U. S. NUCLEAR REGULATORY COMMISSION
REGION I

DOCKET/REPORT NO: 50-410/94-24 (OL)

LICENSEE: Niagara Mohawk Power Corporation

FACILITY: Nine Mile Point Nuclear Station
Lycoming, New York

DATE: October 24, 1994

CHIEF EXAMINER: J. H. Williams, Senior Operations Engineer — Date 11/9/94
BWR Section
Division of Reactor Safety

APPROVED BY: Glenn W. Meyer, Chief — Date 11/9/94
BWR & PWR Sections
Division of Reactor Safety

EXECUTIVE SUMMARY

50-410/94-24

Operations

One NRC examiner administered initial retake licensing examinations to two candidates: one reactor operator (RO) and one senior reactor operator upgrade (SROU), for Nine Mile Point Station, Unit 2, on October 24, 1994. Both candidates passed their examinations. Because only one candidate took each written examination, no generic strengths or weaknesses were identified.

DETAILS

1.0 SUMMARY OF RESULTS

	SRO Pass/Fail	RO Pass/Fail
Written	1 / 0	1 / 0
Simulator	waived	waived
Walk-through	waived	waived
Overall	1 / 0	1 / 0

3.0 EXAM REVIEW AND POST-EXAM COMMENTS

A facility preexam review and validation was conducted during the week of October 10, 1994. The majority of changes requested by the facility were grammatical or involved plant specific terminology. Questions with unresolvable technical errors were replaced.

The facility provided post-exam comments on three examination questions for NRC review. These comments are provided as Attachment 2. NRC resolution of these comments is listed in Attachment 3. Two of the three facility comments were accepted by the NRC.

4.0 EXIT MEETING ON OCTOBER 28, 1994

An exit meeting was held Friday morning following the Monday exam. The NRC discussed problems with the extent and useability of the reference material. The facility provided preliminary comments on the examination.

ATTENDEES

FACILITY PERSONNEL	TITLE
Peter McSparran	Instructor

NRC	TITLE
Herb Williams	Senior Operations Engineer

Attachments:
1. Written Examinations and Answer Keys
2. Facility Comments
3. NRC Resolution of Facility Comments

Attachment 1

NRC Official Use Only

Nuclear Regulatory Commission
Operator Licensing
Examination

This document is removed from
Official Use Only category on
date of examination.

NRC Official Use Only

U. S. NUCLEAR REGULATORY COMMISSION
SITE SPECIFIC EXAMINATION
REACTOR OPERATOR LICENSE
REGION 1

CANDIDATE'S NAME: _____

FACILITY: Nine Mile Point 2

REACTOR TYPE: BWR-GE5

DATE ADMINISTERED: 94/10/24

INSTRUCTIONS TO CANDIDATE:

Use the answer sheets provided to document your answers. Staple this cover sheet on top of the answer sheets. Points for each question are indicated in parentheses after the question. The passing grade requires a final grade of at least 80%. Examination papers will be picked up four (4) hours after the examination starts.

TEST VALUE	CANDIDATE'S SCORE	%	
100.00	_____	___ %	TOTALS
	FINAL GRADE		

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

_____
Candidate's Signature

A N S W E R S H E E T

Multiple Choice (Circle or X your choice)

If you change your answer, write your selection in the blank.

MULTIPLE CHOICE

001	a	b	c	d	___	023	a	b	c	d	___
002	a	b	c	d	___	024	a	b	c	d	___
003	a	b	c	d	___	025	a	b	c	d	___
004	a	b	c	d	___	026	a	b	c	d	___
005	a	b	c	d	___	027	a	b	c	d	___
006	a	b	c	d	___	028	a	b	c	d	___
007	a	b	c	d	___	029	a	b	c	d	___
008	a	b	c	d	___	030	a	b	c	d	___
009	a	b	c	d	___	031	a	b	c	d	___
010	a	b	c	d	___	032	a	b	c	d	___
011	a	b	c	d	___	033	a	b	c	d	___
012	a	b	c	d	___	034	a	b	c	d	___
013	a	b	c	d	___	035	a	b	c	d	___
014	a	b	c	d	___	036	a	b	c	d	___
015	a	b	c	d	___	037	a	b	c	d	___
016	a	b	c	d	___	038	a	b	c	d	___
017	a	b	c	d	___	039	a	b	c	d	___
018	a	b	c	d	___	040	a	b	c	d	___
019	a	b	c	d	___	041	a	b	c	d	___
020	a	b	c	d	___	042	a	b	c	d	___
021	a	b	c	d	___	043	a	b	c	d	___
022	a	b	c	d	___	044	a	b	c	d	___
						045	a	b	c	d	___

A N S W E R S H E E T

Multiple Choice (Circle or X your choice)

If you change your answer, write your selection in the blank.

046	a	b	c	d	___	069	a	b	c	d	___
047	a	b	c	d	___	070	a	b	c	d	___
048	a	b	c	d	___	071	a	b	c	d	___
049	a	b	c	d	___	072	a	b	c	d	___
050	a	b	c	d	___	073	a	b	c	d	___
051	a	b	c	d	___	074	a	b	c	d	___
052	a	b	c	d	___	075	a	b	c	d	___
053	a	b	c	d	___	076	a	b	c	d	___
054	a	b	c	d	___	077	a	b	c	d	___
055	a	b	c	d	___	078	a	b	c	d	___
056	a	b	c	d	___	079	a	b	c	d	___
057	a	b	c	d	___	080	a	b	c	d	___
058	a	b	c	d	___	081	a	b	c	d	___
059	a	b	c	d	___	082	a	b	c	d	___
060	a	b	c	d	___	083	a	b	c	d	___
061	a	b	c	d	___	084	a	b	c	d	___
062	a	b	c	d	___	085	a	b	c	d	___
063	a	b	c	d	___	086	a	b	c	d	___
064	a	b	c	d	___	087	a	b	c	d	___
065	a	b	c	d	___	088	a	b	c	d	___
066	a	b	c	d	___	089	a	b	c	d	___
067	a	b	c	d	___	090	a	b	c	d	___
068	a	b	c	d	___	091	a	b	c	d	___

A N S W E R S H E E T

Multiple Choice (Circle or X your choice)

If you change your answer, write your selection in the blank.

092	a	b	c	d	___
093	a	b	c	d	___
094	a	b	c	d	___
095	a	b	c	d	___
096	a	b	c	d	___
097	a	b	c	d	___
098	a	b	c	d	___
099	a	b	c	d	___
100	a	b	c	d	___

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

NRC RULES AND GUIDELINES FOR LICENSE EXAMINATIONS

During the administration of this examination the following rules apply:

1. Cheating on the examination will result in a denial of your application and could result in more severe penalties.

2. 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.

3. To pass the examination, you must achieve a grade of 80 percent or greater.

4. The point value for each question is indicated in parentheses after the question number.

5. There is a time limit of 4 hours for completing the examination.

6. Use only black ink or dark pencil to ensure legible copies.

7. Print your name in the blank provided on the examination cover sheet and the answer sheet.

8. Mark your answers on the answer sheet provided and do not leave any question blank.

9. If the intent of a question is unclear, ask questions of the examiner only.

10. 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.

11. When you complete the examination, assemble a package including the examination questions, examination aids, and answer sheets and give it to the examiner or proctor. Remember to sign the statement on the examination cover sheet.

12. After you have turned in your examination, leave the examination area as defined by the examiner.

QUESTION: 001 (1.00)

During refueling, the "A" loop of RHR is being used for suppression pool cooling and the "B" loop of RHR is being used for shutdown cooling. If a valid Level 1 reactor water level condition occurs, WHICH ONE (1) of the following describes the response of the "A" and "B" RHR loops?

a. "A" loop realigns from suppression pool cooling mode to LPCI mode with the heat exchanger bypass valve CLOSED.
"B" loop realigns from shutdown cooling to LPCI mode with the heat exchanger bypass valve CLOSED.

b. "A" loop realigns from suppression pool cooling mode to LPCI mode with the heat exchanger bypass valve CLOSED.
"B" pump TRIPS.

c. "A" loop realigns from suppression pool cooling mode to LPCI mode with the heat exchanger bypass valve OPEN.
"B" pump TRIPS.

d. "A" loop realigns from suppression pool cooling mode to LPCI mode with the heat exchanger bypass valve OPEN.
"B" loop realigns from shutdown cooling to LPCI mode with the heat exchanger bypass valve OPEN.

QUESTION: 002 (1.00)

While performing a RCIC system surveillance test, RCIC tripped on low suction pressure and the trip signal has cleared. WHICH ONE (1) of the following actions is necessary in order to reset RCIC?

a. Wait for the turbine speed to decrease below 3600 RPM.

b. Locally reset the trip mechanism.

c. Re-latch the trip throttle valve from the Control Room.

d. Open the trip throttle valve.

QUESTION: 003 (1.00)

In response to an ATWS SLC was initiated. Both SLC control switches are placed in the Pump Run position but only the B storage tank outlet valve (MOV-1B) opened.

For the given conditions, WHICH ONE (1) of the following describes the operation of the A and B SLC pumps?

a. Both A and B pumps will start but the A pump will then trip.

b. Both pumps will start and remain running.

c. Pump B will start, pump A will not start.

d. Neither pump will start.

QUESTION: 004 (1.00)

WHICH ONE (1) of the following describes how the Standby Liquid Control (SLS) system pumps (A and B) will respond if the DIV I Storage Tank Level Transmitter failed low concurrent with a valid redundant reactivity control system (RRCS) initiation signal?

a. A and B start

b. NO pumps start

c. A ONLY starts

d. B ONLY starts

QUESTION: 005 (1.00)

WHICH ONE (1) of the following describes how the backup scram valves operate to achieve control rod insertion?

a. One valve is used to isolate the instrument air header from the scram air header; the other valve is used to vent the scram air header.

b. One valve is used to vent the scram discharge volume vent and drain valves; the other valve is used to vent the HCU scram inlet and outlet valves.

c. Either valve ENERGIZING will isolate the instrument air header from the scram air header and vent the entire scram air header.

d. Either valve DEENERGIZING will isolate the instrument air header from the scram air header and vent the entire scram air header.

QUESTION: 006 (1.00)

The reactor is in the process of being shutdown.

WHICH ONE (1) of the following scram signals is bypassed when the mode switch is placed from RUN to STARTUP/HOT STANDBY?

a. Main steam isolation valve closure.

b. Main steam line high radiation.

c. APRM inop.

d. High reactor pressure.

QUESTION: 007 (1.00)

A reactor startup is in progress. All IRMs are on range 2 except IRM 'B' which is on range 3. The SRM detectors are being withdrawn.

WHICH ONE (1) of the following would occur if the indications on SRM 'C' decrease to 70 cps while it is being withdrawn?

a. The SRM detector drive would deenergize.

b. A rod withdrawal block would be generated.

c. The SRM 'C' downscale light would illuminate.

d. A half scram would occur.

QUESTION: 008 (1.00)

During a reactor startup, the SRM detectors may be withdrawn under WHICH ONE (1) of the following conditions?

a. When all SRM detectors are between 100 and 10,000 cps.

b. When all SRM detectors are between 500 and 20,000 cps.

c. When at least 2 IRMs in each division are greater than range 3.

d. When all operable IRM range switches are above range 3.

QUESTION: 009 (1.00)

A reactor startup is in progress after a short forced outage. WHICH ONE (1) of the following is the protective action that takes place when the reactor mode switch is in STARTUP and there are fewer than 14 LPRM detectors in OPERATE for APRM channel "C"?

a. Rod select block

b. Half SCRAM on RPS A

c. Half SCRAM on RPS B

d. Full SCRAM

QUESTION: 010 (1.00)

An operator places the meter function switch for APRM 'D' to the "Count" position. If the meter indicates 100%, how many LPRMs are being input into the 'D' APRM?

a. 22 LPRMs

b. 21 LPRMs

c. 20 LPRMs

d. 14 LPRMs

QUESTION: 011 (1.00)

ADS valves are OPEN due to a valid initiation signal. With the initiation signal still present, WHICH ONE (1) of the following actions will close the ADS valves?

a. Take the ADS valve control switches to the OFF position.

b. Depress both ADS "Logic Seal In Reset" pushbuttons on the 601 control panel.

c. Take both ADS inhibit switches to the INHIBIT position.

d. Isolating the control air to the Safety Relief Valves.

QUESTION: 012 (1.00)

ADS has been initiated. RPV depressurization is in progress.

WHICH ONE (1) of the following describes how the Automatic Depressurization System (ADS) will be affected if all the low pressure ECCS pumps trip?

a. Depressurization stops; manual initiation using pushbuttons is required to re-establish depressurization when a Core Spray or RHR pump is restored.

b. Depressurization stops; automatic depressurization will be reestablished when a core spray or both pumps in a RHR loop are restored.

c. Depressurization continues without pumps running.

d. Depressurization continues for 105 sec and if no RHR or core spray pumps are back in service, then depressurization stops.

QUESTION: 013 (1.00)

WHICH ONE (1) of the following will cause ALL Drywell Unit Cooler Fans to trip?

a. 1.5 psig in the drywell.

b. A single "Reactor Building Closed Loop Cooling" containment outboard isolation valve going closed.

c. Initiating drywell spray.

d. A low primary containment gas purge temperature.

QUESTION: 014 (1.00)

A LOCA has occurred and drywell pressure is increasing. Drywell temperature has increased to 335 degrees F and RPV level is +150 inches. WHICH ONE (1) of the following actions should be taken before spraying the drywell?

a. Shift the recirc pumps to their LFMG's.

b. Secure the drywell coolers.

c. Spray the suppression pool.

d. Emergency depressurize.

QUESTION: 015 (1.00)

A small break LOCA has resulted in the drywell pressure reaching 2.3 psig. WHICH ONE (1) of the following sets of group isolation signals should have been received?

a. Groups 1 (MSIVs), 3 (TIP), 4 (RHS Sampling), 6 (WCS outboard).

b. Groups 3 (TIP), 6 (WCS outboard), 8 (Containment Aux.).

c. Groups 3 (TIP), 4 (RHS Sampling), 8 (Cont. Aux.), 9 (CPS).

d. Groups 4 (RHS Sampling), 6 (WCS outboard), 7 (WCS inboard).

QUESTION: 016 (1.00)

Concerning a Group 11 ISC RCIC vacuum breaker isolation, WHICH ONE (1) of the following describes the necessary actions for resetting the isolation?

a. Wait for the RCIC steam supply low pressure signal to clear the Rotate the reset switch collar counter-clockwise.

b. When the drywell pressure signal clears Rotate the reset switch collar counter-clockwise and press the system pushbutton.

c. Assure the high RPV level signal has cleared then rotate and depress all four reset buttons on the 602 panel.

d. No actions are required, resets automatically when the isolation signal clears.

QUESTION: 017 (1.00)

According to the Safety Relief Valve Off Normal Procedure (N2-SOP-34), WHICH ONE (1) of the following describes how a SRV, that was stuck open, is verified closed after its fuses have been removed?

a. Closed indication on P601.

b. Closed indication on both the P628 and P631 panel.

c. A decrease in indicated steam flow on the effected steamline.

d. An increase in the main turbine electrical output.

QUESTION: 018 (1.00)

The reactor is at full power. WHICH ONE (1) of the following describes the meaning of an illuminated red light at each safety relief valve control switch on the remote shutdown panel?

a. The SRV control switch is in the AUTO position.

b. The SRV solenoid closed limit switch is energized.

c. Temperature downstream of the SRV is normal.

d. There is an upper noise level trip downstream of the SRV.

QUESTION: 019 (1.00)

A reactor shutdown is in progress. RPV level control is to be transferred from three element control to single element control.

WHICH ONE (1) of the following is the PRIMARY reason that reactor power should be 25% to perform this action?

a. To minimize oscillations of the High Pressure - High Flow valves.

b. To allow feedwater level control to operate the High Pressure - Low Flow valves.

c. To prevent valve seat damage from cavitation occurring inside the level control valves.

d. To ensure that feedwater demand is within the capabilities of the Low Flow Master Level control system.

QUESTION: 020 (1.00)

The CRD flow control valve is controlling flow at 63 gpm. During an insert control rod motion, WHICH ONE (1) of the following describes the system flows established to insert the control rod?

a. Flow through insert directional control valves 4 gpm
   Flow through stabilizing valve station 2 gpm

b. Flow through insert directional control valves 6 gpm
   Flow through stabilizing valve station 0 gpm

c. Flow through insert directional control valves 2 gpm
   Flow through stabilizing valve station 4 gpm

d. Flow through insert directional control valves 4 gpm
   Flow through stabilizing valve station 6 gpm

QUESTION: 021 (1.00)

An insert block occurs along with three existing insert errors. A rod withdrawal block results.

WHICH ONE (1) of the following actions would bypass this rod withdrawal block?

a. Bypass the rod worth minimizer.

b. Taking the mode switch out of RUN.

c. Decrease reactor power below the LPSP.

d. De-select the rods causing the insert errors.

QUESTION: 022 (1.00)

WHICH ONE (1) of the following is a consequence of using the "Continuous Insert" pushbutton to insert control rods?

a. Control rod drive high temperature alarms occurring.

b. Control rod position indication will be lost during rod movement.

c. The settle function occurs immediately upon releasing the "Continuous Insert" pushbutton.

d. Control rod mechanism seal degradation

QUESTION: 023 (1.00)

A power ascension is in progress with the mode switch in RUN and the IRM detectors are being withdrawn when the 'B' IRM loses 24 vdc power.

WHICH ONE (1) of the following actions should occur?

a. Only IRM 'B' downscale alarm and rod withdrawal block occurs.

b. Only IRM 'B' inop alarm and half scram occurs.

c. Only the detector drive motor for IRM 'B' will deenergize.

d. IRM 'B' will indicate all trip conditions exist.

QUESTION: 024 (1.00)

A Traversing In-Core Probe (TIP) trace is being taken when a high drywell pressure signal (group 3) is received.

WHICH ONE (1) of the following describes the AUTOMATIC response of the TIP system?

a. The TIP shear valve immediately fires, cutting the detector cable and sealing the guide tube.

b. The TIP ball valve immediately closes, cutting the detector cable and sealing the guide tube.

c. The TIP drive shifts to reverse withdrawing the detector into the chamber shield position, then the shear valve fires.

d. The TIP drive shifts to reverse withdrawing the detector into the chamber shield position, then the ball valve closes.

QUESTION: 025 (1.00)

WHICH ONE (1) of the following is the Safety Limit for reactor vessel pressure?

a. 1250 psig as sensed in the steam dome.

b. 1250 psig as sensed in the lower head region.

c. 1325 psig as sensed in the steam dome.

d. 1325 psig as sensed in the lower head region.

QUESTION: 026 (1.00)

The control building chilled water circulating pump discharge flow has dropped to 190 gpm and all automatic actions have occurred as designed.

WHICH ONE (1) of the following is expected due to the above event?

a. Special Filter Train Booster Fan (FN2A) trips.

b. Control Room Smoke Removal Fan (FN3) trips.

c. Makeup Air Heating and Vent. Unit (HVU1) trips.

d. Relay Room Air Conditioning Unit (ACU2A) trips.

QUESTION: 027 (1.00)

The core is off loaded. Both spent fuel pool cooling pumps and both spent fuel pool cooling heat exchangers are in service providing maximum cooling. Spent fuel pool temperature is slowly rising.

WHICH ONE (1) of the following should first be considered by the SSS to maintain spent fuel pool temperature within the allowable limits?

a. Feed and bleed with the condensate transfer system and spilling to Radwaste.

b. Feed and bleed with Service Water and spilling to Radwaste.

c. Begin circulating Refuel Cavity water into the Spent Fuel Pool.

d. Place RHR in the Fuel Pool Cooling Mode.

QUESTION: 028 (1.00)

A fire has been detected in the Control Room underfloor space. WHICH ONE (1) of the following describes the expected response of the Fire Protection-Halon system?

a. All Halon banks that supply the affected zone immediately align to the supply header and discharge into the affected area.

b. One Halon bank immediately discharges; the second bank will discharge after a 30 second time delay.

c. The selected bank will discharge 30 seconds after receiving an initiation signal and the next bank will actuate when the first has completely discharged.

d. Once the first bank has depleted the second bank has to be manually aligned to supply the affected area.

QUESTION: 029 (1.00)

During plant operations an event occurs causing RPV level to decrease. In turn, drywell pressure increased to 2.1 psig. You are notified that the 'A' Recirculation Flow Control Valve HPU has tripped and transferred to the Maintenance Mode.

WHICH ONE (1) of the following describes the reason for HPU 'A' transferring to the Maintenance Mode?

a. The drywell pressure increase.

b. RPV level decreasing to Level 2.

c. A Decrease in the difference in temperature between RPV dome and the head drain.

d. RPV water level has dropped to level 4 and less than 2 feed pumps are running.

QUESTION: 030 (1.00)

Preparations are in progress to startup an idle recirculation loop. Plant conditions are as follows:

- Reactor pressure: 980 psig (540 degrees F)
- Bottom head temperature: 440 degrees F
- Operating loop temperature: 530 degrees F
- Operating loop jet pump flow: 26,000,000 lbs/hr
- Idle loop temperature: 485 degrees F

WHICH ONE (1) of the following statements describes the actions that need to be taken to start the idle recirculation pump?

The recirculation pump can be started ...

a. After raising idle loop temperature to 500 degrees F.

b. After raising bottom head temperature to 480 degrees F.

c. After reducing operating loop jet pump flow to less than 50% of rated.

d. Immediately, if the given data was taken within 15 minutes of starting the recirculation pump.

QUESTION: 031 (1.00)

The 'B' loop of RHS has just been placed in shutdown cooling and both reactor recirculation pumps have been secured.

WHICH ONE (1) of the following RPV level bands is acceptable?

a. 179 to 187 inches

b. 197 to 207 inches

c. 213 to 221 inches

d. 227 to 243 inches

QUESTION: 032 (1.00)

During refueling with RHR in the shutdown cooling mode and recirc pump 'B' operating, WHICH ONE (1) of the following protects incore instrumentation from damage?

a. Assure recirculation drive flow in maintained less than 7450 gpm.

b. Assuring RHR total flow returned to the suppression pool is maintained less than 4750 gpm.

c. Assure the combined RHR shutdown cooling and recirculation drive flow are maintained less than 5700 gpm.

d. Assure RHR shutdown cooling total flow is maintained less than 7500 gpm.

QUESTION: 033 (1.00)

WHICH ONE (1) of the following is the LOWEST dose rate which REQUIRES specifying MAXIMUM allowable stay times on the RWP for entries into radiological controlled areas?

a. 100 mrem/hr

b. 500 mrem/hr

c. 1 Rem/hr

d. 10 Rem/hr

QUESTION: 034 (1.00)

WHICH ONE (1) of the following conditions would require the presence of three (3) licensed Reactor Operators on shift.

a. The unit is in Operational Condition 1 operating at 100% power.

b. The unit is in Operational Condition 2 with a reactor startup in progress.

c. The unit is in Operational Condition 3 making preparations to place shutdown cooling in service.

d. The unit is in Operational Condition 5 with refueling operations in progress.

QUESTION: 035 (1.00)

WHICH ONE (1) of the following describes the meaning of a transparent yellow sticker on an annunciator window in the control room?

The associated annunciator ...

a. is normally lit at 100% power operations.

b. has one or more of its inputs defeated.

c. has ALL of its inputs defeated.

d. has been classified as a nuisance annunciator.

QUESTION: 036 (1.00)

WHICH ONE (1) of the following describes the requirements governing the reset of electrical protective devices during normal operations?

a. A tripped circuit breaker can be reset once without identifying/correcting the cause of the trip.

b. An MCC thermal overload can be reset once without identifying/correcting the cause of the trip.

c. Two attempts at resetting an MCC thermal overload are allowed as long as the associated circuit breaker has not tripped.

d. NEITHER a tripped circuit breaker or an MCC thermal overload can be reset until the cause has been identified/corrected.

QUESTION: 037 (1.00)

The SSS has directed emergency maintenance to be performed in a radiation area without the normal processing of a Radiation Work Permit.

WHICH ONE (1) of the following describes the radiation protection requirements governing this work?

a. The work must be continuously monitored by an RP technician.

b. An RP technician must provide intermittent coverage while work is in progress.

c. The General Supervisor Operations must give approval for the work to begin.

d. The Plant Manager must give approval for the work to begin.

QUESTION: 038 (1.00)

WHICH ONE (1) of the following represents the MINIMUM required number of fire brigade members which are normally required to be maintained on-site at all times?

a. 4

b. 5

c. 6

d. 7

QUESTION: 039 (1.00)

Before installing temporary shielding, WHICH ONE (1) of the following actions has to occur?

a. A Hot Spot reduction form has to filled out.

b. The responsible supervisor obtains a Hot Work permit.

c. Notifying the ALARA department.

d. The responsible supervisor initiates a temporary modification request.

QUESTION: 040 (1.00)

WHICH ONE (1) of the following Locked High Radiation Areas has its access key control normally maintained by the SSS?

a. TIP Room

b. Main Steam Tunnel

c. Drywell

d. Suppression Pool

QUESTION: 041 (1.00)

WHICH ONE (1) of the following describes the post maintenance testing requirements for a motor operated valve (MOV) that has been manually seated closed?

a. The MOV must be cycled once using the motor.

b. The MOV must be cycled twice using the motor.

c. The MOV must be manually cycled once using the manual handwheel and then cycled once using the motor.

d. The MOV must be manually cycled twice using the manual handwheel before using the motor.

QUESTION: 042 (1.00)

An accident at the plant has resulted in the declaration of a Site Area Emergency. An operator is needed to be sent into a Very High Radiation Area to take actions to protect a safe shutdown system.

WHICH ONE (1) of the following represents the additional exposure the operator can receive and remain within the emergency exposure guidelines?

a. 5 Rem

b. 10 Rem

c. 25 Rem

d. 50 Rem

QUESTION: 043 (1.00)

The Main Turbine is being started and has not been connected to the power grid.

WHICH ONE (1) of the following sets of plant parameters will cause the Main Turbine to trip?

a. Reactor Water Level 191 inches
Turbine Speed 1902 rpm
Condenser Vacuum 25 in Hg
Bearing Oil Supply Header 11 psig

b. Reactor Water Level 201 inches
Turbine Speed 1340 rpm
Condenser Vacuum 24 in Hg
Bearing Oil Supply Header 8 psig

c. Reactor Water Level 161 inches
Turbine Speed 1875 rpm
Condenser Vacuum 26 in Hg
Bearing Oil Supply Header 10 psig

d. Reactor Water Level 165 inches
Turbine Speed 1545 rpm
Condenser Vacuum 23 in Hg
Bearing Oil Supply Header 9 psig

QUESTION: 044 (1.00)

The plant is operating at 100% power when a failure in the Maximum Combined Flow Limit Potentiometer causes its limit to be lowered to 90%.

WHICH ONE (1) of the following describes the INITIAL plant response to this condition?

a. The turbine will trip on power/load unbalance.

b. The turbine bypass valves will open to pass approximately 10% steam flow.

c. The turbine control valves will close until 90% steam flow is being passed.

d. The turbine will trip on overspeed.

QUESTION: 045 (1.00)

WHICH ONE (1) of the following describes where the EHC pressure regulator senses reactor pressure?

a. At the main turbine first stage.

b. At the pressure averaging manifold upstream of the turbine main stop valves.

c. On the main steam lines upstream of the main steam isolation valves (MSIVs).

d. Between the turbine main stop valves and the turbine control valves.

QUESTION: 046 (1.00)

A large fire has resulted in a heavy demand on the fire protection water (FPW) system. Fire header pressure has dropped to 95 psig.

WHICH ONE (1) of the following describes the expected FPW system lineup under these conditions?

a. The LEAD FPW maintenance pump should be running; all other fire pumps should be in standby.

b. The LEAD and the LAG FPW maintenance pumps should be running; all other fire pumps should be in standby.

c. The LEAD and the LAG FPW maintenance pumps should be running; the motor-driven fire pump should be running; the diesel-driven fire pump should be in standby.

d. The LEAD and the LAG FPW maintenance pumps should be running; the motor-driven and diesel-driven fire pumps should be running.

QUESTION: 047 (1.00)

The unit is shutdown with CORE ALTERATIONS in progress. WHICH ONE (1) of the following conditions would require immediate suspension of CORE ALTERATIONS?

a. One of the standby gas treatment trains is declared inoperable.

b. Primary containment integrity is lost.

c. Reactor Building pressure is 0.20 inches of vacuum water gauge.

d. The suppression pool is less than El. 217 ft.

QUESTION: 048 (1.00)

Maintenance has just completed repairs to failed UPS inverter 2VBB-UPS3A. An operator has been dispatched to transfer UPS inverter 2VBB-UPS3A from the maintenance supply to its normal source in accordance with N2-OP-71D.

WHICH ONE (1) of the following events could occur during the transfer of this inverter?

a. A Group 9 (CPS) isolation may occur.

b. An 'A' RPS trip on APRM upscale may occur.

c. Flow control valve 2RCS*FV17A may lock up.

d. The running service water pumps in Division II may trip.

QUESTION: 049 (1.00)

A reactor startup is in progress. Reactor power is approximately 15% and reactor pressure is 920 psig.

WHICH ONE (1) of the following describes the expected Reactor Water Cleanup (WCS) system lineup under these conditions?

a. The WCS system should be operating in mode "B".

b. One WCS pump should be operating in full reject to the main condenser.

c. One WCS pump should be operating with return flow directed to both the feedwater system and the main condenser as required to maintain proper RPV water level.

d. Both WCS system pumps should be in operation with all return flow directed to the feedwater system.

QUESTION: 050 (1.00)

WHICH ONE (1) of the following describes the function of the 75 Second Delay Pipe in the Offgas System?

The 75 Second Delay Pipe provides the primary means of removal of ...

a. Iodine 131

b. Xenon 133

c. Krypton 88

d. Nitrogen 16

QUESTION: 051 (1.00)

A reactor startup is in progress. The Offgas system has just been placed in service when the following annunciator alarms are received.

- PROCESS GAS RADN MONITOR ACTIVATED
- OFF GAS RADIATION HI

WHICH ONE (1) of the following automatic actions will occur in response to this condition?

a. Mechanical vacuum pumps VP-1A and VP-1B will trip if running.

b. The Standby Gas Treatment system will start.

c. The main steam isolation valves (MSIVs) will close if open.

d. The Steam Jet Air Ejector suction valves will close if open.

QUESTION: 052 (1.00)

The plant is operating at 100% rated power when the following annunciator alarm is received.

- 4KV BUS NNS 015 UNDERVOLTAGE

WHICH ONE (1) of the following describes how plant is effected by this condition?

a. CRD pump A will be deenergized or unavailable.

b. Partial loss of Drywell cooling.

c. CCP pump P1C will be deenergized or unavailable.

d. Partial loss of the SLS system.

QUESTION: 053 (1.00)

The plant is recovering from a scram due to a spurious Group I isolation. The cause of the isolation has been repaired and preparations are being made to reopen the MSIVs. Reactor pressure is currently 825 psig and the main steam lines are being pressurized.

WHICH ONE (1) of the following represents the LOWEST main steam line pressure that will allow the MSIVs to be opened per procedure?

a. 625 psig

b. 675 psig

c. 725 psig

d. 775 psig

QUESTION: 054 (1.00)

Power reduction is in progress in preparation to isolate the 'C' main steam line. WHICH ONE (1) of the following represents the MAXIMUM reactor power associated with isolating this main steam line?

Reactor power must be less than ...

a. 90%

b. 80%

c. 75%

d. 65%

QUESTION: 055 (1.00)

During full power operations an event occurs causing RPV level to decrease below level 2. WHICH ONE (1) of the following Control Building Special Filter Train actions would occur?

a. Booster fan HVC*FN2A would trip.

b. Filter train bypass valve HVC*MOV1A would open.

c. Filter train inlet air isolation damper closes.

d. Booster fan HVC*FN2A would start.

QUESTION: 056 (1.00)

A loss of reactor water level control has resulted in a reactor scram on low RPV level. Reactor water level dropped to +115 inches before control was reestablished and the level restored to normal.

WHICH ONE (1) of the following groups of isolation valves should have received an isolation signal?

a. Recirculation loop sample valves.

b. Drywell equipment drain tank isolation valves.

c. RHR discharge to Radwaste isolation valves.

d. Main steam line drain valves.

QUESTION: 057 (1.00)

The plant is operating at approximately 18% rated power when a high-high level condition occurs in the moisture separator.

WHICH ONE (1) of the following actions will occur?

a. The main turbine will immediately trip and the reactor will scram.

b. The main turbine will immediately trip; the reactor will remain on line.

c. The main turbine will trip after a 10 second time delay and the reactor will scram.

d. The main turbine will trip after a 10 second time delay; the reactor will remain on line.

QUESTION: 058 (1.00)

While operating at 100% rated power, a valid high steam line flow signal is sensed in the 'A' main steam line.

WHICH ONE (1) of the following is the expected response of the main steam line isolation valves (MSIVs)?

a. All MSIVs will close.

b. Only the MSIVs in main steam line 'A' will close.

c. Only the inboard MSIVs in all four main steam lines will close.

d. Only the inboard MSIV in main steam line 'A' will close.

QUESTION: 059 (1.00)

While pulling a rod during reactor startup at 12% power, faulty rod position data required the operator to select the substitute position displayed by RSCS to clear associated insert blocks. At the next notch the same rod experiences another data fault. WHICH ONE (1) of the following describes the rod block status after bypassing the affected rod with the rod bypass file?

a. Both rod blocks remain until the data fault is corrected.

b. Only the insert block is bypassed.

c. Only the withdrawal block is bypassed.

d. Both the withdrawal and insert blocks are bypassed.

QUESTION: 060 (1.00)

WHICH ONE (1) of the following would be affected by a loss of the Normal 125 VDC "A" Bus?

a. Emergency bearing lube oil pump

b. 600V load center control bus

c. Fire protection power supply panel

d. High pressure core spray control panel

QUESTION: 061 (1.00)

Given the following conditions:

- The reactor has scrammed.
- The EOP, "RPV Control", has been entered.
- The Main Steam Isolation Valves are closed.
- The Control Room Operator has been directed to maintain reactor pressure between 900 psig and 1000 psig using SRVs.

WHICH ONE (1) of the following will be accomplished by controlling reactor pressure in this band?

a. RPV water level fluctuations will be minimized.

b. Localized heatup of the suppression pool will be prevented.

c. The MSIVs can be reopened sooner.

d. Less inventory will be lost from the reactor vessel.

QUESTION: 062 (1.00)

The plant is operating at approximately 60% rated power.

WHICH ONE (1) of the following signals would DIRECTLY result in a recirc flow control valve runback?

a. A trip of either reactor feedwater pump.

b. A feedwater level control system failure causes reactor water level to lower to 178 inches.

c. A reactor feedwater pump trip causes reactor water level to lower to 178 inches.

d. The discharge valve of reactor recirc pump 'B' drifts off its open seat.

QUESTION: 063 (1.00)

The plant is operating at 100% rated power when an operator notices that drywell floor drain leak rate is slowly rising. The shift supervisor has directed the operator to check reactor recirc pump seal pressures for indications of a failed seal.

WHICH ONE (1) of the following indications would represent a total 100% failure of the number 2 (upper) seal?

a. UPPER cavity pressure INCREASES to approximately 1000 psig.

b. UPPER cavity pressure DECREASES to 0 psig.

c. LOWER cavity pressure INCREASES to approximately 1000 psig.

d. LOWER cavity pressure DECREASES to 0 psig.

QUESTION: 064 (1.00)

The reactor is operating at 92% rated power when a CONTROL ROD DRIFT annunciator is received. The Control Room Operator notices the APRMs are indicating a steady increase in power.

WHICH ONE (1) of the following is an IMMEDIATE ACTION that should be taken?

a. Attempt to stop the control rod from drifting in by giving it a momentary withdraw signal.

b. Shift recirc pumps to slow speed.

c. Reduce CRD cooling water header flow to between 37 and 63 gpm.

d. Lower reactor power to less than 90% using recirc flow control.

QUESTION: 065 (1.00)

According to Special Operating Procedure immediate actions, WHICH ONE (1) of the following events requires specific direction from the SSS BEFORE reactor power can be reduced per N2-OP-101D, "Power Changes"?

a. Fuel failure

b. Total Loss of Turbine Building Closed Loop Cooling

c. Loss of Instrument Air

d. Loss of Service Water

QUESTION: 066 (1.00)

During full power operations RPV pressure begins decreasing. Shift supervision has directed an operator to scram the reactor. RPV pressure has decreased to 501 psig and continues to decrease. WHICH ONE (1) of the following actions should be taken immediately?

a. Transfer pressure control to the Backup Pressure Regulator.

b. Runback the recirc flow control valves to minimum.

c. Attempt to adjust the regulator setpoint as necessary to raise RPV pressure.

d. Verify the outboard MSIVs closed.

QUESTION: 067 (1.00)

The plant was operating at approximately 85% rated power when a loss of RPS 'MG1A' Motor Generator set occurred. The Control Room Operator notices that the scram valve lights on the Full Core Display are illuminated for rods 34-31 and 34-23. Rod 34-31 indicates that it is at position 00 and 34-23 indicates that it is at position 08. Both control rods were originally at position 48.

WHICH ONE (1) of the following actions are required?

a. Fully insert control rod 34-23.

b. Immediately insert a manual reactor scram.

c. Continue monitoring the Full Core Display and insert a manual reactor scram IF another control rod scrams.

d. Contact the Station Nuclear Engineer for guidance in restoring control rod positions.

QUESTION: 068 (1.00)

During an ATWS, NMP2-EOP-RPV CONTROL directs the operator to place the ADS logic inhibit switches to the "ON" position. WHICH ONE (1) of the following states the reason for this requirement?

a. Any ADS actuation imposes a severe pressure and temperature transient on the vessel.

b. ADS would result in the removal of boron after it has been injected.

c. Core damage could result from a large power excursion if low pressure ECCS systems were to inject.

d. ADS/SRV system flow rate is incapable of assuring fuel cooling through steaming above 5% reactor power.

QUESTION: 069 (1.00)

The plant is operating at 60% power with a RCIC surveillance in progress when the following annunciator is received.

- SAFETY/RELIEF VALVE OPEN

Assuming reactor pressure is normal, when would the crew be REQUIRED to initiate a manual reactor scram?

a. Immediately after verifying the SRV is actually open.

b. When suppression pool average water temperature reaches 110 degrees F.

c. When suppression pool average water temperature reaches 120 degrees F.

d. Immediately AFTER placing the SRV control switch to the CLOSE position IF the SRV remains open.

QUESTION: 070 (1.00)

During normal plant operations a loss of the Instrument Air System resulted in a manual reactor scram.

WHICH ONE (1) of the following is the IMPENDING consequence of the above event?

a. The non-ADS SRVs fail to operate.

b. The ADS valves fail to operate.

c. The inboard MSIVs fail to operate.

d. The SDV vent and drain valves fail shut.

QUESTION: 071 (1.00)

Plant conditions are as follows:

- Reactor power is 20%.
- Reactor recirculation pumps are running in slow speed with their flow control valves (FCV) full open.

Reactor recirculation pump 'B' has just tripped, WHICH ONE (1) of the following actions should be taken?

a. Scram the reactor per Sudden Reduction In Core Flow (N2-SOP-29).

b. Close the FCV in the operating loop.

c. Reduce power by inserting control rods.

d. Enter the procedure for single loop operation (N2-OP-29).

QUESTION: 072 (1.00)

The plant is operating at 100% reactor power when a gaseous high radiation level activates the following annunciator alarms:

- PROCESS AIRBORNE RADN MON ACTIVATED
- STACK EFFLUENT RADN MON ACTIVATED

WHICH ONE (1) of the following will occur in response to these conditions?

a. Control room ventilation fans trip.

b. Offgas system discharge isolates.

c. A standby gas treatment filter train starts.

d. Containment Nitrogen Makeup isolates.

QUESTION: 073 (1.00)

The control room has been evacuated and the emergency diesel generator local control panels have been manned. The operator at the local control panel for DIV 1 emergency diesel generator has been directed by his supervision to place the LOCA Bypass switch to the 'ON' position.

WHICH ONE (1) of the following describes how this action affects the operation of the Division 1 emergency diesel generator?

a. Aligns the diesel generator for a manual start at the local control panel.

b. All diesel generator protective trips except for overspeed are bypassed.

c. All diesel generator automatic start features are disabled.

d. The diesel generator will automatically start ONLY on bus undervoltage.

QUESTION: 074 (1.00)

WHICH ONE (1) of the following is a consequence of exceeding the Heat Capacity Level Limit (HCLL)?

a. The SRV tailpipe quenchers are uncovered.

b. The ECCS pumps will trip due to a loss of net positive suction head.

c. The suppression chamber will become pressurized due to uncovering the RCIC turbine exhaust line.

d. An emergency depressurization could jeopardize containment integrity.

QUESTION: 075 (1.00)

A loss of condenser vacuum has occurred. Vacuum is currently 15" Hg. WHICH ONE (1) of the following automatic actions should have occurred?

a. Turbine trip only.

b. Turbine trip and MSIV closure only.

c. Turbine trip and bypass valve closure only.

d. Turbine trip and closure of MSIVs and inboard and outboard drains.

QUESTION: 076 (1.00)

RCIC steam admission valve MOV-120 was closed due to a high RPV level. A control room evacuation followed. The SSS directs RCIC to be placed in service from the Remote Shutdown Panel. When the operator attempts to re-open the RCIC turbine steam admission valve (MOV-120), the valve fails to open.

WHICH ONE (1) of the following could be the cause of this valve failing to operate?

a. A loss of Division 1 125 VDC.

b. The associated Appendix "R" switch has been placed in the "Actuate" position.

c. A loss of Division 3 125 VDC.

d. An RPV level 8 condition exist.

QUESTION: 077 (1.00)

A partial loss of Reactor Closed Loop Cooling (CCP) has resulted in reduced cooling to the Reactor Water Cleanup System (WCS).

WHICH ONE (1) of the following actions could occur in response to these conditions?

a. The WCS MOV112, containment outboard isolation valve, closes when the non-regenerative heat exchanger (NRHX) INLET temperature reaches 140 degrees F.

b. The WCS MOV102, containment inboard isolation valve, closes when the non-regenerative heat exchanger (NRHX) OUTLET temperature reaches 140 degrees F.

c. The WCS pumps will trip when the non-regenerative heat exchanger (NRHX) INLET temperature reaches 140 degrees F.

d. The WCS pumps will trip when the non-regenerative heat exchanger (NRHX) OUTLET temperature reaches 140 degrees F.

QUESTION: 078 (1.00)

WHICH ONE (1) of the following conditions would require entry into N2-EOP-PC, Primary Containment Control?

a. The suppression pool water level at El. 199.6 feet.

b. Suppression pool temperature at 85 degrees F.

c. Drywell average air temperature at 151 degrees F.

d. Any area temperature above the isolation setpoint.

QUESTION: 079 (1.00)

While refueling is in progress the 'A' CRD pump trips on low suction pressure. When attempts are made to start the 'B' CRD pump, it also trips on low suction pressure. Shortly thereafter accumulator trouble alarms occur on control rod 46-19 which is full in and control rod 26-47 which is full out.

WHICH ONE (1) of the following actions should be taken?

a. Arm and depress both manual scram buttons.

b. Attempt another start of the 'B' CRD pump.

c. Attempt to restart the 'A' CRD pump.

d. Scram on the next withdrawn rod accumulator alarm.

QUESTION: 080 (1.00)

Concerning the RCIC system, WHICH ONE (1) of the following is required before flow rejection to the CST can occur?

a. 108.8 inches in the RPV.

b. Condensate Storage Tank level greater than 112.1 inches.

c. RCIC water leg pump operating.

d. Both channels of a single division sensing RCIC steam supply pressure greater than 75 psig.

QUESTION: 081 (1.00)

The DIV 3 diesel generator has started in response to a LOCA signal and the solenoid fuel control valves are energized. WHICH ONE (1) of the following will trip the DIV 3 diesel generator under these conditions?

a. Low engine oil pressure

b. High jacket water temperature

c. The Main Rod Bearing temperature high

d. High differential current between phases 3 and 1

QUESTION: 082 (1.00)

The reactor is operating at approximately 90% rated power when a transient in the Hydraulic Control system (EHC) causes reactor pressure to increase to 1080 psig.

WHICH ONE (1) of the following statements describes the final plant conditions following this transient?

a. The main turbine governor valves open slightly to lower reactor pressure then return to their original position.

b. The main turbine bypass valves open to lower reactor pressure then close after reactor pressure returns to normal.

c. The reactor scrams and the reactor recirculation pumps shift to slow speed.

d. The reactor scrams and the reactor recirculation pumps trip.

QUESTION: 083 (1.00)

The reactor building Emergency Recirculation Unit has started automatically and has been operating for the last 30 minutes.

WHICH ONE (1) of the following can be a direct cause of this event?

a. RPV level has decreased to 159.3" and reactor building pressure greater than -3" WG.

b. High air flow condition on the exhaust fan.

c. The Main supply fan discharge damper is only 50% open.

d. High airborne radiation levels in the reactor building.

QUESTION: 084 (1.00)

WHICH ONE (1) of the following conditions is a symptom of a jet pump failure; i.e., broken diffuser?

a. An increase in indicated delta pressure on the jet pump sharing riser with defective jet pump.

b. Decrease in core flow.

c. An increase in recirculation drive flow to loop containing defective jet pump.

d. Increase in reactor power.

QUESTION: 085 (1.00)

The plant is operating 440 MWE (approximately 30% load) when the alarm "TURBINE CNSR A/B/C VACUUM LOW" comes in.

WHICH ONE (1) of the following actions is required?

a. Immediately trip the turbine.

b. Reduce reactor power.

c. Manually SCRAM the reactor.

d. Start the standby SJAEs.

QUESTION: 086 (1.00)

WHICH ONE (1) of the following will occur if Reactor Building pressure is greater than +3" WG for an extended period of time?

a. The Reactor Building ventilation supply fans trip.

b. The above and below refuel floor exhaust fans start.

c. The Emergency Recirculation Unit trips if running.

d. The HVR unit coolers will auto stop.

QUESTION: 087 (1.00)

The reactor building temperature control leg of N2-EOP-SC, "Secondary Containment Control", asks if a primary system is discharging into the Reactor Building".

WHICH ONE (1) of the following is a "Primary System" as referenced in this step?

a. Any plant safety-related system required to be operable in Modes 1, 2 and/or 3.

b. Any system whose leak rate will decrease as reactor pressure decreases.

c. Any system required to shutdown the reactor or provide long-term core cooling.

d. Any plant system which penetrates the primary containment.

QUESTION: 088 (1.00)

Plant conditions cause the SDC suction valves, MOV-112 and 113, and the RHR return isolation valve MOV-40, to close while in shutdown cooling. WHICH ONE (1) of the following conditions caused the shutdown cooling isolation?

a. Reactor Building pipe chase temperature of 130 degrees F.

b. Reactor water level +158 inches.

c. Drywell pressure 1.68 psig.

d. Reactor steam dome pressure 127 psig.

QUESTION: 089 (1.00)

WHICH ONE (1) of the following is the MINIMUM action required to disable the relief mode of a SRV?

a. Pulling the A solenoid fuses.

b. Pulling the B solenoid fuses.

c. Pulling the C solenoid fuses.

d. Pulling both A and B solenoid fuses.

QUESTION: 090 (1.00)

WHICH ONE (1) of the following identifies the MINIMUM trips required to initiate a SRM reactor scram?

a. High level on one SRM in each trip system with the shorting links INSTALLED.

b. High level on one SRM in each trip system with the shorting links REMOVED.

c. High level on one SRM ONLY with the shorting links REMOVED.

d. High level on one SRM ONLY with the shorting links INSTALLED.

QUESTION: 091 (1.00)

Given the following control room data:

Recirculation pump "A" is off
Recirculation pump "B" is on
Loop A jet pump flow indicates 10 Mlb/hr
Loop B jet pump flow indicates 50 Mlb/hr

WHICH ONE (1) of the following is the total core flow displayed on the Differential Pressure/Total Core Flow recorder on panel C603 in the control room?

a. 10 Mlb/hr

b. 40 Mlb/hr

c. 50 Mlb/hr

d. 60 Mlb/hr

QUESTION: 092 (1.00)

The reactor is shutdown with IRMs A, F, and G on range 3. The plant experiences an IRM Upscale Trip condition and a reactor scram signal is generated. WHICH ONE (1) of the following identifies the possible mode switch positions for this event?

a. Refuel ONLY

b. Startup ONLY

c. Startup and Refuel ONLY

d. Refuel, Startup and Run

QUESTION: 093 (1.00)

CSH is in standby readiness. WHICH ONE (1) of the following states the CSH pump suction status if suppression pool level is at elevation 209 feet and the Condensate Storage Tank 'B' level indicates 99" WG?

a. Suction is from the CST but can be manually transferred to the suppression pool without bypassing interlocks.

b. Suction is from the CST and CANNOT be transferred to the suppression pool without bypassing interlocks.

c. Suction is from the suppression pool but can be manually transferred to the CST without bypassing interlocks.

d. Suction is from the suppression pool and CANNOT be transferred to the CST without bypassing interlocks.

QUESTION: 094 (1.00)

During plant operation, conditions develop that engage the feedpump flow limiter logic in the Feedwater Control System. WHICH ONE (1) of the following describes how this logic function is bypassed?

a. Manually resetting the set point set down function.

b. Clearing any main turbine trip that may exist.

c. Remove any condition that may have caused a feedpump trip.

d. Wait 25 seconds and the flow limiter will automatically clear.

QUESTION: 095 (1.00)

During plant operations a break in the condensate transfer pump discharge piping occurs causing pressure to decrease to 130 psig. WHICH ONE (1) of the following is the reason for the standby condensate transfer pump starting?

a. High discharge header flow.

b. High condenser hotwell level.

c. Low discharge header pressure.

d. Low condenser hotwell level.

QUESTION: 096 (1.00)

N2-EOP-PC, Primary Containment Control, requires emergency depressurization if suppression pool level cannot be maintained within the safe region of the "SRV Tail Pipe Level Limit" curve. WHICH ONE (1) of the following identifies the plant changes which BOTH drive the plant toward the UNSAFE portion of the curve and an INCREASED possibility of SRV tail pipe failure?

a. decreasing suppression pool water level, decreasing reactor pressure

b. decreasing suppression pool water level, increasing reactor pressure

c. increasing suppression pool water level, decreasing reactor pressure

d. increasing suppression pool water level, increasing reactor pressure

QUESTION: 097 (1.00)

WHICH ONE (1) of the following constitutes a loss of Secondary Containment?

a. The Reactor Building normal HVAC is inoperable and isolated.

b. Both Reactor Building ventilation radiation monitors are INOP.

c. Both doors of the combination equipment/personnel air lock momentarily opened.

d. The Standby Gas Treatment system is inoperable.

QUESTION: 098 (1.00)

WHICH ONE (1) of the following is a duty/responsibility of the Chief Shift Operator (CSO).

a. Authorize the override of engineered safety features (ESFs) in an emergency.

b. Performs a detailed review of Preventative Maintenance (PMs) to be performed in the control room.

c. Acts as Controller for active equipment markups.

d. Performs the function of the emergency communicator in the control room until relieved.

QUESTION: 099 (1.00)

An Offsite Nuclear Transportation Accident has just been reported to you (CSO). WHICH ONE (1) of the following actions should you IMMEDIATELY take?

a. Notify the Unit 1 SSS.

b. Notify the Fire Chief and assemble the Fire Brigade.

c. Contact the NRC for assistance.

d. Notify the Plant Manager.

QUESTION: 100 (1.00)

The CSO has granted authorization to a Markup Person to perform multiple operations of a valve under a blue markup (BMU). WHICH ONE (1) of the following describes for how long this authorization is valid?

a. One hour.

b. Until the end of the Markup Person's shift.

c. 24 hours.

d. Until the job is complete.

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

ANSWER: 001 (1.00)

c.

REFERENCE:

1. LP-OPS-001-205-2-00, Rev 1, Att. 1., TO 13

[3.4/3.4]

295021A202 ..(KA's)

ANSWER: 002 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-217-2-00, Rev 1, p. 61, Att. 1, EO-8
2. N2-OP-35, Rev 3, Sec. H., p. 17 of 113.

[3.9/3.9]

217000A402 ..(KA's)

ANSWER: 003 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-211-2-00, Rev 0, p. 14, Att. 1, EO-4

[4.0/4.1]

211000A109 ..(KA's)

ANSWER: 004 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-211-2-00, Rev 0, p. 24, Att. 1, EO-4 [3.0/3.2]

211000K506 ..(KA's)

ANSWER: 005 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-212-2-00, Rev 1, p. 11, Att. 1, EO-4 [3.8/3.9]

295015K201 ..(KA's)

ANSWER: 006 (1.00)

a.

REFERENCE:

1. LP 02-OPS-001-212-2-00, Rev 1, p. 69, Att. 1, EO-4 [4.0/4.1]

212000A216 ..(KA's)

ANSWER: 007 (1.00)

b.

REFERENCE:

1. N2-OP-92, Neutron Monitoring, Sec. I.15, p. 28,
2. LP 02-OPS-001-215-2-02, Rev 0, EO-4
   [3.7/3.7]

215004K401 ..(KA's)

ANSWER: 008 (1.00)

d.

REFERENCE:

1. N2-OP-92, Neutron Monitoring, p. 7.
2. LP 02-OPS-001-215-2-02, Rev 0, EO-4
   [3.4/3.6]

215004A407 ..(KA's)

ANSWER: 009 (1.00)

b.

REFERENCE:

1. LP 02-OPS-001-215-2-00, Rev 0, p. 67, Att. 1, EO-4

   [3.4/3.5]

215005K103 ..(KA's)

ANSWER: 010 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-215-2-02, Rev. 0, Fig. 40, EO-4

[3.2/3.3]

215005A403 ..(KA's)

ANSWER: 011 (1.00)

b.

REFERENCE:

1. LP 02-OPS-001-218-2-01, Rev 0, p. 13, Att. 1, EO-4

[4.1/4.1]

218000A404 ..(KA's)

ANSWER: 012 (1.00)

c.

REFERENCE:

1. N2-OP-34,.Rev. 5, Nuclear Boiler, Auto Depressurization And Safety Valves, p. 10,
2. 02-OPS-001-218-2-01, EO-4.

[4.0/4.0]

218000K101 ..(KA's)

ANSWER: 013 (1.00)

b.

REFERENCE:

1. LP 02-OPS-001-222-2-01, Rev 0, p. 11, Att. 1, EO-04

[3.2/3.3]

223001K103 ..(KA's)

ANSWER: 014 (1.00)

b.

REFERENCE:

1. LP 02-OPS-001-222-2-01, Rev 0, p. 15, Att. 1, EO-4
2. N2-EOP-PC, Primary Containment Control

[3.5/3.6]

223001A412 ..(KA's)

ANSWER: 015 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-223-2-02, Rev 0, p. 11-20, Att. 1, E0-4
2. N2-OP-83, Rev. 2, Group Isolation Descriptions, Att. 2

[3.5/3.5]

223002A302 ..(KA's)

ANSWER: 016 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-223-2-02, Rev 0, p. 9, Att. 1, EO-4
   [3.6/3.5]

223002A403 ..(KA's)

ANSWER: 017 (1.00)

d.

REFERENCE:

1. N2-OP-34, Rev. 5, Nuclear Boiler, Automatic and Safety Relief Valves, p. 31.
2. LP 02-OPS-001-101-2-02, EO-4
   [4.1/4.2]

239002A203 ..(KA's)

ANSWER: 018 (1.00)

d.

REFERENCE:

1. N2-OP-34, Rev. 5, Nuclear Boiler, Automatic and Safety Relief Valves, p. 11 and 12.
2. LP 02-OPS-001-101-2-02, EO-4
   [3.6/3.6]

239002A407 ..(KA's)

ANSWER: 019 (1.00)

a.

REFERENCE:

1. LP 02-OPS-001-259-2-02, Rev 0, p. 7, Att. 1, EO-4
2. N2-OP-3, Rev. 8, Condensate and Feedwater System, p. 40.

[3.3/3.4]

259002G010 ..(KA's)

ANSWER: 020 (1.00)

a.

REFERENCE:

1. N2-OP-30, Rev. 4, Control Rod Drive, p. 8.
2. LP 02-OPS-001-201-2-01, Rev 2, EO-4
[3.1/3.0]

201001K408 ..(KA's)

ANSWER: 021 (1.00)

a.

REFERENCE:

1. N2-OP-96, Rev. 2, Rod Manual Control and Rod Position Indication System, Table IV, p. 29.
2. LP 02-OPS-001-201-2-02, Rev 2, EO-4
[3.5/3.5]

201006K512 ..(KA's)

ANSWER: 022 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-201-2-02, Rev 0, p. 16, Att. 1, EO-4 [3.2/3.2]

201002K408 ..(KA's)

ANSWER: 023 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-215-2-02, Rev 0, p. 31, Att. 1, EO-4 [3.6/3.8]

215003K602 ..(KA's)

ANSWER: 024 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-215-2-01, Rev 0, p. 15, Att. 1, EO-4 [3.4/3.5]

215001K401 ..(KA's)

ANSWER: 025 (1.00)

c.

REFERENCE:

1. T.S. 2.1.3, p. 2-1
1. LP 02-OPS-001-101-2-01, EO-08
[3.9/4.4]

290002K507 ..(KA's)

ANSWER: 026 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-288-2-02, Rev 0, p. 25, Att. 1, EO-4

[3.8/3.8]

288000A301 ..(KA's)

ANSWER: 027 (1.00)

d.

REFERENCE:

1. N2-OP-38, Rev.06, Spent Fuel Cooling and Cleanup System, p. 77 & 79a.
2. LP 02-OPS-001-233-2-00, EO-4

[2.9/3.0]

233000K102 ..(KA's)

ANSWER: 028 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-286-2-01, Rev 0, p. 33, Att. 1, EO-4.
   [3.3/3.5]

286000K402 ..(KA's)

ANSWER: 029 (1.00)

a.

REFERENCE:

1. N2-OP-29, Rev.06, Reactor Recirculation System, p. 87.
2. LP 02-OPS-001-202-2-01, EO-4
   [3.7/3.7]

202001A108 ..(KA's)

ANSWER: 030 (1.00)

a.

REFERENCE:

1. N2-OP-29, Rev. 06, Reactor Recirculation System, p. 24.
2. LP 02-OPS-001-202-2-01, EO-4
   [3.7/3.7]

202001A401 ..(KA's)

ANSWER: 031 (1.00)

a.

REFERENCE:

1. N2-OP-31, Rev. 08, Residual Heat Removal System, p. 26.
2. LP 02-OPS-001-205-2-00, EO-4
   [3.6/3.6]

205000K102 ..(KA's)

ANSWER: 032 (1.00)

c.

REFERENCE:

1. N2-OP-31, Rev. 08, Residual Heat Removal System, p. 34.
2. LP 02-OPS-001-205-2-00, EO-4
   [3.2/3.3]

205000G010 ..(KA's)

ANSWER: 033 (1.00)

c.

REFERENCE:

1. Technical Specification 6.12.2
2. S-RAP-RPP-0801, Rev. 4, Section 3.6.6 (page 6).

   [3.3/3.8]

294001K103 ..(KA's)

ANSWER: 034 (1.00)

b.

REFERENCE:

1. Technical Specification Table 6.2.2-1.
2. GAP-OPS--1, Rev. 3, Section 3.2.1 (page 15).

[2.7/3.7]

294001A103 ..(KA's)

ANSWER: 035 (1.00)

b.

REFERENCE:

1. GAP-DES-03, Rev. 3, Section 3.5.3.a (page 8).

[3.9/4.5]

294001K102 ..(KA's)

ANSWER: 036 (1.00)

b.

REFERENCE:

1. N2-ODI-5.30, Rev. 4, Section 4.3.1 and 4.3.2 (page 8).

[3.3/3.6]

294001K107 ..(KA's)

ANSWER: 037 (1.00)

a.

REFERENCE:

1. GAP-RPP-02, Rev. 2, Section 3.2 (page 2)..
[3.3/3.8]

294001K103 ..(KA's)

ANSWER: 038 (1.00)

b.

REFERENCE:

1. Technical Specification 6.2.2.g.
[3.5/3.8]

294001K116 ..(KA's)

ANSWER: 039 (1.00)

c.

REFERENCE:

1. GAP-ALA-01, Rev. 3, Section 3.9.4 (page 6).
[3.3/3.6]

294001K104 ..(KA's)

ANSWER: 040 (1.00)

b.

REFERENCE:

1. GAP-RPP-08, Rev. 2, Section 3.3.2 (page 2).
   [3.2/3.7]

   294001K105 ..(KA's)

ANSWER: 041 (1.00)

b.

REFERENCE:

1. N2-ODP-OPS-0106, Rev. 8, Section 3.4.3.c (page 16).
   [3.7/3.7]

   294001K101 ..(KA's)

ANSWER: 042 (1.00)

b.

REFERENCE:

1. EPIP-EPP-15, Rev. 1, Section 2.1 (page 5).
   [2.9/4.7]

   294001A116 ..(KA's)

ANSWER: 043 (1.00)

b.

REFERENCE:

1. Lesson Plan O2-OPS-001-245-2-01, Rev. 0, Table 1, p. 39. EO-4

[3.6/3.6]

245000A301 ..(KA's)

ANSWER: 044 (1.00)

c.

REFERENCE:

1. Lesson Plan O2-OPS-001-248-2-00, Rev. 0, Attachment 1, Section II.L (page 45). EO-4

[3.3/3.3]

241000K307 ..(KA's)

ANSWER: 045 (1.00)

b.

REFERENCE:

1. Lesson Plan O2-OPS-001-248-2-00, Rev. 0, Attachment 1, Section II.J (page 41). EO-4

[3.9/4.1]

241000K102 ..(KA's)

ANSWER: 046 (1.00)

b.

REFERENCE:

1. Lesson Plan O2-OPS-001-286-2-01, Rev. 0, Attachment 1, Section III. E.1.a (page 51). EO-4

[3.2/3.2]

286000A105 ..(KA's)

ANSWER: 047 (1.00)

c.

REFERENCE:

1. Technical Specification 3.6.5.1
2. O2-OPS-001-223-2-04, Rev. 0, Attachment 1, Section VII.B (page 21), EO-7.

[3.5/3.6]

290001K601 ..(KA's)

ANSWER: 048 (1.00)

b.

REFERENCE:

1. N2-OP-71D, Rev. 00, Section D.4.0 (page 6) and Section H.31.0 (page 63).
2. Lesson Plan O2-OPS-001-212-2-00, EO-4
[2.8/3.1]

262002A401 ..(KA's)

ANSWER: 049 (1.00)

b.

REFERENCE:

1. N2-OP-37, Rev. 5, Section B.b (page 3) and Section D.5.2 (page 6).
2. Lesson Plan O2-OPS-001-204-2-01, EO-4
   [3.2/3.2]

204000G010 ..(KA's)

ANSWER: 050 (1.00)

d.

REFERENCE:

1. Lesson Plan O2-OPS-001-271-2-01, Rev. 1, Attachment 1, Section II.B. (page 19). EO-3

   [2.7/2.9]

271000K406 ..(KA's)

ANSWER: 051 (1.00)

a.

REFERENCE:

1. N2-OP-42, Rev. 5, Section I, Alarm 851326 (page 123).
2. Lesson Plan O2-OPS-001-271-2-01, EO-4
   [3.2/3.5]

272000K102 ..(KA's)

ANSWER: 052 (1.00)

b.

REFERENCE:

1. N2-OP-71B, Rev. 0, Section I., Alarm 852547 (page 62).
2. Lesson Plan O2-OPS-001-262-2-01, EO-4
   [3.5/3.7]

262001K301 ..(KA's)

ANSWER: 053 (1.00)

b.

REFERENCE:

1. N2-OP-1, Rev. 7, Section H.2.13 (page 10).
2. Lesson Plan O2-OPS-001-239-2-00, EO-6

   [3.7/3.7]

239001G013 ..(KA's)

ANSWER: 054 (1.00)

c.

REFERENCE:

1. N2-OP-1, Rev. 7, Section 3.0 (page 10a).
2. Lesson Plan O2-OPS-001-239-2-00, EO-6

   [3.8/3.8]

239001A410 ..(KA's)

ANSWER: 055 (1.00)

d.

REFERENCE:

1. N2-OP-53A, Rev. 6, Section 1.0 (pages 32 and 33).
2. Lesson Plan O2-OPS-001-288-2-02, EO-4
   [3.3/3.5]

290003A301 ..(KA's)

ANSWER: 056 (1.00)

c.

REFERENCE:

1. N2-EOP-6, Rev. 1, Section 3.1.1 (page 6).
2. Lesson Plan O2-OPS-001-205-2-00, EO-4
   [4.5/4.5]

295031K212 ..(KA's)

ANSWER: 057 (1.00)

d.

REFERENCE:

1. Lesson Plan O2-OPS-001-245-2-01, Rev. 0, Attachment 1, Table 1 (page 39), EO-4
2. N2-SOP-21, Rev. 0, Section 1.0 (page 1).

   [3.2/3.2]

295005K304 ..(KA's)

ANSWER: 058 (1.00)

a.

REFERENCE:

1. Lesson Plan 02-OPS-001-223-2-02, Rev. 0, Section II.F (page 12) EO-4.

[3.6/3.6]

295020A101 ..(KA's)

ANSWER: 059 (1.00)

b.

REFERENCE:

1. LP 02-OPS-001-201-2-02, Rev 0, p. 36, Att. 1, EO-4

[3.3/3.4]

201004K301 ..(KA's)

ANSWER: 060 (1.00)

a.

REFERENCE:

1. LP 02-OPS-001-263-2-01, Rev 0, Att. 1, Figure 2A, EO-4.

[3.1/3.4]

263000K201 ..(KA's)

ANSWER: 061 (1.00)

a.

REFERENCE:

1. NMP2-EOP-RPV Control, p. 31.
2. LP 02-OPS-001-239-2-00, EO-9.
   [4.0/4.1]

295007K304 ..(KA's)

ANSWER: 062 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-259-2-01, Rev 0, p. 22, Att. 1, EO-4
   [3.1/3.2]

295009K203 ..(KA's)

ANSWER: 063 (1.00)

b.

REFERENCE:

1. N2-OP-29, Rev. 06, Reactor Recirculation System, p. 33.
2. LP 02-OPS-001-202-2-01, EO-4.
   [3.2/3.4]

295010K103 ..(KA's)

ANSWER: 064 (1.00)

d.

REFERENCE:

1. N2-SOP-08, Unplanned Power Changes, Rev. 0, p. 2.
2. LP 02-OPS-001-201-2-01, EO-8.
   [4.0/3.9]

295014G010 ..(KA's)

ANSWER: 065 (1.00)

a.

REFERENCE:

1. N2-SOP-17, Fuel Failure or High Activity In Reactor Coolant or Offgas, Rev. 0, p. 2.3
2. LP 02-OPS-001-271-2-01, EO-7.
   [3.8/3.6]

295038G010 ..(KA's)

ANSWER: 066 (1.00)

d.

REFERENCE:

1. N2-SOP-23, EHC Pressure Regulator Failure, Rev. 0, p. 2.
2. LP 02-OPS-001-239-2-00, EO-6.
3. N2-OP-96, Reactor Manual Control, Rev 2, Sec. H.1.1
   [3.9/3.8]

295007G010 ..(KA's)

ANSWER: 067 (1.00)

b.

REFERENCE:

1. N2-SOP-08, Unplanned Power Changes, Rev. 0, p. 2.
2. LP 02-OPS-001-201-2-01, EO-8.
3. N2-OP-96, Reactor Manual Control, Rev. 2, Sec. H.1.1.
[4.0/4.2]

295015A102 ..(KA's)

ANSWER: 068 (1.00)

c.

REFERENCE:

1. NMP2-EOP-RPV CONTROL, p. 68
2. LP 02-OPS-001-218-2-01, EO-9.

[3.5/3.7]

295037G007 ..(KA's)

ANSWER: 069 (1.00)

b.

REFERENCE:

1. N2-SOP-34,STUCK OPEN SAFETY RELIEF VALVE, Rev. 0, p. 3.

[3.6/3.6]

295013G005 ..(KA's)

ANSWER: 070 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-218-2-01, Rev 0, p. 7, Att. 1, EO-4.
2. LP 02-OPS-001-279-2-00, Rev 1, p. 46, Att. 1, EO-8.
[3.8/3.9]

295019K201 ..(KA's)

ANSWER: 071 (1.00)

d.

REFERENCE:

1. N2-OP-29, Reactor Recirculation System, Rev. 6, p. 30.
2. Lesson Plan O2-OPS-001-202-2-01, EO-6
[3.5/3.6]

295001A101 ..(KA's)

ANSWER: 072 (1.00)

c.

REFERENCE:

1. N2-OP-79, Radiation Monitoring , Rev. 4, p. 50.
2. Lesson Plan O2-OPS-001-261-2-01, EO-4
[3.4/3.7]

295017K212 ..(KA's)

ANSWER: 073 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-264-2-01, Rev 1, p. 37, Att. 1, EO-7.
   [3.1/3.2]

295016A104 ..(KA's)

ANSWER: 074 (1.00)

d.

REFERENCE:

1. NMP-2 EOP Usage, Curves and Limits, p. 22.
2. Lesson Plan 02-OPS-001-221-2-01, EO-3
   [3.8/4.1]

295030K103 ..(KA's)

ANSWER: 075 (1.00)

a.

REFERENCE:

1. LP 02-OPS-001-245-2-01, Rev 0, p. 39, Table 1, EO-8.
   [3.1/3.2]

295002K202 ..(KA's)

ANSWER: 076 (1.00)

a.

REFERENCE:

1. N2-OP-74A, Emergency DC Distribution , Rev. 04, p. 45.
2. Lesson Plan 02-OPS-001-263-2-01, EO-3
[3.3/3.3]

295004K203 ..(KA's)

ANSWER: 077 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-204-2-01, Rev 0, p. 15, Att. 1, E0-4
[3.5/3.6]

295018K101 ..(KA's)

ANSWER: 078 (1.00)

c.

REFERENCE:

1. NMP2-EOP-Primary Containment Control, p. 2.
[4.1/4.4]

295012G011 ..(KA's)

ANSWER: 079 (1.00)

a.

REFERENCE:

1. N2-SOP-30, Control Rod Drive Failures, Rev. 0, p. 2.
2. Lesson Plan O2-OPS-001-201-2-02, EO-17
   [4.1/4.4]

295022A101 ..(KA's)

ANSWER: 080 (1.00)

a.

REFERENCE:

1. N2-OP-35, Reactor Core Isolation Cooling, Rev. 03, p. 14a.
2. Lesson Plan O2-OPS-001-217-2-00, EO-4
   [3.3/3.3]

295008A105 ..(KA's)

ANSWER: 081 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-264-2-01, Rev 1, p. 38, Att. 1, EO-4.

   [3.4/3.7]

295003A201 ..(KA's)

ANSWER: 082 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-212-2-00, Rev 1, p. 69, Table 1, EO-4.
2. N2-OP-35, Reactor Recirculation System, Rev. 29, p. 7.

[3.9/4.1]

295025K204 ..(KA's)

ANSWER: 083 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-288-2-03, Rev 0, p. 24, Att. 1, EO-4.

[3.1/3.2]

295033A202 ..(KA's)

ANSWER: 084 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-101-2-01, Rev 0, p. 12, Att. 1, EO-6
(Check with the facility for another reference)

[3.1/3.4]

295001A205 ..(KA's)

ANSWER: 085 (1.00)

b. a

REFERENCE:

1. N2-OP-21, Main Turbine System, Rev. 05, p. 66.
2. Lesson Plan O2-OPS-001-245-2-01, EO-5
[3.2/3.2]

295002K309 ..(KA's)

ANSWER: 086 (1.00)

a.

REFERENCE:

1. LP 02-OPS-001-288-2-03, Rev 0, p. 26, Att. 1, EO-4.
[3.3/3.5]

295035K302 ..(KA's)

ANSWER: 087 (1.00)

b.

REFERENCE:

1. NMP2 EOP USAGE, CURVES AND LIMITS, P. 10.
[3.8/3.9]

295032K303 ..(KA's)

ANSWER: 088 (1.00)

b.

REFERENCE:

1. LP 02-OPS-001-205-2-00, Rev 0, p. 17, Att. 1, EO-4.
   [3.2/3.3]

295021A206 ..(KA's)

ANSWER: 089 (1.00)

c.

REFERENCE:

1. N2-SOP-34, Stuck Open Safety Relief Valve, Rev. 0, p. 5.
2. LP 02-OPS-001-218-2-01, EO-3
   [3.9/4.1]

295007A104 ..(KA's)

ANSWER: 090 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-215-2-02, Rev 0, p. 77, Att. 1, EO-07.
   [4.0/4.1]

295014A101 ..(KA's)

ANSWER: 091 (1.00)

b.

REFERENCE:

1. N2-OP-29, Reactor Recirculation System, Rev. 06, p. 33, EO 4. [3.1/3.2]

216000A209 ..(KA's)

ANSWER: 092 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-212-2-00, Rev 1, p. 69, Att. 1, EO-5. [3.3/3.4]

212000K502 ..(KA's)

ANSWER: 093 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-206-2-00, Rev 0, p. 12, Att. 1, EO-4. [3.4/3.4]

209002K602 ..(KA's)

ANSWER: 094 (1.00)

b.

REFERENCE:

1. N2-OP-3, Condensate and Feedwater System, Rev. 8, p. 7.
2. Feedwater Level Control lesson plan, EO 4.

[3.2/3.2]

259002A304 ..(KA's)

ANSWER: 095 (1.00)

a.

REFERENCE:

1. N2-OP-4, Condensate Storage and Transfer, Rev. 2, p. 15.
2. LP 02-OPS-001-256-2-02, Rev 0, EO 4.

[2.6/2.8]

209002A109 ..(KA's)

ANSWER: 096 (1.00)

d.

REFERENCE:

1. N2-EOP-PC, Rev 5

[3.3/3.5]

295007G007 ..(KA's)

ANSWER: 097 (1.00)

d.

REFERENCE:

1. T.S. 3.6.5.3
2. LP 02-OPS-001-261-2-01, Rev 1, EO 11.

[3.9/4.2]

295033K204 ..(KA's)

ANSWER: 098 (1.00)

c.

REFERENCE:

1. GAPS-OPS-01, Rev. 03, Section 3.1.6.f (page 8).

[2.7/3.7]

294001A103 ..(KA's)

ANSWER: 099 (1.00)

a.

REFERENCE:

1. EPIP-EPP-24, Rev. 00, Section 4.2.1 (page 7).

[2.9/4.7]

294001A116 ..(KA's)

ANSWER: 100 (1.00)

b.

REFERENCE:

1. GAPS-OPS-02, Rev. 4, Section 3.6.5 (page 10).

[3.9/4.5]

294001K102 ..(KA's)

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

A N S W E R K E Y

MULTIPLE CHOICE

001	c
002	c
003	c
004	d
005	c
006	a
007	b
008	d
009	b
010	c
011	b
012	c
013	b
014	b
015	c
016	d
017	d
018	d
019	a
020	a
021	a
022	d
023	d
024	d
025	c
026	d
027	d
028	d
029	a
030	a
031	a
032	c
033	c
034	b
035	b
036	b
037	a
038	b
039	c
040	b
041	b
042	b
043	b
044	c
045	b

A N S W E R K E Y

046	b
047	c
048	b
049	b
050	d
051	a
052	b
053	b
054	c
055	~~d~~ d
056	c
057	d
058	a
059	b
060	a
061	a
062	c
063	b
064	d
065	a
066	d
067	b
068	c
069	b
070	d
071	d
072	c
073	d
074	d
075	a
076	a
077	d
078	c
079	a
080	a
081	d
082	c
083	d
084	c
085	~~d~~ a
086	a
087	b
088	b
089	c
090	c
091	b

A N S W E R K E Y

092 c

093 c

094 b

095 a

096 d

097 d

098 c

099 a

100 b

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

Nuclear Regulatory Commission
Operator Licensing
Examination

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Official Use Only category on
date of examination.

U. S. NUCLEAR REGULATORY COMMISSION
SITE SPECIFIC EXAMINATION
SENIOR OPERATOR LICENSE
REGION 1

CANDIDATE'S NAME: _____

FACILITY: Nine Mile Point 2

REACTOR TYPE: BWR-GE5

DATE ADMINISTERED: 94/10/24

INSTRUCTIONS TO CANDIDATE:

Use the answer sheets provided to document your answers. Staple this cover sheet on top of the answer sheets. Points for each question are indicated in parentheses after the question. The passing grade requires a final grade of at least 80%. Examination papers will be picked up four (4) hours after the examination starts.

TEST VALUE	CANDIDATE'S SCORE	%	
100.00	_____	___ %	TOTALS
	FINAL GRADE		

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

_____
Candidate's Signature

A N S W E R S H E E T

Multiple Choice (Circle or X your choice)

If you change your answer, write your selection in the blank.

MULTIPLE CHOICE

001	a	b	c	d	___	023	a	b	c	d	___
002	a	b	c	d	___	024	a	b	c	d	___
003	a	b	c	d	___	025	a	b	c	d	___
004	a	b	c	d	___	026	a	b	c	d	___
005	a	b	c	d	___	027	a	b	c	d	___
006	a	b	c	d	___	028	a	b	c	d	___
007	a	b	c	d	___	029	a	b	c	d	___
008	a	b	c	d	___	030	a	b	c	d	___
009	a	b	c	d	___	031	a	b	c	d	___
010	a	b	c	d	___	032	a	b	c	d	___
011	a	b	c	d	___	033	a	b	c	d	___
012	a	b	c	d	___	034	a	b	c	d	___
013	a	b	c	d	___	035	a	b	c	d	___
014	a	b	c	d	___	036	a	b	c	d	___
015	a	b	c	d	___	037	a	b	c	d	___
016	a	b	c	d	___	038	a	b	c	d	___
017	a	b	c	d	___	039	a	b	c	d	___
018	a	b	c	d	___	040	a	b	c	d	___
019	a	b	c	d	___	041	a	b	c	d	___
020	a	b	c	d	___	042	a	b	c	d	___
021	a	b	c	d	___	043	a	b	c	d	___
022	a	b	c	d	___	044	a	b	c	d	___
						045	a	b	c	d	___

A N S W E R S H E E T

Multiple Choice (Circle or X your choice)

If you change your answer, write your selection in the blank.

046	a	b	c	d	___	069	a	b	c	d	___
047	a	b	c	d	___	070	a	b	c	d	___
048	a	b	c	d	___	071	a	b	c	d	___
049	a	b	c	d	___	072	a	b	c	d	___
050	a	b	c	d	___	073	a	b	c	d	___
051	a	b	c	d	___	074	a	b	c	d	___
052	a	b	c	d	___	075	a	b	c	d	___
053	a	b	c	d	___	076	a	b	c	d	___
054	a	b	c	d	___	077	a	b	c	d	___
055	a	b	c	d	___	078	a	b	c	d	___
056	a	b	c	d	___	079	a	b	c	d	___
057	a	b	c	d	___	080	a	b	c	d	___
058	a	b	c	d	___	081	a	b	c	d	___
059	a	b	c	d	___	082	a	b	c	d	___
060	a	b	c	d	___	083	a	b	c	d	___
061	a	b	c	d	___	084	a	b	c	d	___
062	a	b	c	d	___	085	a	b	c	d	___
063	a	b	c	d	___	086	a	b	c	d	___
064	a	b	c	d	___	087	a	b	c	d	___
065	a	b	c	d	___	088	a	b	c	d	___
066	a	b	c	d	___	089	a	b	c	d	___
067	a	b	c	d	___	090	a	b	c	d	___
068	a	b	c	d	___	091	a	b	c	d	___

A N S W E R S H E E T

Multiple Choice (Circle or X your choice)

If you change your answer, write your selection in the blank.

092	a	b	c	d	___
093	a	b	c	d	___
094	a	b	c	d	___
095	a	b	c	d	___
096	a	b	c	d	___
097	a	b	c	d	___
098	a	b	c	d	___
099	a	b	c	d	___
100	a	b	c	d	___

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

NRC RULES AND GUIDELINES FOR LICENSE EXAMINATIONS

During the administration of this examination the following rules apply:

1. Cheating on the examination will result in a denial of your application and could result in more severe penalties.

2. 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.

3. To pass the examination, you must achieve a grade of 80 percent or greater.

4. The point value for each question is indicated in parentheses after the question number.

5. There is a time limit of 4 hours for completing the examination.

6. Use only black ink or dark pencil to ensure legible copies.

7. Print your name in the blank provided on the examination cover sheet and the answer sheet.

8. Mark your answers on the answer sheet provided and do not leave any question blank.

9. If the intent of a question is unclear, ask questions of the examiner only.

10. 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.

11. When you complete the examination, assemble a package including the examination questions, examination aids, and answer sheets and give it to the examiner or proctor. Remember to sign the statement on the examination cover sheet.

12. After you have turned in your examination, leave the examination area as defined by the examiner.

QUESTION: 001 (1.00)

During refueling, the "A" loop of RHR is being used for suppression pool cooling and the "B" loop of RHR is being used for shutdown cooling. If a valid Level 1 reactor water level condition occurs, WHICH ONE (1) of the following describes the response of the "A" and "B" RHR loops?

a. "A" loop realigns from suppression pool cooling mode to LPCI mode with the heat exchanger bypass valve CLOSED.
"B" loop realigns from shutdown cooling to LPCI mode with the heat exchanger bypass valve CLOSED.

b. "A" loop realigns from suppression pool cooling mode to LPCI mode with the heat exchanger bypass valve CLOSED.
"B" pump TRIPS.

c. "A" loop realigns from suppression pool cooling mode to LPCI mode with the heat exchanger bypass valve OPEN.
"B" pump TRIPS.

d. "A" loop realigns from suppression pool cooling mode to LPCI mode with the heat exchanger bypass valve OPEN.
"B" loop realigns from shutdown cooling to LPCI mode with the heat exchanger bypass valve OPEN.

QUESTION: 002 (1.00)

The reactor is at full power with RCIC out of service. HPCS is in standby aligned to 1B CST and its level is at 48 feet. WHICH ONE (1) of the following actions should be taken if the HPCS Keep Fill pump failed?

a. Return the Keep Fill pump to operation within 14 days or be in at least HOT SHUTDOWN within 12 hours.

b. Place the HPCS pump in pull-to-lock.

c. Cross tie HPCS to an alternate Keep Fill system within the Tech Spec time requirements for shutdown.

d. Restore HPCS and RCIC within one hour.

QUESTION: 003 (1.00)

A HPCS pump operability surveillance is in progress. The HPCS pump is running in the CST to CST Full Flow Test mode aligned to CST 1B.

WHICH ONE (1) of the following statements describes the response of the HPCS system to a valid low CST level alarm while operating in this lineup?

a. The HPCS pump will continue to run in the CST to CST Full Flow Test mode and valve line up will NOT change.

b. The suppression pool suction valve (MOV-118) will open and the CST suction valve (MOV-101) will close. All other valves remain in their present position.

c. The suppression pool suction valve (MOV-118) will open and the CST suction valve (MOV-101) and the CST test valves (MOV-110 and MOV-112) will close.

d. The CST suction valve (MOV-101) will close. All other valves will remain in their present position and the HPCS pump will trip on low suction pressure.

QUESTION: 004 (1.00)

WHICH ONE (1) of the following describes how the Standby Liquid Control (SLS) system pumps (A and B) will respond if the DIV I Storage Tank Level Transmitter failed low concurrent with a valid redundant reactivity control system (RRCS) initiation signal?

a. A and B start

b. NO pumps start

c. A ONLY starts

d. B ONLY starts

QUESTION: 005 (1.00)

WHICH ONE (1) of the following describes how the backup scram valves operate to achieve control rod insertion?

a. One valve is used to isolate the instrument air header from the scram air header; the other valve is used to vent the scram air header.

b. One valve is used to vent the scram discharge volume vent and drain valves; the other valve is used to vent the HCU scram inlet and outlet valves.

c. Either valve ENERGIZING will isolate the instrument air header from the scram air header and vent the entire scram air header.

d. Either valve DEENERGIZING will isolate the instrument air header from the scram air header and vent the entire scram air header.

QUESTION: 006 (1.00)

A reactor startup is in progress. All IRMs are on range 2 except IRM 'B' which is on range 3. The SRM detectors are being withdrawn.

WHICH ONE (1) of the following would occur if the indications on SRM 'C' decrease to 70 cps while it is being withdrawn?

a. The SRM detector drive would deenergize.

b. A rod withdrawal block would be generated.

c. The SRM 'C' downscale light would illuminate.

d. A half scram would occur.

QUESTION: 007 (1.00)

During a reactor startup, the SRM detectors may be withdrawn under WHICH ONE (1) of the following conditions?

a. When all SRM detectors are between 100 and 10,000 cps.

b. When all SRM detectors are between 500 and 20,000 cps.

c. When at least 2 IRMs in each division are greater than range 3.

d. When all operable IRM range switches are above range 3.

QUESTION: 008 (1.00)

An operator places the meter function switch for APRM 'D' to the "Count" position. If the meter indicates 100%, how many LPRMs are being input into the 'D' APRM?

a. 22 LPRMs

b. 21 LPRMs

c. 20 LPRMs

d. 14 LPRMs

QUESTION: 009 (1.00)

ADS valves are OPEN due to a valid initiation signal. With the initiation signal still present, WHICH ONE (1) of the following actions will close the ADS valves?

a. Take the ADS valve control switches to the OFF position.

b. Depress both ADS "Logic Seal In Reset" pushbuttons on the 601 control panel.

c. Take both ADS inhibit switches to the INHIBIT position.

d. Isolating the control air to the Safety Relief Valves.

QUESTION: 010 (1.00)

ADS has been initiated. RPV depressurization is in progress.

WHICH ONE (1) of the following describes how the Automatic Depressurization System (ADS) will be affected if all the low pressure ECCS pumps trip?

a. Depressurization stops; manual initiation using pushbuttons is required to re-establish depressurization when a Core Spray or RHR pump is restored.

b. Depressurization stops; automatic depressurization will be reestablished when a core spray or both pumps in a RHR loop are restored.

c. Depressurization continues without pumps running.

d. Depressurization continues for 105 sec and if no RHR or core spray pumps are back in service, then depressurization stops.

QUESTION: 011 (1.00)

WHICH ONE (1) of the following will cause ALL Drywell Unit Cooler Fans to trip?

a. 1.5 psig in the drywell.

b. A single "Reactor Building Closed Loop Cooling" containment outboard isolation valve going closed.

c. Initiating drywell spray.

d. A low primary containment gas purge temperature.

QUESTION: 012 (1.00)

A LOCA has occurred and drywell pressure is increasing. Drywell temperature has increased to 335 degrees F and RPV level is +150 inches. WHICH ONE (1) of the following actions should be taken before spraying the drywell?

a. Shift the recirc pumps to their LFMG's.

b. Secure the drywell coolers.

c. Spray the suppression pool.

d. Emergency depressurize.

QUESTION: 013 (1.00)

A small break LOCA has resulted in the drywell pressure reaching 2.3 psig. WHICH ONE (1) of the following sets of group isolation signals should have been received?

a. Groups 1 (MSIVs), 3 (TIP), 4 (RHS Sampling), 6 (WCS outboard).

b. Groups 3 (TIP), 6 (WCS outboard), 8 (Containment Aux.).

c. Groups 3 (TIP), 4 (RHS Sampling), 8 (Cont. Aux.), 9 (CPS).

d. Groups 4 (RHS Sampling), 6 (WCS outboard), 7 (WCS inboard).

QUESTION: 014 (1.00)

Concerning a Group 11 ISC RCIC vacuum breaker isolation, WHICH ONE (1) of the following describes the necessary actions for resetting the isolation?

a. Wait for the RCIC steam supply low pressure signal to clear the Rotate the reset switch collar counter-clockwise.

b. When the drywell pressure signal clears Rotate the reset switch collar counter-clockwise and press the system pushbutton.

c. Assure the high RPV level signal has cleared then rotate and depress all four reset buttons on the 602 panel.

d. No actions are required, resets automatically when the isolation signal clears.

QUESTION: 015 (1.00)

According to the Safety Relief Valve Off Normal Procedure (N2-SOP-34), WHICH ONE (1) of the following describes how a SRV, that was stuck open, is verified closed after its fuses have been removed?

a. Closed indication on P601.

b. Closed indication on both the P628 and P631 panel.

c. A decrease in indicated steam flow on the effected steamline.

d. An increase in the main turbine electrical output.

QUESTION: 016 (1.00)

The reactor is at full power. WHICH ONE (1) of the following describes the meaning of an illuminated red light at each safety relief valve control switch on the remote shutdown panel?

a. The SRV control switch is in the AUTO position.

b. The SRV solenoid closed limit switch is energized.

c. Temperature downstream of the SRV is normal.

d. There is an upper noise level trip downstream of the SRV.

QUESTION: 017 (1.00)

During full power operation a line break downstream of the condensate booster pumps occurred causing the feedpump suction pressure to drop to 209 psig for 40 seconds. Concurrently, the main turbine tripped. WHICH ONE (1) of the following will occur as a direct result of the above events?

a. The operating feedwater pumps will trip.

b. Feedflow will be limited to approximately 48%.

c. The setpoint setdown interlock signal is bypassed.

d. Individual controllers 2FWS-LV55A and B shift to manual.

QUESTION: 018 (1.00)

A reactor shutdown is in progress. RPV level control is to be transferred from three element control to single element control.

WHICH ONE (1) of the following is the PRIMARY reason that reactor power should be 25% to perform this action?

a. To minimize oscillations of the High Pressure - High Flow valves.

b. To allow feedwater level control to operate the High Pressure - Low Flow valves.

c. To prevent valve seat damage from cavitation occurring inside the level control valves.

d. To ensure that feedwater demand is within the capabilities of the Low Flow Master Level control system.

QUESTION: 019 (1.00)

The plant is in Operational Condition 2 with a reactor startup in progress. Drywell pressure has been going up slowly.

WHICH ONE (1) of the following statements describes the PREFERRED vent lineup that should be used to lower drywell pressure?

a. The drywell should be vented using one standby gas treatment train.

b. The drywell should be vented using both standby gas treatment trains.

c. Both the drywell and suppression chamber should be vented at the same time through one standby gas treatment train.

d. Both the drywell and suppression chamber should be vented at the same time through both standby gas treatment trains.

QUESTION: 020 (1.00)

Standby Gas Treatment System (GTS) inlet block valve, 2GTS AOV101, has been manually opened, using the handwheel, for surveillance testing. WHICH ONE (1) of the following has to occur before remote operation of the valve can be restored?

a. Cycle the valve then lock the handwheel in its normal position.

b. Close the valve and reopen to its normal position.

c. Place the GTS train control switch in the AUTO position.

d. SOV-102 has to be closed to reset the AOV101 air operator.

QUESTION: 021 (1.00)

A Traversing In-Core Probe (TIP) trace is being taken when a high drywell pressure signal (group 3) is received.

WHICH ONE (1) of the following describes the AUTOMATIC response of the TIP system?

a. The TIP shear valve immediately fires, cutting the detector cable and sealing the guide tube.

b. The TIP ball valve immediately closes, cutting the detector cable and sealing the guide tube.

c. The TIP drive shifts to reverse withdrawing the detector into the chamber shield position, then the shear valve fires.

d. The TIP drive shifts to reverse withdrawing the detector into the chamber shield position, then the ball valve closes.

QUESTION: 022 (1.00)

WHICH ONE (1) of the following is the Safety Limit for reactor vessel pressure?

a. 1250 psig as sensed in the steam dome.

b. 1250 psig as sensed in the lower head region.

c. 1325 psig as sensed in the steam dome.

d. 1325 psig as sensed in the lower head region.

QUESTION: 023 (1.00)

The control building chilled water circulating pump discharge flow has dropped to 190 gpm and all automatic actions have occurred as designed.

WHICH ONE (1) of the following is expected due to the above event?

a. Special Filter Train Booster Fan (FN2A) trips.

b. Control Room Smoke Removal Fan (FN3) trips.

c. Makeup Air Heating and Vent. Unit (HVU1) trips.

d. Relay Room Air Conditioning Unit (ACU2A) trips.

QUESTION: 024 (1.00)

A fire has been detected in the Control Room underfloor space. WHICH ONE (1) of the following describes the expected response of the Fire Protection-Halon system?

a. All Halon banks that supply the affected zone immediately align to the supply header and discharge into the affected area.

b. One Halon bank immediately discharges; the second bank will discharge after a 30 second time delay.

c. The selected bank will discharge 30 seconds after receiving an initiation signal and the next bank will actuate when the first has completely discharged.

d. Once the first bank has depleted the second bank has to be manually aligned to supply the affected area.

QUESTION: 025 (1.00)

During plant operations an event occurs causing RPV level to decrease. In turn, drywell pressure increased to 2.1 psig. You are notified that the 'A' Recirculation Flow Control Valve HPU has tripped and transferred to the Maintenance Mode.

WHICH ONE (1) of the following describes the reason for HPU 'A' transferring to the Maintenance Mode?

a. The drywell pressure increase.

b. RPV level decreasing to Level 2.

c. A Decrease in the difference in temperature between RPV dome and the head drain.

d. RPV water level has dropped to level 4 and less than 2 feed pumps are running.

QUESTION: 026 (1.00)

Preparations are in progress to startup an idle recirculation loop. Plant conditions are as follows:

- Reactor pressure: 980 psig (540 degrees F)
- Bottom head temperature: 440 degrees F
- Operating loop temperature: 530 degrees F
- Operating loop jet pump flow: 26,000,000 lbs/hr
- Idle loop temperature: 485 degrees F

WHICH ONE (1) of the following statements describes the actions that need to be taken to start the idle recirculation pump?

The recirculation pump can be started ...

a. After raising idle loop temperature to 500 degrees F.

b. After raising bottom head temperature to 480 degrees F.

c. After reducing operating loop jet pump flow to less than 50% of rated.

d. Immediately, if the given data was taken within 15 minutes of starting the recirculation pump.

QUESTION: 027 (1.00)

The 'B' loop of RHS has just been placed in shutdown cooling and both reactor recirculation pumps have been secured.

WHICH ONE (1) of the following RPV level bands is acceptable?

a. 179 to 187 inches

b. 197 to 207 inches

c. 213 to 221 inches

d. 227 to 243 inches

QUESTION: 028 (1.00)

During refueling with RHR in the shutdown cooling mode and recirc pump 'B' operating, WHICH ONE (1) of the following protects incore instrumentation from damage?

a. Assure recirculation drive flow in maintained less than 7450 gpm.

b. Assuring RHR total flow returned to the suppression pool is maintained less than 4750 gpm.

c. Assure the combined RHR shutdown cooling and recirculation drive flow are maintained less than 5700 gpm.

d. Assure RHR shutdown cooling total flow is maintained less than 7500 gpm.

QUESTION: 029 (1.00)

WHICH ONE (1) of the following is the LOWEST dose rate which REQUIRES specifying MAXIMUM allowable stay times on the RWP for entries into radiological controlled areas?

a. 100 mrem/hr

b. 500 mrem/hr

c. 1 Rem/hr

d. 10 Rem/hr

QUESTION: 030 (1.00)

WHICH ONE (1) of the following is the MAXIMUM time allowed to complete the final review and approval of a temporary procedure change?

a. 3 days

b. 7 days

c. 14 days

d. 21 days

QUESTION: 031 (1.00)

WHICH ONE (1) of the following conditions would require the presence of three (3) licensed Reactor Operators on shift.

a. The unit is in Operational Condition 1 operating at 100% power.

b. The unit is in Operational Condition 2 with a reactor startup in progress.

c. The unit is in Operational Condition 3 making preparations to place shutdown cooling in service.

d. The unit is in Operational Condition 5 with refueling operations in progress.

QUESTION: 032 (1.00)

WHICH ONE (1) of the following describes the meaning of a transparent yellow sticker on an annunciator window in the control room?

The associated annunciator ...

a. is normally lit at 100% power operations.

b. has one or more of its inputs defeated.

c. has ALL of its inputs defeated.

d. has been classified as a nuisance annunciator.

QUESTION: 033 (1.00)

WHICH ONE (1) of the following actions has the highest priority during the initial stages of a full power ATWS condition following a turbine trip?

a. Establishing control of RPV pressure and level.

b. Assigning an operator to insert control rods per N2-EOP-6, Attachment 14, Alternate Control Rod Insertion.

c. Declaring the appropriate emergency classification.

d. Initiating standby liquid control.

QUESTION: 034 (1.00)

WHICH ONE (1) of the following describes the requirements governing the reset of electrical protective devices during normal operations?

a. A tripped circuit breaker can be reset once without identifying/correcting the cause of the trip.

b. An MCC thermal overload can be reset once without identifying/correcting the cause of the trip.

c. Two attempts at resetting an MCC thermal overload are allowed as long as the associated circuit breaker has not tripped.

d. NEITHER a tripped circuit breaker or an MCC thermal overload can be reset until the cause has been identified/corrected.

QUESTION: 035 (1.00)

The SSS has directed emergency maintenance to be performed in a radiation area without the normal processing of a Radiation Work Permit.

WHICH ONE (1) of the following describes the radiation protection requirements governing this work?

a. The work must be continuously monitored by an RP technician.

b. An RP technician must provide intermittent coverage while work is in progress.

c. The General Supervisor Operations must give approval for the work to begin.

d. The Plant Manager must give approval for the work to begin.

QUESTION: 036 (1.00)

WHICH ONE (1) of the following represents the MINIMUM required number of fire brigade members which are normally required to be maintained on-site at all times?

a. 4

b. 5

c. 6

d. 7

QUESTION: 037 (1.00)

Before installing temporary shielding, WHICH ONE (1) of the following actions has to occur?

a. A Hot Spot reduction form has to filled out.

b. The responsible supervisor obtains a Hot Work permit.

c. Notifying the ALARA department.

d. The responsible supervisor initiates a temporary modification request.

QUESTION: 038 (1.00)

A female worker has just reported to you that she is three months pregnant. It has been determined that her occupational exposure for the three months of her pregnancy is 225 mrem total effective dose equivalent (TEDE).

WHICH ONE (1) of the following represents her occupational exposure limit during the remainder of her pregnancy?

a. She may receive a maximum of 50 mrem per month for the remainder of her pregnancy.

b. She may receive a maximum of 225 mrem of exposure for the remainder of her pregnancy.

c. She may receive a maximum of 275 mrem of exposure for the remainder of her pregnancy.

d. She may receive a maximum of 300 mrem exposure from the day that she declared her pregnancy.

QUESTION: 039 (1.00)

WHICH ONE (1) of the following Locked High Radiation Areas has its access key control normally maintained by the SSS?

a. TIP Room

b. Main Steam Tunnel

c. Drywell

d. Suppression Pool

QUESTION: 040 (1.00)

The HPCS System Engineer has just reported to the control room that the HPCS CST suction valve may not meet its environmental qualifications (EQ) and further investigation is needed.

WHICH ONE (1) of the following describes the operability classification of the HPCS system while the investigation is in progress?

a. Operable

b. Degraded

c. Administratively Inoperable

d. Indeterminate

QUESTION: 041 (1.00)

WHICH ONE (1) of the following describes the post maintenance testing requirements for a motor operated valve (MOV) that has been manually seated closed?

a. The MOV must be cycled once using the motor.

b. The MOV must be cycled twice using the motor.

c. The MOV must be manually cycled once using the manual handwheel and then cycled once using the motor.

d. The MOV must be manually cycled twice using the manual handwheel before using the motor.

QUESTION: 042 (1.00)

In addition to the SSS, WHICH ONE (1) of the following individuals is required to approve the removal of a Divisional 4160V Breaker from its fully racked in condition?

a. Supervisor Operations

b. General Supervisor Operations Support

c. Manager Maintenance

d. Seismic Qualification Administrator

QUESTION: 043 (1.00)

The plant was shutdown and depressurized with Shutdown Cooling in service.

Thirty (30) minutes ago a lightning strike resulted in a loss of all off-site AC power. All diesel generators started and loaded as designed. Off-site power is expected to be restored in one (1) hour.

WHICH ONE (1) of the following describes the emergency declaration requirements?

a. An Unusual Event should be declared ONLY IF off-site power is not restored within one hour.

b. An Unusual Event should be declared without delay.

c. An Alert should be declared without delay.

d. A Site Emergency should be declared without delay.

QUESTION: 044 (1.00)

WHICH ONE (1) of the following is the MINIMUM emergency classification which requires activation of the Emergency Response Data System (ERDS)?

a. Operational Event

b. Unusual Event

c. Alert

d. Site Area Emergency

QUESTION: 045 (1.00)

An accident at the plant has resulted in the declaration of a Site Area Emergency. An operator is needed to be sent into a Very High Radiation Area to take actions to protect a safe shutdown system.

WHICH ONE (1) of the following represents the additional exposure the operator can receive and remain within the emergency exposure guidelines?

a. 5 Rem

b. 10 Rem

c. 25 Rem

d. 50 Rem

QUESTION: 046 (1.00)

A large break LOCA has occurred. WHICH ONE (1) of the following conditions represents "Adequate Core Cooling"? (Levels are actual)

a. Reactor power: Shutdown
RPV water level: -10 inches being maintained with Fire System water.
Reactor pressure: 50 psig.

b. Reactor power: Shutdown
RPV water level: -60 inches with no injection sources.
Reactor pressure: 220 psig

c. Reactor power: NOT Shutdown
RPV water level: Unknown, condensate is injecting
SRV status: 7 are open
Reactor pressure: 120 psig
Suppression chamber pressure: 25 psig

d. Reactor power: Shutdown
RPV water level: Unknown, HPCS is injecting
SRV status: 7 are open
Reactor pressure: 60 psig
Suppression chamber pressure: 25 psig

QUESTION: 047 (1.00)

Plant conditions are as follows:

- A scram condition exists but the reactor did not shutdown.
- Reactor power is 15%.
- Only one SLS pump is injecting.
- The Main Steam Isolation Valves are closed and 3 SRVs are open.
- RPV Water Level is +90 inches and is being deliberately lowered.
- Suppression pool temperature is 112 degrees F.

WHICH ONE (1) of the following is the PRIMARY reason for deliberately lowering RPV water level under these conditions?

a. To minimize the threat to primary containment integrity.

b. To promote boron mixing.

c. To minimize the challenge to the fuel cladding.

d. To increase the boron concentration inside the reactor vessel.

QUESTION: 048 (1.00)

The plant is shutdown with refueling operations in progress. WHICH ONE (1) of the following RPS trip signals is required to be operable?

a. Main Steam Line Radiation High

b. Low Reactor Water Level

c. Reactor Mode Switch Shutdown Position

d. High Drywell Pressure

QUESTION: 049 (1.00)

During the performance of surveillance N2-OSP-RPS-W001 (Weekly Turbine Valve Cycling - Turbine Operating) it was determine that Combined Intermediate Valve No. 3 (CIV 3) would not fully close.

WHICH ONE (1) of the following actions should be taken?

a. Operation can continue but reactor power will be limited to 92%

b. Operation can continue but reactor power will be limited to 30%

c. The turbine must be taken off line immediately.

d. The turbine must be taken off line if the valve is not repaired within 72 hours.

QUESTION: 050 (1.00)

The plant is operating at 100% power when a failure in the Maximum Combined Flow Limit Potentiometer causes its limit to be lowered to 90%.

WHICH ONE (1) of the following describes the INITIAL plant response to this condition?

a. The turbine will trip on power/load unbalance.

b. The turbine bypass valves will open to pass approximately 10% steam flow.

c. The turbine control valves will close until 90% steam flow is being passed.

d. The turbine will trip on overspeed.

QUESTION: 051 (1.00)

The plant is operating at approximately 75% power when a loss of UPS 1A occurs.

WHICH ONE (1) of the following describes how the EHC system will be affected by this failure.

a. The turbine bypass valves would fail to open on a turbine trip.

b. The turbine would immediately trip due to a loss of + 30 VDC.

c. Pressure control will automatically transfer to the standby pressure regulator.

d. All EHC indications would be lost.

QUESTION: 052 (1.00)

Maintenance has just completed repairs to failed UPS inverter 2VBB-UPS3A. An operator has been dispatched to transfer UPS inverter 2VBB-UPS3A from the maintenance supply to its normal source in accordance with N2-OP-71D.

WHICH ONE (1) of the following events could occur during the transfer of this inverter?

a. A Group 9 (CPS) isolation may occur.

b. An 'A' RPS trip on APRM upscale may occur.

c. Flow control valve 2RCS*FV17A may lock up.

d. The running service water pumps in Division II may trip.

QUESTION: 019 (1.00)

The plant is in Operational Condition 2 with a reactor startup in progress. Drywell pressure has been going up slowly.

WHICH ONE (1) of the following statements describes the PREFERRED vent lineup that should be used to lower drywell pressure?

a. The drywell should be vented using one standby gas treatment train.

b. The drywell should be vented using both standby gas treatment trains.

c. Both the drywell and suppression chamber should be vented at the same time through one standby gas treatment train.

d. Both the drywell and suppression chamber should be vented at the same time through both standby gas treatment trains.

QUESTION: 020 (1.00)

Standby Gas Treatment System (GTS) inlet block valve, 2GTS AOV101, has been manually opened, using the handwheel, for surveillance testing. WHICH ONE (1) of the following has to occur before remote operation of the valve can be restored?

a. Cycle the valve then lock the handwheel in its normal position.

b. Close the valve and reopen to its normal position.

c. Place the GTS train control switch in the AUTO position.

d. SOV-102 has to be closed to reset the AOV101 air operator.

QUESTION: 021 (1.00)

A Traversing In-Core Probe (TIP) trace is being taken when a high drywell pressure signal (group 3) is received.

WHICH ONE (1) of the following describes the AUTOMATIC response of the TIP system?

a. The TIP shear valve immediately fires, cutting the detector cable and sealing the guide tube.

b. The TIP ball valve immediately closes, cutting the detector cable and sealing the guide tube.

c. The TIP drive shifts to reverse withdrawing the detector into the chamber shield position, then the shear valve fires.

d. The TIP drive shifts to reverse withdrawing the detector into the chamber shield position, then the ball valve closes.

QUESTION: 022 (1.00)

WHICH ONE (1) of the following is the Safety Limit for reactor vessel pressure?

a. 1250 psig as sensed in the steam dome.

b. 1250 psig as sensed in the lower head region.

c. 1325 psig as sensed in the steam dome.

d. 1325 psig as sensed in the lower head region.

QUESTION: 023 (1.00)

The control building chilled water circulating pump discharge flow has dropped to 190 gpm and all automatic actions have occurred as designed.

WHICH ONE (1) of the following is expected due to the above event?

a. Special Filter Train Booster Fan (FN2A) trips.

b. Control Room Smoke Removal Fan (FN3) trips.

c. Makeup Air Heating and Vent. Unit (HVU1) trips.

d. Relay Room Air Conditioning Unit (ACU2A) trips.

QUESTION: 024 (1.00)

A fire has been detected in the Control Room underfloor space. WHICH ONE (1) of the following describes the expected response of the Fire Protection-Halon system?

a. All Halon banks that supply the affected zone immediately align to the supply header and discharge into the affected area.

b. One Halon bank immediately discharges; the second bank will discharge after a 30 second time delay.

c. The selected bank will discharge 30 seconds after receiving an initiation signal and the next bank will actuate when the first has completely discharged.

d. Once the first bank has depleted the second bank has to be manually aligned to supply the affected area.

QUESTION: 025 (1.00)

During plant operations an event occurs causing RPV level to decrease. In turn, drywell pressure increased to 2.1 psig. You are notified that the 'A' Recirculation Flow Control Valve HPU has tripped and transferred to the Maintenance Mode.

WHICH ONE (1) of the following describes the reason for HPU 'A' transferring to the Maintenance Mode?

a. The drywell pressure increase.

b. RPV level decreasing to Level 2.

c. A Decrease in the difference in temperature between RPV dome and the head drain.

d. RPV water level has dropped to level 4 and less than 2 feed pumps are running.

QUESTION: 026 (1.00)

Preparations are in progress to startup an idle recirculation loop. Plant conditions are as follows:

- Reactor pressure: 980 psig (540 degrees F)
- Bottom head temperature: 440 degrees F
- Operating loop temperature: 530 degrees F
- Operating loop jet pump flow: 26,000,000 lbs/hr
- Idle loop temperature: 485 degrees F

WHICH ONE (1) of the following statements describes the actions that need to be taken to start the idle recirculation pump?

The recirculation pump can be started ...

a. After raising idle loop temperature to 500 degrees F.

b. After raising bottom head temperature to 480 degrees F.

c. After reducing operating loop jet pump flow to less than 50% of rated.

d. Immediately, if the given data was taken within 15 minutes of starting the recirculation pump.

QUESTION: 027 (1.00)

The 'B' loop of RHS has just been placed in shutdown cooling and both reactor recirculation pumps have been secured.

WHICH ONE (1) of the following RPV level bands is acceptable?

a. 179 to 187 inches

b. 197 to 207 inches

c. 213 to 221 inches

d. 227 to 243 inches

QUESTION: 028 (1.00)

During refueling with RHR in the shutdown cooling mode and recirc pump 'B' operating, WHICH ONE (1) of the following protects incore instrumentation from damage?

a. Assure recirculation drive flow in maintained less than 7450 gpm.

b. Assuring RHR total flow returned to the suppression pool is maintained less than 4750 gpm.

c. Assure the combined RHR shutdown cooling and recirculation drive flow are maintained less than 5700 gpm.

d. Assure RHR shutdown cooling total flow is maintained less than 7500 gpm.

QUESTION: 029 (1.00)

WHICH ONE (1) of the following is the LOWEST dose rate which REQUIRES specifying MAXIMUM allowable stay times on the RWP for entries into radiological controlled areas?

a. 100 mrem/hr

b. 500 mrem/hr

c. 1 Rem/hr

d. 10 Rem/hr

QUESTION: 030 (1.00)

WHICH ONE (1) of the following is the MAXIMUM time allowed to complete the final review and approval of a temporary procedure change?

a. 3 days

b. 7 days

c. 14 days

d. 21 days

QUESTION: 031 (1.00)

WHICH ONE (1) of the following conditions would require the presence of three (3) licensed Reactor Operators on shift.

a. The unit is in Operational Condition 1 operating at 100% power.

b. The unit is in Operational Condition 2 with a reactor startup in progress.

c. The unit is in Operational Condition 3 making preparations to place shutdown cooling in service.

d. The unit is in Operational Condition 5 with refueling operations in progress.

QUESTION: 032 (1.00)

WHICH ONE (1) of the following describes the meaning of a transparent yellow sticker on an annunciator window in the control room?

The associated annunciator ...

a. is normally lit at 100% power operations.

b. has one or more of its inputs defeated.

c. has ALL of its inputs defeated.

d. has been classified as a nuisance annunciator.

QUESTION: 033 (1.00)

WHICH ONE (1) of the following actions has the highest priority during the initial stages of a full power ATWS condition following a turbine trip?

a. Establishing control of RPV pressure and level.

b. Assigning an operator to insert control rods per N2-EOP-6, Attachment 14, Alternate Control Rod Insertion.

c. Declaring the appropriate emergency classification.

d. Initiating standby liquid control.

QUESTION: 034 (1.00)

WHICH ONE (1) of the following describes the requirements governing the reset of electrical protective devices during normal operations?

a. A tripped circuit breaker can be reset once without identifying/correcting the cause of the trip.

b. An MCC thermal overload can be reset once without identifying/correcting the cause of the trip.

c. Two attempts at resetting an MCC thermal overload are allowed as long as the associated circuit breaker has not tripped.

d. NEITHER a tripped circuit breaker or an MCC thermal overload can be reset until the cause has been identified/corrected.

QUESTION: 035 (1.00)

The SSS has directed emergency maintenance to be performed in a radiation area without the normal processing of a Radiation Work Permit.

WHICH ONE (1) of the following describes the radiation protection requirements governing this work?

a. The work must be continuously monitored by an RP technician.

b. An RP technician must provide intermittent coverage while work is in progress.

c. The General Supervisor Operations must give approval for the work to begin.

d. The Plant Manager must give approval for the work to begin.

QUESTION: 036 (1.00)

WHICH ONE (1) of the following represents the MINIMUM required number of fire brigade members which are normally required to be maintained on-site at all times?

a. 4

b. 5

c. 6

d. 7

QUESTION: 037 (1.00)

Before installing temporary shielding, WHICH ONE (1) of the following actions has to occur?

a. A Hot Spot reduction form has to filled out.

b. The responsible supervisor obtains a Hot Work permit.

c. Notifying the ALARA department.

d. The responsible supervisor initiates a temporary modification request.

QUESTION: 038 (1.00)

A female worker has just reported to you that she is three months pregnant. It has been determined that her occupational exposure for the three months of her pregnancy is 225 mrem total effective dose equivalent (TEDE).

WHICH ONE (1) of the following represents her occupational exposure limit during the remainder of her pregnancy?

a. She may receive a maximum of 50 mrem per month for the remainder of her pregnancy.

b. She may receive a maximum of 225 mrem of exposure for the remainder of her pregnancy.

c. She may receive a maximum of 275 mrem of exposure for the remainder of her pregnancy.

d. She may receive a maximum of 300 mrem exposure from the day that she declared her pregnancy.

QUESTION: 039 (1.00)

WHICH ONE (1) of the following Locked High Radiation Areas has its access key control normally maintained by the SSS?

a. TIP Room

b. Main Steam Tunnel

c. Drywell

d. Suppression Pool

QUESTION: 040 (1.00)

The HPCS System Engineer has just reported to the control room that the HPCS CST suction valve may not meet its environmental qualifications (EQ) and further investigation is needed.

WHICH ONE (1) of the following describes the operability classification of the HPCS system while the investigation is in progress?

a. Operable

b. Degraded

c. Administratively Inoperable

d. Indeterminate

QUESTION: 041 (1.00)

WHICH ONE (1) of the following describes the post maintenance testing requirements for a motor operated valve (MOV) that has been manually seated closed?

a. The MOV must be cycled once using the motor.

b. The MOV must be cycled twice using the motor.

c. The MOV must be manually cycled once using the manual handwheel and then cycled once using the motor.

d. The MOV must be manually cycled twice using the manual handwheel before using the motor.

QUESTION: 042 (1.00)

In addition to the SSS, WHICH ONE (1) of the following individuals is required to approve the removal of a Divisional 4160V Breaker from its fully racked in condition?

a. Supervisor Operations

b. General Supervisor Operations Support

c. Manager Maintenance

d. Seismic Qualification Administrator

QUESTION: 043 (1.00)

The plant was shutdown and depressurized with Shutdown Cooling in service.

Thirty (30) minutes ago a lightning strike resulted in a loss of all off-site AC power. All diesel generators started and loaded as designed. Off-site power is expected to be restored in one (1) hour.

WHICH ONE (1) of the following describes the emergency declaration requirements?

a. An Unusual Event should be declared ONLY IF off-site power is not restored within one hour.

b. An Unusual Event should be declared without delay.

c. An Alert should be declared without delay.

d. A Site Emergency should be declared without delay.

QUESTION: 044 (1.00)

WHICH ONE (1) of the following is the MINIMUM emergency classification which requires activation of the Emergency Response Data System (ERDS)?

a. Operational Event

b. Unusual Event

c. Alert

d. Site Area Emergency

QUESTION: 045 (1.00)

An accident at the plant has resulted in the declaration of a Site Area Emergency. An operator is needed to be sent into a Very High Radiation Area to take actions to protect a safe shutdown system.

WHICH ONE (1) of the following represents the additional exposure the operator can receive and remain within the emergency exposure guidelines?

a. 5 Rem

b. 10 Rem

c. 25 Rem

d. 50 Rem

QUESTION: 046 (1.00)

A large break LOCA has occurred. WHICH ONE (1) of the following conditions represents "Adequate Core Cooling"? (Levels are actual)

a. Reactor power: Shutdown
RPV water level: -10 inches being maintained with Fire System water.
Reactor pressure: 50 psig.

b. Reactor power: Shutdown
RPV water level: -60 inches with no injection sources.
Reactor pressure: 220 psig

c. Reactor power: NOT Shutdown
RPV water level: Unknown, condensate is injecting
SRV status: 7 are open
Reactor pressure: 120 psig
Suppression chamber pressure: 25 psig

d. Reactor power: Shutdown
RPV water level: Unknown, HPCS is injecting
SRV status: 7 are open
Reactor pressure: 60 psig
Suppression chamber pressure: 25 psig

QUESTION: 047 (1.00)

Plant conditions are as follows:

- A scram condition exists but the reactor did not shutdown.
- Reactor power is 15%.
- Only one SLS pump is injecting.
- The Main Steam Isolation Valves are closed and 3 SRVs are open.
- RPV Water Level is +90 inches and is being deliberately lowered.
- Suppression pool temperature is 112 degrees F.

WHICH ONE (1) of the following is the PRIMARY reason for deliberately lowering RPV water level under these conditions?

a. To minimize the threat to primary containment integrity.

b. To promote boron mixing.

c. To minimize the challenge to the fuel cladding.

d. To increase the boron concentration inside the reactor vessel.

QUESTION: 048 (1.00)

The plant is shutdown with refueling operations in progress. WHICH ONE (1) of the following RPS trip signals is required to be operable?

a. Main Steam Line Radiation High

b. Low Reactor Water Level

c. Reactor Mode Switch Shutdown Position

d. High Drywell Pressure

QUESTION: 049 (1.00)

During the performance of surveillance N2-OSP-RPS-W001 (Weekly Turbine Valve Cycling - Turbine Operating) it was determine that Combined Intermediate Valve No. 3 (CIV 3) would not fully close.

WHICH ONE (1) of the following actions should be taken?

a. Operation can continue but reactor power will be limited to 92%

b. Operation can continue but reactor power will be limited to 30%

c. The turbine must be taken off line immediately.

d. The turbine must be taken off line if the valve is not repaired within 72 hours.

QUESTION: 050 (1.00)

The plant is operating at 100% power when a failure in the Maximum Combined Flow Limit Potentiometer causes its limit to be lowered to 90%.

WHICH ONE (1) of the following describes the INITIAL plant response to this condition?

a. The turbine will trip on power/load unbalance.

b. The turbine bypass valves will open to pass approximately 10% steam flow.

c. The turbine control valves will close until 90% steam flow is being passed.

d. The turbine will trip on overspeed.

QUESTION: 051 (1.00)

The plant is operating at approximately 75% power when a loss of UPS 1A occurs.

WHICH ONE (1) of the following describes how the EHC system will be affected by this failure.

a. The turbine bypass valves would fail to open on a turbine trip.

b. The turbine would immediately trip due to a loss of + 30 VDC.

c. Pressure control will automatically transfer to the standby pressure regulator.

d. All EHC indications would be lost.

QUESTION: 052 (1.00)

Maintenance has just completed repairs to failed UPS inverter 2VBB-UPS3A. An operator has been dispatched to transfer UPS inverter 2VBB-UPS3A from the maintenance supply to its normal source in accordance with N2-OP-71D.

WHICH ONE (1) of the following events could occur during the transfer of this inverter?

a. A Group 9 (CPS) isolation may occur.

b. An 'A' RPS trip on APRM upscale may occur.

c. Flow control valve 2RCS*FV17A may lock up.

d. The running service water pumps in Division II may trip.

QUESTION: 053 (1.00)

A reactor startup is in progress. The Offgas system has just been placed in service when the following annunciator alarms are received.

- PROCESS GAS RADN MONITOR ACTIVATED
- OFF GAS RADIATION HI

WHICH ONE (1) of the following automatic actions will occur in response to this condition?

a. Mechanical vacuum pumps VP-1A and VP-1B will trip if running.

b. The Standby Gas Treatment system will start.

c. The main steam isolation valves (MSIVs) will close if open.

d. The Steam Jet Air Ejector suction valves will close if open.

QUESTION: 054 (1.00)

A reactor startup is in progress, with reactor power approaching 1%, when a complete loss of 24/48 VDC Distribution Panel 300B occurs.

WHICH ONE (1) of the following describes how this condition will affect the reactor startup?

a. A full reactor scram will occur.

b. A half scram will occur and half of the SRMs and IRMs will lose power.

c. The reactor will remain at power but ALL reactor power indications will be lost.

d. The reactor startup can continue but the IRMs cannot be withdrawn from the core until electrical power is restored.

QUESTION: 055 (1.00)

Power reduction is in progress in preparation to isolate the 'C' main steam line. WHICH ONE (1) of the following represents the MAXIMUM reactor power associated with isolating this main steam line?

Reactor power must be less than ...

a. 90%

b. 80%

c. 75%

d. 65%

QUESTION: 056 (1.00)

During full power operations an event occurs causing RPV level to decrease below level 2. WHICH ONE (1) of the following Control Building Special Filter Train actions would occur?

a. Booster fan HVC*FN2A would trip.

b. Filter train bypass valve HVC*MOV1A would open.

c. Filter train inlet air isolation damper closes.

d. Booster fan HVC*FN2A would start.

QUESTION: 057 (1.00)

The plant is operating at approximately 18% rated power when a high-high level condition occurs in the moisture separator.

WHICH ONE (1) of the following actions will occur?

a. The main turbine will immediately trip and the reactor will scram.

b. The main turbine will immediately trip; the reactor will remain on line.

c. The main turbine will trip after a 10 second time delay and the reactor will scram.

d. The main turbine will trip after a 10 second time delay; the reactor will remain on line.

QUESTION: 058 (1.00)

While operating at 100% rated power, a valid high steam line flow signal is sensed in the 'A' main steam line.

WHICH ONE (1) of the following is the expected response of the main steam line isolation valves (MSIVs)?

a. All MSIVs will close.

b. Only the MSIVs in main steam line 'A' will close.

c. Only the inboard MSIVs in all four main steam lines will close.

d. Only the inboard MSIV in main steam line 'A' will close.

QUESTION: 059 (1.00)

The plant is shutdown in Operational Condition 4.

WHICH ONE (1) of the following requirements must be met to drain the suppression pool?

a. Primary Containment Integrity must be established.

b. HPCS must be OPERABLE.

c. The "A" CST must be OPERABLE and in service.

d. Secondary Containment Integrity must be established.

QUESTION: 060 (1.00)

While pulling a rod during reactor startup at 12% power, faulty rod position data required the operator to select the substitute position displayed by RSCS to clear associated insert blocks. At the next notch the same rod experiences another data fault. WHICH ONE (1) of the following describes the rod block status after bypassing the affected rod with the rod bypass file?

a. Both rod blocks remain until the data fault is corrected.

b. Only the insert block is bypassed.

c. Only the withdrawal block is bypassed.

d. Both the withdrawal and insert blocks are bypassed.

QUESTION: 061 (1.00)

WHICH ONE (1) of the following would be affected by a loss of the Normal 125 VDC "A" Bus?

a. Emergency bearing lube oil pump

b. 600V load center control bus

c. Fire protection power supply panel

d. High pressure core spray control panel

QUESTION: 062 (1.00)

Given the following conditions:

- The reactor has scrammed.
- The EOP, "RPV Control", has been entered.
- The Main Steam Isolation Valves are closed.
- The Control Room Operator has been directed to maintain reactor pressure between 900 psig and 1000 psig using SRVs.

WHICH ONE (1) of the following will be accomplished by controlling reactor pressure in this band?

a. RPV water level fluctuations will be minimized.

b. Localized heatup of the suppression pool will be prevented.

c. The MSIVs can be reopened sooner.

d. Less inventory will be lost from the reactor vessel.

QUESTION: 063 (1.00)

The plant is operating at approximately 60% rated power.

WHICH ONE (1) of the following signals would DIRECTLY result in a recirc flow control valve runback?

a. A trip of either reactor feedwater pump.

b. A feedwater level control system failure causes reactor water level to lower to 178 inches.

c. A reactor feedwater pump trip causes reactor water level to lower to 178 inches.

d. The discharge valve of reactor recirc pump 'B' drifts off its open seat.

QUESTION: 064 (1.00)

The plant is operating at 100% rated power when an operator notices that drywell floor drain leak rate is slowly rising. The shift supervisor has directed the operator to check reactor recirc pump seal pressures for indications of a failed seal.

WHICH ONE (1) of the following indications would represent a total 100% failure of the number 2 (upper) seal?

a. UPPER cavity pressure INCREASES to approximately 1000 psig.

b. UPPER cavity pressure DECREASES to 0 psig.

c. LOWER cavity pressure INCREASES to approximately 1000 psig.

d. LOWER cavity pressure DECREASES to 0 psig.

QUESTION: 065 (1.00)

According to Special Operating Procedure immediate actions, WHICH ONE (1) of the following events requires specific direction from the SSS BEFORE reactor power can be reduced per N2-OP-101D, "Power Changes"?

a. Fuel failure

b. Total Loss of Turbine Building Closed Loop Cooling

c. Loss of Instrument Air

d. Loss of Service Water

QUESTION: 066 (1.00)

The plant was operating at approximately 85% rated power when a loss of RPS 'MG1A' Motor Generator set occurred. The Control Room Operator notices that the scram valve lights on the Full Core Display are illuminated for rods 34-31 and 34-23. Rod 34-31 indicates that it is at position 00 and 34-23 indicates that it is at position 08. Both control rods were originally at position 48.

WHICH ONE (1) of the following actions are required?

a. Fully insert control rod 34-23.

b. Immediately insert a manual reactor scram.

c. Continue monitoring the Full Core Display and insert a manual reactor scram IF another control rod scrams.

d. Contact the Station Nuclear Engineer for guidance in restoring control rod positions.

QUESTION: 067 (1.00)

WHICH ONE (1) of the following defines the primary containment pressure limit for NMP-2?

a. The pressure capability of the primary containment.

b. The maximum primary containment pressure at which SRVs can be opened and will remain open.

c. The maximum primary containment pressure at which RPV vent valves can be opened and closed.

d. The maximum primary containment pressure at which vent valves sized to reject all decay heat from the primary containment can be opened and closed.

QUESTION: 068 (1.00)

A loss of feedwater transient has resulted in a reactor scram and MSIV closure. Several control rods failed to insert. Plant conditions are as follows:

- Reactor power is 18% and slowly dropping.
- Both SLC pumps are injecting to shutdown the reactor.
- Pressure is being controlled at 900 psig using SRVs.
- RPV water level is being maintained in the normal band.
- The Control Room Supervisor has directed the Control Room Operator to reopen the MSIVs after verifying that the main condenser is operable.

WHICH ONE (1) of the following is the lowest main steam header pressure at which the MSIVs should be reopened?

a. 450 psig

b. 550 psig

c. 650 psig

d. 750 psig

QUESTION: 069 (1.00)

During normal plant operations a loss of the Instrument Air System resulted in a manual reactor scram.

WHICH ONE (1) of the following is the IMPENDING consequence of the above event?

a. The non-ADS SRVs fail to operate.

b. The ADS valves fail to operate.

c. The inboard MSIVs fail to operate.

d. The SDV vent and drain valves fail shut.

QUESTION: 070 (1.00)

Plant conditions are as follows:

- Reactor power is 20%.
- Reactor recirculation pumps are running in slow speed with their flow control valves (FCV) full open.

Reactor recirculation pump 'B' has just tripped, WHICH ONE (1) of the following actions should be taken?

a. Scram the reactor per Sudden Reduction In Core Flow (N2-SOP-29).

b. Close the FCV in the operating loop.

c. Reduce power by inserting control rods.

d. Enter the procedure for single loop operation (N2-OP-29).

QUESTION: 071 (1.00)

The plant is operating at 100% reactor power when a gaseous high radiation level activates the following annunciator alarms:

- PROCESS AIRBORNE RADN MON ACTIVATED
- STACK EFFLUENT RADN MON ACTIVATED

WHICH ONE (1) of the following will occur in response to these conditions?

a. Control room ventilation fans trip.

b. Offgas system discharge isolates.

c. A standby gas treatment filter train starts.

d. Containment Nitrogen Makeup isolates.

QUESTION: 072 (1.00)

The control room has been evacuated and the emergency diesel generator local control panels have been manned. The operator at the local control panel for DIV 1 emergency diesel generator has been directed by his supervision to place the LOCA Bypass switch to the 'ON' position.

WHICH ONE (1) of the following describes how this action affects the operation of the Division 1 emergency diesel generator?

a. Aligns the diesel generator for a manual start at the local control panel.

b. All diesel generator protective trips except for overspeed are bypassed.

c. All diesel generator automatic start features are disabled.

d. The diesel generator will automatically start ONLY on bus undervoltage.

QUESTION: 073 (1.00)

WHICH ONE (1) of the following is a consequence of exceeding the Heat Capacity Level Limit (HCLL)?

a. The SRV tailpipe quenchers are uncovered.

b. The ECCS pumps will trip due to a loss of net positive suction head.

c. The suppression chamber will become pressurized due to uncovering the RCIC turbine exhaust line.

d. An emergency depressurization could jeopardize containment integrity.

QUESTION: 074 (1.00)

A loss of condenser vacuum has occurred. Vacuum is currently 15" Hg. WHICH ONE (1) of the following automatic actions should have occurred?

a. Turbine trip only.

b. Turbine trip and MSIV closure only.

c. Turbine trip and bypass valve closure only.

d. Turbine trip and closure of MSIVs and inboard and outboard drains.

QUESTION: 075 (1.00)

RCIC steam admission valve MOV-120 was closed due to a high RPV level. A control room evacuation followed. The SSS directs RCIC to be placed in service from the Remote Shutdown Panel. When the operator attempts to re-open the RCIC turbine steam admission valve (MOV-120), the valve fails to open.

WHICH ONE (1) of the following could be the cause of this valve failing to operate?

a. A loss of Division 1 125 VDC.

b. The associated Appendix "R" switch has been placed in the "Actuate" position.

c. A loss of Division 3 125 VDC.

d. An RPV level 8 condition exist.

QUESTION: 076 (1.00)

A partial loss of Reactor Closed Loop Cooling (CCP) has resulted in reduced cooling to the Reactor Water Cleanup System (WCS).

WHICH ONE (1) of the following actions could occur in response to these conditions?

a. The WCS MOV112, containment outboard isolation valve, closes when the non-regenerative heat exchanger (NRHX) INLET temperature reaches 140 degrees F.

b. The WCS MOV102, containment inboard isolation valve, closes when the non-regenerative heat exchanger (NRHX) OUTLET temperature reaches 140 degrees F.

c. The WCS pumps will trip when the non-regenerative heat exchanger (NRHX) INLET temperature reaches 140 degrees F.

d. The WCS pumps will trip when the non-regenerative heat exchanger (NRHX) OUTLET temperature reaches 140 degrees F.

QUESTION: 077 (1.00)

WHICH ONE (1) of the following conditions would require entry into N2-EOP-PC, Primary Containment Control?

a. The suppression pool water level at El. 199.6 feet.

b. Suppression pool temperature at 85 degrees F.

c. Drywell average air temperature at 151 degrees F.

d. Any area temperature above the isolation setpoint.

QUESTION: 078 (1.00)

At the remote shutdown panel, ALL remote transfer switches have been transferred to the "EMERGENCY" position and the Appendix "R" disconnect switches have been transferred to the "ACTUATE" position. WHICH ONE (1) of the following automatic functions is still available?

a. Automatic closure of the RCIC steam supply valve (MOV-120).

b. Reactor Water Cleanup system group 6 isolation.

c. Automatic actuation of ADS in the relief mode.

d. RPV low level initiation of LPCI.

QUESTION: 079 (1.00)

While refueling is in progress the 'A' CRD pump trips on low suction pressure. When attempts are made to start the 'B' CRD pump, it also trips on low suction pressure. Shortly thereafter accumulator trouble alarms occur on control rod 46-19 which is full in and control rod 26-47 which is full out.

WHICH ONE (1) of the following actions should be taken?

a. Arm and depress both manual scram buttons.

b. Attempt another start of the 'B' CRD pump.

c. Attempt to restart the 'A' CRD pump.

d. Scram on the next withdrawn rod accumulator alarm.

QUESTION: 080 (1.00)

Concerning the RCIC system, WHICH ONE (1) of the following is required before flow rejection to the CST can occur?

a. 108.8 inches in the RPV.

b. Condensate Storage Tank level greater than 112.1 inches.

c. RCIC water leg pump operating.

d. Both channels of a single division sensing RCIC steam supply pressure greater than 75 psig.

QUESTION: 081 (1.00)

The DIV 3 diesel generator has started in response to a LOCA signal and the solenoid fuel control valves are energized. WHICH ONE (1) of the following will trip the DIV 3 diesel generator under these conditions?

a. Low engine oil pressure

b. High jacket water temperature

c. The Main Rod Bearing temperature high

d. High differential current between phases 3 and 1

QUESTION: 082 (1.00)

The reactor is operating at approximately 90% rated power when a transient in the Hydraulic Control system (EHC) causes reactor pressure to increase to 1080 psig.

WHICH ONE (1) of the following statements describes the final plant conditions following this transient?

a. The main turbine governor valves open slightly to lower reactor pressure then return to their original position.

b. The main turbine bypass valves open to lower reactor pressure then close after reactor pressure returns to normal.

c. The reactor scrams and the reactor recirculation pumps shift to slow speed.

d. The reactor scrams and the reactor recirculation pumps trip.

QUESTION: 083 (1.00)

The reactor building Emergency Recirculation Unit has started automatically and has been operating for the last 30 minutes.

WHICH ONE (1) of the following can be a direct cause of this event?

a. RPV level has decreased to 159.3" and reactor building pressure greater than -3" WG.

b. High air flow condition on the exhaust fan.

c. The Main supply fan discharge damper is only 50% open.

d. High airborne radiation levels in the reactor building.

QUESTION: 084 (1.00)

WHICH ONE (1) of the following conditions is a symptom of a jet pump failure; i.e., broken diffuser?

a. An increase in indicated delta pressure on the jet pump sharing riser with defective jet pump.

b. Decrease in core flow.

c. An increase in recirculation drive flow to loop containing defective jet pump.

d. Increase in reactor power.

QUESTION: 085 (1.00)

The plant is operating 440 MWE (approximately 30% load) when the alarm "TURBINE CNSR A/B/C VACUUM LOW" comes in.

WHICH ONE (1) of the following actions is required?

a. Immediately trip the turbine.

b. Reduce reactor power.

c. Manually SCRAM the reactor.

d. Start the standby SJAEs.

QUESTION: 086 (1.00)

While refueling is in progress a loss of offsite power occurs. WHICH ONE (1) of the following describes the action that should be taken to cool the Fuel Storage Pool?

a. Place RHR loop A in service to supply the Fuel Storage Pool.

b. Align the condensate system to the RPV and inject through the vessel.

c. Manually initiate core spray and makeup to the fuel pool via the vessel.

d. Using the water leg pump for HPCS, making up through the vessel.

QUESTION: 087 (1.00)

WHICH ONE (1) of the following will occur if Reactor Building pressure is greater than +3" WG for an extended period of time?

a. The Reactor Building ventilation supply fans trip.

b. The above and below refuel floor exhaust fans start.

c. The Emergency Recirculation Unit trips if running.

d. The HVR unit coolers will auto stop.

QUESTION: 088 (1.00)

The reactor building temperature control leg of N2-EOP-SC, "Secondary Containment Control", asks if a primary system is discharging into the Reactor Building".

WHICH ONE (1) of the following is a "Primary System" as referenced in this step?

a. Any plant safety-related system required to be operable in Modes 1, 2 and/or 3.

b. Any system whose leak rate will decrease as reactor pressure decreases.

c. Any system required to shutdown the reactor or provide long-term core cooling.

d. Any plant system which penetrates the primary containment.

QUESTION: 089 (1.00)

The reactor scrams due to a main steam line high rad condition. WHICH ONE (1) of the following is the MAXIMUM allowable suppression pool temperature permitted by Technical Specifications?

a. 95 degrees F.

b. 105 degrees F.

c. 110 degrees F.

d. 120 degrees F.

QUESTION: 090 (1.00)

In accordance with Technical Specifications, WHICH ONE (1) of the following is a Limiting Safety System Setting violation?

a. Reactor vessel level drops to +105 inches following a scram, then RCIC restores level to +155.5 inches.

b. With the unit at 20% power, the Main turbine and RFPs tripped at +208 inches. Reactor scrams on low RPV level.

c. With the unit at 20% power, the EHC pressure regulator fails causing a reactor scram due to MSIV closure at 766 psig.

d. With the unit at 100% power, a Group 1 isolation is received on MSL High Radiation. The reactor scrams on MSIV not full open signal.

QUESTION: 091 (1.00)

The plant has been operating for several days at full power and reactor coolant system unidentified leakage had been calculated at 0.5 gpm. Drywell pressure began increasing causing an additional investigation of leakage. The investigation discovered that in the past 26 hours unidentified leakage had increased to 2.5 gpm on the average.

WHICH ONE (1) of the following actions should you take?

a. Be in at least HOT SHUTDOWN within 12 hours and in COLD SHUTDOWN within next 24 hours.

b. Monitor drywell pressure, temperature and activity and continue operation without restriction.

c. Determine where the leak is coming from within 4 hours or be in at least HOT SHUTDOWN within the next 12 hours and COLD SHUTDOWN within the following 24 hours.

d. Reduce thermal power to less than 25% of RATED THERMAL POWER within the next 4 hours.

QUESTION: 092 (1.00)

During the execution of N2-EOP-PC "Primary Containment Control", you reach the step that requires you to make a decision determining if the drywell spray initiation limit is in the safe region. WHICH ONE (1) of the following would be the result of initiating drywell spray when in the UNSAFE region of the drywell spray initiation limit curve?

a. The pressure reduction due to EVAPORATIVE cooling will be too fast for the primary containment relief system to maintain drywell pressure below the drywell design pressure limit.

b. The pressure reduction due to CONVECTIVE cooling will be too fast for the primary containment relief system to maintain drywell pressure below the drywell design pressure limit.

c. The pressure reduction due to EVAPORATIVE cooling will be too fast for the primary containment relief system to maintain drywell/wetwell differential pressure capability.

d. The pressure reduction due to CONVECTIVE cooling will be too fast for the primary containment relief system to maintain drywell/wetwell differential pressure capability.

QUESTION: 093 (1.00)

During an ATWS with the reactor at high power, N2-EOP-RPV, directs that recirculation be run back to minimum prior to tripping the Reactor recirculation pumps. WHICH ONE (1) of the following is the basis for this action?

a. Prevent MSIV closure on high flow.

b. Promote boron mixing.

c. Prevent Main Generator reverse power trip.

d. Prevent Main Turbine high RPV water level trip.

QUESTION: 094 (1.00)

During plant operations a total loss of offsite power occurs. DIV 1, DIV 2 and DIV 3 emergency diesel generators have started. DIV 1 and DIV 2 emergency diesel generators trip immediately after their output breakers closed. WHICH ONE (1) of the following is the corrective action that should be taken immediately?

a. Trip the DIV 3 emergency diesel generator.

b. Attempt to re-start the DIV 1 emergency diesel generator.

c. Attempt to re-start the DIV 2 emergency diesel generator.

d. Attempt to re-start both DIV 1 and DIV 2 emergency diesel generators.

QUESTION: 095 (1.00)

WHICH ONE (1) of the following is the MINIMUM action required to disable the relief mode of a SRV?

a. Pulling the A solenoid fuses.

b. Pulling the B solenoid fuses.

c. Pulling the C solenoid fuses.

d. Pulling both A and B solenoid fuses.

QUESTION: 096 (1.00)

The following reactor conditions exist for two loop recirc operation:

Core flow is 37%

Reactor Power is 22%

Recirculation flow is 20%

WHICH ONE (1) of the following is the maximum APRM SCRAM setpoint required by Technical Specifications?

a. Less than or equal to 71.7%

b. Less than or equal to 73.6%

c. Less than or equal to 74.7%

d. Less than or equal to 83.4%

QUESTION: 097 (1.00)

WHICH ONE (1) of the following identifies the MINIMUM trips required to initiate a SRM reactor scram?

a. High level on one SRM in each trip system with the shorting links INSTALLED.

b. High level on one SRM in each trip system with the shorting links REMOVED.

c. High level on one SRM ONLY with the shorting links REMOVED.

d. High level on one SRM ONLY with the shorting links INSTALLED.

QUESTION: 098 (1.00)

Given the following status indications with the plant operating at 11% rated power and the mode switch in STARTUP:

	APRM A	APRM B	APRM C	APRM D	APRM E	APRM F
D LPRMs	5	5	6	5	4	6
C LPRMs	5	2	4	4	6	4
B LPRMs	4	2	6	4	5	4
A LPRMs	6	4	4	4	6	4
INDICATED POWER	12%	11%	11%	10%	16%	13%

Based on the above status, WHAT signal(s) would be going to the reactor manual control system and RPS system?

a. NO scram or rod withdrawal block.

b. Half-scram and rod withdrawal block.

c. Full-scram and NO rod withdrawal block.

d. Full-scram and rod withdrawal block.

QUESTION: 099 (1.00)

Control rod drive mechanism 26-47 has exceeded 250 degrees F. Alarm 603316, CONTROL ROD TEMPERATURE HIGH annunciator is alarming. WHICH ONE (1) of the following describes the correct response to this hot CRD mechanism?

a. Check for scram discharge valve leakage, leave the drive hot.

b. Check for scram discharge valve leakage, cool the drive by giving it repeated drive signals.

c. Check for scram inlet valve leakage, leave the drive hot.

d. Check for scram inlet valve leakage, cool the drive by giving it repeated drive signals.

QUESTION: 100 (1.00)

N2-EOP-PC, Primary Containment Control, requires emergency depressurization if suppression pool level cannot be maintained within the safe region of the "SRV Tail Pipe Level Limit" curve. WHICH ONE (1) of the following identifies the plant changes which BOTH drive the plant toward the UNSAFE portion of the curve and an INCREASED possibility of SRV tail pipe failure?

a. decreasing suppression pool water level, decreasing reactor pressure

b. decreasing suppression pool water level, increasing reactor pressure

c. increasing suppression pool water level, decreasing reactor pressure

d. increasing suppression pool water level, increasing reactor pressure

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

ANSWER: 001 (1.00)

c.

REFERENCE:

1. LP-OPS-001-205-2-00, Rev 1, Att. 1., TO 13
   [3.4/3.4]

295021A202 ..(KA's)

ANSWER: 002 (1.00)

d.

REFERENCE:

1. N2-OP-33, High Pressure Core System, Sec. 5.5., p. 16.
2. LP 02-OPS-001-206-2-00, Rev 0, EO 5
   [3.1/3.3]

209002A108 ..(KA's)

ANSWER: 003 (1.00)

a.

REFERENCE:

1. LP 02-OPS-001-206-2-00, Rev 0, p. 12, Att. 1, EO-8
   [3.4/3.4]

209002K602 ..(KA's)

ANSWER: 004 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-211-2-00, Rev 0, p. 24, Att. 1, EO-4
   [3.0/3.2]

   211000K506 ..(KA's)

ANSWER: 005 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-212-2-00, Rev 1, p. 11, Att. 1, EO-4
   [3.8/3.9]

   295015K201 ..(KA's)

ANSWER: 006 (1.00)

b.

REFERENCE:

1. N2-OP-92, Neutron Monitoring, Sec. I.15, p. 28,
2. LP 02-OPS-001-215-2-02, Rev 0, EO-4
   [3.7/3.7]

   215004K401 ..(KA's)

ANSWER: 007 (1.00)

d.

REFERENCE:

1. N2-OP-92, Neutron Monitoring, p. 7.
2. LP 02-OPS-001-215-2-02, Rev 0, EO-4 [3.4/3.6]

215004A407 ..(KA's)

ANSWER: 008 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-215-2-02, Rev. 0, Fig. 40, EO-4 [3.2/3.3]

215005A403 ..(KA's)

ANSWER: 009 (1.00)

b.

REFERENCE:

1. LP 02-OPS-001-218-2-01, Rev 0, p. 13, Att. 1, EO-4 [4.1/4.1]

218000A404 ..(KA's)

ANSWER: 010 (1.00)

c.

REFERENCE:

1. N2-OP-34, Rev. 5, Nuclear Boiler, Auto Depressurization And Safety Valves, p. 10,
2. 02-OPS-001-218-2-01, EO-4.

[4.0/4.0]

218000K101 ..(KA's)

ANSWER: 011 (1.00)

b.

REFERENCE:

1. LP 02-OPS-001-222-2-01, Rev 0, p. 11, Att. 1, EO-04

[3.2/3.3]

223001K103 ..(KA's)

ANSWER: 012 (1.00)

b.

REFERENCE:

1. LP 02-OPS-001-222-2-01, Rev 0, p. 15, Att. 1, EO-4
2. N2-EOP-PC, Primary Containment Control

[3.5/3.6]

223001A412 ..(KA's)

ANSWER: 013 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-223-2-02, Rev 0, p. 11-20, Att. 1, E0-4
2. N2-OP-83, Rev. 2, Group Isolation Descriptions, Att. 2

[3.5/3.5]

223002A302 ..(KA's)

ANSWER: 014 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-223-2-02, Rev 0, p. 9, Att. 1, EO-4

[3.6/3.5]

223002A403 ..(KA's)

ANSWER: 015 (1.00)

d.

REFERENCE:

1. N2-OP-34, Rev. 5, Nuclear Boiler, Automatic and Safety Relief Valves, p. 31.
2. LP 02-OPS-001-101-2-02, EO-4
[4.1/4.2]

239002A203 ..(KA's)

ANSWER: 016 (1.00)

d.

REFERENCE:

1. N2-OP-34, Rev. 5, Nuclear Boiler, Automatic and Safety Relief Valves, p. 11 and 12.
2. LP 02-OPS-001-101-2-02, EO-4
[3.6/3.6]

239002A407 ..(KA's)

ANSWER: 017 (1.00)

b.

REFERENCE:

1. LP 02-OPS-001-259-2-02, Rev 0, p. 13, Att. 1, EO-4

[2.8/2.8]

259002K403 ..(KA's)

ANSWER: 018 (1.00)

a.

REFERENCE:

1. LP 02-OPS-001-259-2-02, Rev 0, p. 7, Att. 1, EO-4
2. N2-OP-3, Rev. 8, Condensate and Feedwater System, p. 40.

[3.3/3.4]

259002G010 ..(KA's)

ANSWER: 019 (1.00)

a.

REFERENCE:

1. LP 02-OPS-001-261-2-01, Rev 1, p. 33 & 34, Att. 1, EO-4 [3.2/3.4]

261000K102 ..(KA's)

ANSWER: 020 (1.00)

a.

REFERENCE:

1. LP 02-OPS-001-261-2-01, Rev 1, p.27, Att. 1, EO-4 [3.0/2.9]

261000A303 ..(KA's)

ANSWER: 021 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-215-2-01, Rev 0, p. 15, Att. 1, EO-4 [3.4/3.5]

215001K401 ..(KA's)

ANSWER: 022 (1.00)

c.

REFERENCE:

1. T.S. 2.1.3, p. 2-1
1. LP 02-OPS-001-101-2-01, EO-08
[3.9/4.4]

290002K507 ..(KA's)

ANSWER: 023 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-288-2-02, Rev 0, p. 25, Att. 1, EO-4

[3.8/3.8]

288000A301 ..(KA's)

ANSWER: 024 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-286-2-01, Rev 0, p. 33, Att. 1, EO-4.

[3.3/3.5]

286000K402 ..(KA's)

ANSWER: 025 (1.00)

a.

REFERENCE:

1. N2-OP-29, Rev.06, Reactor Recirculation System, p. 87.
2. LP 02-OPS-001-202-2-01, EO-4
   [3.7/3.7]

202001A108 ..(KA's)

ANSWER: 026 (1.00)

a.

REFERENCE:

1. N2-OP-29, Rev. 06, Reactor Recirculation System, p. 24.
2. LP 02-OPS-001-202-2-01, EO-4
   [3.7/3.7]

202001A401 ..(KA's)

ANSWER: 027 (1.00)

a.

REFERENCE:

1. N2-OP-31, Rev. 08, Residual Heat Removal System, p. 26.
2. LP 02-OPS-001-205-2-00, EO-4
   [3.6/3.6]

205000K102 ..(KA's)

ANSWER: 028 (1.00)

c.

REFERENCE:

1. N2-OP-31, Rev. 08, Residual Heat Removal System, p. 34.
2. LP 02-OPS-001-205-2-00, EO-4
   [3.2/3.3]

205000G010 ..(KA's)

ANSWER: 029 (1.00)

c.

REFERENCE:

1. Technical Specification 6.12.2
2. S-RAP-RPP-0801, Rev. 4, Section 3.6.6 (page 6).

   [3.3/3.8]

294001K103 ..(KA's)

ANSWER: 030 (1.00)

c.

REFERENCE:

1. Technical Specification 6.8.3.c
2. N2-ODI-1.12, Rev. 0, Section 3.2 (page 1).

   [2.9/3.4]

294001A101 ..(KA's)

ANSWER: 031 (1.00)

b.

REFERENCE:

1. Technical Specification Table 6.2.2-1.
2. GAP-OPS--1, Rev. 3, Section 3.2.1 (page 15).

[2.7/3.7]

294001A103 ..(KA's)

ANSWER: 032 (1.00)

b.

REFERENCE:

1. GAP-DES-03, Rev. 3, Section 3.5.3.a (page 8).

[3.9/4.5]

294001K102 ..(KA's)

ANSWER: 033 (1.00)

a.

REFERENCE:

1. N2-ODI-5.30, Rev. 4, Section 4.1.9 (page 3).

[3.3/4.2]

294001A109 ..(KA's)

ANSWER: 034 (1.00)

b.

REFERENCE:

1. N2-ODI-5.30, Rev. 4, Section 4.3.1 and 4.3.2 (page 8).
[3.3/3.6]

294001K107 ..(KA's)

ANSWER: 035 (1.00)

a.

REFERENCE:

1. GAP-RPP-02, Rev. 2, Section 3.2 (page 2).
[3.3/3.8]

294001K103 ..(KA's)

ANSWER: 036 (1.00)

b.

REFERENCE:

1. Technical Specification 6.2.2.g.
[3.5/3.8]

294001K116 ..(KA's)

ANSWER: 037 (1.00)

c.

REFERENCE:

1. GAP-ALA-01, Rev. 3, Section 3.9.4 (page 6).
[3.3/3.6]

294001K104 ..(KA's)

ANSWER: 038 (1.00)

c.

REFERENCE:

1. GAP-RPP-01, Rev. 1, Section 3.3.1 (page 3).
[3.3/3.8]

294001K103 ..(KA's)

ANSWER: 039 (1.00)

b.

REFERENCE:

1. GAP-RPP-08, Rev. 2, Section 3.3.2 (page 2).
[3.2/3.7]

294001K105 ..(KA's)

ANSWER: 040 (1.00)

a.

REFERENCE:

1. N2-ODP-OPS-0104, Rev. 1, Section 3.1.1 (page 1).
[3.4/3.6]

294001A106 ..(KA's)

ANSWER: 041 (1.00)

b.

REFERENCE:

1. N2-ODP-OPS-0106, Rev. 8, Section 3.4.3.c (page 16).
[3.7/3.7]

294001K101 ..(KA's)

ANSWER: 042 (1.00)

d.

REFERENCE:

1. N2-ODP-OPS-0106, Rev. 8, Section 3.9 (page 20).
[3.6/4.2]

294001A110 ..(KA's)

ANSWER: 043 (1.00)

b.

REFERENCE:

1. EPIP-EPP-02, Rev. 5, Attachment 1 (page 31).
[2.9/4.7]

294001A116 ..(KA's)

ANSWER: 044 (1.00)

c.

REFERENCE:

1. EPIP-EPP-20, Rev. 3, Attachment 6 (page 18).
[2.9/4.7]

294001A116 ..(KA's)

ANSWER: 045 (1.00)

b.

REFERENCE:

1. EPIP-EPP-15, Rev. 1, Section 2.1 (page 5).
[2.9/4.7]

294001A116 ..(KA's)

ANSWER: 046 (1.00)

a.

REFERENCE:

1. NMP2 EOP Basis Document , Section K, NMP2-EOP-C3 Steam Cooling (page 4).

[4.6/4.7]

295031K101 ..(KA's)

ANSWER: 047 (1.00)

a.

REFERENCE:

1. NMP2 EOP Basis Document, Section M, NMP2-EOP-C5-Level/Power Control (page 13).

[4.1/4.5]

295037K303 ..(KA's)

ANSWER: 048 (1.00)

c.

REFERENCE:

1. Technical Specification Table 3.3.1-1.
2. LP 02-OPS-001-212-2-00, EO-4

[3.7/4.5]

212000G011 ..(KA's)

ANSWER: 049 (1.00)

d.

REFERENCE:

1. Technical Specification 3.3.8, Turbine Overspeed Protection System
4. LP 02-OPS-001-204-2-01, EO-11
[2.7/3.7]

245000G005 ..(KA's)

ANSWER: 050 (1.00)

c.

REFERENCE:

1. Lesson Plan 02-OPS-001-248-2-00, Rev. 0, Attachment 1, Section II.L (page 45). EO-4

[3.3/3.3]

241000K307 ..(KA's)

ANSWER: 051 (1.00)

a.

REFERENCE:

1. Lesson Plan 02-OPS-001-248-2-00, Rev. 0, Attachment 1, Section V.B.6.c (pages 63 and 64) EO-4

[2.8/2.9]

241000K601 ..(KA's)

ANSWER: 052 (1.00)

b.

REFERENCE:

1. N2-OP-71D, Rev. 00, Section D.4.0 (page 6) and Section H.31.0 (page 63).
2. Lesson Plan O2-OPS-001-212-2-00, EO-4 [2.8/3.1]

262002A401 ..(KA's)

ANSWER: 053 (1.00)

a.

REFERENCE:

1. N2-OP-42, Rev. 5, Section I, Alarm 851326 (page 123).
2. Lesson Plan O2-OPS-001-271-2-01, EO-4 [3.2/3.5]

272000K102 ..(KA's)

ANSWER: 054 (1.00)

b.

REFERENCE:

1. N2-OP-73B, Rev. 3, Section I., Alarm 852552 (page 18).
2. Lesson Plan O2-OPS-001-263-2-01, EO-4 [3.4/3.8]

263000K303 ..(KA's)

ANSWER: 055 (1.00)

c.

REFERENCE:

1. N2-OP-1, Rev. 7, Section 3.0 (page 10a).
2. Lesson Plan O2-OPS-001-239-2-00, EO-6

[3.8/3.8]

239001A410 ..(KA's)

ANSWER: 056 (1.00)

c. 4

REFERENCE:

1. N2-OP-53A, Rev. 6, Section 1.0 (pages 32 and 33).
2. Lesson Plan O2-OPS-001-288-2-02, EO-4
[3.3/3.5]

290003A301 ..(KA's)

ANSWER: 057 (1.00)

d.

REFERENCE:

1. Lesson Plan O2-OPS-001-245-2-01, Rev. 0, Attachment 1, Table 1 (page 39), EO-4
2. N2-SOP-21, Rev. 0, Section 1.0 (page 1).

[3.2/3.2]

295005K304 ..(KA's)

ANSWER: 058 (1.00)

a.

REFERENCE:

1. Lesson Plan O2-OPS-001-223-2-02, Rev. 0, Section II.F (page 12) EO-4.

[3.6/3.6]

295020A101 ..(KA's)

ANSWER: 059 (1.00)

b.

REFERENCE:

1. Technical Specification 3.5.3
2. Lesson Plan O2-OPS-001-221-2-01, EO-8
[3.4/4.4]

295030G008 ..(KA's)

ANSWER: 060 (1.00)

b.

REFERENCE:

1. LP 02-OPS-001-201-2-02, Rev 0, p. 36, Att. 1, EO-4

[3.3/3.4]

201004K301 ..(KA's)

ANSWER: 061 (1.00)

a.

REFERENCE:

1. LP 02-OPS-001-263-2-01, Rev 0, Att. 1, Figure 2A, EO-4.
   [3.1/3.4]

263000K201 ..(KA's)

ANSWER: 062 (1.00)

a.

REFERENCE:

1. NMP2-EOP-RPV Control, p. 31.
2. LP 02-OPS-001-239-2-00, EO-9.
   [4.0/4.1]

295007K304 ..(KA's)

ANSWER: 063 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-259-2-01, Rev 0, p. 22, Att. 1, EO-4
   [3.1/3.2]

295009K203 ..(KA's)

ANSWER: 064 (1.00)

b.

REFERENCE:

1. N2-OP-29, Rev. 06, Reactor Recirculation System, p. 33.
2. LP 02-OPS-001-202-2-01, EO-4.
[3.2/3.4]

295010K103 ..(KA's)

ANSWER: 065 (1.00)

a.

REFERENCE:

1. N2-SOP-17, Fuel Failure or High Activity In Reactor Coolant or Offgas, Rev. 0, p. 2.3
2. LP 02-OPS-001-271-2-01, EO-7.
[3.8/3.6]

295038G010 ..(KA's)

ANSWER: 066 (1.00)

b.

REFERENCE:

1. N2-SOP-08, Unplanned Power Changes, Rev. 0, p. 2.
2. LP 02-OPS-001-201-2-01, EO-8.
3. N2-OP-96, Reactor Manual Control, Rev. 2, Sec. H.1.1.
[4.0/4.2]

295015A102 ..(KA's)

ANSWER: 067 (1.00)

d.

REFERENCE:

1. NMP2-EOP-PRIMARY CONTAINMENT CONTROL, p. 50.
2. LP 02-OPS-001-221-2-01, EO-3.
[3.6/3.8]

295010G007 ..(KA's)

ANSWER: 068 (1.00)

d.

REFERENCE:

1. N2-OP-1, Rev. 07, Main Steam System, p. 10.
2. Lesson Plan 02-OPS-001-239-2-00, EO-6
[3.8/4.1]

295037K306 ..(KA's)

ANSWER: 069 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-218-2-01, Rev 0, p. 7, Att. 1, EO-4.
2. LP 02-OPS-001-279-2-00, Rev 1, p. 46, Att. 1, EO-8.
[3.8/3.9]

295019K201 ..(KA's)

ANSWER: 070 (1.00)

d.

REFERENCE:

1. N2-OP-29, Reactor Recirculation System, Rev. 6, p. 30.
2. Lesson Plan O2-OPS-001-202-2-01, EO-6
   [3.5/3.6]

295001A101 ..(KA's)

ANSWER: 071 (1.00)

c.

REFERENCE:

1. N2-OP-79, Radiation Monitoring , Rev. 4, p. 50.
2. Lesson Plan O2-OPS-001-261-2-01, EO-4
   [3.4/3.7]

295017K212 ..(KA's)

ANSWER: 072 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-264-2-01, Rev 1, p. 37, Att. 1, EO-7.
   [3.1/3.2]

295016A104 ..(KA's)

ANSWER: 073 (1.00)

d.

REFERENCE:

1. NMP-2 EOP Usage, Curves and Limits, p. 22.
2. Lesson Plan 02-OPS-001-221-2-01, EO-3
[3.8/4.1]

295030K103 ..(KA's)

ANSWER: 074 (1.00)

a.

REFERENCE:

1. LP 02-OPS-001-245-2-01, Rev 0, p. 39, Table 1, EO-8.

[3.1/3.2]

295002K202 ..(KA's)

ANSWER: 075 (1.00)

a.

REFERENCE:

1. N2-OP-74A, Emergency DC Distribution , Rev. 04, p. 45.
2. Lesson Plan 02-OPS-001-263-2-01, EO-3
[3.3/3.3]

295004K203 ..(KA's)

ANSWER: 076 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-204-2-01, Rev 0, p. 15, Att. 1, E0-4
[3.5/3.6]

295018K101 ..(KA's)

ANSWER: 077 (1.00)

c.

REFERENCE:

1. NMP2-EOP-Primary Containment Control, p. 2.
[4.1/4.4]

295012G011 ..(KA's)

ANSWER: 078 (1.00)

b.

REFERENCE:

1. LP 02-OPS-001-296-2-00, Rev 0, p. 12, Att. 1, EO-5.
[3.4/3.8]

295020A206 ..(KA's)

ANSWER: 079 (1.00)

a.

REFERENCE:

1. N2-SOP-30, Control Rod Drive Failures, Rev. 0, p. 2.
2. Lesson Plan 02-OPS-001-201-2-02, EO-17
   [4.1/4.4]

295022A101 ..(KA's)

ANSWER: 080 (1.00)

a.

REFERENCE:

1. N2-OP-35, Reactor Core Isolation Cooling, Rev. 03, p. 14a.
2. Lesson Plan 02-OPS-001-217-2-00, EO-4
   [3.3/3.3]

295008A105 ..(KA's)

ANSWER: 081 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-264-2-01, Rev 1, p. 38, Att. 1, EO-4.

   [3.4/3.7]

295003A201 ..(KA's)

ANSWER: 082 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-212-2-00, Rev 1, p. 69, Table 1, EO-4.
2. N2-OP-35, Reactor Recirculation System, Rev. 29, p. 7.

[3.9/4.1]

295025K204 ..(KA's)

ANSWER: 083 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-288-2-03, Rev 0, p. 24, Att. 1, EO-4.

[3.1/3.2]

295033A202 ..(KA's)

ANSWER: 084 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-101-2-01, Rev 0, p. 12, Att. 1, EO-6
(Check with the facility for another reference)

[3.1/3.4]

295001A205 ..(KA's)

ANSWER: 085 (1.00)

b. d

REFERENCE:

1. N2-OP-21, Main Turbine System, Rev. 05, p. 66.
2. Lesson Plan O2-OPS-001-245-2-01, EO-5
   [3.2/3.2]

295002K309 ..(KA's)

ANSWER: 086 (1.00)

a.

REFERENCE:

1. N2-OP-38, Spent Fuel Pool Cooling And Cleanup, Rev. 06, p. 38.
2. Lesson Plan O2-OPS-001-233-2-00, EO-5
   [2.9/3.2]

295023K202 ..(KA's)

ANSWER: 087 (1.00)

a.

REFERENCE:

1. LP 02-OPS-001-288-2-03, Rev 0, p. 26, Att. 1, EO-4.

   [3.3/3.5]

295035K302 ..(KA's)

ANSWER: 088 (1.00)

b.

REFERENCE:

1. NMP2 EOP USAGE, CURVES AND LIMITS, P. 10.
[3.8/3.9]

295032K303 ..(KA's)

ANSWER: 089 (1.00)

d.

REFERENCE:

1. T.S. 3.6.2.1.a.2.c
[3.2/4.3]

295026G003 ..(KA's)

ANSWER: 090 (1.00)

d.

REFERENCE:

1. T.S. LSSS
[3.8/4.4]

295006G003 ..(KA's)

ANSWER: 091 (1.00)

c.

REFERENCE:

1. T.S. 3.4.3.2.f.
[3.5/3.8]

295010K304 ..(KA's)

ANSWER: 092 (1.00)

c.

REFERENCE:

1. NMP2 EOP USAGE, CURVES AND LIMITS, p. 22.
[3.5/3.7]

295025G007 ..(KA's)

ANSWER: 093 (1.00)

d.

REFERENCE:

1. NMP2-EOP-RPV CONTROL, p. 58.
2. LP 02-OPS-001-245-2-01, EO-5
[3.4/3.5]

295037G007 ..(KA's)

ANSWER: 094 (1.00)

a.

REFERENCE:

1. N2-SOP-03, Loss of AC Power, Rev. 2, p. 18.
2. LP 02-OPS-001-263-2-01, EO-3
   [4.1/4.2]

295003K202 ..(KA's)

ANSWER: 095 (1.00)

c.

REFERENCE:

1. N2-SOP-34, Stuck Open Safety Relief Valve, Rev. 0, p. 5.
2. LP 02-OPS-001-218-2-01, EO-3
   [3.9/4.1]

295007A104 ..(KA's)

ANSWER: 096 (1.00)

b.

REFERENCE:

1. T.S. LSSS Table 2.2.1-1
2. LP 02-OPS-001-215-2-02, EO 11
   [3.6/3.6]

215005K505 ..(KA's)

ANSWER: 097 (1.00)

c.

REFERENCE:

1. LP 02-OPS-001-215-2-02, Rev 0, p. 77, Att. 1, EO-07.

[4.0/4.1]

295014A101 ..(KA's)

ANSWER: 098 (1.00)

d.

REFERENCE:

1. LP 02-OPS-001-201-2-00, Rev 0, p. 90, Table 1, EO-14.
2. LP 02-OPS-001-212-2-00, Rev 1, p. 69 & 70, Table 1, EO-5.

[3.6/3.6]

215005K104 ..(KA's)

ANSWER: 099 (1.00)

a.

REFERENCE:

1. N2-OP-30, Control Rod Drive, Rev. 0, p. 51 & 52, Noted caution.
2. LP 02-OPS-001-212-2-00, EO 7

[2.8/2.8]

201001A208 ..(KA's)

ANSWER: 100 (1.00)

d.

SENIOR REACTOR OPERATOR

REFERENCE:

1. N2-EOP-PC, Rev 5

[3.3/3.5]

295007G007 ..(KA's)

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

A N S W E R K E Y

MULTIPLE CHOICE

001	c	023	d
002	d	024	d
003	a	025	a
004	d	026	a
005	c	027	a
006	b	028	c
007	d	029	c
008	c	030	c
009	b	031	b
010	c	032	b
011	b	033	a
012	b	034	b
013	c	035	a
014	d	036	b
015	d	037	c
016	d	038	c
017	b	039	b
018	a	040	a
019	a	041	b
020	a	042	d
021	d	043	b
022	c	044	c
		045	b

A N S W E R K E Y

046	a
047	a
048	c
049	d
050	c
051	a
052	b
053	a
054	b
055	c
056	~~c~~ d
057	d
058	a
059	b
060	b
061	a
062	a
063	c
064	b
065	a
066	b
067	d
068	d
069	d
070	d
071	c
072	d
073	d
074	a
075	a
076	d
077	c
078	b
079	a
080	a
081	d
082	c
083	d
084	c
085	~~b~~ a
086	a
087	a
088	b
089	d
090	d
091	c

A N S W E R K E Y

092 c

093 d

094 a

095 c

096 b

097 c

098 d

099 a

100 d

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

ATTACHMENT 2

NIAGARA MOHAWK

NMP89275

NIAGARA MOHAWK POWER CORPORATION/NINE MILE POINT, P.O. BOX 63, LYCOMING, NY 13093/TELEPHONE (315) 349-2882

B. Ralph Sylvia
Executive Vice President
Nuclear

October 26, 1994

Mr. Thomas T. Martin
Regional Administrator
United States Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

Dear Mr. Martin:

Niagara Mohawk Power Corporation has completed the facility review of the written initial licensing examinations for Nine Mile Point Unit 2 that was administered by the United States Nuclear Regulatory Commission on October 24, 1994. Written examinations were given to one Reactor Operator Candidate (RO) and one Senior Reactor Operator (SRO).

Comments and recommendations concerning three questions in each of the examinations are submitted for your disposition in accordance with NUREG 1021, ES-501.

It is requested that the USNRC consider the enclosed comments/recommendations in the review and grading of the written initial licensing examinations conducted on October 24, 1994.

Direct any questions or concerns you may have to Mr. Rick Slade at (315) 349-1300 or Peter McSparran (315) 349-2789.

Sincerely,

B. Ralph Sylvia
Executive Vice President

BRS/RKS/crr
Enclosure

Comments/Recommendations for RO examination

Item #1

RO QUESTION 55

During full power operations an event occurs causing RPV level to decrease below level 2. WHICH ONE (1) of the following Control Building Special Filter Train actions would occur?

a. Booster fan HVC*FN2A would trip.

b. Filter train bypass valve HVC*MOV1A would open.

c. Filter train inlet air isolation damper closes.

d. Booster fan HVC*FN2A would start.

ANSWER:

c. Filter train inlet air isolation damper closes.

REFERENCE:

1. N2-OP-53A, Rev. 6, Section 1.0 (pages 32 and 33)
2. Lesson Plan O2-OPS-001-288-2-02, EO-4 [3.3/3.5]

Facility Comments:

Per the cited reference the answer indicated on the answer key is incorrect. Per the attached copies of the cited reference, answer D is the correct answer.

Facility recommendations:

Correct answer key to indicate answer D as the correct answer.

Comments/Recommendations for RO examination

Item #2

RO QUESTION 65

According to Special Operating Procedure immediate actions, WHICH ONE (1) of the following events requires specific direction from the SSS BEFORE reactor power can be reduced?

a. Fuel failure

b. Loss of Turbine Building Closed Loop Cooling

c. Loss of Service Water

d. Loss of Condenser Vacuum

ANSWER:

a. Fuel failure

REFERENCE:

1. N2-SOP-17, Fuel Failure or High Activity in Reactor Coolant or Offgas, Rev. 0, p. 2.3
2. LP O2-OPS-001-271-2-01, EO-7. [3.8/3.6]

Facility Comments:

Upon initial review of the exam on October 12, 1994, the facility commented on this question in regard to the statement "Per SSS direction." As with all reactivity manipulations, SRO permission is required. It is, as stated during the initial review, the opinion of the facility that the statement in N2-SOP-17 was misinterpreted to mean that this is the only condition that requires SSS permission. Based on current operating practices, all four choices would be correct.

Facility recommendations:

Recommend that this question be deleted.

Comments/Recommendations for RO examination

Item #3

RO QUESTION 85

The plant is operating at 444 MWE (approximately 30% load) when the alarm "TURBINE CNSR A/B/C VACUUM LOW" comes in.

WHICH ONE (1) of the following actions is required?

a. Immediately trip the turbine.

b. Reduce reactor power.

c. Manually SCRAM the reactor.

d. Start the standby SJAEs.

ANSWER:

b. Reduce reactor power.

REFERENCE:

1. N2-OP-21, Main Turbine System, Rev. 05, p. 66
2. Lesson Plan O2-OPS-001-245-2-01, EO-5 [3.2/3.2]

Facility Comments:

The Stem of this question states that the turbine load is approximately 30% when the low vacuum alarm is received. In accordance with the reference, a manual trip of the main turbine is required. During the initial review of this question, it was recommended that the value for turbine load be changed from 32 to 40% to avoid confusion with the turbine trip requirements. This change would have made answer "B" the correct answer. However, the question as written on the exam makes answer "A" the correct answer.

Facility recommendations:

Accept answer "A" as correct.

Comments/Recommendations for SRO examination

Item #1

SRO QUESTION 56

During full power operations an event occurs causing RPV level to decrease below level 2. WHICH ONE (1) of the following Control Building Special Filter Train actions would occur?

a. Booster fan HVC*FN2A would trip.

b. Filter train bypass valve HVC*MOV1A would open.

c. Filter train inlet air isolation damper closes.

d. Booster fan HVC*FN2A would start.

ANSWER:

c. Filter train inlet air isolation damper closes.

REFERENCE:

1. N2-OP-53A, Rev. 6, Section 1.0 (pages 32 and 33)
2. Lesson Plan O2-OPS-001-288-2-02, EO-4 [3.3/3.5]

Facility Comments:

Per the cited reference the answer indicated on the answer key is incorrect. Per the attached copies of the cited reference, answer D is the correct answer.

Facility recommendations:

Correct answer key to indicate answer D as the correct answer.

Comments/Recommendations for SRO examination

Item #2

SRO QUESTION 65

According to Special Operating Procedure immediate actions, WHICH ONE (1) of the following events requires specific direction from the SSS BEFORE reactor power can be reduced?

a. Fuel failure

b. Loss of Turbine Building Closed Loop Cooling

c. Loss of Service Water

d. Loss of Condenser Vacuum

ANSWER:

a. Fuel failure

REFERENCE:

1. N2-SOP-17, Fuel Failure or High Activity in Reactor Coolant or Offgas, Rev. 0, p. 2.3
2. LP O2-OPS-001-271-2-01, EO-7. [3.8/3.6]

Facility Comments:

Upon initial review of the exam on October 12, 1994, the facility commented on this question in regard to the statement "Per SSS direction." As with all reactivity manipulations, SRO permission is required. It is, as stated during the initial review, the opinion of the facility that the statement in N2-SOP-17 was misinterpreted to mean that this is the only condition that requires SSS permission. Based on current operating practices, all four choices would be correct.

Facility recommendations:

Recommend that this question be deleted.

Comments/Recommendations for SRO examination

Item #3

SRO QUESTION 85

The plant is operating at 444 MWE (approximately 30% load) when the alarm "TURBINE CNSR A/B/C VACUUM LOW" comes in.

WHICH ONE (1) of the following actions is required?

a. Immediately trip the turbine.

b. Reduce reactor power.

c. Manually SCRAM the reactor.

d. Start the standby SJAEs.

ANSWER:

b. Reduce reactor power.

REFERENCE:

1. N2-OP-21, Main Turbine System, Rev. 05, p. 66
2. Lesson Plan O2-OPS-001-245-2-01, EO-5 [3.2/3.2]

Facility Comments:

The Stem of this question states that the turbine load is approximately 30% when the low vacuum alarm is received. In accordance with the reference, a manual trip of the main turbine is required. During the initial review of this question, it was recommended that the value for turbine load be changed from 32 to 40% to avoid confusion with the turbine trip requirements. This change would have made answer "B" the correct answer. However, the question as written on the exam makes answer "A" the correct answer.

Facility recommendations:

Accept answer "A" as correct.

G. SHUTDOWN (Cont)

2.4 Open HVC*MOV1B, CONTROL ROOM AC FLT TRAIN BYP VLV at 2CEC*PNL871.

2.5 Stop HVC*FN2A(B), CONTROL ROOM AC BOOSTER FAN, by placing the control switch in STOP, THEN returning to NORMAL-AFTER-STOP AFTER the fan stops.

2.6 Verify open:

- HVC*AOD61A, CONTROL ROOM EAST SPLY INLET AIR ISOL DMPR
- HVC*AOD61B, CONTROL ROOM WEST SPLY INLET AIR ISOL DMPR

2.7 IF Control Building Special Filter Trains are started dur painting OR during the 32-hour drying period, the charcoal filter efficiency shall be tested to comply with Technical Specification section 4.7.3.c. (Precaution 14.0).

H. OFF-NORMAL PROCEDURES

1.0 Automatic Initiation of Control Building Special Filter Train

NOTES:
1. Control Building Special Filter Train booster fan HVC*FN2A(B) will automatically start and its respective Filter Train Bypass Valve HVC*MOV1A(B) will automatically close on either of the following initiation signals:
   - 2HVC*RE18A(B) AND 2HVC*RE18C(D) either exceeding the alarm setpoint OR failed.
   - LOCA signal - high drywell pressure (≥ 1.68 psig) OR low reactor vessel water level - Level 2 (≤ 108.8 inches).
2. A time delay prevents 2HVC*FN2B from starting on low air flow in the *FLT2A train while 2HVC*FN2A starts. If the A train booster fan (*FN2A) fails to start, the B train booster fan (*FN2B) will start following the time delay.

1.1 AFTER an automatic initiation, verify the following:

- HVC*FN2A(B), CONTROL ROOM AC BOOSTER FAN starts, as indicated by the control switch indicating lights.
- HVC*MOV1A(B), CONTROL ROOM AC FLT TRAIN BYP VLV closes, as indicated by the control switch indicating lights.
- Annunciator CEC870312 (871312) CONTROL BLDG BSTER FAN 2A(B) AUTO START in alarm.

H. OFF-NORMAL PROCEDURES (Cont)

1.2 Place HVC*FN2A(B), CONTROL ROOM AC BOOSTER FAN control switch to NORMAL-AFTER-START.

1.3 Observe 2HVC*FR10A(B), FILTER TRAIN HVC*FLT2A(B) INLET AIR FLOW (red pen) should indicate approximately 63% of full-scale (corresponds to approximately 2250 scfm).

1.4 Confirm that Control Room/Atmosphere d/p is $\geq$ +0.125 in WG as read on 2HVC-PDI147, located in the Control Room behind 2CEC-PNL849.

1.5 Observe the following at 2HVC*PNLCH7A(B):

- ON INDICATOR red light illuminated.
- LOW AIRFLOW INDICATOR green light off.
- OVERTEMPERATURE INDICATOR green light off.

1.6 Notify Radiation Protection to periodically sample the Control Room atmosphere to ensure proper operation of the Special Filter Train in service.

1.7 IF it can be determined that EITHER the east OR west outside air radiation levels are higher than the other, THEN close the intake on the higher radiation side:

- HVC*AOD61A, CONTROL ROOM EAST SPLY INLET AIR ISOL DMPR
- HVC*AOD61B, CONTROL ROOM WEST SPLY INLET AIR ISOL DMPR

1.8 WHEN Special Filter Train operation is NO longer required, shutdown in accordance with Section G.2.

ATTACHMENT 3

NRC RESOLUTION OF FACILITY COMMENTS

Item 1. (SRO Question 56 and RO Question 55)

Comment Accepted. Answer key changed to indicate that "d" is the correct answer.

Item 2. (SRO and RO Question 65)

Comment not accepted. Based upon facility review on October 12, 1994, the question was revised. The facility's post exam comments do not recognize that the question was revised and given on the exam in the revised form. The facility's comment does not apply to the revised question.

Item 3. (SRO and RO Question 85)

Comment accepted. Answer key changed to indicate "a" as the correct answer.