Nuclear Regulatory Commission
Operator Licensing
Examination

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

Applicant Information	
Name:	Region: III
Date: 4/19/02	Facility/Unit: LaSalle Co. Station U1/U2
License Level: SRO	Reactor Type: GE BWR
Start Time:	Finish Time:

Instructions

Use the answer sheets provided to document your answers. Staple this cover sheet on top of the answer sheets. The passing grade requires a final grade of at least 80.00 percent. Examination papers will be collected five hours after the examination starts.

Applicant Certification

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

_____
Applicant's Signature

Results		
Examination Value	100	Points
Applicant's Score	_____	Points
Applicant's Grade	_____	Percent

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 asking 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 supervisor, senior shift supervisor, or whatever the title of the position may be).

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 a grade of 80.00 percent or greater; 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 six hours; extensions will be considered under extenuating circumstances.

4. You may bring pens, pencils, and calculators into the examination room. Use dark pencil 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. Use only the paper provided. If you need to change your original answer, erase completely and enter the desired answer. If the NRC grader is unable to determine which mark is your answer, the question will be marked as incorrect even if one of the circles blackened is the correct answer.

7. If you have any questions concerning the intent or the initial conditions of a question, do *not* hesitate asking them before answering the question. Ask questions of the NRC examiner or the designated facility instructor *only.* 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. 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 use the rest room. If the restroom is outside the examination room, you will be escorted to the restroom. You and your escort should avoid 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 including the examination cover sheet and answer sheets 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. The examination questions will be given to the station training department immediately after the examination.

10. After you have turned 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 (1.00)

With a turbine roll in progress, the throttle pressure feedback signal for the regulator in control of the main turbine electro-hydraulic control system failed high. The rate of turbine acceleration will . . .

a. increase as the control valves start to open.

b. remain about the same and the backup regulator NOT pick up.

c. remain about the same and the backup regulator will pick up.

d. decrease as the control valves start to close.

QUESTION: 002 (1.00)

With the unit operating at full power, the Main Generator 86 Lockout Device actuated. The resultant feedwater temperature will . . .

a. decrease due to increased ambient heat losses.

b. increase due to increased thermal efficiencies.

c. decrease due to extraction steam isolation to feedwater heaters.

d. increase due to feedwater pumps running near dead-head conditions.

QUESTION: 003 (1.00)

The reactor was at 65% power when maintenance personnel caused the main turbine stop valves to close inadvertently. A reactor scram resulted and reactor water level decreased, but NOT enough to cause any level-generated primary containment isolation signals to occur.

Given these conditions, recirculation system flow decreased due to:

a. ATWS recirculation pump trip signal.

b. less voiding in core.

c. flow control valve runback.

d. End Of Cycle-Recirc Pump Trip signal.

QUESTION: 004 (1.00)

Unit 1 is in Mode 2 with reactor pressure at 925 psig. The RCIC system is injecting to the RPV in pressure control mode with the RCIC controller in Manual. If reactor pressure increases, RCIC turbine speed _____(1)_____ and flow _____(2)_____.

a. (1) will not change; (2) increases

b. (1) will not change; (2) decreases

c. (1) increases; (2) increases

d. (1) decreases; (2) decreases

QUESTION: 005 (1.00)

A reactor startup was in progress with operators rejecting RWCU flow to the condenser. Control room operators then detected the following conditions:

- Primary containment pressure at 10 psig and increasing
- Primary containment temperature 140°F and increasing
- Reactor pressure vessel level drops to -60 inches

Assuming no operator intervention, ONLY RWCU valve(s) _____ CLOSE(S).

a. G33-F033, "RWCU Blowdown Header Control Valve"

b. G33-F001 AND G33-F004, "RWCU Inboard and Outboard Isolation Valves"

c. G33-F004, "RWCU Outboard Isolation Valve"

d. G33-F001, "RWCU Inboard Isolation Valve"

QUESTION: 006 (1.00)

The Unit is operating at full power. The following primary containment conditions exist:

- Drywell temperature is 120°F
- Drywell pressure is 1.2 psig
- Auxiliary Building temperature is 90°F on the 786' level

In order to reduce drywell pressure to 0.2 psig, the shift manager directs an NSO to vent the drywell using the VQ system IAW LOP-VQ-04, "Special Operations/Modes of the Primary Containment Vent and Purge System."

In order to verify that gaseous release in within the ODCM release limits, the NSO would monitor the . . .

a. SBGT area radiation monitor.

b. station ventilation stack radiation monitor.

c. Auxiliary Building exhaust ventilation radiation monitor.

d. Reactor Building exhaust ventilation radiation monitor.

QUESTION: 007 (1.00)

With the unit operating at full power, HPCS inadvertently started and injected into the reactor vessel. Regarding this event, which core thermal limit would be most limiting?

a. Minimum Critical Power Ratio

b. Linear Heat Generation Rate

c. Maximum Fraction Limiting Power Distribution

d. Average Planar Linear Heat Generation Rate

QUESTION: 008 (1.00)

Unable to start either CRD pump, and with control rods drifting into the core, the Unit Supervisor directed the NSO to insert a scram. Following the scram from full power, the NSO identified the following conditions:

- neutron power decreasing on all IRMs
- all rods indicate full-in on the full core display except for center control rod 30-31

Center control rod 30-31 indicates full-out with the blue light extinguished and no other alarms on the on full core display. Based on these indications, the reason for control rod 30-31 not inserting is . . .

a. scram discharge instrument volume is full.

b. loss of control rod drive charging header pressure.

c. associated accumulator has a low pressure condition.

d. scram valves on the associated HCU did not reposition.

QUESTION: 009 (1.00)

The purpose of having a High Drywell Pressure reactor scram is to limit . . .

a. fuel damage AND the pressure spike in the drywell during a LOCA.

b. ONLY the pressure spike in drywell during a LOCA.

c. the reactor pressure spike AND any core flux transient during a LOCA.

d. the amount of water volume added to the suppression pool during a LOCA.

QUESTION: 010 (1.00)

Unit 2 was operating at power when a transient caused the reactor steam dome pressure to increase to 1150 psig. Two of the ATWS trip units for Division 2 reactor pressure failed to initiate.

Under these circumstances, the recirculation pumps will _____(1)_____ and the ARI system _____(2)_____.

a. (1) trip; (2) will initiate automatically

b. (1) trip; (2) must be manually initiated

c. (1) remain in fast speed; (2) will initiate automatically

d. (1) remain in fast speed; (2) must be manually initiated

QUESTION: 011 (1.00)

A LOCA occurred in the drywell concurrent with a release of radioactivity which caused the Reactor Building (RB) ventilation system to isolate. The following plant conditions also exist:

- Reactor water level is at -60 inches, lowering
- Drywell pressure is at 6.5 psig, rising
- Reactor building ventilation exhaust radiation is 6 mr/hr, steady
- Fuel Pool ventilation exhaust radiation is 5 mr/hr, steady
- Main Steam line delta T is 25°F, steady
- MSIVs are closed

In accordance with LGA-002, in order to restart RB ventilation, operators must bypass...

1. Main steam line delta T.
2. High Drywell pressure.
3. Low RPV water level.
4. Reactor Building ventilation radiation.
5. Fuel Pool ventilation radiation.

a. 2 and 3 only.

b. 4 and 5 only.

c. 1, 2, and 3 only.

d. 1, 4, and 5 only.

QUESTION: 012 (1.00)

The hydrogen recombiners reduce hydrogen concentration in the primary containment to prevent . . .

a. a hydrogen burn thus ensuring drywell integrity.

b. a hydrogen-oxygen recombination which could limit acceptable containment oxygen concentrations.

c. radiolytic decomposition of water in the reactor coolant system.

d. a metal-steam reaction between the zirconium fuel rod cladding and the reactor coolant.

QUESTION: 013 (1.00)

The unit is operating at 20% power, with the 'A' train of SJAE in standby, and the 'B' train of SJAE in operation. Personnel performing maintenance cause a loss of condensate cooling to the 'B' train SJAE condenser and off gas condenser.

With no operator action, _____ condenser vacuum.

a. efficiency of the OG system is lost resulting in reduced

b. the 'A' train of SJAE would automatically start and maintain

c. an IMMEDIATE turbine trip and reactor scram would occur due to loss of

d. the mechanical vacuum pump would automatically start after a reduction in

QUESTION: 014 (1.00)

The reason for 'load shedding' on the 4160 VAC safety buses under LOCA conditions is to . . .

a. prevent loading a faulted bus.

b. protect non-ESF equipment from damage due to increased current.

c. protect motors from damage due to prolonged operation at reduced voltage.

d. prevent an overload condition when the DG picks up the bus.

QUESTION: 015 (1.00)

The following plant conditions exist:

- Reactor is at full power
- Suppression Pool (SP) Cooling is in operation
- Average pool temperature is increasing
- RCIC testing is in progress

Per Technical Specifications, there is a required action to immediately stop RCIC testing if SP temperature exceeds the temperature limit of _____(1)_____°F, or immediately place the reactor mode switch in SHUTDOWN if SP temperature exceeds the temperature limit of _____(2)_____°F.

a. (1)105; (2)110

b. (1)110; (2)120

c. (1)105; (2)120

d. (1)110; (2)110

QUESTION: 016 (1.00)

To reduce containment pressure, operators are venting primary containment using standby gas treatment system (SBGT) post-accident in accordance with LGA-VQ-01, "Containment Vent."

Reactor plant conditions are stable. Other plant conditions are as follows:

- Unit 1 SBGT train is in operation
- Unit 2 SBGT train is in standby
- Radiation levels in primary containment are elevated
- Primary containment pressure is 1.5 psig, decreasing
- Primary containment temperature is 145°F, decreasing

If the discharge rate through the Unit 1 SBGT radiation monitor causes annunciator 1PM07J-A304, "SBGT WIDE RANGE GAS MONITOR TROUBLE" to alarm due to a high radiation release condition, the operator would be required to . . .

a. continue venting, no radiation release limits are imposed.

b. secure venting to prevent exceeding offsite release limits.

c. continue venting until General Emergency radiation limits are reached.

d. verify automatic shutdown of the Unit 1 SBGT.

QUESTION: 017 (1.00)

Unit 1 is operating at full power with the Reactor Building Closed Cooling Water (RBCCW) and the service water system in operation as follows:

- 'A' RBCCW heat exchanger and pump in operation.
- 'B' RBCCW heat exchanger and pump in standby
- '0' RBCCW heat exchanger is available
- Service Water system temperature is 80°F

The RBCCW system is leaking water into containment at a rate of 5 gpm. Assuming no operator actions, what additional condition would eventually result in a loss of RBCCW cooling?

a. RBCCW heat exchanger tube leak.

b. low reactor water level (Level 3 signal).

c. loss of instrument air to flow control valve 1WS087A/B.

d. loss of instrument air to RBCCW expansion tank makeup valve 1WR091.

QUESTION: 018 (1.00)

With both units at full power, the operating station air compressors failed, resulting in reduced Service Air and Instrument Air (SA/IA) pressures. Without operator intervention and as a result of the decreasing SA/IA header pressures, . . .

a. Turbine Building ventillation will isolate.

b. feedwater temperature will increase.

c. feedwater suction pressure will decrease.

d. the standby Station Air Compressor will AUTO start.

QUESTION: 019 (1.00)

The Unit 1 reactor is shutdown with head installed and the following conditions:

- Coolant temperature is 170°F
- 'B' train residual heat removal is in shutdown cooling operation at 7000 gpm
- both recirculation pumps out of service
- reactor water level is being maintained at +50 inches on the Shutdown Range

If an inadvertent PCIS Group 6 isolation occurs and the isolation signal can NOT be cleared, in order to minimize thermal stratification of the bottom reactor vessel head AND enhance RPV moderator temperature monitoring, the operators would . . .

a. minimize RWCU blowdown flow.

b. maximize CRD flow to the vessel.

c. maximize RBCCW flow to the RWCU heat exchanger.

d. raise reactor vessel level to at least 220 inches on the shutdown range.

QUESTION: 020 (1.00)

Unit 2 was at full power operation with the "A" CRD pump in operation. The control room operator received annunciator "2A CRD FEED PUMP AUTO TRIP" and the 2B CRD pump failed to start.

With no operator actions, all accumulator pressures will _____(1)_____, the control rods are _____(2)_____.

a. (1) IMMEDIATELY depressurize; (2) still scrammable

b. (1) IMMEDIATELY depressurize; (2) NOT scrammable

c. (1) eventually depressurize; (2) NOT scrammable

d. (1) eventually depressurize; (2) still scrammable

QUESTION: 021 (1.00)

Unit 1 was operating at 100% reactor thermal power with SRV 1B21-F013U, leaking steam past its seat. The leakage caused the suppression pool to heatup. Under these circumstances, initiating suppression pool cooling would be necessary to prevent _____ during accident conditions.

a. SRV tailpipe damage

b. RH, LPCS, and HPCS pumps thermal damage

c. incomplete condensing of steam discharged to the suppression pool

d. possible water hammer when starting RH, LPCS or HPCS pumps

QUESTION: 022 (1.00)

After a transient, the following parameters are noted:

- Drywell pressure 12 psig rising
- Drywell air temperature 240°F rising
- Suppression chamber pressurE 7 psig rising
- Suppression pool water temperature 105°F rising

Assuming no operator action has been taken, the event describes a . . .

a. failed open SRV.

b. breached containment following a water break LOCA.

c. normally functioning containment following a high pressure discharge into the drywell.

d. normally functioning containment following a bypass path discharge into the suppression chamber airspace.

QUESTION: 023 (1.00)

The bases for the low suppression pool level LGA entry condition is to . . .

a. prevent excessive clearing loads from SRV discharges.

b. ensure sufficient volume of water to condense steam energy.

c. minimize heating the suppression pool during a LOCA.

d. prevent excessive pool swell loads during a LOCA.

QUESTION: 024 (1.00)

Main steam tunnel temperatures and pressures are increasing due to a steam leak in the tunnel. As main steam line tunnel pressure increases, the low pressure blowout panels will actuate relieving pressure to the _____(1)_____ resulting in a/an _____(2)_____ release to the environment.

a. (1) turbine building; (2) monitored

b. (1) turbine building; (2) UNMONITORED

c. (1) auxiliary building roof; (2) monitored

d. (1) auxiliary building roof; (2) UNMONITORED

QUESTION: 025 (1.00)

Unit 1 was operating at 100% power, when the 'A' TDRFP tripped. Assuming no operator action and all other equipment operates as designed, both recirculation flow control valves are expected to be at _____(1)_____ and the recirculation pumps _____(2)_____.

a. (1) minimum position; (2) remain at fast speed

b. (1) minimum position; (2) downshift to slow speed

c. (1) an intermediate position; (2) downshift to slow speed

d. (1) an intermediate position; (2) remain at fast speed

QUESTION: 026 (1.00)

The following accident conditions exist:

- Drywell pressure 3.5 psig increasing
- RPV pressure 525 psig decreasing
- RPV level -40 inches decreasing

Assuming all ECCS equipment functions as designed, LPCI would inject when _____.

a. the LPCI pumps start

b. RPV level drops to -147 inches

c. RPV pressure drops below 250 psig

d. the LPCI outboard isolation valves indicate open

QUESTION: 027 (1.00)

Before actuating SBLC from Control Room Panel 1H13-P603 during a failure to scram scenario, the reactor operator observed the following conditions:

- SBLC INJ SQUIB VLV ON light for 1C41-F004A is ON
- SBLC INJ SQUIB VLV ON light for 1C41-F004B is OFF
- SBLC SQUIB VLV CONTINUITY LOSS alarm has annunciated.

Which of the following could be the cause of all of these indications?

a. SBLC NOT injecting.

b. a loss of power from Bus 136X-2.

c. a loss of power from Bus 135X-1.

d. there is less than 0.2 ma current in the 1C41-F004A continuity circuit.

QUESTION: 028 (1.00)

The reactor was operating at full power in a half-scram trip condition due to loss of an RPS bus. A subsequent loss of power to the other RPS bus resulted in a reactor scram. Reactor water level is currently at 14 inches and feedwater flow approximately 30%.

Assuming systems responded as designed, the loss of RPS buses caused BOTH reactor recirculation pumps to _____(1)_____ because the _____(2)_____ logic was activated.

a. (1) trip; (2) ATWS Recirc Pump Trip

b. (1) trip; (2) End Of Cycle-Recirc Pump Trip

c. (1) downshift to SLOW; (2) ATWS Recirc Pump Trip

d. (1) downshift to SLOW; (2) End Of Cycle-Recirc Pump Trip

QUESTION: 029 (1.00)

Unit 2 Mode switch was in STARTUP when an IRM detector spiked, causing a momentary upscale alarm. The design feature that allows the RO to determine which detector spiked is the . . .

a. annunciator remains lit.

b. 2H13-P603 upscale light seals in.

c. back panel alarm seals in on the drawer.

d. core monitoring computer print out.

QUESTION: 030 (1.00)

During startup of the unit, operators can retract the source range detectors from the core without causing a rod block when . . .

a. the Retract Permit light de-energizes.

b. neutron level on ALL IRMs is on Range 2.

c. SRM channel count rate is greater than 400 cps.

d. neutron level on ANY IRM is on Range 3 or greater.

QUESTION: 031 (1.00)

With the unit at full power operation, an operator selected the COUNT function on APRM B cabinet and the APRM meter read 70%. If the operator bypasses an operable LPRM input to the 'B' APRM, the _____ annunciator(s) will alarm.

1. Channel A1 Reactor Auto Scram
2. Channel B1 Reactor Auto Scram
3. Rod Out Block

a. 1 only

b. 2 only

c. 1 and 3 only

d. 2 and 3 only

QUESTION: 032 (1.00)

Unit 1 was at full power operation with RCIC operating for a quarterly surveillance test. The Unit 1 control room NSO received a report from equipment operators that the RCIC room was filled with steam. The NSO observed RCIC area temperatures and noted the following:

- RCIC Equipment Area ambient temperature was 195°F and increasing
- RCIC Area Vent Differential temperature was 103°F and increasing
- Annunciator 1H13-P601-D411, "DIV I RCIC EQUIP AREA DIFF/AREA TEMP HI," was alarming
- Division II, RCIC Primary Containment Isolation System had NOT actuated

Assuming no operator actions were initiated, the RCIC Turbine Steam Supply _____(1)_____ automatically close(s) AND operator actions need be taken to _____(2)_____.

a. (1) inboard isolation valves;
(2) shutdown RCIC in accordance with LOP-RI-03, "Reactor Core Isolation Cooling System Isolation and System Shutdown"

b. (1) outboard isolation valve;
(2) shutdown RCIC in accordance with LOP-RI-03, "Reactor Core Isolation Cooling System Isolation and System Shutdown"

c. (1) inboard isolation valves;
(2) recover RCIC in accordance with LOP-RI-04, "Turbine Trip Recovery and Turbine Reset of RCIC"

d. (1) outboard isolation valve;
(2) recover RCIC in accordance with LOP-RI-04, "Turbine Trip Recovery and Turbine Reset of RCIC"

QUESTION: 033 (1.00)

Unit 1 was operating at 100% power with Division 3 DG unavailable due to engine bearing replacement. A loss of offsite power resulted in a reactor scram.

The Unit 1 assist NSO observed the following:

- Drywell pressure is 2.0 psig and steady
- All RHR pumps are operating on minimum flow
- LPCS can NOT be started
- Division 1 RPV wide range level indicates -145 inches and is trending down at a rate of -10 inches per minute
- Division 2 RPV wide range level indicates -87 inches and is trending down at a rate of -10 inches per minute

Based on the given conditions, ADS valves will open on actuation of . . .

a. Division 1 ADS at approximately 118 seconds.

b. Division 1 ADS at approximately 716 seconds.

c. Division 2 ADS at approximately 958 seconds.

d. Division 2 ADS at approximately 1076 seconds.

QUESTION: 034 (1.00)

The Hydrogen Recombiner System gas inlet valve may be positioned IAW station procedures from . . .

1. Main Control Room
2. Auxiliary Electric Equipment Room
3. Hydrogen Recombiner Skid

a. 1 only

b. 1 OR 2 only

c. 2 OR 3 only

d. 3 only

QUESTION: 035 (1.00)

The ADS accumulators are at a higher pressure than the SRV accumulators because . . .

a. the ADS system requires 2 solenoids to open the valve.

b. the ADS valves must be able to open with an elevated drywell pressure.

c. elevated pressure ensures better seating of the SRV accumulator check valve.

d. ADS accumulator components require higher actuation pressure.

QUESTION: 036 (1.00)

Unit 1 was shutting down and dumping steam to the condenser via the turbine bypass valves. Unit 1 conditions are as follows:

- All control rods are inserted
- Plant pressure is 800 psig decreasing slowly
- Both TDRFPs are secured
- MDRFP maintaining reactor water level in normal band
- 1A CD/CB in operation
- Reactor water level control in automatic
- Condensate and feedwater system lineups normal for given conditions

If an electrical fault de-energizes Bus 152, reactor vessel water level will start to decrease because . . .

a. both the MDRFP and 1A CD/CB pump de-energize.

b. the feedwater regulating valves close on the loss of power.

c. the 1A CD/CB de-energizes and causes the MDRFP to trip on low suction pressure.

d. the MDRFP de-energizes and the 1A CD/CB pump discharge pressure is too low to feed the RPV.

QUESTION: 037 (1.00)

Unit 1 was operating at 100% power when the speed demand from the RWLCS failed. Assuming no operator action, the Unit 1 TDRFP speed could be controlled from the . . .

a. RWLC Engineering Workstation.

b. GE/Woodward 5009 Cabinet touch screen.

c. TDRFP front standard at the hydraulic assembly.

d. Manual Backup Station in the main control room.

QUESTION: 038 (1.00)

Unit 1 was in cold shutdown and Unit 2 operating at full power. The 1B DG was out of service for overhaul. A subsequent faulted condition on the ring bus caused a loss of all offsite power and a Unit 2 turbine generator trip. The 1A DG failed to start on demand and a SBGT system initiation signal was received.

Assuming no operator action, the status of the SBGT approximately 5 minutes after the ring bus fault is . . .

a. Unit 1 SBGT running, Unit 2 SBGT NOT running

b. Unit 1 SBGT running, Unit 2 SBGT running

c. Unit 1 SBGT NOT running, Unit 2 SBGT NOT running

d. Unit 1 SBGT NOT running, Unit 2 SBGT running

QUESTION: 039 (1.00)

According to LOS-DG-M2, "Diesel Generator Operability Test," the EDG speed droop switch must be positioned to "50" prior to paralleling with AC power sources. The speed droop switch is placed in this position to . . .

a. allow the EDG to share the load.

b. prevent exceeding limits on fuel rack position.

c. ensure that the EDG picks up all loads on the bus.

d. ensure the EDG will carry the design load assumed in the safety analysis.

QUESTION: 040 (1.00)

If a failure of the Display Memory Module occurs in the RMCS, the NSO could determine control rod position indication from observing the . . .

a. Four Rod display

b. Rod Worth Minimizer

c. Rod Select display

d. Rod Block Monitor

QUESTION: 041 (1.00)

Unit 2 is shutdown for a refuel outage. The reactor head is removed and core reload is in progress (Mode 5). The following additional plant conditions exist:

- 'A' RHR is in shutdown cooling mode at 6000 gpm
- 'B' RHR is in standby

The NSO inadvertently positions 2E12-F006B to open. The refuel floor supervisor observes level dropping in the refueling cavity. The NSO observes Suppression Pool level is increasing and identifies that both the 2E12-F004B, "RHR Pump Suction Valve," and 2E12-F006B, "RHR Shutdown Cooling Suction Valve," are open.

Actions prescribed by Abnormal Procedures must be taken to mitigate...

a. high radiation levels on the refuel floor by closing the 2E12-F004B valve.

b. exceeding heat capacity temperature limit by closing the 2E12-F006B valve.

c. inadequate NPSH for RHR pump operation by closing either the 2E12-F004B or the 2E12-F006B valve.

d. excessive temperature stratification within the reactor vessel by closing either the 2E12-F004B or the 2E12-F006B valve.

QUESTION: 042 (1.00)

While operating at power, Unit 1 experienced an under voltage condition on all 1E busses and a plant transient that resulted in drywell pressure increasing to 5.5 psig. DG 1A sequentially picked up loads; however, the NSO identified that the 1B RHR pump failed to auto start. The shift manager directed the NSO to start the 1B RHR pump in accordance with LGA-RH-103, "Unit 1 A/B RHR Operations in the LGAs/LSAMGs."

If the load on DG 1A is 1800 KW, starting the 1B RHR pump, will _____.

a. have minimal affect on the bus and the DG will continue to operate.

b. cause DG 1A engine to shutdown on underfrequency.

c. cause DG 1A output breaker to trip on overcurrent after a 0.5 sec time delay.

d. cause DG 1A engine to shutdown on overcurrent after a 10 second time delay.

QUESTION: 043 (1.00)

Control room NSOs were making preparations to start the 'B' RHR pump in the suppression pool spray mode for a special test. Equipment operators noted that the discharge pressure downstream of the 'B' RHR pump discharge check valve was only 15 psig. The condition is caused by . . .

a. RHR water leg pump failure.

b. LPCS water leg pump failure.

c. CLOSED 'B' RHR pump suction valve.

d. LIFTED 'B' RHR pump suction relief valve.

QUESTION: 044 (1.00)

Unit 1 was starting up from a refuel outage with the following plant conditions:

- Mode Switch in RUN
- Reactor power 12%
- all MSIVs OPEN

If RPS Bus 'A' lost power, the IMMEDIATE MSIV response would be . . .

a. ALL MSIVs would go closed.

b. ALL MSIVs would stay open.

c. ONLY inboard MSIVs would go closed.

d. ONLY outboard MSIVs would go closed.

QUESTION: 045 (1.00)

With Unit 2 at full power, the NSO noticed that 2ES001B, "Hi Press Htr 26A/B Extrn Stm Inlet Valve," went closed. This condition results in . . .

a. a reactor power increase.

b. a reactor power decrease.

c. a change in pH of feedwater chemistry.

d. the inability to remove moisture from the main turbine.

QUESTION: 046 (1.00)

An internal fault on the Unit 1 SAT caused the electrical loads to fast transfer to the Unit Auxiliary Transformer. The Unit 1 SAT was isolated by opening switchyard OCBs . . .

a. 2-3 AND 3-4

b. 1-6 AND 4-6

c. 9-10 AND 10-11

d. 1-13 AND 11-13

QUESTION: 047 (1.00)

During a loss of off-site power, the Plant Computer system status is . . .

a. the Hathaway SOER, and the Process Computer are all powered from AC and DC power sources available; therefore, all computer systems will remain functional.

b. the Hathaway SOER and the Process Computer are all powered from the Process Computer UPS; therefore, all computer systems will be functional.

c. the Hathaway SOER will be inoperable due to a loss of AC power; however, they will reboot when the DG re-energizes the appropriate bus.

d. the Process Computer is not safety-related, load-sheds on a loss of the Class 1E switchgear, and must be manually re-booted.

QUESTION: 048 (1.00)

During a discharge from the Rad Waste Discharge Storage Tank to the blowdown line, annunciator "RW DISCHARGE HIGH RAD/INOP OR LOW SAMPLE FLOW," alarmed in the rad waste control room. The expected automatic actions of the system include . . .

a. the operating RW discharge pump trips (ONLY).

b. the RW discharge pump discharge valve closes (ONLY).

c. the operating RW discharge pump trips AND the RW discharge valve closes.

d. the RW discharge pump discharge valve closes AND the RW discharge pump recirculation valve back to the Rad Waste Discharge Storage Tank opens.

QUESTION: 049 (1.00)

Feedwater header flows were balanced with the reactor at 100% power, when an instrumentation problem caused the FW header flows to read about 0.5 Mlbm/hr less than actual. This error will cause the reactor water level to ____(1)____, and will result in _____(2)_____ if the error reaches 1.0 Mlbm/hr.

a. (1) increase;
(2) transfer of feedwater input from feedwater header flows to the sum of the individual feed pump discharge flows.

b. (1) increase;
(2) automatic transfer to single element control.

c. (1) decrease;
(2) transfer of feedwater input from feedwater header flows to the sum of the individual feed pump discharge flows.

d. (1) increase;
(2) automatic transfer to single element control.

QUESTION: 050 (1.00)

Service water cooling to Unit 1 Fuel Pool Cooling heat exchangers was lost and could not be restored. An acceptable method for restoring fuel pool cooling is to connect . . .

a. LPCS to the Fuel Pool Cooling system.

b. RH Loop A to the Fuel Pool Cooling system.

c. RH Loop B to the Fuel Pool Cooling system.

d. RBCCW to the Fuel Pool Cooling heat exchangers.

QUESTION: 051 (1.00)

Diesel Generators _____(1)_____ be used for peaking power requirements and _____(2)_____ be started in anticipation of loss of offsite power.

a. (1) shall; (2) should

b. (1) shall; (2) should NOT

c. (1) shall NOT; (2) should

d. (1) shall NOT; (2) should NOT

QUESTION: 052 (1.00)

Exclusive of plant transients, plant announcements are NOT REQUIRED prior to . . .

a. commencement of reactor startup.

b. stopping major plant components.

c. starting of major plant components.

d. placing Primary and Secondary containment integrity into effect during plant startup.

QUESTION: 053 (1.00)

The Reactor Mode Switch is located on the _____(1)_____ of panel H13-P603. When the Reactor Mode Switch is required to be LOCKED, the key shall be located _____(2)_____.

a. (1) apron section; (2) in the lock

b. (1) vertical section; (2) in the lock

c. (1) apron section; (2) at the switch, but NOT in the lock

d. (1) vertical section; (2) at the switch, but NOT in the lock

QUESTION: 054 (1.00)

The suppression chamber is to be re-inerted after a short duration outage. Control room NSOs will monitor AI CM063, "Suppression Chamber/DW Oxygen Monitor," on control room panel _____(1)_____ during the evolution. The suppression chamber would be considered inerted when the MAXIMUM oxygen concentration is less than _____(2)_____ by volume and indicated oxygen concentration is no longer decreasing.

a. (1) PM13J; (2) 1%

b. (1) PM13J; (2) 5%

c. (1) PM16J; (2) 1%

d. (1) PM16J; (2) 5%

QUESTION: 055 (1.00)

During approach to criticality, the NSO will DISCONTINUE Notch Out Override between positions 00 and 24 when . . .

a. the generator is on line.

b. at least one bypass valve is open.

c. Group 1 has been pulled to position 48.

d. highest initial SRM count rate has increased by a factor of 4.

QUESTION: 056 (1.00)

Unit 1 is at full power operations. In order for maintenance to work on the main turbine trip pressure switches in the turbine EHC system at plant normal operating temperature and pressure, and without the out of service (OOS) being an Exceptional OOS, the Operations department needs _____(1)_____ valve isolation since _____(2)_____.

a. (1) single; (2) pressure is greater than 500 psig

b. (1) double; (2) pressure is greater than 500 psig

c. (1) single; (2) temperature is greater than 200°F

d. (1) double; (2) temperature is greater than 200°F

QUESTION: 057 (1.00)

At 9:00 a.m. Instrument Maintenance technicians inform the NSO that the “RCIC Vessel Water Level-Hi, Level 8" surveillance is commencing and the channel is to be declared inoperable. The maintenance is expected to be completed in 2 hours.

The required method to track the associated LCO and to ensure the RCIC Technical Specification is met, is by use of . . .

a. Condition Report

b. Plan of the Day

c. Degraded Equipment Log

d. Short Duration Time Clock

QUESTION: 058 (1.00)

A condition occurs where the standby main generator stator cooling pump auto starts and stator cooling pressure remains at 40 psig.

If this condition continues to exist, and stator amps remain greater than _____(1)_____ for 2.0 minutes, the Main Turbine will automatically _____(2)_____.

a. (1) 7,057 amps; (2) trip

b. (1) 7,057 amps; (2) runback

c. (1) 21,831 amps; (2) runback

d. (1) 21,831 amps; (2) trip

QUESTION: 059 (1.00)

Which of the following activities requires you to notify RP of changing radiation levels.

a. Starting 'A' RHR pump

b. Starting SBLC pump

c. Swapping RWCU pumps.

d. Starting additional condensate/condensate booster pump

QUESTION: 060 (1.00)

A male visitor with no previous exposure gets lost in the reactor building at LaSalle and he inadvertently walks into a high radiation area. Assuming no previous exposure, RP personnel read the visitor's dosimeter and calculated that the visitor received the following radiation exposure:

- Chest 4500 mrem
- Hands 1060 mrem
- Eye Lens 510 mrem
- Internal 550 mrem

Which, if any, Federal Exposure limit has the visitor exceeded?

a. LDE limit.

b. SDE limit.

c. TEDE limit.

d. No exposure limits exceeded.

QUESTION: 061 (1.00)

During fuel moves, access to the 796' level in the drywell is . . .

a. ALWAYS prohibited.

b. allowed with permission from EITHER an RP technician or the Shift Manager.

c. controlled ONLY by the specific RWP which governs the work to be performed.

d. controlled by an RP technician in continual attendance OR by remote monitoring with continuous communication.

QUESTION: 062 (1.00)

The following conditions exist in primary containment:

- Primary Containment Pressure 1.3 psig
- Drywell Temperature 130°F
- Suppression Pool Temperature 106°F
- Drywell Hydrogen at 1.8%

The condition requiring entry into LGA-003, "Primary Containment Control," is . . .

a. Primary Containment Pressure.

b. Drywell Temperature.

c. Suppression Pool Temperature.

d. Drywell Hydrogen.

QUESTION: 063 (1.00)

Regulatory Guide 1.97 post-accident instruments in the control room are identified with . . .

a. blue tags.

b. white tags.

c. orange circles.

d. black dots.

QUESTION: 064 (1.00)

If 'C' APRM is bypassed, RBM Channel 'A' . . .

a. is automatically bypassed.

b. automatically receives a reference signal from another APRM.

c. generates a Downscale Failure alarm AND Rod Withdrawal Block.

d. will light an RBM Bypass light indicating another APRM may be selected.

QUESTION: 065 (1.00)

The HPCS line integrity monitor senses the differential pressure between the HPCS spray sparger and the . . .

a. differential pressure tap to confirm HPCS piping integrity between the injection check valve and the RPV.

b. SBLC above core plate pressure tap to confirm HPCS piping integrity from inside the RPV to the core shroud.

c. drywell to confirm HPCS piping integrity between the drywell wall and the RPV.

d. HPCS suction to confirm HPCS piping integrity from suction to discharge.

QUESTION: 066 (1.00)

Unit 1 was initially operating at 26% power. A main turbine trip signal was received and the NSO observed reactor pressure spike to 1100 psig.

The NSO observes:

- Reactor pressure controlled by BPVs, 1060 psig and steady
- Reactor power 20% and steady

The first recovery initiative that is to be implemented is . . .

a. Initiate ARI IAW LGP-3-2, "Reactor Scram."

b. Insert manual Scram IAW LGP-3-2, "Reactor Scram."

c. Reduce reactor power with recirculation IAW LGP-2-1, "Normal Unit Shutdown."

d. Reduce reactor power by inserting control rods IAW LGP- 2-1, "Normal Unit Shutdown."

QUESTION: 067 (1.00)

Unit 1 is in Mode 4 completing a 25 day refuel outage. Both recirculation pumps are operating in slow speed. Other plant conditions are as follows:

- 'B' RHR pump is in shutdown cooling mode
- 'A' RHR pump is unavailable due to maintenance
- Coolant temperature at 175°F
- Both trains of RHR service water are available
- Circulating Water and feedwater and condensate systems are available
- 'A' train of Fuel Pool Cooling in service.

A fault de-energizes Bus 142Y and the bus CANNOT be re-energized. Which of the following methods of alternate heat removal are NOT available?

a. LPCS in core cooling mode.

b. RWCU removing decay heat.

c. 'C' RHR pump in shutdown cooling mode.

d. Main Condenser and condensate/booster pump.

QUESTION: 068 (1.00)

Given the following plant conditions:

- Reactor recirculation loop B pump tripped
- Power and flow in the allowable region of Technical Specifications

Thermal Limits:

1. Average Planar Linear Heat Generation Rate
2. Minimum Critical Power Ratio
3. Linear Heat Generation Rate
4. Maximum Allowable Power Ratio

Which of the above thermal limits must be adjusted?

a. 1, 2, and 4.

b. 1, 2, and 3.

c. 1 and 2 only

d. 3 and 4 only

QUESTION: 069 (1.00)

Reactor power is 100 %. Unit 2 drywell temperature is currently reading 105°F and has been increasing consistently at a rate of 25°F/hr. Assuming the rate of temperature change remains the same, LGA-003 "Primary Containment Control" must be entered in _____ minutes.

a. 36

b. 72

c. 84

d. 108

QUESTION: 070 (1.00)

Placing a component's transfer switch to the "EMERGENCY" position on the Remote Shutdown Panel will allow control of the component from the Remote Shutdown Panel _____(1)_____ to enable bringing the reactor to cold shutdown and the component will _____(2)_____ automatic primary containment isolation features.

a. (1) ONLY; (2) lose

b. (1) ONLY; (2) maintain

c. (1) AND the control room; (2) lose

d. (1) AND the control room; (2) maintain

QUESTION: 071 (1.00)

Unit 1 and Unit 2 reactor building (RB) ventilation systems were operating when instrument air was lost. The RB ventilation exhaust and supply dampers fail _____(1)_____ and RB modulating dampers fail _____(2)_____.

a. (1) closed; (2) open

b. (1) closed; (2) closed

c. (1) open; (2) open

d. (1) open; (2) closed

QUESTION: 072 (1.00)

Both Units are operating at 100% power. An operator reported smoke in the vicinity of the 2A DG room and a RED CO_2 alarm is on Panel FP04JB/JC.

The CO_2 system _____(1)_____ actuated. If required, manual actuation requires use of levers for the master valve located _____(2)_____.

a. (1) should have;
(2) by the CO_2 storage tank and for the header stop located in the DG corridor.

b. (1) should NOT have;
(2) by the CO_2 storage tank and for the header stop located in the DG corridor.

c. (1) should have;
(2) in the DG corridor and slave valve located just inside the door to the DG.

d. (1) should NOT have;
(2) in the DG corridor and slave valve located just inside the door to the DG.

QUESTION: 073 (1.00)

The Unit 1 NSO receives annunciator 1H13-P601-C205, "1A RHR PMP Cubicle Temp Hi" and a report of smoke in the area. What is the expected status of the diesel fire pumps?

"0A" Diesel Fire Pump is _____(1)_____, "0B" Diesel Fire Pump is _____(2)_____,

a. (1) Running; (2) In Standby

b. (1) Running; (2) Running

c. (1) In Standby; (2) Running

d. (1) In Standby; (2) In Standby

QUESTION: 074 (1.00)

If water intrusion created grounds that disabled all Division 1 and Division 2 125VDC power . . .

a. RCIC will trip if running because of an overspeed trip.

b. RCIC will remain running because 125 VDC power loss does NOT affect RCIC overspeed.

c. RCIC will trip if running because of power loss to the Steam Supply Stop Valve, 1(2)E51-F045.

d. RCIC will remain running because 125 VDC power loss does NOT affect the Steam Supply Stop Valve, 1(2)E51-F045.

QUESTION: 075 (1.00)

Given the following conditions:

- Unit 2 in Operating Condition 1
- 2VG023, "SBGT VQ XTIE Valve," is OPEN
- Primary Containment Vent and Purge (VQ) isolation valves are OPEN

The Unit 2 SBGT (VG) train is inoperable because the lineup may cause damage to the . . .

a. VQ system during some non-accident vent conditions.

b. VG system during some non-accident vent conditions.

c. VQ system under LOCA conditions with high drywell pressure.

d. VG system under LOCA conditions with high drywell pressure.

QUESTION: 076 (1.00)

The protective interlocks intended to prevent refueling accidents or incidents involving the overhead crane include . . .

1. restricting hoist movement to a Critical L-Path.
2. preventing movement of the crane if operating the spent fuel cask greater than 6" off the Refuel Floor.
3. stopping further upward movement of the Overhead Crane if a high radiation condition is sensed by an Area Radiation Monitor.
4. preventing crane or hoist movement if a DIV 1 or DIV 2 FUEL POOL RAD HI-HI condition is sensed.

a. 1, 2, and 3 only

b. 1, 3, and 4 only

c. 2, and 4 only

d. 1, and 3 only

QUESTION: 077 (1.00)

A plant event resulted in an off-site release. Possible entry conditions into the Radioactive Release Control Procedure are described below. The MINIMUM conditions that require the Unit Supervisor to enter the LGA-009 "Radioactive Release Control" procedure are . . .

a. 6.2×10^5 microcuries/sec offsite release rate AND Valid A-Model Alert classification

b. 6.2×10^5 microcuries/sec offsite release rate OR Valid A-Model Unusual Event classification

c. 6.2×10^6 microcuries/sec offsite release rate AND Valid A-Model Unusual Event classification

d. 6.2×10^6 microcuries/sec offsite release rate OR Valid A-Model Alert classification

QUESTION: 078 (1.00)

LGA-009 has been entered due to high offsite release. What affect, if any, does this have on permissible radiation exposure limits?

a. There is no affect on allowable exposure limits.

b. Automatically authorized to increase allowable exposure limit by a factor of 2.

c. Automatically authorized to increase allowable exposure limit to federal limits.

d. Automatically authorized to increase allowable exposure limit to emergency limits.

QUESTION: 079 (1.00)

The following conditions exist:

- Station blackout has occurred
- Div 1 and Div 2 EDGs failed to start
- SRVs were initially used for reactor pressure control

Which of the means below would be available to carry out pressure control three hours after the SBO occurred?

a. ADS valves using Div 1 keylock switches in AEER IAW LGA-001 "RPV Control."

b. ADS valves using Div 1 keylock switches in AEER IAW LGA-004 "RPV Blowdown."

c. Low Low Set (LLS) valves using Div 1 keylock switches in AEER IAW LGA-001, "RPV Control."

d. Low Low Set (LLS) valves using Div 1 keylock switches in AEER IAW LGA-004, "RPV Blowdown."

QUESTION: 080 (1.00)

Which of the following meets the criteria of a fuel handling accident?

a. Dropped fuel bundle in the cattle chute.

b. Dropped double blade guide in the cattle chute.

c. Fuel misplaced in the reactor vessel.

d. Fuel misplaced in the spent fuel pool.

QUESTION: 081 (1.00)

The plant was operating at full power. A loss of feedwater followed by a reactor scram occurred. Plant conditions are as follows:

- Reactor pressure is 900 psig, and MSIVs have failed open.
- HPCS and RCIC are inoperable
- Condensate/Feedwater cannot be restored
- Both CRD pumps are running
- RPV level is -75 inches on WR, decreasing at a rate of about 15 inches/min.
- Drywell Pressure is 1.6 psig.

The Shift Supervisor has executed LGP 3-2. The appropriate action per LGA-001 is to . . .

a. maintain RPV pressure less than 1059 psig using BPVs and SRVs, increase CRD injection rate to restore RPV level 11 to 59.5 inches.

b. maintain RPV pressure less than 1059 psig using BPVs ONLY, and inject with SBLC from the test tank to maintain RPV level above -150 inches.

c. reduce RPV pressure rapidly (greater than 100 deg F/hr) and maintain less than 440 psig with BPVs ONLY, and inject with LPCS to restore RPV level 11 to 59.5 inches.

d. reduce and maintain RPV pressure between 50 and 150 psig with the BPVs and SRVs, and inject with Clean Condensate to maintain RPV level above -150 inches WR.

QUESTION: 082 (1.00)

A condition related to unknown reactor vessel water level where Adequate Core Cooling exists is described by . . .

a. LGA-001 directed LGA-005 entry, 6 SRVs open, RPV pressure is 25 psig.

b. LGA-001 directed LGA-005 entry, 5 SRVs open, RHR Head Spray established.

c. LGA-010 directed LGA-005 entry, 6 SRVs are open, RPV pressure is 340 psig.

d. LGA-010 directed LGA-005 entry, 7 SRVs are open, RPV pressure is 200 psig.

QUESTION: 083 (1.00)

The LGA-010 Failure to Scram procedure level leg directs operators to lower reactor water level rapidly to at least -60 inches if reactor power is above 3% or unknown. This lower water level decreases power . . .

a. and ensures feedwater sparger nozzles are uncovered to help minimize power oscillations.

b. while allowing margin for feedwater sparger nozzles to remain covered to prevent thermal shock.

c. and ensures core spray inlet lines are uncovered to minimize inlet subcooling if injection is needed.

d. sufficiently while allowing margin for core spray inlet lines to remain covered to prevent thermal shock if injection is needed.

QUESTION: 084 (1.00)

Unit 1 was in Mode 1 at 100% reactor power. During a daily surveillance at 9:00 am on April 1, SP water levels were reported to be +3.5 inches on one instrument, and +3.2 inches on another instrument. Instrument technicians were called in to perform a calibration check on both instruments, and preliminarily indicated that there were no problems with the instrument operation.

At 9:30 am, the Unit Supervisor directed actions to lower SP water level concurrent with the instrument technicians performing their calibration check.

The Unit Supervisor identified that on March 31, at 9:00 pm, the SP level was last verified by TS surveillance SR 3.6.2.2.1 at +2 inches.

The applicable required actions and associated completion times are: restore SP level by 11:00 am on April 1, or be in Mode 3 by _____(1)_____ on April 1, or be in Mode 4 by _____(2)_____.

a. (1) 11:00 pm; (2) 11:00 pm on April 2

b. (1) 11:00 pm; (2) 11:00 am on April 3

c. (1) 9:00 pm; (2) 9:00 pm on April 2

d. (1) 9:00 pm; (2) 9:00 am on April 3

QUESTION: 085 (1.00)

A small primary system leak that CANNOT be isolated developed on Unit 1 in the vicinity of the Reactor Sample Station. Reactor Building Ventilation (VR) exhaust radiation levels were 40 mrem/hr and constant prior to VR isolating. Radiation levels in the vicinity of the Reactor Sample Station are 1100 mrem/hr and rising slowly.

The corrective actions to be taken and bases for those actions include:

a. starting VR per LGA-VR-01 because VR will do a better job of maintaining area temperatures and differential pressure than VG.

b. shutting down the reactor per LGP-2-1 to reduce decay heat levels and energy discharged to containment without introducing an unnecessary transient on plant systems.

c. scramming the reactor and entering LGA-001 to reduce energy that the RPV may be discharging to the Secondary Containment because adequate core cooling, containment integrity, and/or the continued operability of equipment necessary to perform a safe shutdown may not be assured.

d. scramming the reactor and entering LGA-001, followed by LGA-004, "RPV Blowdown," to preclude further temperature increases by rejecting the heat to the SP instead of outside the Primary Containment because the problem is widespread.

QUESTION: 086 (1.00)

Unit 1 was operating at 100% power with no equipment abnormalities noted. A surveillance test identified one low pressure injection line permissive pressure switch, 1E21-N413, for LPCS, with a setpoint of 480 psig. The applicable TS required action(s) is (are) . . .

a. TS 3.5.1, RA A.1 only

b. TS 3.3.5.1, RA D.1 AND D.3 only

c. TS 3.3.5.1, RA D.1, D.2, AND TS 3.5.1, RA A.1

d. TS 3.3.5.1, RA D.1 AND RA D.2

QUESTION: 087 (1.00)

The Technical Specification bases for the Main Steam Line Pressure-Low Primary Containment Isolation is . . .

a. protection from RPV cooldown greater than 100°F/hour.

b. ensuring that offsite dose limits of 10CFR 100 are not exceeded.

c. providing diversity to the high steam line flow isolation.

d. providing detection and prevention of a leak in any Main Steam Line.

QUESTION: 088 (1.00)

Unit 1 is operating at 100% power. The SAT was providing power to bus 141Y. Bus 141Y Voltage decreased to 3800 Volts for ONE MINUTE. ACB 1412 _____(1)_____ AND operators should respond IAW LOA-AP-101, "Unit 1, AC Power System Abnormal," _____(2)_____ section.

a. (1) will trip (2) Degraded voltage

b. (1) will trip (2) Loss of Bus 141Y

c. (1) will remain closed (2) Degraded voltage

d. (1) will remain closed (2) Loss of Bus 141Y

QUESTION: 089 (1.00)

Operators trying to exit the reactor building reported that only one door at the DG corridor airlock can be opened and annunciator "RB 3 DOOR AIRLOCK F21 UNDERVOLTAGE" alarmed. The Unit Supervisor dispatched operators to the reactor building to complete required actions.

In accordance with LOA-AP-101 Attachment L, since power is lost to _____(1)_____, the Unit Supervisor should direct the operators to _____(2)_____.

a. (1) both doors at the DG corridor airlock;
(2) close the door to reset the interlock, then open the next door

b. (1) both doors at the DG corridor airlock;
(2) bypass the interlock with jumpers located in the DG corridor to simultaneously open both doors

c. (1) an interlock relay;
(2) open breakers to de-energize the interlock relays to simultaneously open both doors

d. (1) an interlock relay;
(2) reset the undervoltage relay logic for the airlock doors in the control room to open both doors

QUESTION: 090 (1.00)

On July 5, both Units were at 100% power. During a review of surveillance packages completed on July 4 for performances of SR 3.8.6.2 for all batteries, the following conditions were noted:

- one 250V battery cell has an electrolyte level below the top of the plates
- one Div 1 125V battery cell had a corrected specific gravity reading of 1.186 when average reading of cells was 1.206
- Div 2 125V battery was on a float charge of one ampere following discharge on June 30 with no specific gravity readings taken
- Div 3 125V battery was discharged to 108V on June 22 and temperature readings revealed that some cells were 60°F
- no other abnormal conditions were noted.
- the last surveillance on these batteries was successfully completed on April 5.

The surveillance procedure requires review of results to determine if equipment is operable in accordance with Technical Specifications. The OPERABLE battery(s) and required action(s) in effect is (are) the . . .

a. 250V battery with RA A.1 AND A.2 in effect.

b. Div 1 125V battery with RA A.1, A.2 AND A.3 in effect.

c. Div 2 125V battery with RA A.1, A.2 AND A.3 in effect.

d. Div 3 125V battery was operable for June, inoperable on July 3, but currently operable.

QUESTION: 091 (1.00)

During a surveillance test involving calibration of the four wide range reactor vessel level indication instrument loops, an Instrument Technician inadvertently left the instrument root valves to the reference legs for the instruments closed. The reference side of the instrument was pressurized to 1000 psig.

If a rapid depressurization event with lowering reactor vessel level below Level 2 occurred, and the Unit Supervisor entered LGA-001, "RPV Control," indicated wide range level would be _____(1)_____, and _____(2)_____would be the most reliable.

a. (1) higher than actual; (2) fuel zone level instruments

b. (1) higher than actual; (2) a shutdown range indication

c. (1) below actual level; (2) fuel zone level instrument

d. (1) below actual level; (2) shutdown range indication

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QUESTION: 092 (1.00)

Unit 1 was initially at full power with no TIP surveillances in progress. The ARM for the "RB Tip Drive Units Area" alarmed with a constant reading of 10 R/hr. Subsequently, a plant operator reported the RB HCU South ARM was in alarm and reading 30 mr/hr. Other plant operators report no observable leakage in the HCU or TIP room areas and no other indications of abnormal leakage.

The expected reactor control actions, if any, to be directed by the Unit Supervisor would be _____(1)_____, and the expected condition of SBGT and RB Ventilation systems would be _____(2)_____.

a. (1) no action because max safe value criteria not exceeded;
   (2) SBGT stopped, RB Ventilation running

b. (1) shutdown the reactor because max safe value criteria exceeded;
   (2) SBGT stopped, RB Ventilation running

c. (1) scram the reactor because max safe value approached or exceeded;
   (2) SBGT running, RB Ventilation stopped

d. (1) scram the reactor and blowdown per LGA-004 or LGA-006 because max safe value approached or exceeded;
   (2) SBGT running, RB Ventilation stopped

QUESTION: 093 (1.00)

Assume an abnormal increase in Off Gas Post-Treatment Monitoring System radiation levels.

1. decrease in steam jet air ejector flow
2. closure of the Off Gas Charcoal Adsorber Train Bypass Stop Valve, 1N62-F043
3. mechanical vacuum pump start
4. closure of the OG system Outlet Valve, 1N62-F057

The above actions that will result in reducing offsite radioactive release rates resulting from radio-nuclides in the off-gas (OG) system are . . .

a. 1 only

b. 2 and 3 only

c. 3 and 4 only

d. 1, 2, and 4 only

QUESTION: 094 (1.00)

LGA-009, "Radioactive Release Control" can . . .

a. ONLY be initially entered if entry conditions are satisfied.

b. ONLY be entered as an action from LGA-003, Primary Containment Control.

c. ONLY be entered as an action from LGA-002, Secondary Containment Control.

d. be entered as an action from ANY LGA.

QUESTION: 095 (1.00)

With Unit 2 at beginning of core life, an event resulted in an automatic scram. The NSO positioned the Mode Switch to SHUTDOWN. Plant conditions are as follows:

- reactor water level dropped to -25 inches
- 3 control rods remain at notch 08, all other control rods are full in
- all other reactor and containment parameters are normal

The Unit Supervisor's first directed action would be . . .

a. Initiate ADS

b. Bypass MSIVs

c. Trip Reactor Recirc Pumps

d. Terminate and prevent injection from HPCS, LPCS, & LPCI

QUESTION: 096 (1.00)

In accordance with EP-AA-113 "Protective Actions, " _____(1)_____ are to be considered for actions protecting onsite personnel, and _____(2)_____ are (is) to be considered for actions protecting offsite personnel.

1. Radiological Controls
2. Emergency Dose Limits (in excess of 10 CFR 20 limits)
3. Thyroid Blocking Agents (Potassium Iodide)
4. Evacuation
5. Site Assembly

a. (1) 1, 2, 3, 4, and 5; (2) 4 only

b. (1) 1, 2, 3, 4, and 5; (2) 3 and 4 only

c. (1) 1, 2, 4, and 5 only; (2) 4 only

d. (1) 1, 2, 4, and 5 only; (2) 3 and 4 only

QUESTION: 097 (1.00)

With Unit 1 at 50% power, a malfunction in the feedwater level control system causes reactor water level to decrease to +5 inches. After the transient subsides, the following conditions exist:

- reactor pressure 1050 psig decreasing
- reactor water level 18 inches steady
- main turbine tripped
- power range indicators unavailable
- IRMs fully inserted

The reactor operator reports that neutron level is steady and reading 100 on Range 10 of the IRMs. Reactor power is _____(1)_____and LGA 010, "Failure to Scram" requires that Recirculation pumps _____(2)_____.

a. (1) 40%; (2) be tripped

b. (1) 4%; (2) be tripped

c. (1) 40%; (2) remain operating

d. (1) 4%; (2) remain operating

QUESTION: 098 (1.00)

An operator on rounds reports that his digital dosimetry is alarming on dose rate while touring the RT pump room. The indicated dose rate is greater than that allowed by the RWP. The SRO should direct the rounds operator to . . .

a. leave the radiologically controlled area and report to RP.

b. obtain new dosimetry at the WEC.

c. wait in the area for an RP to arrive.

d. initiate a Condition Report and continue with rounds.

QUESTION: 099 (1.00)

The Reactor Mode Switch is in the SHUTDOWN position with no reactor recirculation pumps running.

- 'A' train of RHR shutdown cooling (SDC) has been inoperable for the last 24 hours due to pump problems.
- 'B' train of SDC was taken out of service and declared inoperable due to surveillance testing starting at 2 p.m. Average reactor coolant temperature was 180°F.
- average reactor coolant heatup rate since the B train was taken out of service has been constant at about +10°F/hr.

If the surveillance testing was still in progress at 5:30 pm, no changes had been reported for the 'A' loop, and average coolant temperature progressed according to the above information, then according to the SDC portion of Technical Specifications, the required actions and completion times in effect are . . .

a. verify alternate decay heat removal method within 1 hour and every subsequent 24 hours.

b. verify alternate method of coolant circulation within 1 hour of discovery and every 12 hours thereafter, and monitor reactor coolant temperature and pressure once per hour.

c. initiate action to restore each inoperable SDC loop immediately, and verify two alternate decay heat removal methods are available (one for the A and one for the B loop) within 1 hour, and be in mode 4 within 24 hours.

d. initiate action to restore one SDC loop or one recirculation pump immediately, and verify alternate method of reactor coolant circulation within 1 hour of discovery of no reactor coolant circulation and every 12 hours thereafter, and monitor reactor coolant temperature and pressure once per hour.

QUESTION: 100 (1.00)

In order to move fuel, the fuel handling SRO must be . . .

a. within phone contact

b. on the refuel bridge

c. at the refuel floor managers desk

d. within 10 minutes of the refuel floor

(********** END OF EXAMINATION **********)

ANSWER: 001 (1.00)
b.
REFERENCE:
EHC electrical lesson plans (074)
New
Higher
241000K317 ..(KA's)

ANSWER: 002 (1.00)
c.
REFERENCE:
071 Main Turbine and Auxiliaries, VIII.A.2.e.1, page 32 of 56
077 Feedwater Lesson Plan, Section VII.A.6
008 Main Generator and Excitation Lesson Plan, Section IV.A,
IV.A.4, IV.D.1, pgs 22 and 23
111, Circulating Water System Lesson Plan, Section VII.B.2, pg.
31
New
Higher
295005K202 ..(KA's)

ANSWER: 003 (1.00)
d.
REFERENCE:
022 Reactor Recirculation Lesson Plan Section, pages 17 -20.
023 Recirculation Flow Control Lesson Plan, pg 15
New
Higher
295006K306 ..(KA's)

ANSWER: 004 (1.00)
b.

REFERENCE:
Lesson Plan 032-RCIC
New
Higher
295007A103 ..(KA's)

ANSWER: 005 (1.00)
b.
REFERENCE:
027 RWCU System Lesson Plan, pages 12-15
Dwg RT-1, RWCU System
New
Higher
295009A203 ..(KA's)

ANSWER: 006 (1.00)
b.
REFERENCE:
093 Containment Vent and Purge Lesson Plan
Drawing VQ-1, Primary Containment Purge
LGA-VQ-01, Containment Vent
New
Memory
2.3.11 295010 ..(KA's)

ANSWER: 007 (1.00)
a.
REFERENCE:
BWR Thermodynamics, Core Thermal Limits
Modified
Higher
295014K105 ..(KA's)

ANSWER: 008 (1.00)
d.
REFERENCE:
LGP 3-2, "Reactor Scram," Attachment E
025 Control Rod Drive Hydraulics Lesson Plan pgs 8 and 17
Dwg RD-1, CRD Hydraulic System
Dwg RM-1, Reactor Manual Control System
New
Higher
295015K201 ..(KA's)

ANSWER: 009 (1.00)
a.
REFERENCE:
049 Reactor Protective System Lesson Plan
Dwg RP-1, Reactor Protection
New
Fundamental
295024K306 ..(KA's)

ANSWER: 010 (1.00)
a.
REFERENCE:
Dwg RR3, "Reactor Recirculation Power Distribution"
022 Recirculation System Lesson Plan, pgs 19 and 20
026 Alternate Rod Insertion Lesson Plan
New
Higher
295025A107 ..(KA's)

ANSWER: 011 (1.00)
a. or c.
REFERENCE:
LOA-AR-101, Area Radiation Monitoring System Abnormal Procedure
118 Reactor Building Ventilation Lesson Plan
Modified
Higher
290001A101 ..(KA's)

ANSWER: 012 (1.00)
a.
REFERENCE:
090 Primary and Secondary Containment Lesson Plan
094 Hydrogen Recombiner Lesson Plan
New
Fundamental
500000K101 ..(KA's)

ANSWER: 013 (1.00)
a.
REFERENCE:
080 Offgas Lesson Plan
New
Higher
295002K207 ..(KA's)

ANSWER: 014 (1.00)
d.
REFERENCE:
005, "AC Distribution Lesson Plan"
New
Fundamental
295003K303 ..(KA's)

ANSWER: 015 (1.00)
a.
REFERENCE:
090 Primary and Secondary Containment Lesson Plan
Technical Specification 3.6.2.1
New
Higher
295013K302 ..(KA's)

ANSWER: 016 (1.00)
b.
REFERENCE:
LGA-VQ-01, Containment Vent
Dwg VG-1, "Standby Gas Treatment System"
Dwg M-153, Sh 1, Process radiation Monitoring System
New
Higher
295017A109 ..(KA's)

ANSWER: 017 (1.00)
d.
REFERENCE:
114 RBCCW Lesson Plan, pg 4, 5
091 Primary Containment Isolation System, pg 17 and42
New
Higher
295018A203 ..(KA's)

ANSWER: 018 (1.00)
c.
REFERENCE:
LOA-IA-101, Rev 0 Attachments A and B.
075 Condensate and Condensate Booster System Lesson Plan, pg 22
029 Fuel Pool Cooling Lesson Plan
113 TBCCW Lesson Plan
New
Higher
2.1.27 295019 ..(KA's)

ANSWER: 019 (1.00)
d.
REFERENCE:
LOA-RH-101, RHR Abnormal
LOP-RH-17, Shutdown Cooling System Startup, Operation, and Transfer
New
Higher
295020K104 ..(KA's)

ANSWER: 020 (1.00)
d.
REFERENCE:
024 Control Rod Drive Mechanism Lesson Plan
new
higher
295022K203 ..(KA's)

ANSWER: 021 (1.00)
c.
REFERENCE:
090 Primary and Secondary Containment Lesson Plan
064 Residual Heat Removal Lesson Plan
New
Memory
295026K302 ..(KA's)

ANSWER: 022 (1.00)
c.
REFERENCE:
90, Primary and Secondary Containments
LGA-003 Primary Containment Control (LGA Lesson Plan)
New
Higher
295028A205 ..(KA's)

ANSWER: 023 (1.00)
b.
REFERENCE:
090 Primary and Secondary Containment Lesson Plan
New
Memory
295030K103 ..(KA's)

ANSWER: 024 (1.00)
a.
REFERENCE:
090 Primary and Secondary Containment System Lesson Plan, pg 26 and 27
095 Standby Gas Treatment System Lesson Plan
New
Higher
295035K301 ..(KA's)

ANSWER: 025 (1.00)
d.
REFERENCE:
Recirculation Flow Control Lesson Plan 23-1
bank
higher
202002A301 ..(KA's)

ANSWER: 026 (1.00)
c.
REFERENCE:
Dwg. RH-2, "RHR Modes of Operation"
LGA-001, RPV Control
064 Residual Heat Removal System Lesson Plan
New
Higher

203000A410 ..(KA's)

ANSWER: 027 (1.00)
b.
REFERENCE:
028 Standby Liquid Control Lesson Plan
Electrical Dwg 1E-1-4209AA and AB, Schematic of SBLC
Big Notes Dwg SC-1, SBLC
LOR-1H13-P603-A105, SBLC Squibb vlv continuity loss alarm
New
Higher

211000K202 ..(KA's)

ANSWER: 028 (1.00)
d.
REFERENCE:
022 Reactor Recirculation Lesson Plan, pg 11
New
Higher

212000K311 ..(KA's)

ANSWER: 029 (1.00)
c.
REFERENCE:
042 Intermediate Range Monitor Lesson Plan, pgs 31
050 Process Computer Lesson Plan
New
Memory
215003K406 ..(KA's)

ANSWER: 030 (1.00)
c.
REFERENCE:
041 Source Range Monitor Lesson Plan, pg 6
LOP-NR-01, Source Range Monitors, pg 6
new
fundamental
215004K503 ..(KA's)

ANSWER: 031 (1.00)
d.
REFERENCE:
LIP-NR-904, LPRM Cable and Connector Checks
043 LPRM Lesson Plan
044 APRM Lesson Plan, Pg 8
LOR-1H13-P603-A405, A505, B203 B303 (Annunciator Response Procedures)
NR-4, APRM Simplified Schematic
Figure 44-01, APRM Channel and Trip Units
New
Higher
215005K603 ..(KA's)

ANSWER: 032 (1.00)
b.
REFERENCE:
LOR 1H13-P601-D411, Div1 RCIC Equip Area Diff/Amb Temp Hi alarm
procedure
New
higher
217000A215 ..(KA's)

ANSWER: 033 (1.00)
a.
REFERENCE:
62, Automatic Depressurization System
40, Reactor Vessel Instrumentation (Figures 040-6, -07, -08, and -09)
New
Higher
218000A309 ..(KA's)

ANSWER: 034 (1.00)
b.
REFERENCE:
LaSalle Exam Bank 094.00.06
Lesson Plan 094, Hydrogen Recombiner, pg 10 & 12
LGA-HG-01
Bank
memory
223001A413 ..(KA's)

ANSWER: 035 (1.00)
b.
REFERENCE:
062 Automatic Depressurization System Lesson Plan
070 Main Steam Lesson Plan
Dwg NB-1, ADS
NEW
Memory
239002K108 ..(KA's)

ANSWER: 036 (1.00)
d.
REFERENCE:
Dwg. AP-3, AC Distribution
1E-1-4000M and 1E-1-4000NF
LGP 2-1, Normal Reactor Shutdown
NEW
Higher
259001K201 ..(KA's)

ANSWER: 037 (1.00)
d.
REFERENCE:
078-1 U1 TDRFP Speed Control System Lesson Plan
new
memory
259002K412 ..(KA's)

ANSWER: 038 (1.00)
d.
REFERENCE:
E-prints: 1E-1-4000M, P, BQ, DN (Bus 136X-1)
005 AC Distribution Lesson Plan
095 Standby Gas Treatment Lesson Plan
NEW
Higher
261000K603 ..(KA's)

ANSWER: 039 (1.00)
a.
REFERENCE:
LOS-DG-M2, "Diesel Generator Operability Test"
011 Emergency Diesel Generator Lesson Plan, pg 53
NEW
Memory

264000K505 ..(KA's)

ANSWER: 040 (1.00)
b.
REFERENCE:
047 Reactor Manual Control System Lesson Plan, pg 18
Rod Worth Minimizer, Figure 48-06
Dwg RM-1, Reactor Manual Control System
NEW
Higher
214000A402 ..(KA's)

ANSWER: 041 (1.00)
a.
REFERENCE:
LOA-RH-102, Unit 2 RHR Abnormal
LOA-FC-201, Unit 2 Fuel Pool Cooling System Abnormal
Dwg RH-2, RHR Modes of Operation
NEW
Higher
219000A212 ..(KA's)

ANSWER: 042 (1.00)
a.
REFERENCE:
011 Emergency Diesel Generator Lesson Plan, pgs 45, 57, 74
LTA 500-109, Unit 1 Integrated Division I Response Time
Surveillance Test
LGA-RH-103, "Unit 2 A/B RHR Operations in the LGAs/LSAMGs"
new
higher
226001A110 ..(KA's)

ANSWER: 043 (1.00)
a.
REFERENCE:
Dwg. RH-2, RHR Modes of Operation
Dwg 1E-1-4000CV, 480 VAC, MCC135Y-2
new
higher
230000K604 ..(KA's)

ANSWER: 044 (1.00)
b.
REFERENCE:
Dwg. MS-2, Main Steam Details
070 Main Steam Lesson Plan, pgs 14 and 15
LOP-AA-03, Primary Containment Isolations, pg 17
new
higher
239001K506 ..(KA's)

ANSWER: 045 (1.00)
a.
REFERENCE:
079 Heater Drain Lesson Plan, pg 4
075 Condensate and Condensate Booster System Lesson plan, pgs 12
and 21
Dwg HD-1, Heater Drains
NEW
Higher
239001A110 ..(KA's)

ANSWER: 046 (1.00)
d.
REFERENCE:
Dwg AP-1, AC Distribution
Figure 03-02, Switchyard Layout
NEW
Memory

262001K201 ..(KA's)

ANSWER: 047 (1.00)
a.
REFERENCE:
Licensee Question Bank 050.00.16
050 Lesson Plan, Process Computer
Bank
Memory
262002K106 ..(KA's)

ANSWER: 048 (1.00)
c.
REFERENCE:
LOR 0PL01J-L202, Annunciator Response Procedure, "RW Discharge
High Rad/Inop or Low Sample Flow"
121 Liquid Processing and Sumps Lesson Plan, pg 33
Dwg. LRW-1, Liquid Processing and Sump Systems
NEW
Memory

272000A303 ..(KA's)

ANSWER: 049 (1.00)
a.
REFERENCE:
Unit 1 Reactor Water Level Control Lesson Plan 031-1
New
Higher
295008A202 ..(KA's)

ANSWER: 050 (1.00)
c.
REFERENCE:
LOA-FC-101, "Unit 1 Fuel Pool Cooling System Abnormal Procedure,"
LOP-RH-15, RHR in Fuel Pool Cooling Assist Mode
Dwg RH-2, RHR Modes of Operation
NEW
Memory
233000K403 ..(KA's)

ANSWER: 051 (1.00)
d.
REFERENCE:
LAP 200-1, "Conduct of Operations"
NEW
Memory
2.1.1 ..(KA's)

ANSWER: 052 (1.00)
b.
REFERENCE:
LAP 200-1, Conduct of Operations
LGP-1-S1, Master Startup Checklist
NEW
Memory
2.1.14 ..(KA's)

ANSWER: 053 (1.00)
d.
REFERENCE:
Dwg RM-1, Reactor Manual Control System
LAP 200-1, "Conduct of Operations"
new
fundamental
2.1.30 ..(KA's)

ANSWER: 054 (1.00)
a.
REFERENCE:
LOP-VQ-04, Vent/Purge Primary Containment
new
fundamental
2.1.31 ..(KA's)

ANSWER: 055 (1.00)
c.
REFERENCE:
LGP-1-1, "Normal Unit Startup"
New
Memory
2.2.2 ..(KA's)

ANSWER: 056 (1.00)
b.
REFERENCE:
OP-AA-101-201, Station Equipment Out of Service
NEW
Higher
2.2.13 ..(KA's)

ANSWER: 057 (1.00)
d.
REFERENCE:
OP-AA-101-302, Degraded Equipment Program
OP-AB-101-206, Short Duration Time Clock
OP-AA-101-402, Operating Records
NEW
Memory
2.2.23 ..(KA's)

ANSWER: 058 (1.00)
d.
REFERENCE:
Lesson Plan 9, Main Generator and Auxiliaries, pg 4
modified
higher
245000K409 ..(KA's)

ANSWER: 059 (1.00)
a. or c.
REFERENCE:
No Ref Provided
NEW
Higher

2.3.2 ..(KA's)

ANSWER: 060 (1.00)
c.
REFERENCE:
RP-AA-203, Exposure Review and Authorization
new
higher
2.3.4 ..(KA's)

ANSWER: 061 (1.00)
d.
REFERENCE:
LRP 1120-3, "Drywell Access During Fuel Moves"
NEW
Memory
2.3.10 ..(KA's)

ANSWER: 062 (1.00)
c.
REFERENCE:
LGA-003, Primary Containment Control
NEW
Higher
2.4.1 ..(KA's)

ANSWER: 063 (1.00)
d.
REFERENCE:
40 Lesson Plan, Reactor Vessel Instrumentation
LAP-1600-15, Regulatory Guide 1.97 Instruments
new
fundamental
2.4.3 ..(KA's)

ANSWER: 064 (1.00)
b.
REFERENCE:
UFSAR 7.7.6.3.2
Lesson Plan 45
New
Memory
215002A306 ..(KA's)

ANSWER: 065 (1.00)
b.
REFERENCE:
Lesson Plan 61
OBJ 061.00.05
Bank
Memory
209002K109 ..(KA's)

ANSWER: 066 (1.00)
b.
REFERENCE:
LGP-3-2, "Reactor Scram"
new
higher
2.1.23 295037 ..(KA's)

ANSWER: 067 (1.00)
c.
REFERENCE:
LOA-RH-101, Unit 1 RHR Abnormal
LOP-RH-17, Alternate Shutdown Cooling
LOP-CD-10, Main Condenser as Alternate Decay Heat Removal
Dwg 1E-1-4000M and P, 6900 and 4160 VAC Buses
New
higher
295021A104 ..(KA's)

ANSWER: 068 (1.00)
c.
REFERENCE:
ITS TS 3.4.1
New
fundamental
295001K103 ..(KA's)

ANSWER: 069 (1.00)
b.
REFERENCE:
LGA-003
New
Higher
295012K102 ..(KA's)

ANSWER: 070 (1.00)
a.
REFERENCE:
Lesson Plan 54
New
Memory
295016K303 ..(KA's)

ANSWER: 071 (1.00)
a.
REFERENCE:
118 Reactor Building Ventilation Lesson Plan
new
fundamental
288000K603 ..(KA's)
SENIOR REACTOR OPERATOR

ANSWER: 072 (1.00)
a.
REFERENCE:
LOA-FP-101
FP system lesson plan Pg19
New
higher
286000A208 ..(KA's)

ANSWER: 073 (1.00)
d.
REFERENCE:
1H13-P601-C205, "1A RHR PMP Cubicle Temp Hi"
System Description 125, Fire Protection
New
Fundamental

295032A104 ..(KA's)

ANSWER: 074 (1.00)
a.
REFERENCE:
LOA-DC-101 pg 179
New
Higher
295004A102 ..(KA's)

ANSWER: 075 (1.00)
d.
REFERENCE:
LGA-VQ-01 section F
New
Higher

295010K301 ..(KA's)

ANSWER: 076 (1.00)
a.
REFERENCE:
Lesson Plan 030, Fuel Handling system
New
Memory
295023K201 ..(KA's)

ANSWER: 077 (1.00)
d.
REFERENCE:
LGA-009
SRO due to 55.43.5
New
Memory

295038A201 ..(KA's)

ANSWER: 078 (1.00)
a.
REFERENCE:
EP-AA-111
New
Memory

2.3.4 295017 ..(KA's)

ANSWER: 079 (1.00)
a. or b.
REFERENCE:
ADS lesson plans. Big Notes. IN-1, UFSAR 15.9.3.3
New
higher

295003K106 ..(KA's)

ANSWER: 080 (1.00)
a.
REFERENCE:
LOA-FH-001, Revision 1
Modified
Memory

295023A204 ..(KA's)

ANSWER: 081 (1.00)
c.
REFERENCE:
LGA-001 RPV control, anticipate blowdown
Modified
Higher

295025K211 ..(KA's)

ANSWER: 082 (1.00)
d.
REFERENCE:
LGA-001,010,005
LPGP-PSTG-01S11
Modified
Memory
295031A204 ..(KA's)

ANSWER: 083 (1.00)
a.
REFERENCE:
BWR EP/SAG AppB -14-12
LGA-010
LPGP-PSTG-01S12 pg 24
New
Fundamental
2.4.18 295037 ..(KA's)

ANSWER: 084 (1.00)
a.
REFERENCE:
ITS 3.6.2.2
New
Higher
2.1.12 295029 ..(KA's)

ANSWER: 085 (1.00)
c.
REFERENCE:
LOR-1H13-P601-F204 Div 1 Rx Bldg Vent radiation High-High
LGA-002 Secondary Containment Control
LGA-004, LGA-009
Bank
Higher
295034K305 ..(KA's)

ANSWER: 086 (1.00)
deleted
REFERENCE:
TS 3.3.5.1
TS 3.5.1
LIS-NB-118A
New
Higher
2.1.12 209001 ..(KA's)

ANSWER: 087 (1.00)
a.
REFERENCE:
TS Bases Volume 1 Book 2 B3.3.6.1-8
New
Memory
2.2.25 223002 ..(KA's)

ANSWER: 088 (1.00)
c.
REFERENCE:
LOA-AP-101, Section B.4
New
Higher
262001A103 ..(KA's)

ANSWER: 089 (1.00)
c.
REFERENCE:
LOA-AP-101 Att L: 77 of 110
TS 3.4.6.1
New
higher
290001A201 ..(KA's)

ANSWER: 090 (1.00)
b.
REFERENCE:
ITS 3.8.6
New
Higher
2.2.12 263000 ..(KA's)

ANSWER: 091 (1.00)
c.
REFERENCE:
System 40 Lesson Plan
New
Higher
216000A103 ..(KA's)

ANSWER: 092 (1.00)
a.
REFERENCE:
LGA-002
New
Higher
295033K204 ..(KA's)

ANSWER: 093 (1.00)
d.
REFERENCE:
Lesson Plan 80, Offgas
New
High
271000K302 ..(KA's)

ANSWER: 094 (1.00)
a.
REFERENCE:
LGA Lesson Plans - Flow Chart Use
New
Memory
2.4.14 ..(KA's)

ANSWER: 095 (1.00)
d.
REFERENCE:
LGA-010, Failure to Scram Lesson Plan
New
Memory
2.4.21 ..(KA's)

ANSWER: 096 (1.00)
a.
REFERENCE:
EP-AA-113, Protective Actions 4.2 and 4.3
EP-AA-111
New
Memory
2.4.44 ..(KA's)

ANSWER: 097 (1.00)
a.
REFERENCE:
042 Intermediate Range Lesson Plan
New
Higher
295037A106 ..(KA's)

ANSWER: 098 (1.00)
a.
REFERENCE:
LOA-RA-101
New
fundamental
2.3.5 ..(KA's)

ANSWER: 099 (1.00)
d.
REFERENCE:
TS sections 3.4.9 and3.4.10
New
Higher

2.1.12 205000 ..(KA's)

ANSWER: 100 (1.00)
b.
REFERENCE:
LFP 100-1, Master Refuel Procedure
NEW
Memory
2.2.26 ..(KA's)

(********** END OF EXAMINATION **********)

A N S W E R K E Y
MULTIPLE CHOICE

001 b	021 c	041 a	061 d	081 c
002 c	022 c	042 a	062 c	082 d
003 d	023 b	043 a	063 d	083 a
004 b	024 a	044 b	064 b	084 a
005 b	025 d	045 a	065 b	085 c
006 b	026 c	046 d	066 b	086 deleted
007 a	027 b	047 a	067 c	087 a
008 d	028 d	048 c	068 c	088 c
009 a	029 c	049 a	069 b	089 c
010 a	030 c	050 c	070 a	090 b
011 a or c	031 d	051 d	071 a	091 c
012 a	032 b	052 b	072 a	092 a
013 a	033 a	053 d	073 d	093 d
014 d	034 b	054 a	074 a	094 a
015 a	035 b	055 c	075 d	095 d
016 b	036 d	056 b	076 a	096 a
017 d	037 d	057 d	077 d	097 a
018 c	038 d	058 d	078 a	098 a
019 d	039 a	059 a or c	079 a or b	099 d
020 d	040 b	060 c	080 a	100 b

(********** END OF EXAMINATION **********)