

## **LIST OF PROVIDED REFERENCES**

1. Dresden Emergency Operating Procedure (DEOP) flow charts, with entry conditions blanked out.
2. DOP 1600-02, Torus Water Level Control; Revision 15
3. Dresden Technical Specifications LCO 3.5.1, Emergency Core Cooling Systems (ECCS) and Isolation Condenser (IC) – Operating, with less than 1 hour Completion Times blanked out; Amendment No. 212/204
4. Dresden Technical Specifications LCO 3.3.1.2, SRM Instrumentation, with less than 1 hour Completion Times blanked out; Amendment No. 185/180
5. Hot Matrix and Cold Shutdown/Refueling Matrix from EP-AA-1004, Radiological Emergency Plan Annex for Dresden Station; Revision 23
6. Dresden Technical Specifications LCO 3.6.4.3, Standby Gas Treatment System, with less than 1 hour Completion Times blanked out; Amendment No. 221/212
7. DOA 4400-06, 2/3 Cribhouse Screen Plugging
8. Dresden Technical Specifications Bases 3.3.1.1, RPS Instrumentation

**U.S. Nuclear Regulatory Commission**

**Site-Specific RO Written Examination**

**Applicant Information**

Name:

Date: March 10, 2008

Facility/Unit: Dresden U1/U2

Region: I ☐ II ☐ III ☒ IV ☐

Reactor Type: W ☐ CE ☐ BW ☐ GE ☒

Start Time: 0800

Finish Time:

**Instructions**

Use the answer sheets provided to document your answers. Staple this cover sheet on top of the answer sheets. To pass the examination, you must achieve a final grade of at least 80.00 percent. Examination papers will be collected 6 hours after the examination begins.

**Applicant Certification**

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

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

**Results**

Examination Value 75 Points

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

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

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

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Use the answer sheets provided to document your answers. Staple this cover sheet on top of the answer sheets. To pass the examination you must achieve a final grade of at least 80.00 percent overall, with 70.00 percent or better on the SRO-only items if given in conjunction with the RO exam; SRO-only exams given alone require a final grade of 80.00 percent to pass. You have 8 hours to complete the combined examination, and 3 hours if you are only taking the SRO portion.

**Applicant Certification**

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

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

**Results**

RO/SRO-Only/Total Examination Values                        75   /   25   /  100  Points

Applicant's Scores           /        /        Points

Applicant's Grade           /        /        Percent

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## APPENDIX E

### POLICIES AND GUIDELINES FOR TAKING NRC EXAMINATIONS

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Each examinee shall be briefed on the policies and guidelines applicable to the examination category (written, operating, walk-through, and/or simulator test) being administered. The examinees may be briefed individually or as a group. Facility licensees are encouraged to distribute a copy of this appendix to every examinee before the examination begins. All items apply to both initial and requalification examinations, except as noted.

#### Part A: General Guidelines

1. **[Read Verbatim]** Cheating on any part of the examination will result in a denial of your application and/or action against your license.
2. If you have any questions concerning the administration of any part of the examination, do not hesitate to ask them before starting that part of the test.
3. SRO applicants will be tested at the level of responsibility of the senior licensed shift position (i.e., shift manager).
4. You must pass every part of the examination to receive a license or to continue performing license duties. Applicants for an SRO-upgrade license may require remedial training in order to continue their RO duties if the examination reveals deficiencies in the required knowledge and abilities.
5. The NRC examiner is not allowed to reveal the results of any part of the examination until they have been reviewed and approved by NRC management. Grades provided by the facility licensee are preliminary until approved by the NRC. You will be informed of the official examination results about 30 days after all the examinations are complete.

#### Part B: Written Examination Guidelines

1. **[Read Verbatim]** After you complete the examination, sign the statement on the cover sheet indicating that the work is your own and you have not received or given assistance in completing the examination.
2. To pass the examination, you must achieve an overall grade of 80.00 percent or greater, with 70.00 percent or greater on the SRO-only items, if applicable. If you only take the SRO portion of the exam (as a retake or with an upgrade waiver of the RO exam), you must achieve an overall grade of 80.00 percent or better to pass. SRO-upgrade applicants who do take the RO portion of the exam and score below 80.00 percent on that part of the exam can still pass overall, but may require remediation. Grades will not be rounded up to achieve a passing score. Every question is worth one point.
3. For an initial examination, the nominal time limit for completing the examination is 6 hours for the RO exam; 3 hours for the 25-question, SRO-only exam; and 8 hours for the combined RO/SRO exam. Notify the proctor if you need more time.

4. You may bring pens, pencils, and calculators into the examination room; however, programable memories must be erased. Use black dark pencil for this examination to facilitate machine grading.
5. Print your name in the blank provided on the examination cover sheet **and** the answer sheet. You may be asked to provide the examiner with some form of positive identification.
6. Mark your answers on the answer sheet provided, and do not leave any question blank. Use only the paper provided; you may write anywhere on the provided examination. If you have a machine-gradable form that offers more than four answer choices (e.g., "a" through "e"), be careful to mark the correct column.
7. If you have any questions concerning the intent or the initial conditions of a question, do *not* hesitate to ask them before answering the question. Note that questions asked during the examination are taken into consideration during the grading process and when reviewing applicant appeals. Ask questions of the NRC examiner or the designated facility instructor *only*. A dictionary is available if you need it.

When answering a question, do *not* make assumptions regarding conditions that are not specified in the question unless they occur as a consequence of other conditions that are stated in the question. For example, you should not assume that any alarm has activated unless the question so states or the alarm is expected to activate as a result of the conditions that are stated in the question. Similarly, you should assume that no operator actions have been taken, unless the stem of the question or the answer choices specifically state otherwise. Finally, answer all questions based on actual plant operation, procedures, and references. If you believe that the answer would be different based on simulator operation or training references, you should answer the question based on the *actual plant*.

8. Restroom trips are permitted, but only one applicant at a time will be allowed to leave. Avoid all contact with anyone outside the examination room to eliminate even the appearance or possibility of cheating.
9. When you complete the examination, assemble a package that includes the examination cover sheet and the answer sheet, and give it to the NRC examiner or proctor. Remember to sign the statement on the examination cover sheet indicating that the work is your own and that you have neither given nor received assistance in completing the examination. Leave all other items at your examination table face down. The examination will be retained by the station training department.
10. After turning in your examination, leave the examination area as defined by the proctor or NRC examiner. If you are found in this area while the examination is still in progress, your license may be denied or revoked.
11. Do you have any questions?

## QUESTION 001

Unit 2 is in Reactor startup. An NSO notes that Recirc loop temperature is 30°F lower than the temperature used by the QNE to predict the critical step/rod/notch?

What affect would this have on the actual critical step/rod/notch?

Actual criticality would . . . .

be later due to the doppler coefficient.

b. be sooner due to being over-moderated.

c. be later due to the moderator temperature coefficient.

d. be sooner due to the moderator temperature coefficient.

\*ANSWER

d.

\*REFERENCE

DGP 1-1

K/A .2.2.34

Memory

Bank

## QUESTION 002

Unit 2 was operating at near rated power, with TR-86 Out Of Service, when the following occurred:

- Time 0 seconds: Drywell pressure increased to +3.8 psig.
- Time +15 seconds: annunciator "4 KV BUS 24-1 OVERCURRENT" alarms.
- Time +19 seconds: 138kv BT 1-2 CB, 138kv L0904 CB, AND 138kv L1205 CBs open due to an electrical storm.

What is the expected status of the Unit 2 LPCI pumps at time +33 seconds?

- a. NO pumps running.
- b. A & B pumps ONLY running.
- c. C & D pumps ONLY running.
- d. ALL pumps running.

\*ANSWER

b.

\*REFERENCE

12E-2304

DAN 902-8 E-5

K/A 203000K201

High

Bank

## QUESTION 003

Unit 2 is operating at near rated power, with DOS 6600-01 DIESEL GENERATOR SURVEILLANCE TEST, in progress for the Unit 2 Diesel. The NSO is ready to synchronize the Diesel to Bus 24-1.

In accordance with the surveillance, the synchroscope should rotate 1 revolution every \_\_\_\_ (1) \_\_\_\_ seconds in the \_\_\_\_ (2) \_\_\_\_ direction.

- a. (1) 30 (2) SLOW
- b. (1) 30 (2) FAST
- c. (1) 60 (2) SLOW
- d. (1) 60 (2) FAST

ANSWER

b.

REFERENCE

DOS 6600-01

K/A 264000A405

Memory

New



## QUESTION 004

Unit 3 was operating at near rated power when a steam leak occurred inside the Drywell. The following conditions exist:

- Drywell pressure is 3.7 psig and increasing.
- All control rods fully inserted EXCEPT F-5, which remained at position 24.

Which of the DEOPs below are required to be entered?

- 1) DEOP 100, RPV CONTROL
- 2) DEOP 200-1, PRIMARY CONTAINMENT CONTROL
- 3) DEOP 300-1, SECONDARY CONTAINMENT CONTROL
- 4) DEOP 400-5, FAILURE TO SCRAM

- a. 1 and 2
- b. 1 and 3
- c. 2 and 3
- d. 2 and 4

\*ANSWER

a.

\*REFERENCE

DEOP 100

DEOP 200-1

K/A 2.4.1

Memory

New

REQUIRED REFERENCES: DEOP charts, with the entry conditions blanked out.

## QUESTION 005

Unit 2 was operating at near rated power, when a LOCA occurred. The following conditions exist:

- RPV pressure is 200 psig and lowering slowly.
- Indicated Wide Range RPV water level is 80 inches and slowly rising.
- Drywell pressure is 5.5 psig and rising slowly.
- Drywell temperature is 425°F and steady.

Wide Range RPV water level instrumentation is . . . .accurate AND can be used for trending.

- b. NOT accurate and CAN be used for trending, since WR level is above indicated usable level.
- c. NOT accurate and CANNOT be used for trending, since WR level is below indicated usable level.
- d. NOT accurate and CANNOT be used for trending since D/W temperature above saturation temperature.

ANSWER

d.

REFERENCE

DEOP 100 table 'A'

EPG B-5-3

K/A 295028K101

High

Bank

## QUESTION 006

Unit 2 was operating at near rated power when a small break LOCA is experienced, with the following set of initial conditions:

- Drywell pressure is 1.18 psig.
- RPV water level is +30 inches on the Medium Range indicators.

As Drywell pressure starts to RISE, the Drywell Spray valves are interlocked closed at \_\_\_\_ (1) \_\_\_\_ psig, but the interlock may be overridden via the use of \_\_\_\_ (2) \_\_\_\_ keylock switch(es) in each division.

- (1) 1.5;            (2) a single
- b.        (1) 1.5;        (2) two
- c.        (1) 2;            (2) a single
- d.        (1) 2;            (2) two

ANSWER

c.

REFERENCE

DAN 902-3 A-13

DOP 1500-03

K/A: 295024K215

MemoryNew

## QUESTION 007

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

- Time 12:00:00 the TR-22 Sudden Pressure Relay device activated.
- Time 12:00:01 the Aux Power system "fast transfer" FAILED to occur.

At time 12:00:05, which Condensate/Condensate Booster pumps (if any) would currently have electrical power available?NONE

- b. Only "A" and "B"
- c. Only "C" and "D"
- d. ALL

ANSWER

b.

REFERENCE

Electrical Print 12E-2370

K/A: 256000K201

High

New

## QUESTION 008

Unit 3 was operating at near rated power when the following 903-7 panel annunciators are received:

- C-3, TURB STATOR COOLANT RUNBACK.
- C-10, STATOR CLG PANEL TROUBLE.

The Turbine will runback to approximately \_\_\_\_ (1) \_\_\_\_ stator amps within 2 minutes. If the stator amps do NOT reach this value, the Turbine will trip \_\_\_\_ (2) \_\_\_\_ . a. (1) 6350; (2) immediately

b. (1) 7350; (2) 1 minute later

c. (1) 8350; (2) 1 minute later

d. (1) 9350; (2) immediately

ANSWER

b.

REFERENCE

DAN 902-7 C-3

K/A: 245000K605

Memory

Bank

## QUESTION 009

You are the Unit 2 AUX NSO and an annunciator has been alarming intermittently over several shifts, on the 902-5 panel. Whose concurrence, AT A MINIMUM, is required to stop ANNOUNCING the alarm, per OP-AA-103-102 WATCHSTANDING PRACTICES?The Unit Reactor Operator ONLY.The Unit Supervisor OR Shift Manager.The Unit Reactor Operator AND Shift Manager.The Unit Reactor Operator AND Unit Supervisor.OP-AA-103-102

K/A: 2.4.10

Memory

Bank

## QUESTION 010

Unit 3 is in startup, with rod pulls in progress. The NSO is single notching a Control Rod out from position 12 to position 14, when annunciator 902-5 G-3, RPIS SYS INOP is received.

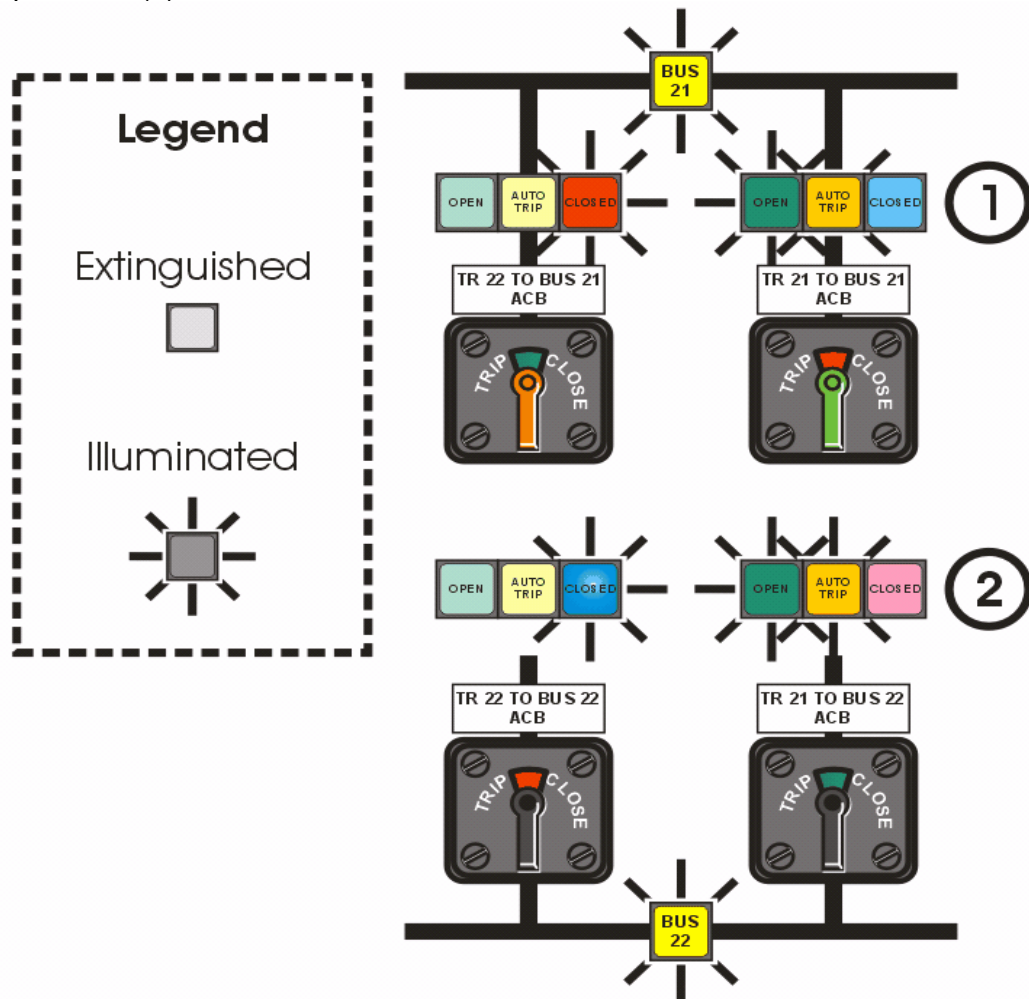
RMCS . . . .is unaffected.will return the rod to position 12.will generate a rod select block.will remove the drive signal and a rod drift will occur.DAN 902-5 G-3

K/A: 214000K303

MemoryBank

## QUESTION 011

Unit 2 was operating at near rated power, when a Reactor scram occurred. On the drawing below, the indication for the breakers in Group 1 is \_\_\_\_ (1) \_\_\_\_ and the indication for the breakers in Group 2 is \_\_\_\_ (2) \_\_\_\_.



- a. (1) Correct; (2) Correct
- b. (1) Correct; (2) Incorrect
- c. (1) Incorrect; (2) Correct
- d. (1) Incorrect; (2) Incorrect

ANSWER

b.

REFERENCE

DOA 6000-01

K/A: 295005A107

High

Bank



## QUESTION 012

The following plant conditions exist after a transient with both units at power:

- Unit 2 West Corner Room Sump Level Hi alarm is received.
- Unit 3 East Corner Room Sump Level Hi alarm is received.
- Unit 2 HPCI Room Floor Drain Sump Level Hi alarm is received.
- Area Temperatures and Radiation Levels for all ECCS Rooms on both units are normal.

NLOs are dispatched and provide the following reports:

- There is 1 inch of water on the Unit 2 HPCI Room floor - Water level is steady.
- The Unit 2 West Corner room floor is covered in water (< 1 inch and level is steady).

Why are the sump pumps operated under these conditions per DEOP 300-1? To maintain equipment operability. To maintain site release rates below 10 CFR 100 limits. To quantify the leakage rate to determine Tech Spec required actions. To ensure environmental conditions are maintained for EQ Instrumentation.

## ANSWER

a.

## REFERENCE

DAN 902-4 C-19

DOA 0040-02

DEOP 300-1 Bases B-8-2

K/A: 295036K304

Memory

Bank

## QUESTION 013

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

- Time = 0 seconds: A spurious Group 1 signal occurs.
- Time = 5 seconds: RPV pressure peaks at 1070 psig.
- Time = 12 seconds: RPV pressure drops to 1025 psig.

The Reactor scrambled on \_\_\_\_ (1) \_\_\_\_ and the Isolation Condenser \_\_\_\_ (2) \_\_\_\_ initiated to control RPV pressure. (1) MSIV closure; (2) automatically (1) MSIV closure; (2) will be manually (1) High RPV pressure; (2) automatically (1) High RPV pressure; (2) will be manually  
Electrical Print 12E-2502A  
Electrical Print 12E-2506  
Electrical Print 12E-2507  
Electrical Print 12E-2512  
K/A: 207000K402  
HighBank

## QUESTION 014

Given the following:

- An extended Refueling and Maintenance Outage is in progress
- All four of the RPS Shorting Links are removed from the 902-15 and -17 Panels

Then SRM 21 spikes to a full scale indication

What response is expected from the RPS system under these conditions? No RPS actuation. 1/2 scram on RPS channel A ONLY. 1/2 scram on RPS channel B ONLY. Full scram. LP

DRE212LN001

K/A: 215004A303

MemoryBank

## QUESTION 015

Unit 2 was operating at near rated power when the output from the Instrument Bus was lost.

If the NSO placed the 2B Electromatic Relief Valve (ERV) control switch to the MANUAL position, the ERV will . . . .

- a. remain closed.
- b. open and its position could be confirmed by acoustic monitoring ONLY.
- c. open and its position could be confirmed by tailpipe temperature ONLY.
- d. open and its position could be confirmed by BOTH tailpipe temperature AND acoustic monitoring.

ANSWER

b.

REFERENCE

DOA 6800-01

K/A: 239002K603

High

Bank

## QUESTION 016

Unit 2 was operating at near rated power with the 'A' SBGT train in PRI and the 'B' SBGT train in STBY, when the following sequence of events occurred:

- A steam leak developed in the HPCI room.
- Annunciator 902-3 A-3, RX BLDG VENT CH B RAD HI HI was received.
- 2 minutes later the 'A' SBGT train heater TRIPS.

10 minutes later secondary containment differential pressure would be \_\_\_\_ (1) \_\_\_\_ because \_\_\_\_ (2) \_\_\_\_.

- (1) unaffected;
- (2) 'A' SBGT would be running and 'B' SBGT would be in standby (1) unaffected;
- (2) 'B' SBGT would be running and 'A' SBGT would be tripped (1) more negative;
- (2) 'A' and 'B' SBGT would be running (1) less negative;
- (2) 'A' and 'B' SBGT would be tripped DAN 902-3 A-3

DAN 923-5 A-6

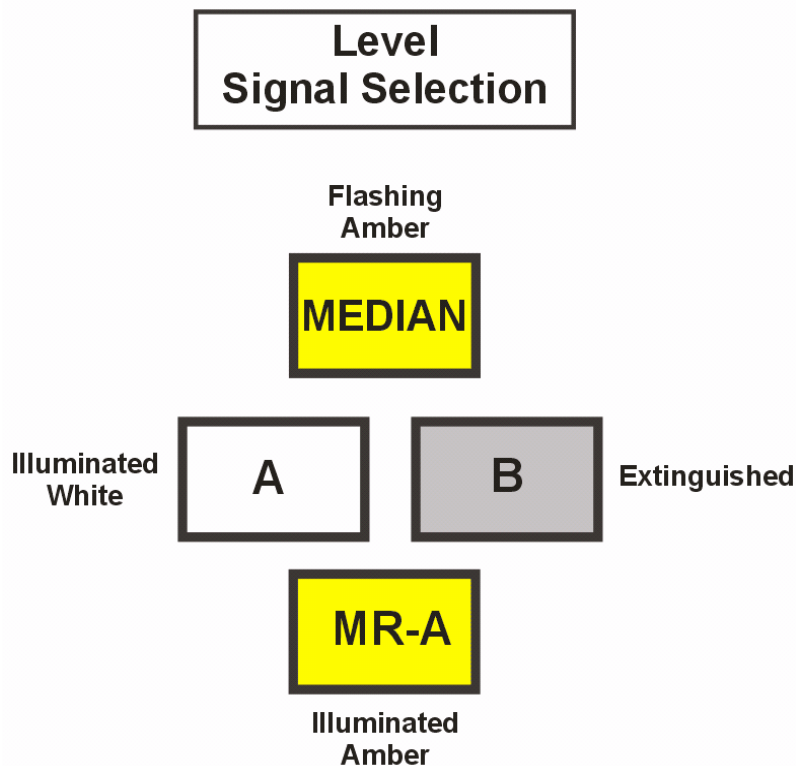
K/A: 261000K301

High

New

## QUESTION 017

The NSO observes the following 902-5 Panel indication:



Which of the following describes the condition of the FWLC RPV water level instrumentation?

- a. Narrow Range "A" is available  
Narrow Range "B" is NOT available  
Medium Range "A" is available  
Median Level Control is in control
- b. Narrow Range "A" is in control  
Narrow Range "B" is available  
Medium Range "A" is available  
Median Level Control is NOT available
- c. Narrow Range "A" is in control  
Narrow Range "B" is NOT available  
Medium Range "A" is NOT available  
Median Level Control is NOT available
- d. Narrow Range "A" is in control  
Narrow Range "B" is available  
Medium Range "A" is NOT available  
Median Level Control is NOT available

ANSWER

d.

REFERENCE DOP 0600-06

K/A: 216000A402

High

Bank

## QUESTION 018

Unit 3 was operating at near rated power, when the following occurred: An automatic scram occurred, with an ATWS resulting.

- Reactor Power is currently 42%.
- Drywell pressure is 1.30 psig and trending up.
- RPV water level was terminated and prevented, to -55 inches per DEOP 400-5.
- Maximum Torus Cooling has been established.

Then Drywell pressure reaches > 2.0 psig.

What effect does this have on Torus Cooling, if any, AND what must be done to re-establish Max Torus Cooling, if anything? None, because the HX BYPASS VLVs will be interlocked closed; no manipulations are required. None, until RPV pressure drops below 350 psig, at which time the HX BYPASS VLVs will open; the HX BYPASS VLVs are required to be re-closed after they have opened. Cooling will be reduced, because the HX BYPASS VLVs will open and be interlocked open for 30 seconds; the HX BYPASS VLVs are required to be re-closed after interlock has timed out. Cooling will be reduced, because the HX BYPASS VLVs will open and be interlocked open until RPV pressure drops below 350 psig; the HX BYPASS VLVs are required to be re-closed after they have opened.

## ANSWER

c.

## REFERENCE

DOP 1500-02 attach C

K/A: 219000A204

High

Bank



## QUESTION 019

Unit 2 was operating at near rated power, with a Torus water temperature of 95°F. If Torus water temperature rises to 110°F, the Safety Parameter Display System (SPDS) indicating bar will . . . .remain yellow and flash.remain green and flash.change from yellow to flashing red.change from green to flashing yellow.DOP 9950-17

K/A: 295026K204

MemoryNew

## QUESTION 020

Unit 3 was operating at near rated power, when the 3A Recirc pump tripped. The Shift Manager has decided to remain in single loop operation while trouble shooting the cause of the pump trip.

Which of the following Thermal Limits are required to have correction factors implemented within 24 hours? LHGR and MCPR **ONLY** LHGR and MAPLHGR **ONLY** MAPLHGR and MCPR **ONLY** LHGR, MCPR, **AND** MAPLHGR REFERENCE

DGP 3-3

K/A: 295001K103

MemoryBank

## QUESTION 021

Unit 3 was operating at near rated power, when the following occurred:

- 05:27:00 Drywell pressure reaches 4 psig.
- 05:28:00 Torus sprays are initiated.
- 05:33:10 TR 32 trips **AND** Unit 3 and 2/3 Emergency Diesel Generators re-energize their associated busses.

Which of the following times is the EARLIEST that rated Torus Spray flow will be re-established? 05:33:15 05:33:23 05:33:38 05:34:10 REFERENCE\

UFSAR

K/A: 230000A109

HighBank

## QUESTION 022

Which of the following sets of parameters would require entry into DEOP 200-1?

A Drywell to Torus differential pressure of \_\_\_\_ (1) \_\_\_\_ and Torus level of \_\_\_\_ (2) \_\_\_\_ . (1) 1.2;  
(2) -3.4 (1) 1.2; (2) -4.4 (1) 1.8; (2) -3.4 (1) 1.8; (2) -4.4 DOP 1600-2

K/A: 295030 2.1.25

HighNew

REQUIRED REFERENCES: DOP 1600-02.

## QUESTION 023

Given the following information regarding the Control Room HVAC system:

- "B" AHU is running.
- "A" AHU control switch has a GREEN-TARGET.

The NSO takes the **CRM ISOL** switch to the *"ISOLATE"* position, on 923-5 panel.

Which one of the following describes the Control Room Ventilation system response? "B" AHU continues to run, system dampers line-up for the smoke purge mode. "B" AHU continues to run, system dampers line-up for the isolation/recirculation mode. "B" AHU continues to run, "A" AHU auto starts, system dampers line-up for the isolation/recirculation mode. "B" AHU is tripped, "A" AHU **and** the AFU auto start, and system dampers line-up for the isolation/recirculation mode. DOP 5750-05

DOA 5750-01

DOA 5750-04

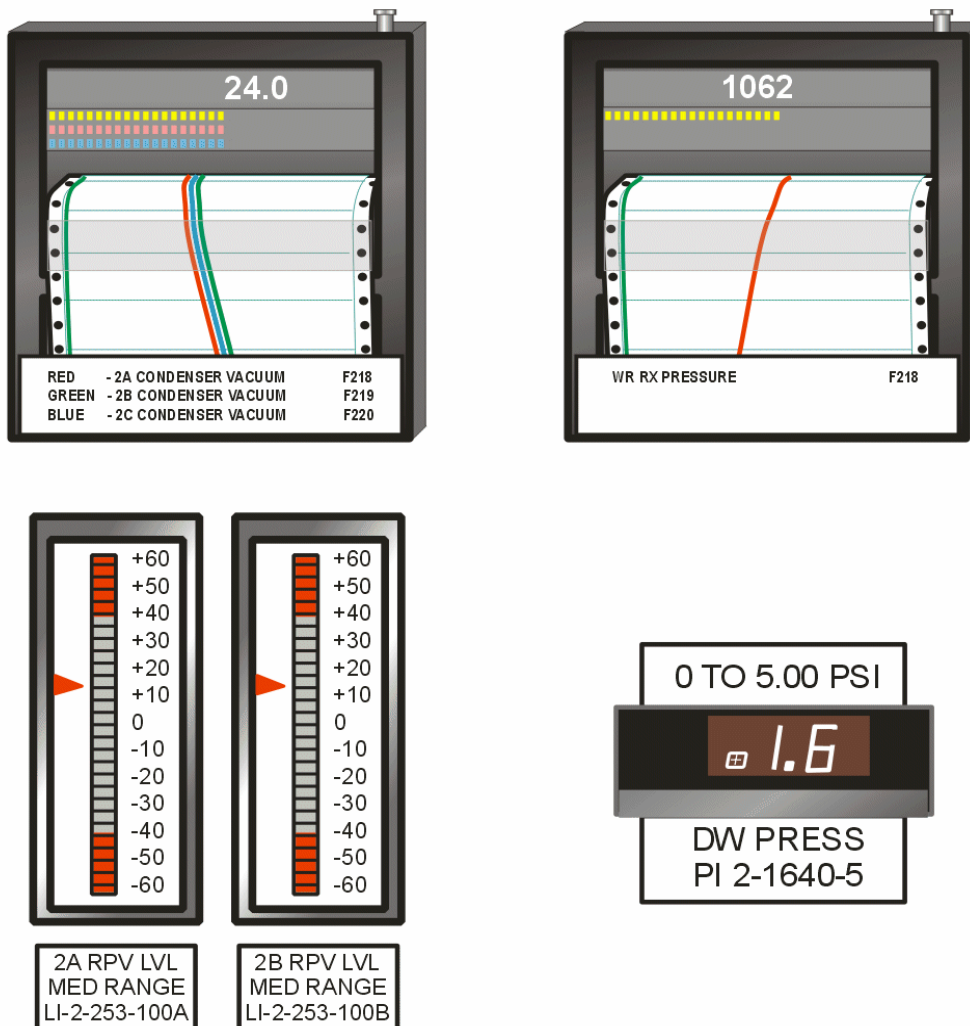
K/A: 290003K401

High

Bank

QUESTION 024

Unit 2 was operating at near rated power when a transient occurred causing an automatic Reactor scram. Which of the following parameters initiated the scram?



- a. RPV pressure
- b. Drywell pressure
- c. RPV water level
- d. Main Condenser vacuum

ANSWER

a.

REFERENCE

DANs 902-5 D-10, 902-5 C-13, 902-5 D-11, 902-5 B-13, DOA 4400-01

K/A: 295006A204

High

New

## QUESTION 025

Unit 2 is in SHUTDOWN, with both Recirc pumps O.O.S., and the following set of conditions exist:

- RPV water temperature is 185°F and trending up.
- 2A and 2B Shutdown Cooling loops are in operation.

If the SDC system is lost, determine which of the following is the LOWEST RPV water level that would prevent vessel stratification?+30 inches+40 inches+50 inches+60 inchesUFSAR 5.4.1.4

DOP 1000-3

LP DRE223LN004

LP DRE205LN001

K/A: 295021A203

MemoryBank

## QUESTION 026

An accident has occurred at the station and you have volunteered to perform an evolution to protect valuable property. The dose rate in the area you will be entering is 30 Rem/hr.

What is the MAXIMUM time you can spend in the area performing your task without violating TEDE Radiation Exposure Limits per RP-AA-203 EXPOSURE CONTROL AND AUTHORIZATION? 10 minutes. 20 minutes. 30 minutes. 60 minutes. RP-AA-203, EP-AA-113K/A: 2.3.04 High Bank



## QUESTION 027

Unit 2 was operating at near rated power when the annunciator 902-4 E-12, RWCU SYS AFTER NON-REGEN HX TEMP HI, was received.

Which of the following is an all inclusive list of the RWCU valves that would indicate CLOSED?

- 2-1201-1 RX OUTLET ISOL  
2-1201-1A RX OUTLET BYP  
2-1201-2 INLET ISOL  
2-1201-3 AUX PP SUCT  
2-1201-7 RX RETURN
- a. 2-1201-1;2-1201-1A; 2-1201-2
- b. 2-1201-1;  
2-1201-2;  
2-1201-3;  
2-1201-7
- c. 2-1201-1;  
2-1201-1A;  
2-1201-2;  
2-1201-3
- d. 2-1201-1;  
2-1201-1A;  
2-1201-2;  
2-1201-3;  
2-1201-7

ANSWER

c.

REFERENCE

DAN 902-4 E-12

K/A: 204000A305

Memory

Bank

## QUESTION 028

Unit 3 was operating at near rated power when the following occurred:

- The Bus 39 feed breaker opened on a fault.

Which of the following ESS indication(s) in the Main Control Room would alert the Operator to this fault? 903-8 E-8, ESS UPS ON DC OR ALTERNATE AC, annunciator in alarm ONLY. 903-8 E-10, 120/240V AC ESS BUS ON EMERG SPLY, annunciator in alarm ONLY. 903-8 E-8, ESS UPS ON DC OR ALTERNATE AC, annunciator in alarm AND a momentary loss of power to the ESS loads. 903-8 E-10, 120/240V AC ESS BUS ON EMERG SPLY, annunciator in alarm AND a momentary loss of power to the ESS loads. DAN 903-8 E-8K/A: 262002A301HighBank

## QUESTION 029

Unit 2 TBCCW system has been lost and cannot be restored.

Which of the following actions are required? Verify Stator Cooling runback occurs, due to high temperatures. Verify the CRD pump oil coolers AUTO transfer to the Service Water system. Announce loss of Service Air on the PA system to warn personnel who may be using U2 Service Air. Reduce Recirc pump speeds to maintain MG Set motor winding temperatures below procedural limits. DOA 4600-01

DOP 3800-01

DAN 923-1 C-5K/A: 295018 2.1.14MemoryNew

## QUESTION 030

In order to return a Licensee to ACTIVE status from INACTIVE status, the Licensee must . . . .

- a. obtain special permission from the NRC Regional office for reactivation.
- b. at a minimum, have received a passing grade on a special reactivation exam.
- c. participate in a complete plant tour as part of a minimum of 40 hours of shift functions
- d. complete a minimum of 60 hours of shift functions under the direction of an operator or senior operator and in the position to which the individual will be assigned.

## ANSWER

c.

## REFERENCE

OP-AA-105-102

10 CFR 55.53

K/A: 2.1.1

Memory

Bank

## QUESTION 031

Unit 2 was operating at near rated power when Bus 23 de-energized due to an undervoltage condition.

Which one of the following is an automatic response of the AC electrical distribution system? The Bus 26 cross-tie breaker to Bus 25 ONLY will auto close. The Bus 27 cross-tie breaker to Bus 25 ONLY will auto close. Bus 25 will be automatically re-energized when Bus 23 is re-energized. EITHER Bus 26 OR Bus 27 cross-tie breaker to Bus 25 will auto close. DGA-12

LP DRE262LN001K/A: 262001K403HighNew

## QUESTION 032

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

- Main Condenser vacuum begins degrading.

The temperature of the Unit 3 Condensate system will \_\_\_\_ (1) \_\_\_\_ a manual Scram may be required due to the loss of \_\_\_\_ (2) \_\_\_\_ . (1) increase, and (2) Feedwater Heating (1) increase, and (2) Steam Jet Air Ejectors (1) NOT change, but (2) Feedwater Heating (1) NOT change, but (2) Steam Jet Air Ejectors

DOA 3300-02  
DOA 4400-01  
DGP 3-1K/A: 295002K206  
High  
Bank

## QUESTION 033

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

- A Scram occurs on high DW pressure.
- A Loss of off-site power (LOOP) occurs.
- The 2/3 cribhouse inlet temperature is 93°F and steady.

Given the above conditions, a maximum of \_\_\_\_ (1) \_\_\_\_ CCSW pumps may be run concurrently, to prevent \_\_\_\_ (2) \_\_\_\_ . (1) 2; (2) overloading the 2/3 EDG(1) 3; (2) overloading the 2/3 EDG(1) 2; (2) choking the DGCWP flow to the 2/3 EDG(1) 3; (2) choking the DGCWP flow to the 2/3 EDG

DOP 1500-02

DOP 6600-05

UFSAR 6.3

DGA 12

K/A: 400000 2.1.32

High

New

## QUESTION 034

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

- Unit 2 experienced a Loss of Off-Site Power (LOOP).
- Annunciator 902-8 E-4 2/3 DG OVERLOAD alarmed.
- Annunciator 902-8 D-4 2/3 DG GROUND FAULT alarmed.
- Annunciator 902-8 E-5 4KV BUS 24-1 OVERCURRENT alarmed.
- 2/3 DIESEL GENERATOR KILOWATT meter reads 2800 Kilowatts.

What action(s) is/are the NSO required to take? Dispatch an NLO to depress the EMERGENCY STOP pushbutton on the 2/3 DG. Trip ALL loads connected to 2/3 DG, then close breakers one at a time to locate ground fault to prevent damage to the Generator. Trip ALL loads connected to 2/3 DG, then close breakers one at a time to locate ground fault to prevent damage to the load when Off-Site power restored. Trip all UNNECESSARY loads connected to 2/3 DG, then close breakers one at a time to locate ground fault to prevent damage to the load when Off-Site power restored. DAN 902-8 D-4

DAN 902-8 E-4K/A: 295003K304

High

Bank



## QUESTION 035

Unit 3 was operating at near rated conditions, when the following occurred:

- A leaking valve has caused water to be sprayed on 'A' SBT Charcoal Bed.
- A fuel handling accident occurred, causing radiation levels at the site boundary to increase.
- An NSO isolated Reactor Building ventilation and started the 'A' SBT train.

The release rates at the site boundary will be higher than anticipated for which of the following?

- a. Iodine
- b. Particulates
- c. Transuranics
- d. Noble Gases

ANSWER

a.

REFERENCE

ILTS027

UFSAR

K/A 295038K102

High

Bank

## QUESTION 036

Unit 2 was operating at near rated power, with the 'B' Reactor Building Ventilation Radiation Monitor removed from service, when Bus 29 de-energized on overcurrent.

This will cause . . . .the SBT system to auto start.the 2A RPS MG Set to lose power.the ESS Bus ABT to swap to MCC 28-2.the Reactor building crane to be "locked" in its current position.DOA 0500-5

DOP 0500-03

DAN 903-3 G-14K/A: 261000K604

High

Bank

## QUESTION 037

A Chemistry Technician called the Control Room and reported a fire in the Unit 3 trackway.

Which of the following is an IMMEDIATE action to take per DOA 0010-10, FIRE/EXPLOSION, and why? Notify Coal City Fire Protection District to extinguish the fire. Notify Security to respond to the scene to provide support as required. Start the standby Service Water Pump to raise the fire header pressure. Direct Chemistry Technician to remain at the scene to monitor air quality and provide first aid as required. DOA 0010-10

K/A: 600000K304

Memory

New

## QUESTION 038

Given the following set of conditions:

- Unit 2 is in Mode 3 with Recirc loop temperatures 310°F and steady.
- 2A and 2B Shutdown Cooling (SDC) Pumps are running in the COOLING mode with their discharge valves 15% open.
- 2A and 2B RBCCW pumps are operating on Unit 2.
- RPV level is at +30 inches.

If MO 2-3704, RBCCW OUTLET VLV, is INITIALLY timed opened for 16 seconds, the effect would be \_\_\_\_\_ .

- a. an RPV water level increase
- b. a Recirculation loop temperature increase
- c. a Recirculation loop temperature decrease
- d. BOTH RBCCW pumps tripping on low discharge pressure

ANSWER

c.

REFERENCE

DOP 1000-03

K/A: 205000A103

Memory

Bank



K/A: 206000A402

Memory

Bank

## QUESTION 040

Both units were operating at near rated power, when the following occurred:

- 125 VDC POWER FAILURE annunciators alarm on both the 902-8 and 903-8 panels.
- NSOs diagnosed a complete loss of the Unit 2 125 Vdc system.
- An NLO, in the field, reports a GREEN light above GENERATOR 3 AUX 86B TRIP UNIT 3 control switch is illuminated.

What effect, if any, does this condition have on the Unit 3 Main Generator's protection? No effect. Generator trips as a result of this loss. Half the protection is lost (generator has trip capability). All of the protection is lost (generator does NOT have trip capability). DOA 6900-T1K/A: 263000K302

High  
New

## QUESTION 041

Unit 2 is in a startup with power ascension in progress with IRMs indicating 50 on range 4.

Positioning IRM CH 11 RANGE SWITCH from range 4 to 5 will automatically change the scale on IRM-APRM recorder, RR 2-750-10A to \_\_\_\_ (1) \_\_\_\_ and \_\_\_\_ (2) \_\_\_\_ will be displayed on the recorder chart trace. (1) 0 – 40 (2) 5.0 (1) 0 – 40 (2) 50 (1) 0 – 125 (2) 5.0 (1) 0 – 125 (2) 50LP DRE215LN003K/A: 215003A301

High  
Bank



## QUESTION 042

Unit 2 was operating at near rated power, when a SCRAM occurred. The following parameters are observed:

- APRMs are cycling between 8% and 10%.
- RPV pressure is 920 psig.
- RPV water level is +5 inches.
- Drywell pressure is 1.2 psig.
- All RPS Channel 'A' and 'B' lights are extinguished.

Which of the statements below demonstrates a proper verbal report from the Unit NSO to the Unit Supervisor per DGP 2-3, REACTOR SCRAM?"Attention for an update, All rods in, Reactor level and pressure and Drywell pressure are trending as expected, End of Update""Attention for an update, Rods did not go in, ARI actuated, it is a hydraulic ATWS, Reactor power is approximately 10%, End of Update""Attention for an update, Rods did not go in, ARI actuated, it is a hydraulic ATWS, Reactor water level is +5 inches, Reactor pressure is 920 psig, Drywell pressure is 1.2 psig, and Reactor power is approximately 10%, End of Update""Attention for an update, Rods did not go in, ARI actuated, it is an electrical ATWS, Reactor water level is +5 inches, Reactor pressure is 920 psig, Drywell pressure is 1.2 psig, and Reactor power is approximately 10%, End of Update"DGP 2-3K/A: 2.1.17

High  
New

## QUESTION 043

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

- The Reactor scrammed on high Drywell pressure.
- Drywell pressure is 7.3 psig and climbing at a rate of 1.0 psig/minute.
- 10 seconds later, annunciator 923-1 F-1, U2 RBCCW HEAD TANK LVL HI/LO was received.
- An NLO reports that the U2 RBCCW head tank level is out of sightglass LOW.

What are the possible consequences of this situation AND what action(s) are required? A potential for the Unit 2 RBCCW pumps to trip exists, due to low suction pressure; isolate RBCCW to the Drywell per DOA 3700-01, LOSS OF THE RBCCW SYSTEM. A potential for the Unit 2 RBCCW pumps to trip exists, due to low suction pressure; open the RBCCW head tank level control bypass valve per DAN 923-1 F-1 U2 RBCCW HEAD TANK LVL HI/LO. A potential of a leakage path from the Primary containment to the Reactor Building via the RBCCW head tank vent exists; isolate RBCCW to the Drywell per DOA 3700-01, LOSS OF THE RBCCW SYSTEM. A potential of a leakage path from the Primary containment to the Reactor Building via the RBCCW head tank vent exists; open the RBCCW head tank level control bypass valve per DAN 923-1 F-1 U2 RBCCW HEAD TANK LVL HI/LO. DAN 923-1 F-1, DOA 3700-01

K/A: 400000A202

High

New

## QUESTION 044

Unit 3 was operating at near rated power when a transient caused Instrument Air pressure to drop rapidly to 0 psig.

If **NO** Operator actions are taken, which of the following responses will occur? The 3-0302.6A, U3 CRD SYS A FCV, will fail OPEN. The 3-3201A, 3A RFP MIN FLOW VLV, will fail CLOSED. The 3-2301-65, U3 HPCI TURB SV ABOVE SEAT DRAIN VLV, will fail OPEN. The 3-1301-17 and 3-1301-20, U3 ISOL CDSR VENT ISOL VLVs, will fail CLOSED. DOA 4700-01

K/A: 295019K205Memory

New

## QUESTION 045

A transient occurred, which caused the Unit Supervisor to enter several DEOP procedures.

Per OP-DR-103-102-1002, STRATEGIES FOR SUCCESSFUL TRANSIENT MITIGATION, when Drywell pressure approaches or reaches \_\_\_\_\_ psig, the NSO shall be aware of AND report the parameter. 2.0 and 9.0 ONLY 1.5 and 2.0 ONLY 1.5, 2.0, and 9.0 ONLY 1.5, 2.0, 9.0, and 12.0 OP-DR-103-102-1002

K/A: 2.4.15

Memory

New

## QUESTION 046

Automatic fire protection for the Unit 3 Emergency Diesel Generator (EDG) room is provided by which of the following system(s)? Halon ONLY. Water ONLY. Cardox ONLY. Cardox AND Halon. DFPS 4183-03

K/A: 286000.K1.09

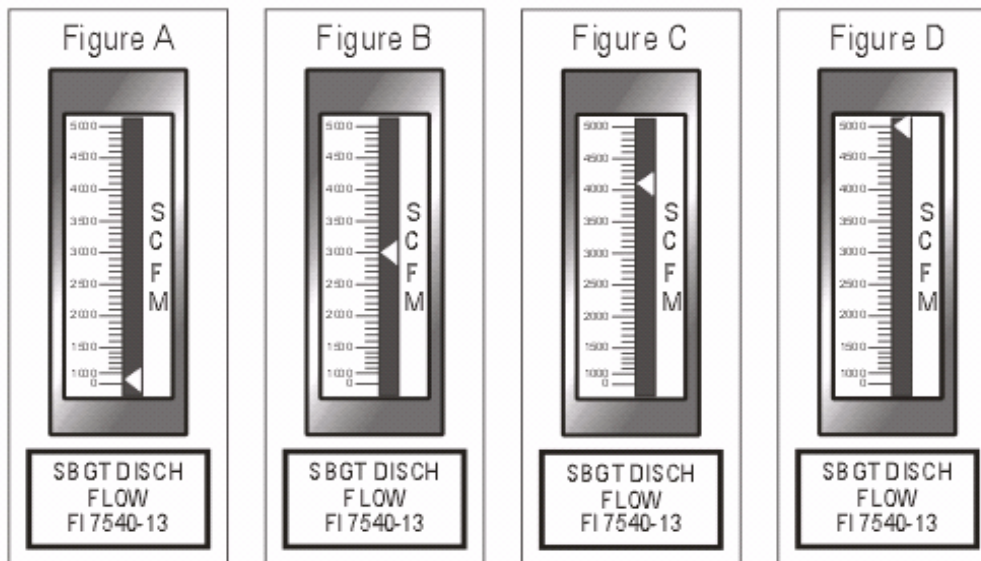
Memory

New

## QUESTION 047

Secondary Containment Ventilation Radiation levels are rising as indicated by readings on the Fuel Pool Channel Radiation Monitors.

If these radiation monitors continue to rise to their MAXIMUM level, what SBT system indication would the NSO expect to observe?



a. Figure

A

- b. Figure B
- c. Figure C
- d. Figure D

ANSWER

c.

REFERENCE

DAN 902-3 C-16

DOP 7500-01

K/A: 295034A102

Memory

Bank

## QUESTION 048

Per DFP 0800-01, MASTER REFUELING PROCEDURE, which of the following is required to verify the Shutdown Margin is adequate prior to start of fuel moves? Shift Manager. Unit Supervisor. Refuel Floor Supervisor. Qualified Nuclear Engineer. DFP 0800-01

K/A: 2.2.26

Memory

New

## QUESTION 049

Both units were operating at near rated power, when the following occurred:

- A fire has de-energized Unit 3 DC Turbine Building MCC 3.

What is the impact (if any) on the Unit 2 HPCI system? HPCI would operate upon an auto start signal, because MO 2-2301-3 TURB STM SUPPLY is unaffected. HPCI would NOT operate upon an auto start signal, because the Aux Oil Pump would be de-energized. HPCI would NOT operate upon an auto start signal, because the Motor Speed Changer would be de-energized. HPCI would NOT operate upon an auto start signal, but could be started by depressing the HPCI AUTO INITIATE pushbutton. DOP 6900-01

DOA 6900-04K/A: 206000K602

High  
Bank



## QUESTION 050

Unit 2 was operating at near rated power, when a Reactor Scram occurred.

If RPV pressure is 555 psig and steady, what level correlates to Top of Active Fuel (TAF) on the 902-3 panel Fuel Zone indicators?

- a. -143 inches
- b. -170 inches
- c. -187 inches
- d. -191 inches

## ANSWER

b.

## REFERENCE

TSG, attachment L hardcard

K/A: 295031A203

Memory

Bank

## QUESTION 051

Unit 2 was operating at near rated power, when U2 125 VDC TURB BLDG MAIN BUS 2A-1 DIST PANEL de-energized.

Which of the following load(s) will have lost Control Power indication in the Control Room? U2 'A' EHC Pump. U2 'B' RBCCW Pump. U2 'A' Circulating Water Pump; U2 'B' Circulating Water Pump. U2 'A' Circulating Water Pump; U2 'C' Circulating Water Pump. DAN 902-8 F-1

DOP 6900-06

DOA 6900-T1K/A: 295004K203

Memory

New

## QUESTION 052

A fire occurred in the Main Control Room, and off-site power IS available.

While performing DSSP 0100-CR, CONTROL ROOM EVACUATION Attachment 'A' on Bus 23-1, the U2 NSO is required to verify the \_\_\_\_ (1) \_\_\_\_ indicating light is illuminated on the front of the breaker for Cubicle 9, 2-6723-2 MAIN FROM BUS 23 and verify the \_\_\_\_ (2) \_\_\_\_ indicating light is illuminated on the front of the breaker for Cubicle 14, 2/3-6601, STAND-BY 2/3 DG. (1) RED; (2) RED (1) RED; (2) GREEN (1) GREEN; (2) RED (1) GREEN; (2) GREEN DSSP-0100-CR  
K/A: 295016A104

## QUESTION 053

Unit 3 was operating at near rated power when the following occurred:

- An Instrument Air pipe ruptured in the Unit 3 Turbine Building.
- An NSO reports that the 923-1 Panel IA HDR PRESS gauge is reading 80 psig and dropping at a rate of 5 psig/minute.

What action(s) is/are the Operating Team required to take per DOA 4700-01, INSTRUMENT AIR SYSTEM FAILURE? When IA HDR PRESS lowers to 55 psig, manually Scram the Unit 3 Reactor AND close the in-board (INBD) MSIVs. When IA HDR PRESS lowers to 55 psig, manually Scram the Unit 3 Reactor AND close the out-board (OTBD) MSIVs. When IA HDR PRESS lowers to 65 psig, manually Scram the Unit 3 Reactor AND close the out-board (OTBD) MSIVs. Immediately close 3-4701-501, U3 SERV AIR TO INST AIR X-TIE MANUAL ISOL VLV to prevent back flow to the Service Air system. DOA 4700-01

K/A: 295019 2.1.2Memory

New

## QUESTION 054

With the Reactor shutdown and fuel loaded in the core, and all control rods normally inserted, per the UFSAR, interlocks are provided which prevent the inadvertent withdrawal of more than \_\_\_\_ (1) \_\_\_\_ control rod(s) with the mode switch in the \_\_\_\_ (2) \_\_\_\_ position. (1) one; (2) refuel (1) one; (2) startup (1) two; (2) refuel (1) two; (2) startup

UFSAR.4.6.3.4.1K/A:

295023K302

Memory

New

## QUESTION 055

Unit 2 was operating at near rated power, with the 2A SBLC Pump is O.O.S., when a Scram occurred. RPV pressure is 955 psig and steady.

- The Unit Supervisor directed SBLC to be injected for an ATWS.

The NSO placed the SBLC INJECTION CONTROL switch to position SYS 2 and 15 seconds later observed the following:

- SBLC TANK LVL at 84%.
- 2B PP DISCH HDR PRESS of 400 psig.

Based on these conditions, the 2B SBLC . . . . .

- a. pump is injecting.
- b. relief valve failed open.
- c. squib valve did NOT fire.
- d. pump accumulator needs charging.

ANSWER

b.

REFERENCE

M-33

LP DRE211LN001

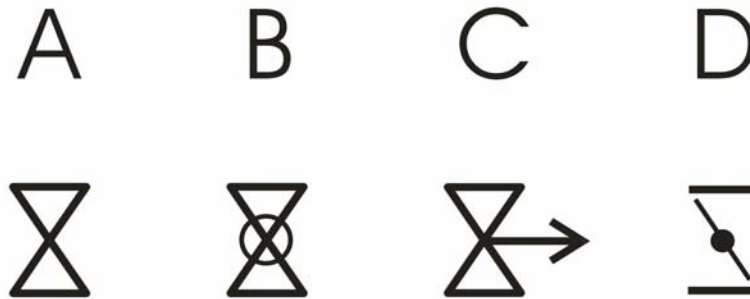
K/A: 211000A104

High

Bank

## QUESTION 056

Which of the following symbols is a drawing of a Globe Valve?



- a. Figure A
- b. Figure B
- c. Figure C
- d. Figure D

ANSWER

b.

REFERENCE

Mechanical Drawing M-11 sht 2

K/A: 2.1.24

Memory

New

## QUESTION 057

Unit 2 was operating at near rated power, when a transient occurred. At time 05:25, the following indications are observed:

- Drywell temperature is 150°F and trending up at a rate of 1.0°F/minute.
- Drywell pressure is 1.2 psig and trending up at a rate of 0.1 psig/minute.
- RPV water level is 20 inches and trending down at a rate of 1 inch/minute.

At time 05:31, which of the following procedures are required to be entered?

- 1) DAN 902-5 D-11 DRYWELL PRESS HI-HI
- 2) DEOP 100 RPV CONTROL
- 3) DEOP 200-1 PRIMARY CONTAINMENT CONTROL
- 4) DOA 0040-01 SLOW LEAK

- a. 1 and 4 ONLY
- b. 1, 2, and 4 ONLY
- c. 1, 3, and 4 ONLY
- d. 1, 2, 3, AND 4

## ANSWER

a.

## REFERENCE

DEOP 100

DEOP 200-1

K/A: 295010 2.4.4

High

New



## QUESTION 058

Unit 2 was operating at near rated power when a scram signal was received. An ATWS occurred, with half the rods NOT fully inserting.

For the Control Rods at position 00, what color will they be displayed in on the Rod Worth Minimizer? Cyan Green Yellow Magenta

DOP 0400-02K/A: 295015A105

## QUESTION 059

The Max Safe values for radiation, temperature, and water level in the Reactor Building per DEOP 300-1, SECONDARY CONTAINMENT CONTROL, are based on the maximum value(s) . . . .at which no equipment will fail.expected to be seen during an accident.expected to be seen during normal operations.at which equipment needed for safe shutdown of the plant will not fail.EPG B-8K/A: 295033A202Memory Bank

## QUESTION 060

Which one of the following choices completes the statement below regarding the conditions required to generate annunciator 902-3 F-8, LPCI SYS B TIMERS NOT HOME?

A LPCI initiation signal is present and . . . .125 VDC power available to Div 1 initiation logic  
ONLY.125 VDC power available to Div 2 initiation logic ONLY.125 VDC power  
available to Div 1 initiation logic AND 4KV power available to Bus 23-1.125 VDC  
power available to Div 2 initiation logic AND 4KV power available to Bus 24-  
1.DAN 903-3 E-8

DAN 903-3 H-15K/A: 203000K108Memory

New

## QUESTION 061

Unit 2 was operating at near rated power, when a LOCA occurred. The following conditions exist:

- Torus temperature is 109°F and steady.
- DW pressure is 10 psig and lowering slowly.
- Off site power is available and grid voltage is stable.
- Core Spray flow is fluctuating between 2000 gpm to 4000 gpm.
- Core Spray discharge pressure is fluctuating between 150 psig and 325 psig.

What is the cause of the Core Spray indications? ECCS suction strainers are plugging. A loss of NPSH caused by Torus temperature. Voltage fluctuations from the Emergency Diesel Generators. Leak in the piping downstream of the PP DISCH VLV MO 2-1402-25A. NRC Bulletin 93-02K/A: 209001K501

High  
Bank

## QUESTION 062

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

- A fire at Bus 29 causes it to become de-energized due to overcurrent.

The \_\_\_\_ (1) \_\_\_\_ will become de-energized and may manually be re-energized from \_\_\_\_ (2) \_\_\_\_ .

- a. (1) ESS Bus; (2) MCC 28-2
- b. (1) 'A' RPS Bus; (2) MCC 25-2
- c. (1) 'B' RPS Bus; (2) MCC 25-2
- d. (1) Instrument Bus (2) MCC 25-2

ANSWER

b.

REFERENCE

DOP 0500-03

K/A: 212000K401

High

New

## QUESTION 063

Unit 3 was operating at near rated power when the following occurred:

- Annunciator 903-4 H-17, VALVE LEAK DET SYS TEMP HI is received.
- Annunciator 903-4 H-19, ACOUSTIC MONITOR ACTUATED is received.
- Drywell pressure is 1.20 psig and steady.
- Generator output has lowered by approximately 30 MWe and is steady.

What is/are the FIRST action(s) the NSO is/are required to take? Initiate Torus cooling. Scram the reactor per DGP 2-3. Place the appropriate relief valve control switch to the OFF position. Cycle the appropriate relief valve control switch between OFF then back to AUTO. DOA 0250-01

DAN 902-4 H-19K/A: 218000 2.1.23 High  
Bank

## QUESTION 064

Unit 2 was operating at near rated power when a transient occurred. At time 04:44 an NSO reports that Instrument Air Header pressure is 91 psig and dropping at a rate of 1 psig/minute.

At time 04:59, what automatic action(s) will have occurred? IA dryers 2A, and 2B bypasses opened. IA dryers 2A, and 2B bypasses opened then AUTOMATICALLY re-closed when header pressure was restored. AO 2-4701-500, U2 SERV AIR TO INST AIR AUTO X-TIE VLV, opened. AO 2-4701-500, U2 SERV AIR TO INST AIR AUTO X-TIE VLV, opened then AUTOMATICALLY re-closed when header pressure was restored. DOA 4700-01K/A: 300000K402

## QUESTION 065

Regarding the Recirc MG Sets, with the Scoop Tube fully \_\_\_\_ (1) \_\_\_\_, \_\_\_\_ (2) \_\_\_\_ oil is present in the fluid coupler, resulting in \_\_\_\_ (3) \_\_\_\_ Recirc pump speed. (1) in; (2) less; (3) increasing (1) in; (2) more; (3) decreasing (1) out; (2) less; (3) decreasing (1) out; (2) more; (3) increasing

ANSWER

d.

REFERENCE

LP DRE 202LN001

K/A: 202002K501

High

New



## QUESTION 066

The Maximum Recycle Concentrators purify water by \_\_\_\_ (1) \_\_\_\_ and send that PURIFIED effluent to the \_\_\_\_ (2) \_\_\_\_ .

- a. (1) distillation and/or an evaporation process; (2) Waste Transfer Tanks
- b. (1) distillation and/or an evaporation process; (2) Concentrator Condensers
- c. (1) filtration and/or a reverse osmosis process; (2) Waste Transfer Tanks
- d. (1) filtration and/or a reverse osmosis process; (2) Concentrator Condensers

ANSWER

b.

REFERENCE

LP DRE269LN001

K/A: 268000 2.1.28

Memory

New

## QUESTION 067

With the unit operating at near rated power, which of the following is a Technical Specification ENTRY CONDITION? Torus water level of 14 ft 8.5 inches. Drywell average air temperature of 145°F. Reactor Steam Dome pressure of 1010 psig. Reactor Coolant System unidentified leakage of 4 gpm. Tech Spec 3.4.10K/A: 295025 2.1.33

Memory

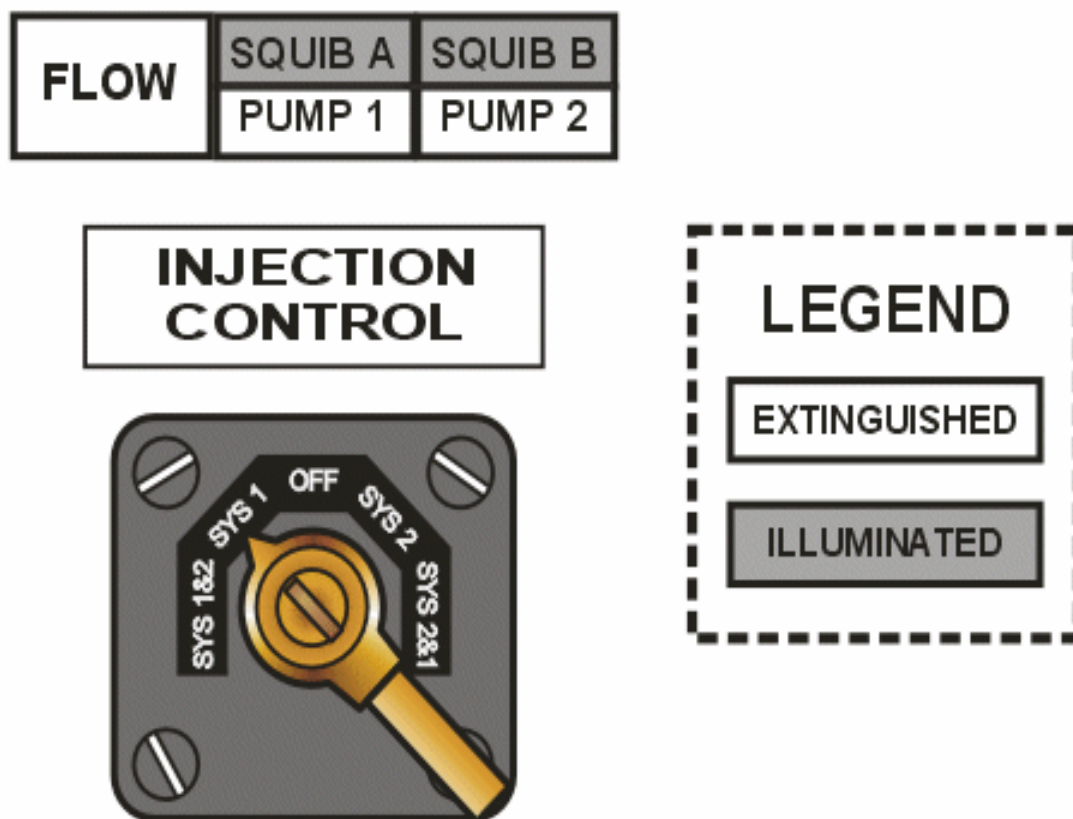
New

## QUESTION 068

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

- An unsuccessful Reactor scram was initiated.
- While executing the DEOPs, the Unit Supervisor directs injection of SBLC for an ATWS condition.

Given the drawing below, what action (if any) is the NSO required to take, to ensure injection of SBLC with an ATWS condition present?



- None, the SBLC system is injecting.
- Reposition the SBLC INJECTION CONTROL keyswitch to the SYS 2 position.
- Reposition the SBLC INJECTION CONTROL keyswitch to the SYS 1 & 2 position.
- Reposition the SBLC INJECTION CONTROL keyswitch to the SYS 2 & 1 position.

ANSWER

b.

REFERENCE  
DOP 1100-02

K/A: 295037A104

High

New

## QUESTION 069

What is the bases for operating Turbine Building Ventilation when an Off-Site release rate is above the ALERT level of GSEP? To discharge radioactivity through an elevated, release point. To maintain building pressure greater than environmental pressure. To prevent a Reactor scram due to high temperatures in the X-area. To contain, dilute and hold up fission products that leak from primary containment after a DBA. DEOP bases section 9-4K/A:

295017K102

Memory

Bank

## QUESTION 070

Unit 2 was operating at near rated power when Bus 28 experienced an overcurrent condition.

Which of the following will be de-energized?  
APRM channels 1, 2, and 3  
APRM channels 4, 5, and 6  
IRM channels 11, 12, 13, 14  
IRM channels 15, 16, 17, 18  
DOP 0500-03K/A: 215005K202  
High  
New

## QUESTION 071

A Unit 2 Drywell entry is required to be made.

Which of the following statements are correct, with regards to dose concerns, for the personnel making the Drywell entry? Reactor is shutdown. Reactor power is 34% OR lower. If in operation, the HPCI system MUST be secured. If in operation, the RWCU system MUST be secured. DOP 1600-22K/A: 2.3.10 Memory  
New

## QUESTION 072

Unit 2 was operating at near rated power, with the 2B CRD pump is O.O.S., when the following occurred:

- The 2A CRD pump breaker was inadvertently tripped by a worker in the area.
- Several seconds later a transient occurred, which caused the *ANNUN DC PWR FAILURE* alarm windows to be the only annunciators illuminated on the 902-3 through 902-8 panels.

To restore remote starting capability of the 2A CRD Pump, an NLO should be directed to transfer \_\_\_\_ (1) \_\_\_\_ control power from \_\_\_\_ (2) \_\_\_\_ to \_\_\_\_ (3) \_\_\_\_ . (1) Bus 23; (2) 2A-1 Dist Panel; (3) 2B-1 Dist Panel (1) Bus 23; (2) 2B-1 Dist Panel; (3) 2A-1 Dist Panel (1) Bus 23-1; (2) 2A-1 Dist Panel; (3) U2 Rx Bldg Dist Panel (1) Bus 23-1; (2) U2 Rx Bldg Dist Panel; (3) 2A-1 Dist Panel DOA 6900-02  
DOP 0300-E1  
DOP 6900-06  
DOP 6900-07K/A: 262001K502  
High  
Bank



## QUESTION 073

With Unit 3 operating at rated conditions, which of the following signals will cause the Unit 3 FWLC system to transfer from 3-Element to 1-Element control, AND what action should the operator take?

- 3A Feed Flow instrument fails to "Bad Quality"; manually control the FRVs
- 3A Steam Flow instrument fails to "Bad Quality"; depress the "1-ELEM" pushbutton
- "A" NR level instrument fails to "Bad Quality"; depress the "1-ELEM" pushbutton
- "A" NR level instrument fails to "Bad Quality"; manually control the FRVs

DOP 0600-06

DAN 902-5 G-8K/A: 259002A201

High

Bank

## QUESTION 074

Unit 2 was operating at near rated power, when the feed breaker to Bus 29 de-energized on overcurrent.

Which PCIS **alarm(s)** would occur due to this condition? **GROUP 3 ONLY** **GROUP 1 AND GROUP 2 ONLY** **GROUP 2 AND GROUP 3 ONLY** **GROUP 1, GROUP 2 AND GROUP 3** **DAN 902-4 H-20**

DAN 902-5 B-13K/A: 223002K120

High

New

## QUESTION 075

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

- TR-86 Sudden Pressure Relay activated.
- A reactor Scram occurred.

Which statement below is a consequence, 30 seconds after the above transients occurred? 2A Recirc MG Set will be de-energized. 2A RBCCW pump will be de-energized. 2B RBCCW pump will be de-energized. The ESS Bus ABT will transfer to MCC 28-2. DOP 0201-E1

AC Dist Drawing K/A: 202001K202

High

New

## QUESTION 076

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

- Feedwater was isolated due to a leak.
- RPV water level was -40 inches and dropping at a rate of 1 inch/minute.
- RPV pressure is 880 psig and steady.
- HPCI injection was ordered for RPV water level control.
- An NSO reported that the HPCI Auxiliary Oil pump will NOT start.

As the Unit Supervisor, which one of the following describes the NEXT appropriate action(s) to mitigate the RPV water level condition? Direct initiation of the SBLC system. Anticipate RPV blowdown and direct opening ALL bypass valves. Wait until level reaches -164 inches and then blowdown the RPV. Immediately direct manual startup of the HPCI emergency oil pump (EOP). DEOP 100K/A: 206000A215High

Bank

REQUIRED REFERENCES: DEOP charts, with the entry conditions blanked out.

## QUESTION 077

Unit 2 was operating at near rated power, with 2A LPCI pump taken O.O.S. at 0100 on March 1, 2008, and the following conditions exist:

- 2A Core Spray pump is running per DOS 1400-05, CORE SPRAY SYSTEM PUMP OPERABILITY AND QUARTERLY IST TEST WITH TORUS AVAILABLE.
- System Discharge pressure is 235 psig.
- System flow is 4400 gpm with MO 2-1402-4A, FLOW TEST VLV full open.

What is the impact to the Core Spray system and what actions are required? a. 2A Core Spray subsystem is INOP; 7 day LCO to restore EITHER LPCI OR Core Spray subsystem to operability

b. 2A Core Spray subsystem is INOP; immediately enter LCO 3.0.3 for shutdown

c. 2A Core Spray subsystem is OPERABLE; restore LPCI subsystem to operability by 0100 on March 8, 2008

d. 2A Core Spray subsystem is OPERABLE; restore 2A LPCI pump to operability by 0100 on March 31, 2008

## ANSWER

b.

## REFERENCE

T.S. 3.5.1

DOS 1400-05

K/A: 209001A206

High

Bank

REQUIRED REFERENCES: Tech Spec 3.5.1 with less than one hour times blanked out.

## QUESTION 078

Unit 2 is in Refuel and spent fuel movements within the Reactor Pressure Vessel are in progress.

Which of the following describes the MINIMUM RPV water level that would meet the requirements to perform this evolution, per Tech Specs, AND the bases for this? 19 feet above top of irradiated fuel assemblies; to limit iodine release during a fuel handling accident. 19 feet above top of irradiated fuel assemblies; to limit iodine release during a loss of fuel pool cooling. 23 feet above top of RPV flange; to limit iodine release during a fuel handling accident. 23 feet above top of RPV flange; to limit iodine release during a loss of fuel pool cooling. T.S. and Bases 3.9.6

DOA 1900-01K/A: 2.1.33

Memory

Bank

## QUESTION 079

Unit 2 was in startup at ~10% power, when the following occurred:

- A transient has occurred inside the Drywell.
- Drywell pressure is 4.5 psig and rising at a rate of 2 psig/minute.
- DEOP 200-1, PRIMARY CONTAINMENT CONTROL, was entered and no actions have been directed.

Three (3) minutes later, the Unit 2 Drywell Coolers are \_\_\_\_ (1) \_\_\_\_ AND the SRO will be procedurally required to direct the crew to initiate \_\_\_\_ (2) \_\_\_\_ sprays FIRST.

- a. (1) tripped (2) Torus
- b. (1) tripped (2) Drywell
- c. (1) NOT tripped (2) Torus
- d. (1) NOT tripped (2) Drywell

ANSWER

a.

REFERENCE

DAN 923-5 E-1

DEOP 200-01

K/A: 223001A207

High

Bank

## QUESTION 080

Unit 3 was operating at near rated power when a scram occurred. The following conditions exist:

- Drywell pressure is 2.3 psig.
- RPV pressure is 500 psig.
- RPV water level is -160 inches.
- ALL injection sources become unavailable and are not expected to be restored for 15 minutes.

What action(s) is/are the SRO required to take?

DEOP 100, RPV CONTROL  
DEOP 400-2, EMERGENCY DEPRESSURIZATION  
DEOP 400-3, STEAM COOLING  
DEOP 500-3, ALTERNATE WATER INJECTION SYSTEMS

- a. Enter DEOP 400-2
- b. Exit **ALL** DEOPs and enter the SAMGs
- c. Exit DEOP 100 **AND** enter DEOP 400-3
- d. Exit DEOP 100 **AND** DEOP 500-3 then enter DEOP 400-3

ANSWER

c.

REFERENCE

DEOP 100

K/A: 2.4.6

High

Bank

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



## QUESTION 081

Unit 3 was operating at near rated power when the following indications are observed:

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

What has occurred and what action is the Unit Supervisor required to direct? jet pump failure; lockup scoop tube jet pump failure; secure affected recirc pump; recirc pump run up; lockup scoop tube; recirc pump run up; isolate affected recirc pump DOA 0201-01K/A: 295001 2.4.49 High

Bank

## QUESTION 082

Which one of the following would qualify as a "Temporary Configuration Change" to be controlled by CC-AA-112, "Temporary Configuration Changes"? A plug installed in a floor drain. A portable air monitor permanently installed in the RWCU Demin room. An electrical lead is lifted in accordance with a surveillance procedure. A Service Air hose is being used for maintenance on a Condensate pump. CC-AA-112K/A: 2.2.11Memory

New

## QUESTION 083

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

- 2A off gas system flow on the 902-7 panel has risen from 135 to 170 cfm and remains steady.

A short time later the following alarms were received:

- 902-54 C-7, OFF GAS FLOW HI/LO.
- 902-7 D-13, OFF GAS FILTER DP HI.

Then the Aux NSO reported the following:

- Panel 902-54 INLET FLOW TO 2/3 CHIMNEY OFF GAS AFTER FILTER meter indication has risen from 20 to 55 cfm and is now steady.
- Recombiner temperature remains relatively unchanged.

There has been an \_\_\_\_ (1) \_\_\_\_ AND the Unit Supervisor is required to direct entering \_\_\_\_ (2) \_\_\_\_ .

- a. (1) Off Gas explosion in the holdup volume  
(2) DOA 0010-10 FIRE/EXPLOSION
- b. (1) increase in condenser air in-leakage  
(2) DOA 3300-02 LOSS OF CONDENSER VACUUM
- c. (1) Off Gas system fire in the 2A air ejector after condenser  
(2) DOP 5400-14 EXTINGUISHING AN OFF GAS FIRE
- d. (1) increase in Hydrogen Addition system oxygen injection flow  
(2) DOP 3390-01 HYDROGEN ADDITION SYSTEM OPERATION

ANSWER

b.

REFERENCE

DOA 3300-02

DAN 902-7 D-13

DAN 902-54 C-7

K/A: 295002A204

High

Bank

## QUESTION 084

Unit 2 is in STARTUP, with IRMs on range 1, with control rods being withdrawn. SRM 22 failed upscale and SRM 24 failed downscale.

Which of the following describes the required action? Restore SRM Channel 22 OR 24 to operable status within 4 hrs. Restore inoperable channel(s) to OPERABLE status within 7 days. Suspend control rod withdrawals until SRM 22 OR 24 has been restored to operable status. Restore the Upscale Rod Block function of SRM Channel 22 OR 24 to operable status within 12 hours. ITS 3.3.1.2K/A: 215004 2.1.12

High

Bank REQUIRED REFERENCES: I.T.S. 3.3.1.2 with less than one hour times blanked out.

## QUESTION 085

Unit 2 was operating at near rated conditions with the 902-36 back-panel recorder TIRS 2-1640-200A, TORUS TEMP MON DIV I Out Of Service (O.O.S.) due to a failed power supply. The following conditions exist:

- RPV pressure is 1000 psig.
- HPCI testing per DOS 2300-03 "HIGH PRESSURE COOLANT INJECTION SYSTEM OPERABILITY AND QUARTERLY IST VERIFICATION TEST" is in progress.

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

- Point 1 165°F
- Point 2 90°F
- Point 3 110°F
- Point 4 150°F
- Point 5 140°F
- Point 6 160°F
- Point 7 125°F
- Point 8 130°F

- What action(s) is/are required based on the current readings?
- a. Start all available Torus cooling ONLY.
  - b. Start all available Torus cooling and scram ONLY.
  - c. Secure HPCI testing and start all available Torus cooling ONLY.
  - d. Secure HPCI testing, start all available Torus cooling, AND scram.

ANSWER

d.

REFERENCE

DEOP 200-1

K/A: 295013A201

High

Bank

REQUIRED REFERENCES: DEOP charts, with the entry conditions blanked out.

## QUESTION 086

Given the following set of conditions on Unit 2:

- Primary containment is open.
- RPV Water level is 90 inches.
- RPV Water temperature is 190°F.
- The MODE switch is in SHUTDOWN.
- Reactor Vessel head bolts are tensioned.

An event occurred that caused RPV Water temperature to rise to and stabilize at 220°F.

Which of the following describes the current plant MODE and which procedure is required to be entered?

- a. Mode 3, enter DEOP 300-1, Secondary Containment Control
- b. Mode 4, enter DEOP 300-1, Secondary Containment Control
- c. Mode 3, enter DOA 1000-01, Residual Heat Removal Alternatives
- d. Mode 4, enter DOA 1000-01, Residual Heat Removal Alternatives

ANSWER

c.

REFERENCE

DOA 1000-01

Tech Spec Bases 1.1

K/A: 2.1.22

High

Bank



## QUESTION 088

Given the following set of conditions:

- Torus water level is 16.5 feet and steady.
- Torus water temperature is 180°F and steady.

Which of the following is the HIGHEST RPV pressure that will not exceed a limit? a. 225 psig

b. 325 psig

c. 425 psig

d. 525 psig

ANSWER

b.

REFERENCE

DEOP 200-1 curve M

K/A: 295026A203

High

New

REQUIRED REFERENCES: DEOP charts, with the entry conditions blanked out.



## QUESTION 089

Which of the following provide the bases for DEOP actions to maintain Torus water level above -4.5 inches, in Modes 1, 2, and 3?

Ensures a sufficient amount of water . . . .with the Minimum CST Volume, Long-Term Cooling is available for the Design Basis Accident.would be available to adequately condense the steam from the relief valve quenchers ONLY.with the Minimum CST Volume, in the event of a LOCA to permit recirculation cooling flow to the core.would be available to adequately condense the steam from the relief valve quenchers, downcomer lines, OR HPCI turbine exhaust line.Bases 3.6.2.2K/A:

295030 2.2.25Memory  
Bank

## QUESTION 090

Unit 2 has just completed DOS 1100-04 STANDBY LIQUID CONTROL SYSTEM QUARTERLY/COMPREHENSIVE PUMP TEST FOR THE INSERVICE TESTING (IST) PROGRAM.

As the Unit Supervisor reviewing the results, you discover that the 'A' pump results are in the ALERT range.

Which of the following, if any, is the required action per the above DOS? Required action range is NOT exceeded and no further action required. Notify the In-Service Testing (IST) coordinator. Initiate an Issue Report (IR) to check the calibration of the appropriate gauges/inspect the pump. Declare ONE subsystem inoperable and ensure the requirements of Tech Spec 3.1.7, STANDBY LIQUID CONTROL SYSTEM, are met. DOS 1100-04K/A: 211000 2.2.12Memory

New

## QUESTION 091

Unit 2 was operating at near rated conditions, when an ATWS occurred, with the following conditions:

- Reactor power is 15%.
- RPV water level is 20 inches and slowly decreasing.
- Torus temperature is 90°F and steady.

What is the next RPV water level action required AND which containment isolations will initiate as a result?

- a. Terminate and Prevent RPV injection until water level drops to -40 inches; group 2 AND 3 isolations ONLY
- b. Terminate and Prevent RPV injection until water level drops to -40 inches; group 1, 2, AND 3 isolations ONLY
- c. Hold RPV water level between -164 and 48 inches; group 2 AND 3 isolations ONLY
- d. Hold RPV water level between -164 and 48 inches; group 1, 2, AND 3 isolations ONLY

## ANSWER

a.

## REFERENCE

DEOP 400-5

DOA 600-1

DAN 902-5 E-5

DAN 902-5 D-4

DAN 902-5 D-5

OP-DR-103-102-1002

K/A: 295037A207

High

Bank

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

## QUESTION 092

Unit 2 was operating at near rated power, with the following conditions:

- The Unit 2A 125 Vdc Battery Charger is supplying the Unit 2 125 Vdc system.
- The Unit 2/3 250 Vdc Battery Charger is supplying the Unit 2 250 Vdc system.

Then a fire caused Bus 28 to de-energize.

What effect will this have AND what actions can be taken to mitigate the transient? a.

The Unit 2 125 Vdc batteries **ONLY** will begin to discharge; place the Unit 2 125 Vdc Battery Charger in service.

- b. The Unit 2 250 Vdc batteries **ONLY** will begin to discharge; place the Unit 2 250 Vdc Battery Charger in service.
- c. The Unit 2 125 **AND** 250 Vdc batteries will begin to discharge; place the Unit 2 125 **AND** Unit 2 250 Vdc Battery Chargers in service.
- d. The Unit 2 125 **AND** 250 Vdc batteries will begin to discharge; place the Unit 2 125 Alternate Battery **AND** Unit 2 250 Vdc Battery Charger in service.

## ANSWER

a.

## REFERENCE

DOA 6900-04

DOA 6900-T1

K/A: 295004A204

High

New

## QUESTION 093

Both units were operating at near rated power, when the following occurred:

- A fire started in the 2/3 Cribhouse.
- No Visible Damage to structures or Safety System equipment is reported.
- The Fire Brigade has been fighting the fire for 16 minutes.

Shift Supervision is required to . . . .declare an Unusual Event for a plant fire; activate the TSC  
declare an Unusual Event for a plant fire; ensure a fire location announcement is made over the plant PA system  
declare an Alert for a plant fire; activate the TSC  
declare an Alert for a plant fire; ensure a fire location announcement is made over the plant PA system  
EP-AA-1004

DOA 0010-10K/A: 600000 2.4.25

High

New

REQUIRED REFERENCES: EP charts.

## QUESTION 094

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

- Fuel handlers are inspecting new fuel on the Refuel Floor.
- The 2/3A SBTG train is in day 2 of a seven day OOS for planned maintenance.
- The 2/3B SBTG train is in PRI position.

What required action is initiated IF the planned maintenance on the 2/3A SBTG train lasted past the planned 7 day duration? a. Place the 2/3B SBTG train in operation.

- b. Restore the 2/3A SBTG train to OPERABLE status.
- c. Immediately suspend movement of new fuel assemblies.
- d. Place both units in MODE 3 within 12 hours and be in MODE 4 within 36 hours.

## ANSWER

d.

## REFERENCE

Tech Spec Section 3.6.4.3

K/A: 2.2.23

High

Bank

REQUIRED REFERENCES: TS 3.6.4.3 pages 1, 2, & 3, with less than 1 hour times removed.

## QUESTION 095

Unit 2 and 3 are operating at near rated power with DOS 6600-01, DIESEL GENERATOR SURVEILLANCE TEST in progress on the Unit 2 EDG, when MCC 29-2 experiences an overcurrent condition.

What is a consequence of the overcurrent on MCC 29-2, AND what actions are required to be taken? The U2 EDG Cooling Water pump will be de-energized; reduce load on the EDG The U2 EDG Cooling Water pump will be de-energized; declare the U2 EDG inoperable The U2 EDG Air Start Compressor 'A' will be de-energized; verify pressure in Air Receiver 'A' is  $\geq 120$  psig The U2 EDG Air Start Compressor 'B' will be de-energized; verify pressure in Air Receiver 'B' is  $\geq 120$  psig DAN 902-7 G-8

T.S. 3.8.1K/A: 264000A209

QUESTION 096

A transient has occurred that requires venting Primary Containment.

Primary Containment water level is 45 feet and steady.

Venting is secured to minimize radiation release when Torus Bottom pressure is below \_\_\_\_\_  
psig.20406065DEOP 500-04K/A: 2.3.11High  
New



## QUESTION 097

Unit 2 was operating at near rated conditions when the annunciator 902-7 B-15, SCREEN WASH CONTROL PANEL TROUBLE was received. An NLO reported the following:

- A large buildup of fish on the inlet side of the traveling screens.
- There is a 14 inch level difference across the traveling screens.

15 minutes later the following occurred:

- An NSO reported Main Condenser vacuum trending down at a rate of 0.5 inches Hg per minute.
- An NLO reported the level difference is getting worse as more fish are accumulating on the traveling screens.

Which of the following action(s) is/are required to be performed, AND what is the bases for these action(s)?

- a. Depress the manual scram pushbuttons; Maintain Condenser vacuum and maintain Service Water system available
- b. Depress the manual scram pushbuttons; Protect the Condenser from over pressure and maintain heat sink available
- c. Insert Cram rods, dial down the master Recirc flow controller and leave only one Circulating Water pump running; Maintain Condenser vacuum and maintain Service Water system available
- d. Insert Cram rods, dial down the master Recirc flow controller and leave only one Circulating Water pump running; Protect the Condenser from over pressure and maintain heat sink available

ANSWER

b.

REFERENCE

DOA 4400-06

TS Bases 3.3.1.1

K/A: 2.4.49

High

Bank

REQUIRED REFERENCES:

QUESTION 098

Given the following Unit 2 parameters:

- Steam Dome Pressure is 750 psig.
- Core flow is 8% with only ONE Recirc pump operating.

The Reactor Core Safety Limit is \_\_\_\_ (1) \_\_\_\_ which \_\_\_\_ (2) \_\_\_\_ .      a.      (1) MCPR  $\geq$  1.12;  
                              (2) ensures that fuel cladding integrity is maintained

b. (1)  $MCPR \geq 1.12$ ;  
(2) protects the Reactor Coolant System against overpressurization

- c. (1) Thermal Power  $\leq 25\%$ ;  
(2) ensures that fuel cladding integrity is maintained

d. (1) Thermal Power  $\leq 25\%$ ;  
(2) protects the Reactor Coolant System against overpressurization

ANSWER

C.

## REFERENCE

## I.T.S. Safety Limits 2.0 and bases

K/A: 202001 2.2.22

## Memory

New

## QUESTION 099

Unit 3 was operating at near rated power, when a HPCI steam line ruptured. Attempts to isolate the leak have been unsuccessful.

The following parameters are reported:

- Clean Up Pump & Ht X Area is 175°F.
- HPCI pump room temperature is 200°F
- Clean Up Demin Room temperature is 187°F
- HPCI Cubicle radiation level is 2750 mr/hr.
- West LPCI Pump radiation level is 2600 mr/hr.
- West CRD module radiation level is 1750 mr/hr.

Which of the following choices lists ALL the DEOP procedures that the Unit Supervisor is currently required to enter?

- DEOP 100, RPV CONTROL  
DEOP 200-1, PRIMARY CONTAINMENT CONTROL  
DEOP 300-1, SECONDARY CONTAINMENT CONTROL  
DEOP 400-2, EMERGENCY DEPRESSURIZATION
- a. DEOP 300-1 **ONLY**
- b. DEOP 100 **AND** DEOP 300-1
- c. DEOP 100, DEOP 300-1, **AND** DEOP 400-2
- d. DEOP 100, DEOP 200-1, DEOP 300-1, **AND** DEOP 400-2

ANSWER

c.

REFERENCE

DEOP 300-1

K/A: 295033 2.3.10

High

New

REQUIRED REFERENCES: DEOP charts, with the entry conditions blanked out.

## QUESTION 100

Unit 3 was operating at near rated power, with the "B" EHC pressure regulator out of service, when the "A" EHC pressure regulator setpoint failed high.

The following parameters are reported:

- IRMs are reading 50 on range 6 and decreasing.
- RPV pressure is 1065 psig and trending up at 1 psig/minute.
- RPV water level dropped to -12 inches and trending up at 1 inch/minute.

The Unit Supervisor is required to enter the DEOPs based on \_\_\_\_ (1) \_\_\_\_ and direct \_\_\_\_ (2) \_\_\_\_ .

- a. (1) RPV pressure ONLY;  
(2) controlling RPV pressure between 800 to 1060 psig.
- b. (1) RPV pressure AND water level;  
(2) controlling RPV pressure between 800 to 1060 psig and RPV water level between 8 and 48 inches.
- c. (1) RPV pressure AND failure to scram;  
(2) controlling RPV pressure between 800 to 1060 psig and RPV water level between -164 and 48 inches.
- d. (1) failure to scram ONLY;  
(2) controlling RPV pressure between 800 to 1060 psig and RPV water level between -164 and 48 inches.

ANSWER

b.

REFERENCE

DEOP 100

K/A: 241000 2.1.7

High

New