U.S. Nuclear Regulatory Commission

Site-Specific RO Written Examination

Applicant Information	
Name:	
Date: 03-05-2010	Facility/Unit: Vogtle 1 & 2
Region: I ☐ II ■ III ☐ IV ☐	Reactor Type: W ■ CE ☐ BW ☐ GE ☐
Start Time:	Finish Time:

Instructions

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

Applicant Certification

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

_____
Applicant's Signature

Results	
Examination Value	75 Points
Applicant's Score	_____ Points
Applicant's Grade	_____ Percent

Date: 03-05-2010
VEGP NRC RO Examination Answer Sheet

Student Name:_____

1. _____	26. _____	51. _____
2. _____	27. _____	52. _____
3. _____	28. _____	53. _____
4. _____	29. _____	54. _____
5. _____	30. _____	55. _____
6. _____	31. _____	56. _____
7. _____	32. _____	57. _____
8. _____	33. _____	58. _____
9. _____	34. _____	59. _____
10. _____	35. _____	60. _____
11. _____	36. _____	61. _____
12. _____	37. _____	62. _____
13. _____	38. _____	63. _____
14. _____	39. _____	64. _____
15. _____	40. _____	65. _____
16. _____	41. _____	66. _____
17. _____	42. _____	67. _____
18. _____	43. _____	68. _____
19. _____	44. _____	69. _____
20. _____	45. _____	70. _____
21. _____	46. _____	71. _____
22. _____	47. _____	72. _____
23. _____	48. _____	73. _____
24. _____	49. _____	74. _____
25. _____	50. _____	75. _____

HL-15R RO NRC EXAM

1.

Which **ONE** of the following describes the power supplies to the Rod Drive Motor Generator (MG) sets and the breakers that are required to be locally tripped during an ATWT per 19211-C, FR-S.1, Response to Nuclear Power Generation/ATWT, if the Reactor Trip breakers will not open?

MG Set Power Supplies	**Breakers to Trip**
A. 1NB09 and 1NB10	MG set **motor** breakers
B. 1NB09 and 1NB10	MG set **output** breakers
C. 1NB08 and 1NB09	MG set **motor** breakers
D. 1NB08 and 1NB09	MG set **output** breakers

2.

Initial conditions:

Unit 2 was operating at 100% power
The reactor was manually tripped
2NAA and 2NAB de-energize on the reactor trip
The crew implements 19001-C, "ES-0.1 Reactor Trip Recovery"

Current conditions:

2NAB has been re-energized

RCS Tave - 559 F and rising
RCS WR Tcold - 558 F and rising
AFW flow - 150 GPM per SG
SG NR levels - 18% and slowly rising
CST levels - Both at 93%

The UO and OATC shall ...

A. maintain stable plant conditions in Hot Standby

and

raise AFW flow while attempting to start RCP 1.

B. initiate a natural circulation cooldown

and

raise AFW flow while attempting to start RCP 4.

C. maintain stable plant conditions in Hot Standby

and

raise the steaming rate with SG ARVs while attempting to start RCP 4.

D. initiate a natural circulation cooldown

and

raise the steaming rate with SG ARVs while attempting to start RCP 1.

3.

Given the following conditions:

- Dropped rod recovery is in progress while at power.
- Control Bank C and Control Bank D are partially withdrawn.
- 14915, "Special Condition Surveillance Logs", Data Sheet 5 for "Rod Insertion Limit Monitor Inoperable" is being performed by the OATC.

Which ONE of the following choices lists banks and groups of a dropped rod that will render the RIL Monitor INOPERABLE during rod recovery?

A. Control Bank C, Group 1 OR Control Bank D, Group 1

B. Control Bank C, Group 2 AND Control Bank D, Group 1

C. Control Bank C, Group 1 AND Control Bank D, Group 2

D. Control Bank C, Group 2 OR Control Bank D, Group 2

4.

With an RCP shaft vibration of 20.2 mils, which ONE of the following correctly identifies where RCP vibrations are read and the required action to take?

	Location	Action to take
A.	IPC computer points	Immediately trip the affected RCP(s)
B.	IPC computer points	Continue RCP operation and monitor vibrations
C.	Locally in Control Building	Immediately trip the affected RCP(s)
D.	Locally in Control Building	Continue RCP operation and monitor vibrations

5.

Given the following conditions:

- There is a 50 GPM RCS leak with the reactor at 100% power
- PRZR level is slowly lowering
- 120 GPM CVCS letdown is in service
- The NCP is in service
- Tave is stable at 586.4 F
- RCP seal injection flow is 8 GPM per pump
- Charging flow controller FIC-0121 is in automatic

Which one of the following describes:

1) why charging flow will automatically increase, and

2) required operator actions, if any?

A. 1) PRZR level is lowering below the program level.

2) No operator action required, charging flow will automatically restore PRZR level to program level.

B. 1) PRZR level is lowering below the program level.

2) Letdown will be manually isolated and charging flow will be manually adjusted to restore PRZR level.

C. 1) PRZR program level changing.

2) No operator action required, charging flow will automatically restore PRZR level to program level.

D. 1) PRZR program level changing.

2) Letdown will be manually isolated and charging flow will be manually adjusted to restore PRZR level.

6.

A malfunction has resulted in seal injection flows being out of limits.

Which one of the following choices lists the correct action to take for the given RCP seal injection flow?

	RCP Seal Injection Flow	Action to take
A.	7.8 gpm	Depress UP arrow to throttle HV-0182 OPEN
B.	13.4 gpm	Depress UP arrow to throttle HV-0182 CLOSED
C.	13.4 gpm	Depress DOWN arrow to throttle HV-0182 OPEN
D.	7.8 gpm	Depress DOWN arrow to throttle HV-0182 CLOSED

7.

Which ONE of the following describes the power supplies to the RHR loop suction isolation valves ?

A. The outboard loop suctions are powered from a 1E 480V MCC.
The inboard loop suctions are powered from an opposite train 1E 480V MCC.

B. The inboard loop suctions are powered from a 1E 480V MCC.
The outboard loops suctions are powered from an opposite train 1E 480V MCC.

C. Both loop suctions on one train are powered from 1E 480V MCCs.
Both loop suctions on the other train are powered from 1E 25KVA Inverters.

D. One loop suction on each train is powered from 1E 480V MCCs.
One loop suction on each train is powered from 1E 25KVA Inverters.

8.

While in Mode 5 with RHR Train B in service, which ONE of the following is the effect during a loss of instrument air?

	RHR Hx Outlet, 1HV-607	RHR Hx Bypass, 1HV-619
A.	Fails OPEN	Fails OPEN
B.	Fails SHUT	Fails SHUT
C.	Fails OPEN	Fails SHUT
D.	Fails SHUT	Fails OPEN

9.

Given the following:

- The ECCS Accumulator isolation valves were inadvertently left CLOSED and in AUTO with power on the valves.

- PRZR pressure has been raised from 930 psig to 2100 psig.

- A spurious Safety Injection (SI) occurs.

Which ONE of the following identifies the effect on the ECCS Accumulator isolation valves:

1. at 2100 psig prior to the SI signal, and

2. after the spurious SI signal

	At 2100 psig	**After Spurious SI signal**
A.	valves are closed.	Open signal is generated to the valves.
B.	valves are closed.	Open signal is NOT generated to the valves.
C.	valves automatically open.	Open signal is generated to the valves.
D.	valves automatically open.	Open signal is NOT generated to the valves.

10.

A loss of offsite power resulted in an automatic plant trip.

- Red lights are LIT on all RCP 1E handswitches.
- Red lights are LIT on all RCP non-1E handswitches.
- 19001-C, "ES-0.1 Reactor Trip Response" is in effect.

Which **ONE** of the following is the:

1) event which caused the reactor trip and

2) indication the operators will use to monitor RCS temperature?

	Cause of Reactor Trip	**Temperature monitoring**
A.	RCP underfrequency	RCS Tave
B.	RCP underfrequency	RCS WR Tcold
C.	RCS loops low flow	RCS Tave
D.	RCS loops low flow	RCS WR Tcold

11.

Given the following while at 100% power.

- Plant systems are in normal alignment.
- A reactor trip occurs.
- RCS pressure is 1830 psig and lowering.
- Containment pressure is 2.3 psig and rising.

RCP seal leakoff flows from the # 1 seals are currently directed to the...

(Assume NO manual actions)

A. PRT

B. RCDT

C. CTMT sump

D. Seal Water Hx Outlet to the NCP

12.

Given the following:

The unit is at 100% power
PRT high temperature exists due to leakage from a PRZR PORV
All systems are in their normal alignment

PRT cooling ____(1)____ aligned to be directly cooled by ___(2)____.

A. (1) is normally

(2) ACCW

B. (1) is normally

(2) NSCW

C. (1) must be manually

(2) ACCW

D. (1) must be manually

(2) NSCW

13.

Given the following sequence of events:

At 1400, PRZR Safety valve failed open.
At 1402, Tave is 557°F, PRZR pressure is 1940 psig.
At 1405, Tave is 556°F, PRZR pressure is 1840 psig.

Which **ONE** of the following lists the **first** initiating signals for the FWI valves closure and the MFPTs trip?

	FWI Valves Closure	**MFPTs Trip**
A.	Low PRZR pressure SI	Low PRZR pressure SI
B.	Reactor trip coincident with low Tave	Low PRZR pressure SI
C.	Low PRZR pressure SI	Reactor trip coincident with low Tave
D.	Reactor trip coincident with low Tave	Reactor trip coincident with low Tave

14.

Which one of the following choices lists all the procedurally allowable power supplies for Unit 1 CCW pumps 1, 3, and 5 per 13427A-1, "4160V AC Bus 1AA02 1E Electrical Distribution System?"

A. RAT-1A, RAT-1B, SAT, EDG-1A

B. RAT-1A, UAT back feed, SAT, EDG-2A

C. RAT-1A, RAT-2A, SAT, EDG-1A

D. RAT-1A, UAT back feed, SAT, EDG-2A

15.

Given the following:

- A 200 gpm RCS leak is in progress.

- RCS pressure is 1465 psig and stable.

- Containment pressure is 2.1 psig and rising very slowly.

- The crew transitions to 19012-C, "E-1.2 Post LOCA Cooldown & Depressurization".

Which ONE of the following is CORRECT regarding **minimum** S/G NR water level required for these plant conditions and why?

A. 10%, ensures S/G tubes are covered to promote reflux boiling.

B. 32%, ensures S/G tubes are covered to promote reflux boiling.

C. 10%, ensures S/G inventory to ensure a secondary heat sink.

D. 32%, ensures S/G inventory to ensure a secondary heat sink.

16.

Complete the following statement for the PRZR Pressure Control System:

When PRZR level lowers_____, then_____will de-energize, if energized.

A. below 17% ONLY the backup heaters

B. 5% below program level backup and proportional heaters

C. below 17% backup and proportional heaters

D. 5% below program level ONLY the backup heaters

17.

To maintain Containment parameters within the accident analysis assumptions for a DBA LOCA, the Containment Pressure and Containment Air Temperature LCO limits for Mode 1 are...

A. +1.8 psig and 120°F

B. +1.8 psig and 130°F

C. -3.0 psig and 120°F

D. -3.0 psig and 130°F

18.

Five minutes following a reactor trip and safety injection, the OATC places Train A SI reset handswitch in the "reset" position.

P-4 Train A will be generated when the Train A reactor trip breaker is open _(1)_ .

SI reset will block _(2)_ .

A. (1) **and** the Train B bypass breaker is open

(2) only the Train A PRZR Low Pressure SI and Low Steamline Pressure SI signals

B. (1) **and** the Train A bypass breaker is open

(2) all Train A automatic SI signals

C. (1) **or** the Train A bypass breaker is open

(2) only the Train A PRZR Low Pressure SI and Low Steamline Pressure SI signals

D. (1) **or** the Train B bypass breaker is open

(2) all Train A automatic SI signals

19.

Which one of the following matches the reactor trip signals to their limiting accident / protection?

	Reactor Trip Signal	Limiting Accident / Protection
A.	Overpower DT	DNB
	Overtemperature DT	Excessive fuel heat generation rate (kW/ft)
	PRZR High Pressure	RCS integrity
	PRZR Low Pressure	DNB
B.	Overpower DT	Excessive fuel heat generation rate (kW/ft)
	Overtemperature DT	DNB
	PRZR High Pressure	RCCA drive housing rupture
	PRZR Low Pressure	Excessive RCS cooldown
C.	Overpower DT	Excessive fuel heat generation rate (kW/ft)
	Overtemperature DT	DNB
	PRZR High Pressure	RCS integrity
	PRZR Low Pressure	DNB
D.	Overpower DT	DNB
	Overtemperature DT	Excessive fuel heat generation rate (kW/ft)
	PRZR High Pressure	RCCA drive housing rupture
	PRZR Low Pressure	Excessive RCS cooldown

20.

A loss of 120V AC vital bus 1BY1B has occurred with the unit at 100% power. Which one of the following correctly decribes the impact on SSPS?

A. Only SSPS Train B channel II Input relays are **de-energized.**

The Train B Slave relays are **inoperable.**

B. Only SSPS Train B channel II input relays are **de-energized.**

The Train B Slave relays are **operable.**

C. SSPS Train A and Train B channel II Input relays are **de-energized.**

The Train B Slave relays are **operable.**

D. SSPS Train A and Train B channel II Input relays are **de-energized.**

The Train B Slave relays are **inoperable.**

21.

Given the following:

- The plant is at 17% power.

The following conditions exist on Reactor Coolant Pump # 2.

- # 1 seal D/P is 190 psig.

- # 1 seak leakoff flow is 5.2 gpm.

Which **ONE** of the following describes the required sequence / response to these conditions?

A. Shutdown the RCP, enter AOP-18005-C, "Partial Loss of Flow".

B. Commence a unit shutdown per UOP-12004-C, shutdown the RCP within 8 hours.

C. Trip the Reactor, enter 19000-C, "Reactor Trip or Safety Injection", shutdown the RCP.

D. Maintain current power, shutdown the RCP with engineering / management concurrence.

22.

Given the following conditions:

- The unit is at 100% power.

- PRZR pressure control is selected to the 457 / 456 position.

The OATC determines that the controlling channel for Pressurizer Pressure control has failed.

Which one of the following describes the instrument failure and the plant response if no operator actions were taken?

A. PT-457 fails high, PRZR pressure cycles between 2185 psig and 2200 psig.

B. PT-456 fails low, PRZR pressure cycles between 2345 psig and 2325 psig.

C. PT-456 fails low, reactor trips on the high PRZR Pressure setpoint.

D. PT-457 fails high, reactor trips on the low PRZR Pressure setpoint.

23.

The unit is shutdown with RCS temperature 375°F.

CNMT HI TEMP alarm has just annunciated.

The UO notes that CNMT air temperature is rising with CNMT coolers 1, 2, 5, and 6 in service on high speed.

Which one of the following decribes the actions the UO can take to stop the CNMT air temperature rise?

A. Start CNMT coolers 3 and 4 simultaneously on high speed.

B. Start CNMT coolers 3 and 7 simultaneously on high speed.

C. Start CNMT coolers 3 and 4 sequentially on high speed.

D. Start CNMT coolers 3 and 7 sequentially on high speed.

24.

Initial conditions:

A steamline break inside containment has occurred
EOP 19010-C, "E-1 Loss of Reactor or Secondary Coolant" is being implemented

The following sequence of events occurs:

- The SI signal is RESET

- CNMT pressure is 8.6 psig and lowering

- A loss of both RATs occurs

- Both EDGs start and re-energize their respective buses

Operators will:

1) verify the sequencers start all CNMT coolers on_____speed, and

2) the next action necessary will be to_____

A. 1) low

2) shift the CNMT coolers to high speed to maximize CNMT energy removal.

B. 1) low

2) restart the SI and RHR pumps as necessary to maintain RCS inventory.

C. 1) high

2) shift the CNMT coolers to low speed to prevent a CNMT cooler fan motor overcurrent condition.

D. 1) high

2) shift the CNMT coolers to low speed to prevent an EDG output breaker overcurrent condition.

25.

Given the following conditions:

- A loss of all AC power occurs in Mode 1.
- The plant is currently in Mode 3.
- HV-8103A, B, C, D Seal Injection Isolation Valves are CLOSED.

Which **ONE** of the following describes:

1) the Mode in which seal injection will be re-established, and

2) the reason for closing the seal injection isolation valves?

A. 1) Mode 3.

2) To prevent steam binding the charging pumps via back leakage in the seal lines.

B. 1) Mode 3.

2) To prevent seal damage and RCP shaft bowing due to excessive thermal stresses.

C. 1) Mode 5.

2) To prevent steam binding the charging pumps via back leakage in the seal lines.

D. 1) Mode 5.

2) To prevent seal damage and RCP shaft bowing due to excessive thermal stresses.

26.

Given the following sequence:

- The plant is in Mode 6 at midloop.

- RHR pump "A" trips due to a loss of RCS inventory.

- The RCS has been refilled and RHR pump "B" is ready to be started.

Complete the following two sentences:

1) To start the pump, the RHR Hx Bypass Valve controller (FIC-0619) should be_____

2) To ensure compliance with Tech Spec flow requirements, per procedure the potentiometer setting for the RHR Hx Bypass Valve controller (FIC-0619) should be set at_____

Given: Formula for Potentiometer setting in gpm is (desired flow / 5000)^2 X 10.

	1) RHR Hx Bypass valve	**2) Potentiometer setting**
A.	in automatic.	3.6
B.	in automatic.	4.1
C.	in manual and closed.	3.6
D.	in manual and closed.	4.1

27.

Which one of the following lists **ALL** the locations where the control room crew can monitor and control:

1) Containment Cooler fan speeds, and

2) NSCW cooling water valves?

MLBs - Monitor Light Boxes on the vertical section of the main control board

QMCB - Sloping portion of the NSCW section of the main control board

QHVC - Main Control Room HVAC panel

		Indications	Controls
A.	1)	MLBs, QHVC	QHVC
	2)	QMCB only	QMCB
B.	1)	MLBs, QMCB	QMCB
	2)	MLBs only	QMCB
C.	1)	QHVC only	QHVC
	2)	QMCB only	QMCB
D.	1)	MLBs, QHVC	QHVC
	2)	MLBs, QMCB	QMCB

28.

Given the following:

- A loss of offsite power occurs.
- Both EDGs start and tie onto their respective ESF buses.
- All equipment sequences on as expected.

Which **ONE** of the following describes the PRZR heater banks available for RCS pressure control?

A. All Backup Heater Banks.

B. Backup Heater Banks A and B.

C. Proportional Heater Bank and All Backup Heater Banks.

D. Proportional Heater Bank and Backup Heater Banks A and B.

29.

Given the current plant conditions:

- A large RCS LOCA has occurred
- CNMT Hydrogen monitors indicate 5%
- Containment pressure is 5.5 psig
- TSC directs lowering of CNMT H_2 concentration using 13130-1, "Post-Accident Hydrogen Control"

Which one of the following describes the operational implication of the Hydrogen concentration (%) and the PREFERRED method to reduce Hydrogen concentration inside containment?

	Operational Implication	**PREFERRED Method to reduce Hydrogen**
A.	Potential Combustible atmosphere	Dilution with Service Air
B.	Potential Combustible atmosphere	Post-LOCA Hydrogen Purge
C.	Embrittlement of CNMT liner	Dilution with Service Air
D.	Embrittlement of CNMT liner	Post-LOCA Hydrogen Purge

30.

The plant is in Mode 3.

- SR / IR Signal Processor Channel Operational Tests have been performed.
- Background counts for both SR channels are 1000 cps.
- The UO records the counts when the HFASA alarm lights for each SR channel.

N31 - 2080 cps N32 - 2340 cps

Which **ONE** of the following is **CORRECT** regarding Technical Specification LCO 3.3.8, High Flux At Shutdown Alarm (HFASA)?

A. The LCO is met for both SR NIS HFASA alarms.

B. LCO entry required due to N31 setpoint too low.

C. LCO entry required due to N32 setpoint too high.

D. LCO entry required for both SR NIS HFASA alarms.

31.

Which ONE of the following is CORRECT regarding:

1) The minimum Spent Fuel Pool level (elevation) **required** by Tech Specs for adequate shielding and design basis fuel handling events.

2) how the FHB crew would be alerted to High radiation on RE-0008, Fuel Handling Building Area radiation monitor.

	1) Tech Spec level	**2) RE-0008 high rad alarm**
A.	214 ft. 6 inch	audible horn and blinking strobe light
B.	214 ft. 6 inch	warble type siren on plant gai-tronics
C.	217 ft. 0 inch	audible horn and blinking strobe light
D.	217 ft. 0 inch	warble type siren on plant gai-tronics

32.

The plant is at full power.

SG # 2 ARV, "PV-3010," has been declared INOPERABLE due to large hydraulic fluid leaks on the valve operator.

Which ONE of the following describes:

1) LCO entry (not INFO) and

2) **All** the applicable modes the ARVs are **required** to be OPERABLE?

	LCO entry	**Applicable Modes**
A.	Is required	Modes 1, 2, and 3
B.	Is required	Modes 1 and 2 only
C.	Is NOT required	Modes 1, 2, and 3
D.	Is NOT required	Modes 1 and 2 only

33.

A SGTR coincident with an RCS LOCA is in progress.

- All RCPs have been tripped.
- RVLIS Full Range indicates 65%.
- All SG levels are > 50% NR.
- Intact SG pressures - 1000 psig.
- Core Exit Thermocouples - 560°F and stable.
- RCS pressure - 1118 psig and stable.
- WR Tcolds - 465°F.

Which one of the following identifies:

1) the current method of core cooling, and

2) the flow path for this cooling method?

A. 1) Reflux Cooling

2) steam flows to the S/G via the top of the hot legs, transfers heat to the secondary side water, condenses in the S/G tubes and returns to the vessel via the bottom of the hot legs.

B. 1) Reflux Cooling

2) steam flows to the S/G via the top of the hot legs, transfers heat to the secondary side water, condenses in the S/G tubes and returns to the vessel via the cold legs into the downcomer.

C. 1) Natural Circulation

2) steam flows to the S/G via the top of the hot legs, transfers heat to the secondary side water, condenses in the S/G tubes and returns to the vessel via the bottom of the hot legs.

D. 1) Natural Circulation

2) steam flows to the S/G via the top of the hot legs, transfers heat to the secondary side water, condenses in the S/G tubes and returns to the vessel via the cold legs into the downcomer.

34.

Given the following conditions:

- An RCS LOCA has occurred.
- Containment pressure is 13.5 psig and stable.
- A loss of offsite power to 13.8 kV switchgear NAA has occurred.
- RCS pressure is 1080 psig and stable.
- The crew is performing 19012-C, "ES-1.2 Post-LOCA Cooldown and Depressurization."

Which ONE of the following describes the method that will be used to perform the cooldown of the RCS and the MAXIMUM cooldown rate allowed by 19012-C?

A. S/G ARVs.

$\leq 100^{o}F$ per hour.

B. S/G ARVs.

Maximum rate.

C. Steam Dumps.

$\leq 100^{o}F$ per hour.

D. Steam Dumps.

Maximum rate.

35.

The plant is at 100% power when the following annunciator is received following a circulating water pump trip:

TURB CNDSR LO VAC

- The SS enters AOP 18013-C, "Rapid Power Reduction."
- The UO rapidly reduces turbine load.
- Tave is 3.8°F higher than Tref.

Which one of the following describes:

1) AOP-18013-C, power reduction target, and

2) the PREFERRED operation of the control rods in accordance with 18013-C?

	Target	**Control Rods**
A.	low vacuum alarm clear	manual
B.	low vacuum alarm clear	automatic
C.	20% rated thermal power	manual
D.	20% rated thermal power	automatic

36.

Given the following plant conditions:

- The unit is at 100% power.
- A Main Feedwater line break occurs at FRV # 3.

RCS temperature will _____ prior to the reactor trip and SG # 3 pressure will _____ after a FWI occurs.

	RCS temperature response	**SG # 3 pressure response**
A.	rise	stabilize
B.	rise	completely depressurize
C.	lower	stabilize
D.	lower	completely depressurize

37.

Which one of the following choices lists conditions requiring entry into EOP 19100-C, "ECA-0.0 Loss of All AC Power" with Unit 1 at 100% power?

A. 2 of the 3 white potential lights for both 1AA02 and 1BA03 extinguish.

1AA02 and 1BA03 breaker position indication lights remain lit.

B. 1 of the 3 white potential lights for both 1AA02 and 1BA03 extinguish.

1AA02 and 1BA03 breaker position indication lights extinguish.

C. 2 of the 3 white potential lights for both 1NA01, 1NA04 and 1NA05 extinguish.

1NA01, 1NA04 and 1NA05 breaker position indication lights remain lit.

D. 1 of the 3 white potential lights for 1NA01, 1NA04 and 1NA05 extinguish.

1NA01, 1NA04 and 1NA05 breaker position indication lights extinguish.

38.

Given the following conditions:

- Reactor power is steady-state at 100%.
- Rod control is in automatic.
- Sealing steam pressure drops to 0 psig due to a malfunction.

Which ONE of the following conditions will result if NO operator action is taken in response to this condition?

A. Lowering megawatt output and rising condenser pressure.

B. Rising megawatt output and rising condenser hotwell level.

C. Lowering megawatt output and lowering condenser pressure.

D. Rising megawatt output and rising steam seal header pressure.

39.

Initial conditions:

- ACCW pump # 1 running

- A plant event results in both ESF Sequencers running,

Current conditions:

- Both ACCW pumps running.

- The last load started at 50.5 seconds.

Which ONE of the following is the CORRECT initiating event?

A. SI

B. U/V

C. SI followed by a U/V

D. U/V concurrent with an SI

40.

The following indications occur with the unit at full power:

- All four SGs channel 1 NR levels go off-scale low
- All four SGs channel 1 pressures go off-scale low

This is a loss of _____ and the correct action to take is to _____

A. 1AY1A

place all 4 MFRVs and MFPT SPEED CONTROL MASTER in manual and match channel 2 feed flows to channel 2 steam flows while maintaining SG NR levels.

B. 1AY2A

place all 4 MFRVs and MFPT SPEED CONTROL MASTER in manual and match channel 2 feed flows to channel 2 steam flows while maintaining SG NR levels.

C. 1AY1A

verify reactor trip and initiate 19000-C, "E-0 Reactor Trip or Safety Injection".

D. 1AY2A

verify reactor trip and initiate 19000-C, "E-0 Reactor Trip or Safety Injection".

41.

For the Steam Generator Water Level Control System (SGWLC), which ONE of the following describes this systems' normal operation and program level input?

A. SGWLC is a level dominant system that ultimately adjusts Feed Reg valve position by level error.

Program level is constant at 65% NR.

B. SGWLC is a level dominant system that ultimately adjusts Feed Reg valve position by level error.

Program level is variable based on input from Auctioneered High Power Range NIS.

C. SGWLC is a flow dominant system that ultimately adjusts Feed Reg valve position by mismatch in steam flow versus feed flow.

Program level is constant at 65% NR.

D. SGWLC is a flow dominant system that ultimately adjusts Feed Reg valve position by mismatch in steam flow versus feed flow.

Program level is variable based on input from Auctioneered High Power Range NIS.

42.

Given the following plant conditions:

- Unit 2 Waste Gas Decay Tank (GDT) # 6 release was started at 0600.
- A-RE-0014, Waste Gas Radiation Monitor is reading as expected.
- The Aux. Building SO has given you Data Sheet 1 of SOP-13202-2, "Gaseous Releases" for your evaluation **(Reference provided)**.

Which **ONE** of the following describes the required action to perform, and why?

A. Continue the release, all indications are as expected for a release.

B. Stop the release, indications of an accidental release are present.

C. Stop the release, indications of a GDT relief valve lifting are present.

D. Continue the release, the pressure change in Unit 2 GDT # 6 is expected.

43.

Given the following conditions:

- Manual reactor trip from 65% power.
- All AFW pumps are running.
- All MDAFW valves are throttled to 50 gpm per SG.
- All TDAFW valves are throttled completely closed.
- Both MFPTs are tripped per EOP direction.

Steam Generator NR levels are **stable** as follows:

SG # 1 - 40%, SG # 2 - 37%, SG # 3 - 36%, SG # 4 - 41%

Which ONE of the following describes the AFW system effect on the SG levels following a spurious Safety Injection?

	SG # 1 and # 4 levels	SG # 2 and # 3 levels
A.	stable	stable
B.	stable	rising
C.	rising	stable
D.	rising	rising

44.

Given the following conditions:

- Unit 1 core offload commences 150 hours after reactor shutdown.
- All FHB ventilation systems are in normal lineup for this condition.

A fuel handling event has occurred in the Spent Fuel Pool area resulting in the following alarms:

- 1RE-0008, "FHB Area" monitor is in **HIGH** alarm.
- ARE-2532A, "FHB Effluent" monitor is in **HIGH** alarm.

Which **ONE** of the following describes additional radiation monitors expected to be in alarm, if any, and the expected FHB HVAC lineup?

A. RE-12442A, B, C, Plant Vent Rad Monitors.

The FHB Normal supply and exhaust fans discharge to the plant vent duct work.

B. RE-12442A, B, C, Plant Vent Rad Monitors.

The FHB Normal supply and exhaust dampers close, the FHB Normal supply and exhaust fans trip.

C. No additional radiation monitors would alarm.

The FHB Normal supply and exhaust fans discharge to the plant vent duct work.

D. No additional radiation monitors would alarm.

The FHB Normal supply and exhaust dampers close, the FHB Normal supply and exhaust fans trip.

45.

Given the following indications:

- NSCW Train A Supply header flow offscale high.
- NSCW Train A Return header flow offscale low.
- NSCW TRAIN A LO HDR PRESS annunciator is LIT.

The NSCW Train A "low flow" annunciators are lit for:

- Containment Coolers 1, 2, 5, and 6
- Reactor Cavity Cooler
- DG-A
- RHR pump A

Which **ONE** of the following is the **CORRECT** location of the NSCW pipe break?

A. NSCW return line break inside the Auxiliary Building.

B. NSCW supply line break inside the Auxiliary Building.

C. NSCW return line break between the Auxiliary Building and the NSCW basin.

D. NSCW supply line break between the cooling tower and the Auxiliary Building.

46.

Following a main generator trip, which ONE of the following describes the design automatic bus transfer function for the Reserve Auxiliary Transformers (RATs) for the:

1) 13.8kV buses and

2) Non-1E 4160kV buses?

	13.8kV buses	**Non-1E 4160kV buses**
A.	Fast bus transfer	Fast bus transfer
B.	Fast bus transfer	Residual bus transfer
C.	Residual bus transfer	Fast bus transfer
D.	Residual bus transfer	Residual bus transfer

47.

During a loss of 125V DC Switchgear CD1, which ONE of the following **can be** performed in the control room?

A. Start the TDAFW pump by opening the steam admission valve HV-5106.

B. Isolate the TDAFW steam supply valve from SG # 2 by closing HV-3019.

C. Align the TDAFW pump suction from CST # 1 to CST # 2 by opening HV-5113.

D. Reduce TDAFW pump discharge flow by throttling valves HV-5120, HV-5122, HV-5125 and HV-5127.

48.

Given the following conditions:

- The unit is in Mode 3, normal operating temperature and pressure.
- 125V DC bus AD1 is inadvertently de-energized.

Which ONE of the following is CORRECT regarding:

1) QMCB remote indication for pumps powered by 4160 1E bus AA02, and

2) their breaker protective trips while AD1 is de-energized?

	1) QMCB Remote Indication	2) Breaker Protective Trips
A.	available	available
B.	available	NOT available
C.	NOT available	available
D.	NOT available	NOT available

49.

Given the following plant conditions:

- 0900, a loss of 125V DC power to panel 1BD12 occurred
- 0905, Safety Injection actuated

As a result of the above conditions:

1) DG1B engine will_____ , and

2) _____ will annunciate in the control room.

A. start

"DG1B ENGINE CNTL POWER A FAILURE"

B. start

"DG1B ENGINE CNTL POWER B FAILURE"

C. NOT start

"DG1B ENGINE CNTL POWER A FAILURE"

D. NOT start

"DG1B ENGINE CNTL POWER B FAILURE"

50.

The following sequence of events has occurred:

- Unit 2 instrument and service air pressures are both lowering.
- The Unit 1 and Unit 2 air headers were crosstied, but are now isolated from each other.
- Unit 2 Reactor is tripped.

1) The air leak was on the ____, and

2) the minimum pressure that requires the units to be isolated from each other is ____.

	1) Air Leak Location	2) Minimum Pressure
A.	Service Air Header	70 psig
B.	Service Air Header	80 psig
C.	Instrument Air Header	70 psig
D.	Instrument Air Header	80 psig

51.

Given the following:

- A fire resulted in a control room evacuation.
- Operators only had time to initiate a manual reactor trip.
- Attempts to open Reactor Trip Breaker "B" were **NOT** successful
- Local control from the shutdown panels has been established

Based on the current conditions:

1) Prior to local operator actions, Steam Dumps will automatically control RCS Tave at_____ , if not affected by the fire; AND

2) What mitigating actions are directed in AOP 18038-1, "Operation from Remote Shutdown Panels?"

A. 1) 557°F

2) Locally open 125 VDC 1E panel breakers to close all MSIVs and BSIVs and locally control RCS Tave using the SG ARVs.

B. 1) 557°F

2) Close all MSIVs and BSIVs from the remote shutdown panels and locally control the SG ARVs to maintain RCS Tave.

C. 1) 559°F

2) Locally open 125 VDC 1E panel breakers to close all MSIVs and BSIVs and control RCS Tave using the SG ARVs.

D. 1) 559°F

2) Close all MSIVs and BSIVs from the remote shutdown panels and locally control the SG ARVs to maintain RCS Tave.

52.

From the time of sample collection, the MAXIMUM time a Waste Gas Decay Tank release can be **initiated** and the permit still be valid is_____.

Which of the following instrument INOPERABILITIES would require termination of the release and SS notification.

	Max time limit	Inoperable Instrumentation
A.	12 hours	ARE-0014
B.	24 hours	ARE-0014
C.	12 hours	RE-12442C
D.	24 hours	RE-12442C

53.

Regarding RE-12116, Control Room Air Intake Radiation Monitor:

1) Prior to a pulse check, state the location where operators may block the actuation signal, and

2) can a high radiation signal which is still present be overridden on the QHVC panel to allow realignment of the CR HVAC system?

	Location To Block	**QHVC Override capability**
A.	locally in the Control Building	may be overridden
B.	locally in the Control Building	may NOT be overridden
C.	at the QESF panel	may be overridden
D.	at the QESF panel	may NOT be overridden

54.

During a release of WMT # 9, the following occurs on 1RE-0018, "Waste Effluent Radiation Monitor."

- 1RX-0018 TROUBLE light illuminates on the DPM.

- 1RE-0018 has failed offscale **LOW**.

1) Per SOP 13216-1, "Liquid Waste Release," the release _____

2) The release _____

A. 1) is NOT required to be terminated.

2) must be terminated unless independent grab samples are collected within one hour.

B. 1) is NOT required to be terminated.

2) must be terminated unless the discharge valve alignment is re-verified within one hour.

C. 1) must be terminated.

2) can be reinitiated with the radiation monitor inoperable.

D. 1) must be terminated.

2) can NOT be reinitiated until the radiation monitor is operable.

55.

The plant is at full power:

A large leak has caused a loss of cooling water to the **TPCCW** system heat exchangers and AOP-18023-C, "Loss of Turbine Plant Cooling and Closed Cooling Water Systems."

Which ONE of the following:

1) is a load directly cooled by **TPCCW**, and

2) what is the cooling water supply to the **TPCCW** Heat Exchanger?

	1) TPCCW Load	**2) TPCCW Hx Cooling Supply**
A.	Generator Stator Coolers	Turbine Plant Cooling Water pumps
B.	Main Feed Pump Lube Oil Coolers	Turbine Plant Cooling Water pumps
C.	Generator Stator Coolers	Circulating Water pumps
D.	Main Feed Pump Lube Oil Coolers	Circulating Water pumps

56.

Given the following plant conditions.

- The unit is at 100% power.
- Section A of AOP-18017, "Abnormal Grid Disturbances/Loss of Grid" is in use.

Which **ONE** of the following describes the:

1) desired operation of the DG's in this condition and

2) the reason for this alignment?

A. 1) Operable and in standby.

2) To ensure the DG starts and runs properly in the event of a degraded voltage condition.

B. 1) Operable and in standby.

2) To prevent sequencer lockout on successive undervoltage conditions within a 2 hour time period.

C. 1) Powering 1E buses with the RAT feeder breakers open.

2) To isolate safety related loads from the grid and ensure safety related loads are powered by a reliable electrical source.

D. 1) Powering 1E buses with the RAT feeder breakers open.

2) To prevent extended unloaded or low load operation which would result in the buildup of combustion products in the engine exhausts due to incomplete fuel burn in the cylinders.

57.

Which one of the following describes the swing compressor design features for:

1) locally transfering control of the swing air compressor between Units 1 and 2 by positioning the handswitch(es) located on the _____, and

2) source of TPCCW to the swing compressor?

A. 1) Unit 1 PMEC only

2) Unit 1 only

B. 1) Unit 1 PMEC only

2) Unit 1 OR Unit 2

C. 1) Unit 1 OR Unit 2 PMEC

2) Unit 1 only

D. 1) Unit 1 OR Unit 2 PMEC

2) Unit 1 OR Unit 2

58.

The unit is at 100% power with the following annunciator illuminated. Air pressure has just lowered to 2 psig below the alarm setpoint:

SERVICE AIR
HDR LO PRESS

Which ONE of the following would be the CORRECT status of PV-9375, Instrument Air to Service Air Isolation valve and the status of the standby air compressors?

	PV-9375 status	Standby Air Compressor status
A.	Open	Running prior to alarm receipt.
B.	Open	Started upon receipt of the alarm.
C.	Closed	Running prior to alarm receipt.
D.	Closed	Started upon receipt of the alarm.

59.

Which ONE of the following describes the effect a loss of all AC power for 2 hours will have on the fire detection and protection systems and the system response?

A. The fire detectors are still capable of providing actuation signals.

The Local Suppression Indication Panels (LSIPs) will automatically trip open their associated clapper valves due to the loss of AC power, fire suppression is available when the fusable links melt due to heat from a fire.

B. The fire detectors are NOT capable of providing any fire alarms.

The Diesel Fire Pump(s) will automatically start on low fire system header pressure, fire suppression is still available from the manual hose stations.

C. The fire detectors are still capable of providing actuation signals.

The Diesel Fire Pump(s) will automatically start on low fire system header pressure, automatic fire suppression is still available.

D. The fire detectors are NOT capable of providing any fire alarms.

The Local Suppression Indication Panels (LSIPs) will automatically trip open their associated clapper valves due to the loss of AC power, fire suppression is available when the fusable links melt due to heat from a fire.

60.

Which one of the following choices correctly describes the how the CNMT Spray system is actuated by SSPS?

	INPUT RELAYS	SLAVE RELAYS
A.	Energize to actuate	Energize to actuate
B.	Energize to actuate	De-energize to actuate
C.	De-energize to actuate	De-energize to actuate
D.	De-energize to actuate	Energize to actuate

61.

The OATC needs to report to dosimetry for a whole body count and will be absent for 35 minutes.

Based on the above conditions, which one of the following meets the requirements for a "SHORT TERM RELIEF" in accordance with procedures 10003-C, "Manning the Shift" and 10004-C, "Shift Relief?"

A. - The relieving operator does NOT have to be from the same shift.
- The relieving operator must perform a joint board walkdown with the offgoing OATC.

B. - The relieving operator must be from the same shift.
- The relieving operator must perform a joint board walkdown with the offgoing OATC.

C. - The relieving operator must be from the same shift.
- The relieving operator does NOT have to perform a joint board walkdown with the offgoing OATC.

D. - A SHORT TERM RELIEF is NOT allowed.
- A COMPLETE turnover must be performed.

62.

Per 10002-C, "Plant Operating Orders":

1) Which one of the following is the proper Standing Order numerical designator which is applicable on both units?

2) Who is responsible for enforcing proper implementation of Standing Orders on the applicable units?

	1	2
A.	A-2010-1	Shift Manager
B.	A-2010-1	Shift Supervisors
C.	C-2010-1	Shift Manager
D.	C-2010-1	Shift Supervisors

63.

The Reactor was at 2% power with preparations to start up a MFP in progress.

- The OATC notices that SUR is indicating a negative 0.3 DPM.
- Reactor power has lowered from the Power Range to one decade below the POAH.

Which **ONE** of the following actions are required in accordance with plant UOPs and NMP-OS-001, "Reactivity Management"?

A. Slowly raise power back to 2% using RCS dilution in 25 gallon increments.

B. Slowly raise power back to 2% by withdrawing control rods in 3 step increments.

C. Continue a plant shutdown to Mode 3. Restart the Reactor in accordance with 12003-C, "Reactor Startup."

D. Continue a plant shutdown to Mode 3. NRC Region II approval must be obtained before reactor restart can be performed.

64.

While in Mode 1, a valve stroke test is to be performed on a Safety Related MOV per OSP-14825, "Quarterly Inservice Valve Test".

- The valve is a closed Containment Isolation Phase-A (CIA) valve.

Which **ONE** of the following actions would be **allowed** prior to performing the stroke test on the valve?

A. Cycling the valve.

B. Opening the valve.

C. Lubricating the valve stem.

D. Cleaning boric acid from the valve stem.

65.

A **fail open** air operated valve (AOV) with a handwheel must be tagged shut as a boundary point for a clearance.

To meet NMP-AD-003-002, "Tagging Standards":

1) The handwheel is required to be _____.

2) The air supply valve is _____.

	1	2
A.	in the closed position	required to be isolated and vented
B.	in the closed position	**not** required to be isolated and vented
C.	in the open position	required to be isolated and vented
D.	in the open position	**not** required to be isolated and vented

66.

Given the following:

- Unit 1 is at 340°F maintaining stable plant conditions
- 14905-1, "RCS Leak Rate Calculation" has just been completed.

The following data was recorded.

- Total RCS Leakage = 11.06 gpm
- Leakage to PRT = 5.79 gpm
- Leakage to RCDT = 4.08 gpm

Primary-to-Secondary leakage is:

- SG # 1 = 0.06 gpm
- SG # 2 = 0.05 gpm
- SG # 3 = 0.10 gpm
- SG # 4 = 0.06 gpm

Which **ONE** of the following statements is **CORRECT** concerning the leak rate data?

A. No Tech Spec LCO entry is required.

B. The identified leakage LCO limit has been exceeded.

C. The unidentified leakage LCO limit has been exceeded.

D. The primary-to-secondary leakage LCO limit through SG # 3 has been exceeded.

67.

A General Emergency has been declared. The Extra UO in the control room has been dispatched to the CNMT Spray pump room to valve in NSCW cooling water to the CNMT Spray pump which had been previously tagged out. The pump is necessary to protect the CNMT Barrier for the safety and health of the general public.

- The expected dose for this task is 4500 mRem TEDE.
- The Extra UO has a previous TEDE exposure of 1000 mRem for the year.

Which of of the following choices is correct?

A. Exposure received during the emergency will be added to his previous occupational dose history for non-emergency conditions.

   The Extra UO will be allowed to receive this dose.

B. Exposure received during the emergency will NOT be added to his previous occupational dose history for non-emergency conditions.

   The Extra UO will NOT be allowed to receive this dose.

C. Exposure received during the emergency will be added to his previous occupational dose history for non-emergency conditions.

   The Extra UO will NOT be allowed to receive this dose.

D. Exposure received during the emergency will NOT be added to his previous occupational dose history for non-emergency conditions.

   The Extra UO will be allowed to receive this dose.

68.

Core offload is in progress during a refueling outage.

- The RO notes RE-002 and RE-003 INTERMEDIATE radiation alarms illuminate.

Which ONE of the following is CORRECT regarding:

1) What Tech Spec position has the authority suspend core alterations?

2) What the PA announcement for Containment evacuation should instruct?

	1	2
A.	RO or SS	report to the Control Building HP Control Point for radiological monitoring.
B.	RO or SS	personnel exiting CNMT should remain in the vicinity until radiological monitoring and accountability are complete.
C.	SS only	report to the Control Building HP Control Point for radiological monitoring.
D.	SS only	personnel exiting CNMT should remain in the vicinity until radiological monitoring and accountability are complete.

69.

Which of the following choices contains BOTH activities that require PA announcements?

A. Reactor Startup per 12003-C.

Transfer ECCS to Cold Leg Recirculation per 19013-C.

B. Reactor Shutdown per 12005-C.

Transfer ECCS to Hot Leg Recirculation per 19014-C.

C. Reactor Startup per 12003-C.

Transfer ECCS to Hot Leg Recirculation per 19014-C.

D. Reactor Shutdown per 12005-C.

Transfer ECCS to Cold Leg Recirculation per 19013-C.

70.

Given the following:

- Loss of all off-site power.
- DG-1B emergency tripped.
- The System Operator depressed the "Emergency Trip Reset" pushbutton.
- No other operator actions were performed
- DG-1B automatically restarted

Which one of the following conditions caused the emergency trip and would allow an automatic restart of the DG?

A. Engine Overspeed

B. Generator Differential

C. Low Lube Oil Pressure

D. High Jacket Water Temperature

71.

Which one of the following EOPs will allow the use of 19005-C, "ES-0.0 Rediagnosis?"

A. 19000-C, "E-0 Reactor Trip or Safety Injection"

B. 19002-C, 'ES-0.2 Natural Circulation Cooldown"

C. 19012-C, "ES-1.2 Post-LOCA Cooldown & Depressurization"

D. 19231-C, "FR-H.1 Response to Loss of Secondary Heat Sink"

72.

Given the following:

- A LOCA outside Containment has occurred.

- The crew is performing 19112-C, "LOCA Outside Containment".

Which **ONE** of the following is:

1) the **FIRST** system to be isolated from the RCS to attempt leak isolation, and

2) the parameter monitored to determine if the leak has been isolated?

	1) First System Isolated	**2) Parameter Monitored**
A.	RHR	RCS temperature
B.	RHR	RCS pressure
C.	SI	RCS temperature
D.	SI	RCS pressure

73.

Given the following:

- 19231-C, Response to Loss of Secondary Heat Sink is in effect.
- RCS Feed and Bleed requirements have **NOT** been met.
- The crew is currently trying to establish AFW, MFW, or Condensate flow.

Which **ONE** of the following identifies the actions the crew will take regarding RCP operation and the bases?

A. Trip the RCPs. Conserves S/G inventory delaying the need for feed and bleed.

B. Trip the RCPs. Establishing natural circulation will tend to mitigate the transient.

C. Leave the RCPs running. Prevents thermal and / or boric acid stratification.

D. Leave the RCPs running. Ensures RCS pressure reduction capability.

74.

Given the following plant conditions:

- A reactor trip concurrent with an LOSP to both RATs has occurred.
- 19232-C, "FR-H.2 Response to Steam Generator Overpressure" YELLOW path is in effect.
- SG # 4 pressure is 1247 psig.

Which **ONE** of the following actions would mitigate the SG # 4 overpressure condition in accordance with 19232-C?

A. Stop RCP # 4 to reduce the heat input to SG # 4.

B. Initiate maximum AFW flow to SG # 4 to inject cold water.

C. Locally operate SG # 4 ARV PV-3030 to dump steam to the atmosphere.

D. Operate Steam Dumps in MANUAL in STEAM PRESSURE mode to dump steam.

75.

Initial plant conditions:

- The plant is in Mode 3.
- An RCS leak has occurred in Containment.
- The Containment Atmosphere sample valves for RE-2562A, B, C are open.

Current plant conditions:

- Containment Pressure is 1.2 psig and slowly rising.
- Steam lines pressures are all ~ 1080 psig and stable.
- PRZR pressure is 2235 psig and stable.
- RE-002 and 003 high rad alarms lit on the SRDC.
- The SS has entered 19253-C, "FR-Z.3, Response to Containment High Radiation Level" YELLOW path.

Which **ONE** of the following would be the **CORRECT** status of the:
(assume all systems function as designed, if required).

1) Containment Atmosphere sample valves, and

2) the Piping Penetration Area Filtration Units?

	1	2
A.	open	in standby
B.	open	auto started
C.	closed	in standby
D.	closed	auto started

Sheet 1 of 1

DATA SHEET 1

TANK BEING RELEASED UNIT 2 TANK 6

	INITIAL	HOURLY	HOURLY	HOURLY	HOURLY	HOURLY	FINAL
TIME DATE	[illegible]	0600	0700				
UNIT 1 GDT TANK #1 PSIG	[illegible]	58	58				
UNIT 1 GDT TANK #2 PSIG	[illegible]	31	31				
UNIT 1 GDT TANK #3 PSIG	[illegible]	39	39				
UNIT 1 GDT TANK #4 PSIG	[illegible]	46	43				
UNIT 1 GDT TANK #5 PSIG	[illegible]	26	26				
UNIT 1 GDT TANK #6 PSIG	[illegible]	70	70				
UNIT 1 GDT TANK #7 PSIG	[illegible]	69	69				
SDT #9 PSIG	[illegible]	58	58				
SDT #10 PSIG	[illegible]	61	61				
UNIT 2 GDT TANK #1 PSIG	[illegible]	43	43				
UNIT 2 GDT TANK #2 PSIG	[illegible]	52	52				
UNIT 2 GDT TANK #3 PSIG	[illegible]	71	71				
UNIT 2 GDT TANK #4 PSIG	[illegible]	66	66				
UNIT 2 GDT TANK #5 PSIG	[illegible]	64	64				
UNIT 2 GDT TANK #6 PSIG	[illegible]	78	62				
UNIT 2 GDT TANK #7 PSIG	[illegible]	57	57				

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ANSWER KEY REPORT

for HL-15R RO NRC EXAM Test Form: 0

#	ID	Answers 0
	001K2.05 2	D
	002A2.03 2	C
3	003AK3.10 2	A
4	003G2.4.35 2	C
5	004G2.1.23 1	B
6	004K6.31 1	C
7	005K2.03 3	D
8	005K6.03 2	C
9	006K6.02 2	C
10	007EG2.4.31 3	D
11	007K1.03 2	A
12	007K4.01 1	C
13	008AA1.04 1	B
14	008K2.02 1	A
15	009EK2.03 1	C
16	010K1.08 2	C
17	011EG2.2.38 1	A
18	012K1.05 1	B
19	012K5.01 1	C
20	013K5.02 3	D
21	015AK2.07 1	C
22	016K1.08 1	D
	022A1.01 1	A
	022A2.03 1	C
25	022AK1.01 1	D
26	025AA1.19 1	D
27	026A3.02 3	D
28	027AA1.05 2	B
29	028K5.01 2	A
30	032AA2.07 1	C
31	033A1.02 1	C
32	035G2.2.40 1	C
33	038EK1.04 3	A
34	039A2.01 2	C
35	051AA1.04 2	B
36	054AK1.01 2	A
37	055EG2.4.02 1	A
38	055K3.01 2	A
39	056AK3.01 2	B
40	057AA2.05 1	A
41	059A3.02 1	A
42	060AG2.1.25 2	B
43	061A1.01 1	A
44	061AK2.01 1	B
	062AA2.02 1	D
	062G2.1.27 1	B

ANSWER KEY REPORT

for HL-15R RO NRC EXAM Test Form: 0

#	ID	Answers 0
	063K2.01 1	B
	063K4.02 1	D
49	064A2.13 1	B
50	065AA2.03 1	D
51	068AK3.02 1	C
52	071K4.06 1	B
53	073A4.02 1	C
54	073K3.01 2	C
55	076K3.02 1	B
56	077AK3.02 2	A
57	078K4.01 1	A
58	079A4.01 1	A
59	086K6.04 2	C
60	103A4.03 1	A
61	G2.1.03 3	B
62	G2.1.15 2	D
63	G2.1.37 2	C
64	G2.2.12 1	B
65	G2.2.13 2	B
66	G2.2.42 1	B
67	G2.3.04 2	D
68	G2.3.13 2	B
	G2.4.30 1	A
	G2.4.35 1	C
71	WE01EK1.2 1	C
72	WE04EK2.2 1	B
73	WE05EK3.2 1	A
74	WE13EA1.1 1	C
75	WE16EK1.1 2	D