
Topic: <QQ 5865(1400)><<94 DILTS.29501LP048 Generic: SBLC tech spec call based on chemistry report>>
System ID: <QQ 5865(1445)><<5865>>
User ID: <QQ 5865(1404)><<03-1 NRC-5865>>
Status: <QQ 5865(1405)><<Active>>
Must Appear: <QQ 5865(1406)><<No>>
Difficulty: <QQ 5865(1407)><<0.00>>
Time to Complete: <QQ 5865(1408)><<0>>
Point Value: <QQ 5865(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5865(1414)><<0.00>>
User Number 2: <QQ 5865(1415)><<0.00>>
Comment: <QQ 5865(1411)><<Objective: DRE29501LP048 Reference: Tech Spec 3.1.7 **Provide copy of TS 3.1.7** K/A: Generic 2.1.25 3.1 Level: High Explanation: Based on information provided, Conditions on Fig. 3.1.7-2, Sodium Pentaborate Temperature Requirements, are acceptable. The Sodium Pentaborate Concentration, % by Weight (Fig. 3.1.7-1) is within the Acceptable Operating Region as well. Pedigree: Modified from Pilgrim 2003 NRC exam question.

Following the quarterly SBLC flow test for the 'A' SBLC pump, you receive a report that the results of the required concentration analysis are as follows:

- Tank Volume 4226 gallons*
- % Sodium Pentaborate 8.32*
- Tank Temperature 68 degrees F*

Select the statement below that describes the actions required by the Technical Specifications:

Restore concentration of boron in solution to within limits within 72 hours AND 10 days from discovery of failure to meet the LCO, or else place the plant in hot shutdown within 12 hours.

The plant must be placed in cold shutdown condition within 24 hours.

If the isotopic enrichment of Boron-10 is above 54.4 atom percent then a shutdown can be avoided if the sodium pentaborate solution meets the original design criteria.

Power operation may continue for the next 7 days

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

provided that the 'B' SBLC pump passes the flow rate test immediately and daily thereafter.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

95

ID: 03-1 NRC-5909

Points: 1.00

<QQ 5909(1410)><<Unit 2 is at rated conditions.

DOS 1500-10, LPCI System Pump Operability Test with Torus Available and Inservice Testing (IST) Program, is in progress.

The A loop of the LPCI surveillance has been completed with all readings within the Acceptance Criteria.

The NSO was increasing flow in the B loop when the NLO called and requested the NSO stop flow adjustments due to an abnormal sound in the area.

The SRO walks over to the 902-3 panel to receive an update and notes the following parameters which have been steady for 2 minutes:

- 2-1501-11B, HX BYPASS VLV CLOSED
- 2-1501-13B, MIN FLOW VLV OPEN
- 2-1501-18B, 19A TORUS SPRAY VLV CLOSED
- 2-1501-20B, TORUS CLG/TEST OPEN
- 2-1501-21B, LPCI VLV OPEN
- 2-1501-22B, INJ VLV CLOSED
- Computer point C255, 2B LPCI FLOW, indicates 3050 gpm and steady.

The NSO reports the 2-1501-38B, TORUS CLG/TEST, valve is currently throttled open for 17 seconds.

Based on the above indications, the LPCI system is currently...

>>

- A. <QQ 5909(1480)><<inoperable due to the 11B valve being closed.>>
- B. <QQ 5909(1480)><<inoperable due to the 13B valve being open.>>
- C. <QQ 5909(1480)><<inoperable due to the 38B valve being throttled open for 17 seconds.>>
- D. <QQ 5909(1480)><<operable.>>

Answer: <QQ 5909(1419)><<D>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 95 Details

Question Type: <QQ 5909(1401)><<Multiple Choice>>
Topic: <QQ 5909(1400)><<95 DILTS.203LN001.07 LPCI:
Given lineup, abnormality and TS(min flow open)>>
System ID: <QQ 5909(1445)><<5909>>
User ID: <QQ 5909(1404)><<03-1 NRC-5909>>
Status: <QQ 5909(1405)><<Active>>
Must Appear: <QQ 5909(1406)><<No>>
Difficulty: <QQ 5909(1407)><<0.00>>
Time to Complete: <QQ 5909(1408)><<0>>
Point Value: <QQ 5909(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5909(1414)><<0.00>>
User Number 2: <QQ 5909(1415)><<0.00>>
Comment: <QQ 5909(1411)><<Objective: DRE203LN001.07
Reference:DAN 902(3)-5 H-3DAN 902(3)-5 H-3DAN
902(3)-5 H-3DAN 902(3)-5 H-3 DAN 902(3)-5 H-3TS
3.3.5.1, DOS 1500-10, and Fig 203LN001-001 **Provide
a copy of TS 3.3.5.1 with completion times less
than 1 hr blanked out.**
K/A: Generic 2.1.31 3.9
Level: High
Explanation: The failure of the min flow valve to go
closed does not render the system inoperable.The
bases state that the min flow valve is only required to
be operable in the open direction. Performance of the
system is based on the valve not going closed. The low
flow (bypass) does NOT pertain to the HX bypass
valve. The 38B valve is allowed to be throttled open for
36 seconds prior to the system having to be declared
inoperable.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

96

ID: 03-1 NRC-5923

Points: 1.00

<QQ 5923(1410)><<The HPCI system isolation channel functional test is scheduled to begin early on day shift.

This will require entry into a (1) short duration time clock (SDTC). It is the responsibility of the Unit Supervisor to (2).

1

2>>

- A. <QQ 5923(1480)><<six hour prepare the applicable SDTC **ONLY**>>
- B. <QQ 5923(1480)><<twelve hour prepare the applicable SDTC **ONLY**>>
- C. <QQ 5923(1480)><<twelve hour prepare and track the applicable SDTC>>
- D. <QQ 5923(1480)><<six hour prepare and track the applicable SDTC>>

Answer: <QQ 5923(1419)><<A>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 96 Details

Question Type: <QQ 5923(1401)><<Multiple Choice>>
Topic: <QQ 5923(1400)><<96 DILTS.298L070 SDTC preparation, tracking, and logging>>
System ID: <QQ 5923(1445)><<5923>>
User ID: <QQ 5923(1404)><<03-1 NRC-5923>>
Status: <QQ 5923(1405)><<Active>>
Must Appear: <QQ 5923(1406)><<No>>
Difficulty: <QQ 5923(1407)><<0.00>>
Time to Complete: <QQ 5923(1408)><<0>>
Point Value: <QQ 5923(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5923(1414)><<0.00>>
User Number 2: <QQ 5923(1415)><<0.00>>
Comment: <QQ 5923(1411)><<Objective: DRE298L070 Reference: OP-AA-108-104, TS 3.3.6.1 Bases K/A: Generic 2.2.23 3.8 Level: Recall Explanation: TS 3.3.6.1 Bases state that when an instrument channel is placed in an inoperable status solely for performance of required surveillances, entry into associated Conditions and Required actions may be delayed for up to 6 hours provided the associated function maintains isolation capability. OP-AA-108-104 states that it is the responsibility of the RO to log and track the SDTC and the responsibility of the Unit Supervisor to prepare the SDTC. Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

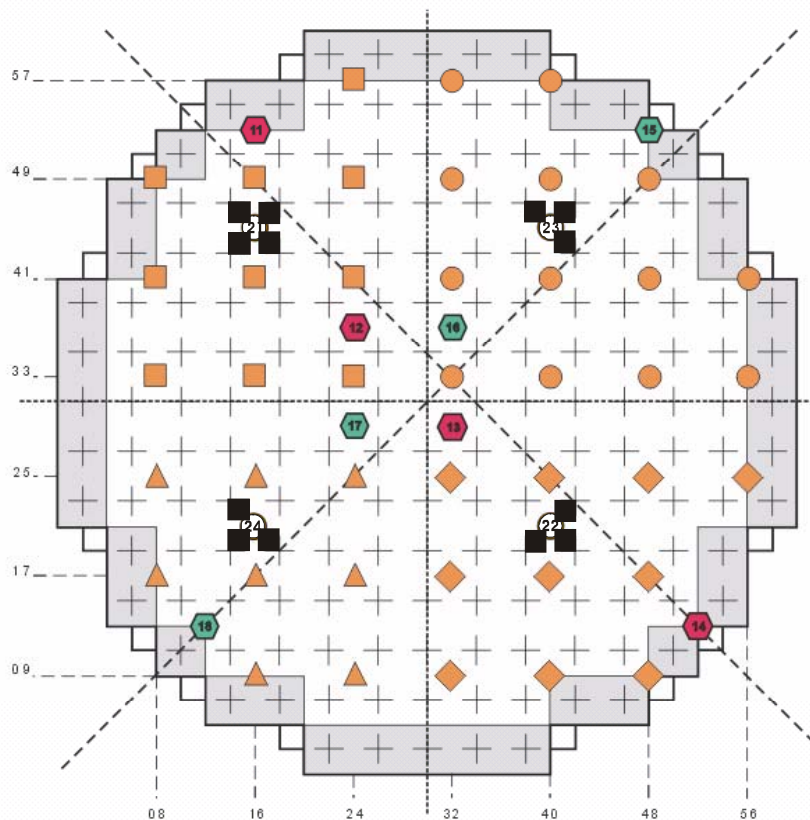
97

ID: 03-1 NRC-5868

Points: 1.00

<QQ 5868(1410)><<The following conditions exist.

- The plant is in REFUEL with a spiral offload in progress.
- 13 fuel bundles remain to be removed.
- Fuel Bundle at location 17-44 is next to be removed.
- SRM 21 indicates 10 cps.
- SRM 22 indicates 2 cps.
- SRM 23 indicates 2 cps.
- SRM 24 indicates 6 cps.



Which of the following describes the action(s) to be taken for the above stated conditions AND why?>>

- <QQ 5868(1480)><<Continue spiral offload. Only 2 operable SRMs are required to be operable with one in the quadrant where core alterations are being performed.>>
- <QQ 5868(1480)><<Continue spiral offload. No SRM is required to be operable in an adjacent quadrant with less than or equal to 4 fuel assemblies.>>
- <QQ 5868(1480)><<Immediately suspend fuel moves. Too many SRMs have too low of a count rate.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

- D. <QQ 5868(1480)><<Immediately suspend fuel moves. The count rate is too low for the SRM in quadrant of fuel bundle 17-44.>>

Answer: <QQ 5868(1419)><<A>>

Question 97 Details

Question Type: <QQ 5868(1401)><<Multiple Choice>>
Topic: <QQ 5868(1400)><<97 DILTS.Generic: Effect of alts on core configuration>>
System ID: <QQ 5868(1445)><<5868>>
User ID: <QQ 5868(1404)><<03-1 NRC-5868>>
Status: <QQ 5868(1405)><<Active>>
Must Appear: <QQ 5868(1406)><<No>>
Difficulty: <QQ 5868(1407)><<0.00>>
Time to Complete: <QQ 5868(1408)><<0>>
Point Value: <QQ 5868(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5868(1414)><<0.00>>
User Number 2: <QQ 5868(1415)><<0.00>>
Comment: <QQ 5868(1411)><<Objective: 29502LK018
Reference: ITS 3.3.1.2 and Bases **Provide students a copy of TS 3.3.1.2 pages 1-6. with completion times less than 1 hour blanked out.**
K/A: 2.2.32 3.3
Level: High
Explanation: 2 SRMs are required to be operable. One has to be in an adjacent quadrant and one has to be in the quadrant where core alterations are being performed. This condition is being met by an operable SRM 21 and adjacent SRM 24. There is no requirement for non-adjacent SRMs to be operable until core alterations will take place in that quadrant.
Pedigree: New for 03-1 NRC exam.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

98

ID: 03-1 NRC-5879

Points: 1.00

<QQ 5879(1410)><<Given the following:

- A river discharge is required from the Waste Surge Tank.
- The off-stream liquid effluent monitor is unavailable for use.

Who must authorize this type of river discharge?>>

- A. <QQ 5879(1480)><<Shift Manager AND Health Physics Supervisor.>>
- B. <QQ 5879(1480)><<Shift Manager AND Chemistry Services Supervisor.>>
- C. <QQ 5879(1480)><<Rad Protection Supervisor AND Health Physics Supervisor.>>
- D. <QQ 5879(1480)><<Rad Protection Supervisor AND Chemistry Services Supervisor.>>

Answer: <QQ 5879(1419)><>

Question 98 Details

Question Type: <QQ 5879(1401)><<Multiple Choice>>
Topic: <QQ 5879(1400)><<98 DSROS.268LN001.14 River Discharge: authorization required when monitor unavailable>>
System ID: <QQ 5879(1445)><<5879>>
User ID: <QQ 5879(1404)><<03-1 NRC-5879>>
Status: <QQ 5879(1405)><<Active>>
Must Appear: <QQ 5879(1406)><<No>>
Difficulty: <QQ 5879(1407)><<0.00>>
Time to Complete: <QQ 5879(1408)><<0>>
Point Value: <QQ 5879(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5879(1414)><<0.00>>
User Number 2: <QQ 5879(1415)><<0.00>>
Comment: <QQ 5879(1411)><<Objective: 268LN001.14
References: DOP 2000-111
K/A: Generic 2.3.3 2.9
Level: Recall
Explanation: DOP 2000-111, Waste Surge Tank Radwaste Discharge to River with the Off-Stream Liquid Effluent Monitor Inoperable, requires that permission is obtained from the Shift Manager AND Chemistry Services Supervisor prior to implementation of the procedure. SRO only as stated in task list.
Pedigree: Dresden Bank (273100)>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

99

ID: 03-1 NRC-5941

Points: 1.00

<QQ 5941(1410)><<You are the Unit 3 Unit Supervisor.

Four jobs must be accomplished on your shift.

In accordance with RP-MW-403-1001, Radiation Work Permit Processing, which of the following jobs will require a Specific Radiation Work Permit (SRWP) to be prepared?

>>

- A. <QQ 5941(1480)><<Changing oil in the 2/3 Diesel Fire Pump.>>
- B. <QQ 5941(1480)><<Cleaning out the Floor Drain Collector Tank.>>
- C. <QQ 5941(1480)><<Adding water to the RBCCW Surge tank.>>
- D. <QQ 5941(1480)><<Changing out of the Nitrogen bottles for the Feedwater Regulating Valves backup air supply.>>

Answer: <QQ 5941(1419)><>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 99 Details

Question Type: <QQ 5941(1401)><<Multiple Choice>>
Topic: <QQ 5941(1400)><<99 DILTS.295L095 Generic: Job requiring a special RWP>>
System ID: <QQ 5941(1445)><<5941>>
User ID: <QQ 5941(1404)><<03-1 NRC-5941>>
Status: <QQ 5941(1405)><<Active>>
Must Appear: <QQ 5941(1406)><<No>>
Difficulty: <QQ 5941(1407)><<0.00>>
Time to Complete: <QQ 5941(1408)><<0>>
Point Value: <QQ 5941(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5941(1414)><<0.00>>
User Number 2: <QQ 5941(1415)><<0.00>>
Comment: <QQ 5941(1411)><<Objective: DRE295L095
Reference: RP-MW-403-1001
K/A: Generic 2.3.7 3.3
Level: Recall
Explanation: Cleaning of the FDCT would be a class H or R classification since it would involve a detailed description of work involved and a potential for high dose rates and contamination levels and would therefore require a Special RWP (SRWP) IAW RP-MW-403-1001. The diesel fire pump is in the crib house and requires no RWP to enter the area. Adding water to the RBCCW surge tank is an evolution that can be done on a normal Operator round and does not require breaching the system. Changing out of nitrogen bottles on the FRV backup air supply is in a fairly low dose area and involves a non-contaminated system. A and C require only a General RWP.
Pedigree: Bank - Monticello 2002 NRC Exam
In accordance with 4 AWI-08.04.05, RADIOLOGICAL WORK CONTROL, which of the following jobs will require its own RWP Request to be filled out specifically for the job?

Cleaning out the Floor Drain Collector Tank.

Changing oil in the Fire Diesel Pump.

Adding water to the RBCCW Surge tank.

Changing out of the Nitrogen bottles on the Alternate N2 System.>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

100

ID: 03-1 NRC-5906

Points: 1.00

<QQ 5906(1410)><<Unit 2 was at rated conditions when “ANNUN DC PWR FAILURE” alarms are received on several panels simultaneously.
A bell inside 902-4 sounds.

Which of the following describes the expected operator actions?>>

- A. <QQ 5906(1480)><<Verify that the normal AC power supply is still available by performing an annunciator checks on each effected panel. Notification of the Shift Manager is NOT required.>>
- B. <QQ 5906(1480)><<Verify that the normal AC power supply is still available by performing an annunciator checks on each effected panel. Notification of the Shift Manager is required.>>
- C. <QQ 5906(1480)><<Determine the cause of the loss of annunciators. The Shift Manager should evaluate for a possible GSEP condition.>>
- D. <QQ 5906(1480)><<Scram the reactor due to the loss of annunciators. The Shift Manager should evaluate for a possible GSEP condition.>>

Answer: <QQ 5906(1419)><<C>>

EXAMINATION ANSWER KEY

<TT 27(1500)><<03-1 NRC Exam >>

Question 100 Details

Question Type: <QQ 5906(1401)><<Multiple Choice>>
Topic: <QQ 5906(1400)><<100 DILTS.29501LP059:
Knowledge of operator response to loss of all
annunciators>>
System ID: <QQ 5906(1445)><<5906>>
User ID: <QQ 5906(1404)><<03-1 NRC-5906>>
Status: <QQ 5906(1405)><<Active>>
Must Appear: <QQ 5906(1406)><<No>>
Difficulty: <QQ 5906(1407)><<0.00>>
Time to Complete: <QQ 5906(1408)><<0>>
Point Value: <QQ 5906(1441)><<1.00>>
Cross Reference:
User Text:
User Number 1: <QQ 5906(1414)><<0.00>>
User Number 2: <QQ 5906(1415)><<0.00>>
Comment: <QQ 5906(1411)><<Objective: DRE29501LP059
Reference:DAN 902(3)-5 H-3DAN 902(3)-5 H-3DAN
902(3)-5 H-3DAN 902(3)-5 H-3 DAN 902(3)-5 H-
3902(3)-5 H-3
K/A: Generic 2.4.32 3.5
Level: High
Explanation: Receipt of these alarms indicates a failure
of the panels Annunciator System. Operators should
determine the cause of the loss of annunciators and
attempt to restore. The Shift Manager should evaluate
for a possible GSEP condition.
Pedigree: Dresden 2002 NRC exam.>>