ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 1

Question No: ILT-7061 STA_Question RO Question SRO Question

a.

Reference Provided:
None

Reference:
4100.02, CORE STABILITY CONTROL

Explanation:

A. is correct, 4100.02, CORE STABILITY CONTROL requires a Reactor Scram if Core instabilities are observed.

B. is incorrect, restarting the RR pump would raise flow and may suppress the instabilities but is not allowed.
C. is incorrect, reducing power is correct if no instabilities are observed.
D. is incorrect, correct actions if no instabilities are observed.

System No:	KA No:	RO:	SRO:
295001	AA1.02	3.3	3.3

System/Evolution:

Partial or Complete Loss of Forced Core Flow Circulation

Category Statement:

Ability to operate and/or monitor the following as they apply to PARTIAL OR COMPLETE LOSS OF FORCED CORE FLOW
CIRCULATION :

K/A Statement:

RPS

Cog Level:

High

TIER: GROUP:

1 1

10CFR:

41.7 / 45.6

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 2

Question No: ILT-7074 STA_Question RO Question SRO Question

B

Reference Provided:
None

Reference:
EOP-1A, ATWS RPV Control R 28

Explanation:

B is correct, with the ATWS a cooldown can only be commenced when either cold shutdown boron weight has been injected or the reactor is subcritical with no boron injected. In the stem SLC was started at 10:05. At 10:45 both SLC pumps have been operating for 40 minutes which corresponds to Cold Shutdown Boron Weight.

A is incorrect, even if the reactor becomes subcritical, boron has been injected and therefore a cooldown cannot commence until cold shutdown boron weight has been injected IAW EOP-1A pressure leg.
C is incorrect, this time relates to only 1 SLC pump running.
D is incorrect, the cooldown may commence before all rods are in if cold shutdown boron weight is injected.

System No:	KA No:	RO:	SRO:
295037	EK1.05	3.4	3.6

System/Evolution:

SCRAM Condition Present and Reactor Power Above APRM Downscale or Unknown

Category Statement:

Knowledge of the operational implications of the following concepts as they apply to SCRAM CONDITION PRESENT AND
REACTOR POWER ABOVE APRM DOWNSCALE OR UNKNOWN :

K/A Statement:

Cold shutdown boron weight: Plant-Specific

Cog Level:
High

TIER:	GROUP:
1	1

10CFR:

41.8 to 41.10

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 3

Question No: ILT-7075 STA_Question RO Question SRO Question

A

Reference Provided:
EOP-9

Reference:
EOP-9, Radioactive Release Control R 28

Explanation:

A. is correct, EOP-9 requires restarting Turbine Building Ventilation to prevent an unmonitored release.

B. is incorrect, restarting ventilation will lower the radiation levels in the Turbine Building, but will NOT reduce the radioactive release due to filtration.
C. is incorrect, maintaining ventilation tripped would make the area inaccessible and might permit a ground level unmonitored release.
D. is incorrect, maintaining ventilation tripped would make the area inaccessible and might permit a ground level unmonitored release.

System No:	KA No:	RO:	SRO:
295038	EA1.06	3.5	3.6

System/Evolution:

High Off-Site Release Rate

Category Statement:

Ability to operate and/or monitor the following as they apply to HIGH OFF-SITE RELEASE RATE :

K/A Statement:

Plant ventilation

Cog Level:

Memory

TIER:	GROUP:
1	1

10CFR:

41.7 / 45.6

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 4

Question No: ILT-7064 STA_Question RO Question SRO Question

C

Reference Provided:
None

Reference:
5062.3C R 29a

Explanation:

C - Div 3 DG starts at level 2 but will not close on to the bus if energized by the ERAT. The Div 2 DG starts on low voltage
to the Div 2 Bus and will energize the bus. RCIC auto starts at -45" causing a main turbine and generator trip.

Distracters

A, B, D not correct, only Div 3 DG starts at level 2 the other DGs start at level 1 (-145.5") or low bus voltage. If a bus is power by the RAT or ERAT the DG will not close in on the bus.

System No:	KA No:	RO:	SRO:
295005	AA2.08	3.2	3.3

System/Evolution:

Main Turbine Generator Trip

Category Statement:

Ability to determine and/or interpret the following as they apply to MAIN TURBINE GENERATOR TRIP :

K/A Statement:

Electrical distribution status

Cog Level:

High

TIER:	GROUP:
1	1

10CFR:

41.10 / 43.5 /
45.13

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 5

Question No: ILT-7077 STA_Question RO Question SRO Question

B

Reference Provided:
EOP-6

Reference:
EOP-6 R 28

Explanation:

B is correct, pool level curve interpolation is not allowed therefore the 17 ft pool level curve must be used. This results in a
maximum allowed RPV pressure of 750 psig.

A. is incorrect, see B
C. is incorrect, see B
D. is incorrect, see B

Distracters are for the wrong suppression pool level. Interpolation is not allowed.

System No:	KA No:	RO:	SRO:
295007	AA2.01	4.1	4.1

System/Evolution:

High Reactor Pressure

Category Statement:

Ability to determine and/or interpret the following as they apply to HIGH REACTOR PRESSURE :

K/A Statement:

Reactor pressure

Cog Level:

High

TIER:	GROUP:
1	2

10CFR:

41.10 / 43.5 /
45.13

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 6

Question No: ILT-7080 STA_Question RO Question SRO Question

C.

Reference Provided:
None

Reference:
4001.01, Reactor Coolant Leakage R 11

Explanation:

C. is correct, FPM channels trending up indicates a reactor coolant leak.

A. is incorrect, FW leak would not cause DW radiation increase.
B. is incorrect, IA leak would cause DW press to increase but not DW temp.
D. is incorrect, Temp and press going up and no change in FPM indicates a loss of VP.

System No:	KA No:	RO:	SRO:
295010	AA2.03	3.3	3.6

System/Evolution:

High Drywell Pressure

Category Statement:

Ability to determine and/or interpret the following as they apply to HIGH DRYWELL PRESSURE :

K/A Statement:

Drywell radiation levels

Cog Level:

High

TIER:	GROUP:
1	2

10CFR:

41.10 / 43.5 /
45.13

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 7

Question No: ILT-0023 STA_Question RO Question SRO Question

b.

Reference Provided:
None

Reference:
3203.01, Component Cooling Water R 32b

Explanation:

A. Incorrect - There is no procedural requirement to secure the Service Air Compressors.
B. Correct - RR pumps must be tripped within a minute or CC restored, due to the potential for damage to the seals and/or
pump motors. The motor temperatures are the limiting temperatures for continued operation.
C. Incorrect - The transfer of CCW to SX has been disabled.
d. Incorrect - There is no procedural requirement to secure the Fuel Pool Cooling and Cleanup (FC) System pumps.

System No:	KA No:	RO:	SRO:
295018	K2.01	3.3	3.4

System/Evolution:

Partial or Complete Loss of Component Cooling Water

Category Statement:

Knowledge of the interrelations between PARTIAL OR COMPLETE LOSS OF COMPONENT COOLING WATER and the
following:

K/A Statement:

System loads

Cog Level:

Memory

TIER:	GROUP:
1	1

10CFR:

41.7 / 45.8

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 8

Question No: ILT-7078 STA_Question RO Question SRO Question

A. is correct

Reference Provided:
None

Reference:
4200.01 Loss of AC power

Explanation:

A. is correct. Over Crank on the Division one diesel generator is a valid LOCA trip.

B. is incorrect.138 KV line supplies the ERAT and it is lost
C. is incorrect.138 KV line supplies the ERAT and it is lost Diesel Generator trips on Over Crank during a LOCA and is not
available.
D. is incorrect. Diesel Generator trips on Over Crank during a LOCA and is not available.

System No:	KA No:	RO:	SRO:
203000	K1.08	3.5	3.5

System/Evolution:

RHR/LPCI: Injection Mode (Plant Specific)

Category Statement:

Knowledge of the physical connections and/or cause effect relationships between RHR/LPCI: INJECTION MODE (PLANT
SPECIFIC) and the following:

K/A Statement:

A.C. electrical power

Cog Level:

Memory

TIER:	GROUP:
2	1

10CFR:

41.2 to 41.9 /
45.7 to 45.8

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 9

Question No: ILT-5256 STA_Question RO Question SRO Question

D

Reference Provided:
NONE

Reference:
4006.01, Loss of Shutdown Cooling R 4d

Explanation:

D. is correct, both SDC suction isolation valves(1E12-F008/F009) close and "A" RHR pump trips when either valve leaves
its full open seat.

A. in incorrect, both SDC suction isolation valves(1E12-F008/F009) close at level 3 (8.9")
B. is incorrect, both SDC suction isolation valves(1E12-F008/F009) close at level 3 (8.9")
C. is incorrect, both SDC suction isolation valves(1E12-F008/F009) close at level 3 (8.9")

System No:	KA No:	RO:	SRO:
295021	AA2.03	3.5	3.5

System/Evolution:

Loss of Shutdown Cooling

Category Statement:

Ability to determine and/or interpret the following as they apply to LOSS OF SHUTDOWN COOLING :

K/A Statement:

Reactor water level

Cog Level:

High

TIER:	GROUP:
1	1

10CFR:

41.10 / 43.5 /
45.13

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 10

Question No: ILT-7067 STA_Question RO Question SRO Question

B

Reference Provided:
None

Reference:
4979.07, Dropped or Struck Irradiated Fuel Bundle R 8e

Explanation:

B. is correct, per the immediate actions of 4979.07.

A. is incorrect, this would be appropriate if the release had occurred in the containment
C. is incorrect, the damaged bundle would be kept in the spent fuel pool. Spent fuel is not allowed to be stored long term in
the containment
D. is incorrect, radioactivity released in the Fuel building would by released out the Stack and not reach the containment.

System No:	KA No:	RO:	SRO:
295023	AK3.01	3.6	4.3

System/Evolution:

Refueling Accidents

Category Statement:

Knowledge of the reasons for the following responses as they apply to REFUELING ACCIDENTS :

K/A Statement:

Refueling floor evacuation

Cog Level:

High

TIER:	GROUP:
1	1

10CFR:

41.5 / 45.6

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 11

Question No: ILT-7068 STA_Question RO Question SRO Question

D

Reference Provided:
None

Reference:
5003-2A R 34C

Explanation:

D. is correct, the RR HPUs should have shutdown and locked out the FCVs when the Drywell Pressure Annunciator came
in. This has not occurred due to the associated annunciators not alarming.

A. is incorrect, the RR pumps do not need to be tripped unless drywell pressure continues to rise and reaches 1.68 psig and causes an isolation of CCW to the containment.
B. is incorrect, the mode switch should be placed in Shutdown if Drywell Pressure is 1.3 psig and rising.
C. is incorrect, the RR HPUs are still running and need to be locked out.

System No:	KA No:	RO:	SRO:
295024	2.4.50	4.2	4

System/Evolution:

High Drywell Pressure

Category Statement:

Ability to verify system alarm setpoints and operate controls identified in the alarm response manual.

K/A Statement:

Cog Level:

High

TIER: 1

GROUP: 1

10CFR:

41.10 / 43.5 / 45.3

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 12

Question No: ILT-7069 STA_Question RO Question SRO Question

C

Reference Provided:
None

Reference:
5067.06C R30c

Explanation:

C. is correct, LLS is activated at 1103 psig and reduces the lowest relief function to 1033 psig to mitigate the effects of pressure loads on the containment from multiple SRV actuations.

A. is incorrect, the setpoint is 1033 psig.
B. is incorrect, the reason is pressure loads on the containment.
D. is incorrect, the setpoint is 1033 psig.

System No:	KA No:	RO:	SRO:
295025	EK3.01	4.2	4.3

System/Evolution:

High Reactor Pressure

Category Statement:

Knowledge of the reasons for the following responses as they apply to HIGH REACTOR PRESSURE :

K/A Statement:

Safety/relief valve opening

Cog Level:

Memory

TIER:	GROUP:
1	1

10CFR:

41.5 / 45.6

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 13

Question No: ILT-7070 STA_Question RO Question SRO Question

C

Reference Provided:
None

Reference:
EOP-TB, Rev. 005

Explanation:

C. is correct, the blowdown is performed to prevent exceeding the Primary Containment Temperature Limit which is more
limiting than the Primary Containment Pressure.

A. is incorrect, this blowdown will not prevent exceeding the Pressure Suppression Pressure.
B. is incorrect, this blowdown will not prevent exceeding the Boron Injection Initiation Temperature.
D. is incorrect, this blowdown will not prevent exceeding the Net Positive Suction Head limits.

System No:	KA No:	RO:	SRO:
295026	EK3.01	3.8	4.1

System/Evolution:

Suppression Pool High Water Temperature

Category Statement:

Knowledge of the reasons for the following responses as they apply to SUPPRESSION POOL HIGH WATER TEMPERATURE:

K/A Statement:

Emergency/normal depressurization

Cog Level:

Memory

TIER:	GROUP:
1	1

10CFR:

41.5 / 45.6

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 14

Question No: ILT-7071 STA_Question RO Question SRO Question

B

Reference Provided:
EOP-1

Reference:
EOP-1 R 28

Explanation:

Correct Answer
ANSWER: B With a Drywell Temperature of 310°F Narrow Range would be good to a level of 5 inches, and Upset Range
would be good to 35 inches. A Containment Temperature of 280°F would allow Wide Range to be good to –136 inches. Since Upset Range level is below 35 inches it would not be valid.

a. Incorrect, Upset Range is not valid.
c. Incorrect, Upset Range is not valid and Narrow Range is valid.
d. Incorrect, Wide Range is valid.

System No:	KA No:	RO:	SRO:
295027	EK1.02	3	3.2

System/Evolution:

High Containment Temperature (Mark III Containment Only)

Category Statement:

Knowledge of the operational implications of the following concepts as they apply to HIGH CONTAINMENT TEMPERATURE (MARK III CONTAINMENT ONLY) :

K/A Statement:

Reactor water level measurement: Mark-III

Cog Level:

High

TIER:	GROUP:
1	1

10CFR:

41.8 to 41.10

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 15

Question No: ILT-7072 STA_Question RO Question SRO Question

B

Reference Provided:
None

Reference:
Tech Spec LCO 3.6.5.5

Explanation:

B. is correct, the LCO limit is ≤ 150°F with an LDI limit of ≤ 146.53°F.

A. is incorrect, too low.
C. is incorrect, too high.
D. is incorrect, too high.

System No:	KA No:	RO:	SRO:
295028	2.2.38	3.6	4.5

System/Evolution:

High Drywell Temperature

Category Statement:

Knowledge of conditions and limitations in the facility license.

K/A Statement:

Cog Level:

Memory

TIER:	GROUP:
1	1

10CFR:

41.7 / 41.10 /
43.1 / 45.13

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 16

Question No: ILT-7141 STA_Question RO Question SRO Question

B

Reference Provided:
None

Reference:
EOP Bases

Explanation:

B is correct, the blowdown at 15 ft 1 in is based on inadequate horizontal vent coverage causing incomplete condensation during a LOCA.

A is incorrect, the ECCS suctions are near the bottom of the pool and are not threatened at 15 ft 1 in.
C is incorrect, all the curves above 15 ft 1 in on the Heat Capacity Limit are based on having enough capacity to absorb the heat from a blowdown but the 15 ft 1 in curve is based on horizontal vent coverage.
D is incorrect, this will occur however this is not the reason for blowing down. The incomplete condensation during a LOCA would add energy directly to the containment and threaten containment integrity from over pressurization. The blowdown eliminates this threat by reducing the amount of energy available during a LOCA.

System No:	KA No:	RO:	SRO:
295030	EK1.03	3.8	4.1

System/Evolution:

Low Suppression Pool Water Level

Category Statement:

Knowledge of the operational implications of the following concepts as they apply to LOW SUPPRESSION POOL WATER LEVEL:

K/A Statement:

Heat capacity

Cog Level:

Memory

TIER:	GROUP:
1	1

10CFR:

41.8 to 41.10

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 17

Question No: ILT-7073 STA_Question RO Question SRO Question

D

Reference Provided:
None

Reference:
4411.07, RPV Level Instrumentation R 5

Explanation:

D. Correct. None of the level instruments are in there operable ranges or conditions. Fuel Zone is pegged high and is good
only if no recirculation pumps are running.

a. Incorrect, Fuel Zone would not be good because 'A' Recirc pump is still running.
b. Incorrect, other instruments are below usable levels and Fuel Zone is pegged high and cannot be used.
c. Incorrect, Shutdown, Upset, and Narrow range instruments are below their Usable Levels.

System No:	KA No:	RO:	SRO:
295031	EA2.01	4.6	4.6

System/Evolution:

Reactor Low Water Level

Category Statement:

Ability to determine and/or interpret the following as they apply to REACTOR LOW WATER LEVEL :

K/A Statement:

Reactor water level

Cog Level:

High

TIER:	GROUP:
1	1

10CFR:

41.10 / 43.5 /
45.13

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 18

Question No: ILT-7062 STA_Question RO Question SRO Question

C

Reference Provided:
None

Reference:
CPS No. 4200.01, LOSS OF AC POWER

Explanation:

C. is correct, DC load shedding must be completed within 1 hour to ensure RCIC and SRVs remain available.

A. is incorrect, the Gland Seal Air Compressor is not needed to run RCIC and would be secured.
B. is incorrect, RCIC Lube Oil is cooled from the water being pumped by RCIC and will not be effected by the loss of power

D. is incorrect, the Main Control Room can be cooled with a Gas Powered fan.

System No:	KA No:	RO:	SRO:
295003	AK1.02	3.1	3.4

System/Evolution:

Partial or Complete Loss of A.C. Power

Category Statement:

Knowledge of the operational implications of the following concepts as they apply to PARTIAL OR COMPLETE LOSS OF
A.C. POWER :

K/A Statement:

Load shedding

Cog Level:

High

TIER:	GROUP:
1	1

10CFR:

41.8 to 41.10

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 19

Question No: ILT-7063 STA_Question RO Question SRO Question

B

Reference Provided:
None

Reference:
USAR Chapter 8

Explanation:

B. is correct, The ampere-hour capacity of each battery is adequate to supply expected essential loads for a period of 4 hours following station trip and loss of all a-c power coincident with a design-basis accident without battery terminal voltage falling below 84%.

A. is incorrect, The ampere-hour capacity of each battery is adequate to supply expected essential loads for a period of 4
hours following station trip and loss of all a-c power coincident with a design-basis accident without battery terminal voltage falling below 84%
C. is incorrect, The ampere-hour capacity of each battery is adequate to supply expected essential loads for a period of 4
hours following station trip and loss of all a-c power coincident with a design-basis accident without battery terminal voltage falling below 84%
D. is incorrect, The ampere-hour capacity of each battery is adequate to supply expected essential loads for a period of 4
hours following station trip and loss of all a-c power coincident with a design-basis accident without battery terminal voltage falling below 84%

System No:	KA No:	RO:	SRO:
295004	AA2.03	2.8	2.9

System/Evolution:

Partial or Complete Loss of D.C. Power

Category Statement:

Ability to determine and/or interpret the following as they apply to PARTIAL OR COMPLETE LOSS OF D.C. POWER :

K/A Statement:

Battery voltage

Cog Level:

Memory

TIER: GROUP:

1 1

10CFR:

41.10 / 43.5 /
45.13

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 19

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 20

Question No: ILT-7076 STA_Question RO Question SRO Question

C

Reference Provided:
None

Reference:
DARs Trend

Explanation:

C. is correct, the VAR loading lowers due to a loss of a major load on the grid therefore the generator output voltage had to
be lowered by the operator. This causes the plant bus voltages to lower and thus motors must draw more current to maintain the same power.

A. is incorrect excitation remains constant
B. is incorrect excitation remains constant
D. is incorrect VAR loading lowers

System No:	KA No:	RO:	SRO:
700000	AK201	3.1	3.2

System/Evolution:

Generator Voltage and Electric Grid Disturbances

Category Statement:

Knowledge of the interrelations between GENERATOR VOLTAGE AND ELECTRIC GRID DISTURBANCES and the following:

K/A Statement:

Motors

Cog Level:

High

TIER:	GROUP:
1	1

10CFR:

41.4, 41.5,
41.7, 41.10 /
45.8

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 21

Question No: ILT-5362 STA_Question RO Question SRO Question

D.

Reference Provided:
None

Reference:
4004.02, Loss of Vacuum R 2a

Explanation:

D. Correct - Reactor Recirculation System Runback Signal due to trip of both TDRFP's which will result in a level 4.

A. Incorrect - TBV's are already shut.
B. Incorrect - MSIV closure will not occur first.
C. Incorrect - Main Turbine trip scram not enabled yet.

System No:	KA No:	RO:	SRO:
295002	AA1.08	2.6	2.7

System/Evolution:

Loss of Main Condenser Vacuum

Category Statement:

Ability to operate and/or monitor the following as they apply to LOSS OF MAIN CONDENSER VACUUM :

K/A Statement:

Recirculating flow control system

Cog Level:

High

TIER:	GROUP:
1	2

10CFR:

41.7 / 45.6

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 22

Question No: ILT-7065 STA_Question RO Question SRO Question

C

Reference Provided:
None

Reference:
4100.01, Reactor Scram R 19c

Explanation:

C is correct, Per CPS 4100.01, Section 4.2 NOTE. Operators should lower reactor pressure to about 600 psig to minimize
the RPV-to-FW delta-T that exists during a plant cooldown.

A, B and D are incorrect pressures.

System No:	KA No:	RO:	SRO:
295006	2.1.20	4.6	4.6

System/Evolution:

SCRAM

Category Statement:

Ability to interpret and execute procedure steps.

K/A Statement:

Cog Level:

Memory

TIER:	GROUP:
1	1

10CFR:

41.10 / 43.5 /
45.12

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 23

Question No: ILT-6486 STA_Question RO Question SRO Question

A

Reference Provided:
CPS No. 4003.01F003 RSP - SATURATED TEMPERATURE/PRESSURE CORRELATION or Steam Tables and calculator.

Reference:
CPS No. 4003.01F003 RSP - SATURATED

Explanation:

Answer: A Explanation: The cooldown rate is excessive (135ºF/hr) and will exceed 100ºF/hr if the rate of depressurization is not reduced. Since the RCIC system is controlling reactor pressure it's flowrate should be reduced in an attempt to control cooldown rate.

Distracters:

B is incorrect because increasing RCIC flow would further aggravate the already high cooldown rate.
C is incorrect because maintaining this flow rate would exceed the cooldown rate limit.
D is incorrect because shifting suctions will not prevent exceed the cooldown rate limit and there is no driving reason to shift RCIC suctions.

System No:	KA No:	RO:	SRO:
295016	AA1.08	4	4

System/Evolution:

Control Room Abandonment

Category Statement:

Ability to operate and/or monitor the following as they apply to CONTROL ROOM ABANDONMENT :

K/A Statement:

Reactor pressure

Cog Level:

High

TIER: 1

GROUP: 1

10CFR:

41.7 / 45.6

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 24

Question No: ILT-7079 STA_Question RO Question SRO Question

A

Reference Provided:
EOP-6 R 28

Reference:
EOP-6 R 28

Explanation:

A is correct, one loop of RHR can be diverted to Containment Spray

B is incorrect, one loop of LPCI is needed for Core Cooling and should not be diverted to Containment Spray
C is incorrect, temperature is the issue not pressure.
D is incorrect, Shutdown Service Water could be lined up to spray the Containment but flow would be too low to be effective. The SX connection to RHR is with a 4" line.

System No:	KA No:	RO:	SRO:
295011	2.4.6	3.7	4.7

System/Evolution:

High Containment Temperature (Mark III Containment Only)

Category Statement:

Knowledge of EOP mitigation strategies

K/A Statement:

Cog Level:

High

TIER:	GROUP:
1	2

10CFR:

41.10 /43.5 /
45.13

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 25

Question No: ILT-5993 STA_Question RO Question SRO Question

A

The control rod pattern does not match the pattern restraints of the Rod Pattern Controller at high powers. The Rod Pattern
Controller uses Turbine First Stage Pressure to determine power with the Rod Pattern Controller bypassed above 16.7%.

Reference Provided:
None

Reference:
4410.00C012, Defeating ATWS Interlocks R 4

Explanation:

A is correct, the control rod pattern does not match the pattern restraints of the Rod Pattern Controller at high powers. The
Rod Pattern Controller uses Turbine First Stage Pressure to determine power with the Rod Pattern Controller bypassed above 16.7%.

B is incorrect, The Turbine First Stage Pressure trip setpoint is set at minimum.
C is incorrect, ATWS rod positions may not match rod pattern in RCIS.
D is incorrect, ATWS rod positions may not match rod pattern in RCIS.

System No:	KA No:	RO:	SRO:
295015	AK3.01	3.4	3.7

System/Evolution:

Incomplete SCRAM

Category Statement:

Knowledge of the reasons for the following responses as they apply to INCOMPLETE SCRAM :

K/A Statement:

Bypassing rod insertion blocks

Cog Level:

Memory

TIER:	GROUP:
1	2

10CFR:

41.5 / 45.6

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 26

Question No: ILT-7066 STA_Question RO Question SRO Question

C

Reference Provided:
None

Reference:
3007.01, Preparation and Recovery From Refueling

Explanation:

C. is correct, a backup pneumatic supply is installed for the gate seals during the preparation for refueling as a corrective
action for a pool draindown event caused by a loss of IA.

A. is incorrect, the only thing that will stop upward movement of the Main Hook is High Radiation.
B. is incorrect, the backup pneumatic supply will prevent this.
D. is incorrect, the FC filter demins will isolate but the bypass will open and prevent the pumps from tripping.

System No:	KA No:	RO:	SRO:
295019	K2.10	2.8	2.8

System/Evolution:

Partial or Complete Loss of Instrument Air

Category Statement:

Knowledge of the interrelations between PARTIAL OR COMPLETE LOSS OF INSTRUMENT AIR and the following:

K/A Statement:

Fuel pool cooling

Cog Level:

High

TIER:	GROUP:
1	1

10CFR:

41.7 / 45.8

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 27

Question No: ILT-1456 STA_Question RO Question SRO Question

C.

Reference Provided:
None

Reference:
4001.02 C001 Automatic isolation checklist. Rev. 14E

Explanation:

C. Correct. F009 will not close due to not having power but the F008 will shut and shutdown cooling will be lost and reactor coolant circulation will need to be verified by an alternate method.

A. Incorrect. Isolation signal is valid F009 valve does not have power since it is an MOV it fails as is.
B. Incorrect. Isolation signal is valid F009 valve does not have power since it is an MOV it fails as is.
D. Incorrect. Isolation signal is valid on high pressure the group three isolation will occur.

System No:	KA No:	RO:	SRO:
205000	A2.03	3.2	3.2

System/Evolution:

Shutdown Cooling System (RHR Shutdown Cooling Mode)

Category Statement:

Ability to (a) predict the impacts of the following on the SHUTDOWN COOLING SYSTEM (RHR SHUTDOWN COOLING MODE) ;
and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those abnormal conditions or
operations:

K/A Statement:

A.C. failure

Cog Level:

High

TIER:	GROUP:
2	1

10CFR:

41.5/45.6

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 28

Question No: ILT-7081 STA_Question RO Question SRO Question

C

Reference Provided:
None

Reference:
3302.01, Reactor Recirculation R 30

Explanation:

C is correct, Securing CRD injection to a RR pump which has been secured and isolated due to a seal leak will cause an
increase in drywell airborne activity as the loop depressurizes to atmosphere through the seal.

A is incorrect, Drywell floor drain flow will either increase or remain the same due to further degradation of the seal.
B is incorrect, seal temperatures will increase due to flow of hot water past the seals.
D is incorrect, loss of CRD injection will not effect the upper wear ring.

System No:	KA No:	RO:	SRO:
295022	AK2.01	2.8	3

System/Evolution:

Loss of CRD Pumps

Category Statement:

Knowledge of the interrelations between LOSS OF CRD PUMPS and the following:

K/A Statement:

Recirculation system: Plant-Specific

Cog Level:

High

TIER:	GROUP:
2	1

10CFR:

41.7 / 45.8

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 29

Question No: ILT-6345 STA_Question RO Question SRO Question

C.

Reference Provided:
None

Reference:
EOP-8 Secondary Containment Control Bases R 5

Explanation:

C. Correct - Fuel Bldg Ventilation trips on a high rad condition of 10 mr/hr. SGTS starts to maintain Secondary Containment
Integrity but does not provide the same capacity as the Fuel Bldg Ventilation, so area temperatures could rise.

A. Incorrect - containment integrity is not jeopardized solely by FB radiation level.
B. Incorrect - Secondary Containment integrity will not be affected solely by FB radiation level.
D. Incorrect - since VG starts, ground level release may actually lower.

System No:	KA No:	RO:	SRO:
295034	EK1.02	4.1	4.4

System/Evolution:

Secondary Containment Ventilation High Radiation

Category Statement:

Knowledge of the operational implications of the following concepts as they apply to SECONDARY CONTAINMENT VENTILATION HIGH RADIATION :

K/A Statement:

Radiation releases

Cog Level:

High

TIER:	GROUP:
1	2

10CFR:

41.8 to 41.10

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 30

Question No: ILT-1309 STA_Question RO Question SRO Question

D

Reference Provided:
None

Reference:
M05-1078 Sheet 2 Rev J

Explanation:

D is correct, with the flow controller in manual the flow control valve will not respond to a high flow and total system flow can exceed pump runout flow.

A is incorrect, with the flow controller in manual the flow control valve will not respond to a high flow
B is incorrect, with the flow controller in manual the flow control valve will not respond to a high flow
C is incorrect, with the flow controller in manual the flow control valve will not respond to a high flow and this will result in
more cooling water flow than there should be for the conditions.

System No:	KA No:	RO:	SRO:
201001	A1.03	2.9	2.8

System/Evolution:

Control Rod Drive Hydraulic System

Category Statement:

Ability to predict and/or monitor changes in parameters associated with operating the CONTROL ROD DRIVE HYDRAULIC
SYSTEM controls including:

K/A Statement:

CRD system flow

Cog Level:

High

TIER:	GROUP:
2	2

10CFR:

41.5 / 45.5

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 31

Question No: ILT-4822 STA_Question RO Question SRO Question

A.

Reference Provided:
NONE

Reference:
3313.01E001 Low Pressure Core Spray Electrical Line Up

Explanation:

A. Correct - powered AB MCC 1A3.
B. Incorrect - powered DC MCC 1A.
C. Incorrect - powered 1E22-S002.
D. Incorrect - powered AB MCC 1B2.

System No:	KA No:	RO:	SRO:
209001	K2.02	2.5	2.7

System/Evolution:

Low Pressure Core Spray System

Category Statement:

Knowledge of electrical power supplies to the following:

K/A Statement:

Valve power

Cog Level:

Memory

TIER:	GROUP:
2	1

10CFR:

41.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 32

Question No: ILT-7082 STA_Question RO Question SRO Question

A

Reference Provided:
None

Reference:
CPS No. 4100.01, Reactor Scram R 19c

Explanation:

A is correct, Per CPS 3304.02, Step 8.2.11

B is incorrect, Used to display either one or both channels of the display (not available at this time).
C is incorrect, Cannot be determined until scram is reset.
D is incorrect, Can be determined using ID generator.

System No:	KA No:	RO:	SRO:
201005	A4.03	3.4	3.3

System/Evolution:

Rod Control and Information System (RCIS)

Category Statement:

Ability to manually operate and/or monitor in the control room:

K/A Statement:

Back panel indicating lights: BWR-6

Cog Level:

High

TIER:	GROUP:
2	2

10CFR:

41.7 / 45.5 to
45.8

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 33

Question No: ILT-7083 STA_Question RO Question SRO Question

D

Reference Provided:
None

Reference:
9041.01, Jet Pump Operability R 34b

Explanation:

D is correct - "A" loop flow will remain unchanged, "B" loop flow will remain unchanged and core flow will decrease 5 percent.

A is incorrect - Each recirculation pump suction line elbow is a specially designed flow element. Instrument taps on the flow elements provide input to differential pressure transmitters, which, in turn provide recirculation loop flow information there for "A" and "B" loop flow will remain unchanged. Core flow is the summation of all (20) Jet pump flows, so core flow will decrease by only 5 percent.

B is incorrect - Each recirculation pump suction line elbow is a specially designed flow element. Instrument taps on the flow elements provide input to differential pressure transmitters, which, in turn provide recirculation loop flow information there for "A" and "B" loop flow will remain unchanged. Core flow is the summation of all (20) Jet pump flows, so core flow will decrease by only 5 percent.

C is incorrect - Each recirculation pump suction line elbow is a specially designed flow element. Instrument taps on the flow elements provide input to differential pressure transmitters, which, in turn provide recirculation loop flow information there for "A" and "B" loop flow will remain unchanged. Core flow is the summation of all (20) Jet pump flows, so core flow will decrease by only 5 percent.

System No:	KA No:	RO:	SRO:
216000	G2.1.45	4.3	4.3

System/Evolution:

Nuclear Boiler Instrumentation

Category Statement:

Ability to identify and interpret diverse indications to validate the response of another indication.

K/A Statement:

Cog Level:

High

TIER: 2

GROUP: 2

10CFR:

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 33

41.7 / 43.5 / 45.4

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 34

Question No: ILT-7084 STA_Question RO Question SRO Question

A

Reference Provided:
None

Reference:
3312.01, RHR R 38a

Explanation:

A is correct, the equalizing valve opening will cause the flow transmitters to see a low D/P and low flow. The Pump minimum flow valve opens with flow less than 1100 gpm. This will direct some flow back to the suppression pool bypassing the heat exchanger while total system flow remains the same due to a restricting orifice.

B is incorrect, total flow will remain the same.
C is incorrect, total flow will remain the same.
D is incorrect, flow through the min flow valve will bypass the heat exchanger.

System No:	KA No:	RO:	SRO:
219000	K4.05	3	3.2

System/Evolution:

RHR/LPCI: Torus/Suppression Pool Cooling Mode

Category Statement:

Knowledge of RHR/LPCI: TORUS/SUPPRESSION POOL COOLING MODE design feature(s) and/or interlocks which provide for the following:

K/A Statement:

Pump minimum flow protection

Cog Level:

High

TIER:	GROUP:
2	2

10CFR:

41.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 35

Question No: ILT-7085 STA_Question RO Question SRO Question

d.

Reference Provided:
None

Reference:
3408.01, VR/VQ R 16f

Explanation:

D. Correct - There are two Pressure Control Modulating Dampers, damper 1VR03Y on the CBV supply piping, and damper
1VR04Y on the CCP supply piping. Note that for CCP, 1VR04Y is actually inside Containment, downstream of the Secondary Cooling Coil.

A. Incorrect - VR must be isolated during power operation.
B. Incorrect - VR must be isolated during power operation.
C. Incorrect - Supply air to containment.

System No:	KA No:	RO:	SRO:
223001	K5.08	2.7	2.8

System/Evolution:

Primary Containment System and Auxiliaries

Category Statement:

Knowledge of the operational implications of the following concepts as they apply to PRIMARY CONTAINMENT SYSTEM
AND AUXILIARIES :

K/A Statement:

Pressure measurement

Cog Level:

Memory

TIER:	GROUP:
2	2

10CFR:

41.5 / 45.3

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 36

Question No: ILT-7086 STA_Question RO Question SRO Question

C

Reference Provided:
None

Reference:
3302.01E001, Reactor Recirculation Electrical Lineup R

Explanation:

C is correct, the fast speed power supply to the 1A Recirc Pump is 6.9 KV bus 1A

A is incorrect, the power supply to the MDRFP is 6.9 KV bus 1B.
B is incorrect, the power supply to the #1 Service Air Compressor is 4.16 KV bus 1B.
D is incorrect, the power supply to the "A" Drywell Chiller is 4.16 KV bus 1A1.

6.9KV loads

1A	1B
CW A	CW B
CW C	MDRFP
RR A	RR B

System No:	KA No:	RO:	SRO:
202001	K2.01	3.2	3.2

System/Evolution:

Recirculation System

Category Statement:

Knowledge of electrical power supplies to the following:

K/A Statement:

Recirculation pumps: Plant-Specific

Cog Level:

Memory

TIER: GROUP:

2 2

10CFR:

41.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 37

Question No: ILT-7087 STA_Question RO Question SRO Question

C

Reference Provided:
None

Reference:
3800.02, Area Operator Logs R 18f

Explanation:

C is correct, the SSE can be fed directly from Main Steam which taps into the same line as the extraction steam. A failure of the Non-return valves would allow main steam to be backfeed through the extraction line to the Main Turbine and would cause an overspeed.

A is incorrect, the SSE produces ~80 psig steam which is lower than the High Pressure Feedwater Heaters.
B is incorrect, the MOV stroke times are too long to prevent a turbine overspeed.
D is incorrect, the drain lines are provided to remove moisture from the extraction steam lines during startup.

System No:	KA No:	RO:	SRO:
239001	K1.10	2.7	2.8

System/Evolution:

Main and Reheat Steam System

Category Statement:

Knowledge of the physical connections and/or cause effect relationships between MAIN AND REHEAT STEAM SYSTEM and the following:

K/A Statement:

Extraction steam system

Cog Level:

Memory

TIER:	GROUP:
2	2

10CFR:

41.2 to 41.9 /
45.7 to 45.8

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 38

Question No: ILT-7089 STA_Question RO Question SRO Question

B

Reference Provided:
None

Reference:
5002.04 4F R 33a

Explanation:

B is correct, only the low suction pressure will alarm and the operator then needs to start an additional Condensate pump.

A is incorrect, starting an additional Condensate pump will restore suction pressure and a reactor scram is not required.
C is incorrect, The B TDRFP low suction pressure trip has a 6 second time delay. the A TDRFP low suction pressure trip
has a 12 second time delay. The B would trip first restoring suction pressure to prevent the A from tripping.
D is incorrect, for the MDRFP to Auto start both TDRFPs must trip

System No:	KA No:	RO:	SRO:
256000	A2.03	2.8	2.9

System/Evolution:

Reactor Condensate System

Category Statement:

Ability to (a) predict the impacts of the following on the REACTOR CONDENSATE SYSTEM; and (b) based on those predictions, use procedures to correct, control, or
mitigate the consequences of those abnormal conditions or operations:

K/A Statement:

Valve openings

Cog Level:

High

TIER: GROUP:

2 2

10CFR:

41.5 / 45.6

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 39

Question No: ILT-0658 STA_Question RO Question SRO Question

a.

Reference Provided:
None

Reference:
5002.01 1Q R 31e

Explanation:

A. Correct - The Level 8 TDRFP trip is a 2 out of 3 logic. With A and C channels failed high, the trip logic is complete. The
TDRFPs trip.

B. Incorrect - MDRFP has 2 of 3 logic also and will not start.
C. Incorrect - B channel is selected for the input to FWLC. The transmitters are also used for the High RPV level trip logic
and are 2 out of 3 so the TDRFPs trip.
D. Incorrect - See "a.". There is no shift to MANUAL on the flow controllers.

System No:	KA No:	RO:	SRO:
259001	K6.07	3.8	3.8

System/Evolution:

Reactor Feedwater System

Category Statement:

Knowledge of the effect that a loss or malfunction of the following will have on the REACTOR FEEDWATER SYSTEM :

K/A Statement:

Reactor water level control system .

Cog Level:

High

TIER:	GROUP:
2	2

10CFR:

41.7 / 45.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 40

Question No: ILT-7102 STA_Question RO Question SRO Question

B

Reference Provided:
None

Reference:
5050.07 7M R 32b

Explanation:

B Correct - Per CPS 5140.64, pages 2 and 3. The 'ladder logic' for this system is: A or D, with B or C. Of the several 'failure' types presented in these 4 choices, the only one that does not input to the isolation logic is the 'Comm Fail' type. The
High Rad signal shifts VC to the High Rad mode which places the Supply and Makeup Air Filter Package in service.

A Incorrect - will shift to the High Rad mode.
C Incorrect - will shift to the High Rad mode.
D Incorrect - will shift to the High Rad mode.

System No:	KA No:	RO:	SRO:
272000	K3.10	2.9	3.3

System/Evolution:

Radiation Monitoring System

Category Statement:

Knowledge of the effect that a loss or malfunction of the RADIATION MONITORING System will have on following:

K/A Statement:

Control room ventilation: Plant-Specific

Cog Level:

Memory

TIER:	GROUP:
2	2

10CFR:

41.5 / 45.3

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 41

Question No: ILT-7090 STA_Question RO Question SRO Question

B

Reference Provided:
None

Reference:
3213.01 Fire Detection and Protection R 25d

Explanation:

B is correct, with no system leakage the Jockey pump will run ~45 seconds every 2-3 hours to maintain system pressure.

A is incorrect, if system leakage is higher than normal the jockey pump is placed in "Hand" and run continuous to maintain
system pressure.
C is incorrect, the horizontal fire pump backs up the Diesel fire pumps as a source of system flow
D is incorrect, the Diesel fire pumps only run when system flow is required.

System No:	KA No:	RO:	SRO:
286000	A1.01	2.9	2.9

System/Evolution:

Fire Protection System

Category Statement:

Ability to predict and/or monitor changes in parameters associated with operating the FIRE PROTECTION SYSTEM controls including:

K/A Statement:

System pressure

Cog Level:

Memory

TIER:	GROUP:
2	2

10CFR:

41.5 / 45.5

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 42

Question No: ILT-7091 STA_Question RO Question SRO Question

B

Reference Provided:
None

Reference:
3402.01, Control Room HVAC R 25c

Explanation:

B is correct, Smoke opens the filter inlet and outlet and closes the bypass

A is incorrect, the filter is isolated
C is incorrect, the bypass is open
D is incorrect, the deluge valves are open to extinguish a fire in the filter

System No:	KA No:	RO:	SRO:
290003	A3.01	3.3	3.5

System/Evolution:

Control Room HVAC

Category Statement:

Ability to monitor automatic operations of the CONTROL ROOM HVAC including:

K/A Statement:

Initiation/reconfiguration

Cog Level:

High

TIER:	GROUP:
2	2

10CFR:

41.7 / 45.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 43

Question No: ILT-7092 STA_Question RO Question SRO Question

A.

Reference Provided:
None

Reference:
EOP-1

Explanation:

A. Correct. Use the condensate and condensate booster systems to inject to recover level preferred injection system.

B. Incorrect. Steam cooling is only used during an ATWS.
C. Incorrect. Core cooling is assured through submergence emergency depressurization with out attempting to use condensate and booster systems is not allowed.
D. Incorrect. ADS should not be inhibited until the ADS timer starts which is level one (-145.5").

System No:	KA No:	RO:	SRO:
209002	K3.03	3.9	4.1

System/Evolution:

High Pressure Core Spray System

Category Statement:

Knowledge of the effect that a loss or malfunction of the HIGH PRESSURE CORE SPRAY SYSTEM (HPCS) will have on following:

K/A Statement:

Adequate core cooling: BWR-5,6

Cog Level:

High

TIER:	GROUP:
2	1

10CFR:

41.7, 45.4

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 44

Question No: ILT-7101 STA_Question RO Question SRO Question

A.

Reference Provided:
Figures of SC A and B indications

Reference:
CPS 3314.01, Rev. 11b, Standby Liquid Control (SC)

Explanation:

A. is correct, Both SLC pumps are running. Squib valve B is open (indicated by squib B continuity light OFF) and squib valve A is closed (continuity light is ON). Therefore, flow from the both SLC pump are through squib valve B into the reactor vessel.

B is incorrect, Both of the SLC pump is running.
C is incorrect, The squib valve A continuity light is ON, the squib has NOT fired and the valve is NOT open.
D is incorrect, The SLC pumps are running.

System No:	KA No:	RO:	SRO:
211000	K4.04	3.8	3.8

System/Evolution:

Standby Liquid Control System

Category Statement:

Knowledge of STANDBY LIQUID CONTROL SYSTEM design feature(s) and/or interlocks which provide for the following:

K/A Statement:

Indication of fault in explosive valve firing circuits

Cog Level:

High

TIER:	GROUP:
2	1

10CFR:

55.41(b)(7)

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 45

Question No: ILT-7093 STA_Question RO Question SRO Question

A

Reference Provided:
None

Reference:
OP-AA-300, Reactivity Management R 4

Explanation:

A is correct. Per Section 4.2.11.1.B of OP-AB-300-1003, the Reactor Engineer must be present in the MCR at this time. Per
OP-AA-300, Section 4.5, although it is 'acceptable to utilize another SRO to perform the reactivity management function' it is
not required. The on-shift CRS may act to perform this function.

B is incorrect, see A
C is incorrect, see A
D is incorrect, see A

System No:	KA No:	RO:	SRO:
Generic	2.1.01	3.8	4.2

System/Evolution:

Category Statement:

Knowledge of conduct of operations requirements.

K/A Statement:

Cog Level:

Memory

TIER: GROUP:

3

10CFR:

41.10 / 45.13

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 46

Question No: ILT-7094 STA_Question RO Question SRO Question

D

Reference Provided:
None

Reference:
OP-AA-103-105, Limitorque Motor-Operated Valve

Explanation:

D is correct; Passport contains locations of plant equipment and the valve must be manually unseated after it has been manually seated.

A is incorrect, system procedure valve lineups do not include motor operated valve's physical location and it must be manually unseated.
B is incorrect, the valve must be manually unseated
C is incorrect, system procedure valve lineups do not include motor operated valve's physical locations

System No:	KA No:	RO:	SRO:
Generic	2.1.30	4.4	4

System/Evolution:

Category Statement:

Ability to locate and operate components, including local controls.

K/A Statement:

Cog Level:

Memory

TIER: GROUP:

3

10CFR:

41.7 / 45.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 47

Question No: ILT-7095 STA_Question RO Question SRO Question

B

Reference Provided:
None

Reference:
CPS Operational Requirements Manual Bases 5.3.1 R 64

Explanation:

B is correct, the higher Coolant temperatures and deairation of the Condensate in Mode 1 reduce oxygen concentration and
the effect of chloride is not as great with low oxygen. Therefore the upper limit on Chloride is allowed to be higher in Mode
1.

A is incorrect, oxygen is lower.
C is incorrect, the Chloride limit is higher.
D is incorrect oxygen is lower and the Chloride limit is higher.

System No:	KA No:	RO:	SRO:
Generic	2.1.34	2.7	3.5

System/Evolution:

Category Statement:

Knowledge of primary and secondary plant chemistry limits.

K/A Statement:

Cog Level:

Memory

TIER: GROUP:

3

10CFR:

41.10 / 43.5 /
45.12

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 48

Question No: ILT-0201 STA_Question RO Question SRO Question

B

Reference Provided:
None

Reference:
CPS Tech Specs Definitions

Explanation:

B. Correct - Capable of performing its specified safety function with its support systems capable of performing their required support functions.

A. Incorrect - This is the definition of a Safety Limit.
C. Incorrect - It is required to have all of its support systems capable of performing their required support functions.
D. Incorrect - This is the definition of a Surveillance.

System No:	KA No:	RO:	SRO:
Generic	2.2.38	3.6	4.5

System/Evolution:

Category Statement:

Knowledge of conditions and limitations in the facility license.

K/A Statement:

Cog Level:

Memory

TIER: GROUP:

3

10CFR:

41.7 / 41.10 /
43.1 / 45.13

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 49

Question No: ILT-6698 STA_Question RO Question SRO Question

B

Reference Provided:
None

Reference:
1406.01 ANNUNCIATOR TRACKING PROGRAM R 14c

Explanation:

B - Correct - IAW CPS 1406.01 ANNUNCIATOR TRACKING PROGRAM, an orange flag is used on a Partially disabled annunciator.

A - Incorrect - Blue is out of service.
C - Incorrect - Red is a fully disabled annunciator.
D - Incorrect - Any color except red, blue and orange is allowed to be used for this.

System No:	KA No:	RO:	SRO:
Generic	2.2.43	3	3.3

System/Evolution:

Category Statement:

Knowledge of the process used to track inoperable alarms.

K/A Statement:

Cog Level:

Memory

TIER:

3

GROUP:

10CFR:

41.10 / 43.5 /
45.13

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 50

Question No: ILT-7096 STA_Question RO Question SRO Question

C.

Reference Provided:
None

Reference:
3305.01 Reactor protective system Revision 11 B

Explanation:

C. Correct these indications are available on P-680, using sensor bypass will clear the upscale alarms on P-680.

A. Incorrect. APRM upscales do NOT cause a half scram our logic is two of four for sensor logic and there is no half scram
B. Incorrect. APRM upscales do NOT cause a half scram our logic is two of four for sensor logic and there is no half scram.
D. Incorrect. Bypassing LPRMS will not clear the alarms.

System No:	KA No:	RO:	SRO:
215005	K4.01	3.7	3.7

System/Evolution:

Average Power Range Monitor/Local Power Range Monitor System

Category Statement:

Knowledge of AVERAGE POWER RANGE MONITOR/LOCAL POWER RANGE MONITOR SYSTEM design feature(s) and/or
interlocks which provide for the following:

K/A Statement:

Rod withdrawal blocks

Cog Level:

High

TIER:	GROUP:
2	1

10CFR:

CFR: 41.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 51

Question No: ILT-1150 STA_Question RO Question SRO Question

C.

Reference Provided:
NONE

Reference:
CPS 3306.01 Source-Intermediate range monitors

Explanation:

C. Correct - If not bypassed could not withdraw rods to startup.

A. Incorrect - Still a rod block on Range 1.
B. Incorrect - Still a rod block on Range 1.
D. Incorrect - Still a rod block on Range 1.

System No:	KA No:	RO:	SRO:
215003	K5.01	2.6	2.7

System/Evolution:

Intermediate Range Monitor (IRM) System

Category Statement:

Knowledge of the operational implications of the following concepts as they apply to INTERMEDIATE RANGE MONITOR
(IRM) SYSTEM :

K/A Statement:

Detector operation

Cog Level:

Memory

TIER:	GROUP:
2	1

10CFR:

41.5/45.3

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 52

Question No: ILT-5314 STA_Question RO Question SRO Question

B. High voltage power supplies

Reference Provided:
None

Reference:
CPS 3306.01 E001 SRM-IRM ELECTRICAL LINEUP

Explanation:

B. Correct.

A. Incorrect, powered from CB MCC 1C
C. Incorrect, powered from AB MCC 1F
D. Incorrect, powered from CB MCC D

System No:	KA No:	RO:	SRO:
215004	K2.01	2.6	2.8

System/Evolution:

Source Range Monitor (SRM) System

Category Statement:

Knowledge of electrical power supplies to the following:

K/A Statement:

SRM channels/detectors

Cog Level:

Memory

TIER:	GROUP:
2	1

10CFR:

41.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 53

Question No: ILT-7142 STA_Question RO Question SRO Question

B.

Reference Provided:
None

Reference:
CPS 4100.01

Explanation:

B. is correct, a scram is required the scram setpoint in S/U is 15%.

A. is incorrect, lowering recirc flow control valve position in slow speed has little effect and a scram is required.
C. is incorrect, inserting control rods will clear the rod block however a scram is required.
D. is incorrect, this will clear a rod block however is NOT allowed reactor power is too high and a scram is required.

System No:	KA No:	RO:	SRO:
212000	A2.06	4.1	4.2

System/Evolution:

Reactor Protection System

Category Statement:

Ability to (a) predict the impacts of the following on he REACTOR PROTECTION SYSTEM ; and (b) based on those predictions,
use procedures to correct, control, or mitigate the consequences of those abnormal conditions or operations:

K/A Statement:

High reactor power

Cog Level:

High

TIER: GROUP:

2 1

10CFR:

41.5/45.6

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 54

Question No: ILT-6859 STA_Question RO Question SRO Question

B

Reference Provided:
NONE

Reference:
CPS 4009.01 Inadvertent opening safety relief valve

Explanation:

B is correct, 4009.01 lists the tailpipe temperature of on open SRV as > 375°F

A is incorrect, 5066-5B, ADS ORSAFETY RELIEFVALVE LEAKING ADS, HEAD VENT, or SRV leaking (typically 230°F to
270°F)
C is incorrect, 420°F is too high.
D is incorrect, 450°F is normal operating temperature.

System No:	KA No:	RO:	SRO:
218000	A3.02	3.6	3.7

System/Evolution:

Automatic Depressurization System

Category Statement:

Ability to monitor automatic operations of the AUTOMATIC DEPRESSURIZATION SYSTEM including:

K/A Statement:

ADS valve tail pipe temperatures

Cog Level:

Memory

TIER:	GROUP:
2	1

10CFR:

41.7/45.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 55

Question No: ILT-7103 STA_Question RO Question SRO Question

B

Reference Provided:
None

Reference:
CPS 5063-2E, Rev. 31a, RCIC Storage Tank Level Low

Explanation:

B is correct, RCIC suction transfers from RCIC Storage Tank to the RCIC Storage Tank low level.

RCIC is normally aligned to take suction on the Storage Tank through the 1E51-F010 valve and will automatically transfer
suction to the Suppression Pool through the 1E51-F031 valve on high Suppression Pool level, 19' 11.5", or low Storage Tank
level, 3' 2.25".

A is incorrect - The suction transfer is designed to prevent a loss of suction which could cause an overspeed trip.
C is incorrect - HPCS injection valve automatically cycles to maintain RPV water level between L-2 and L-8.
D is incorrect - HPCS minflow will already be open.

System No:	KA No:	RO:	SRO:
217000	A3.01	3.5	3.5

System/Evolution:

Reactor Core Isolation Cooling System (RCIC)

Category Statement:

Ability to monitor automatic operations of the REACTOR CORE ISOLATION COOLING SYSTEM (RCIC) including:

K/A Statement:

Valve operations

Cog Level:

High

TIER:	GROUP:
2	1

10CFR:

41.7/45.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 56

Question No: ILT-7105 STA_Question RO Question SRO Question

A.

Reference Provided:
None.

Reference:
3306.01 Source-intermediate range monitors (SRM-IRM)

Explanation:

A. Correct, with the shorting links removed and an upscale alarm will cause a full reactor scram and a Rod Block.

B. Incorrect, the upscale will also cause a rod block.
C. Incorrect, with the shorting links removed any neutron monitoring upscale will cause a full scram.
D. Incorrect, with the shorting links removed any neutron monitoring upscale will cause a full scram.

System No:	KA No:	RO:	SRO:
215004	K6.04	2.9	2.9

System/Evolution:

Source Range Monitor (SRM) System

Category Statement:

Knowledge of the effect that a loss or malfunction of the following will have on the SOURCE RANGE MONITOR (SRH) SYSTEM :

K/A Statement:

Detectors

Cog Level:

Memory

TIER:	GROUP:
2	1

10CFR:

41.7/45.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 57

Question No: ILT-1000 STA_Question RO Question SRO Question

A

Reference Provided:
None *This question was on the 06-01NRC exam*

Reference:
CPS 5005.01 1J APRM D UPSC Trip or INOP R 29b

Explanation:

A is correct, channel A is tripped when de-energized. Channel "D" was tripped by the LPRM Count Circuit when LPRMs
total went below 16, with 18 bypassed.

B is incorrect, the reactor automatically scrams immediately but if it did not scram a Rod Block would be initiated.

C is incorrect, the reactor automatically scrams immediately due to the inop APRMs.

D is incorrect, the reactor automatically scrams immediately due to the inop APRMs.

System No:	KA No:	RO:	SRO:
212000	K6.05	3.5	3.8

System/Evolution:

Reactor Protection System

Category Statement:

Knowledge of the effect that a loss or malfunction of the following will have on the REACTOR PROTECTION SYSTEM :

K/A Statement:

RPS sensor inputs

Cog Level:

High

TIER: GROUP:

2 1

10CFR:

CFR: 41.7 / 45.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 58

Question No: ILT-7106 STA_Question RO Question SRO Question

A

Reference Provided:
None

Reference:
HU-AA-101, Rev. 3, Human Performance Tools and

Explanation:

A is correct, a Danger tag to be hung on the 1G33-F043A, RT Pump A suction isolation valve, handwheel.
The Shift Manager may waive verification requirements for ALARA concerns.

b, c, and d are incorrect - The components in these choices are in areas where radiation levels are not a factor. The candidate must understand that these components are in very low, or no, radiation areas and independent verification would not be waived.

System No:	KA No:	RO:	SRO:
Generic	2.3.12	3.2	3.7

System/Evolution:

Generic

Category Statement:

Knowledge of radiological safety principles pertaining to licensed operator duties, such as containment entry requirements, fuel handling responsibilities, access to locked high-radiation areas, aligning filters, etc.

K/A Statement:

Cog Level:

High

TIER: GROUP:

3

10CFR:

41.12 / 45.9 /
45.10

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 59

Question No: ILT-4847 STA_Question RO Question SRO Question

D.

Reference Provided:
None

Reference:
3312.03, RHR R 6

Explanation:

D. Correct - RHR A requires local valve operation which will result in radiation exposure to operators. RHR B uses two MOVs to control rejection.

A. Incorrect - B is preferred
B. Incorrect - B is preferred
C. Incorrect - Plugged tubes are not a factor

System No:	KA No:	RO:	SRO:
GENERIC	2.3.14	3.4	3.8

System/Evolution:

Radiation Control

Category Statement:

Knowledge of radiation or contamination hazards that may arise during normal, abnormal, or emergency conditions or activities.

K/A Statement:

Cog Level:

Memory

TIER: GROUP:

3

10CFR:

CFR: 41.12 /
43.4 / 45.10

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 60

Question No: ILT-7135 STA_Question RO Question SRO Question

B

Reference Provided:
NONE

Reference:
4001.02C001 R 14e

Explanation:

B. Correct – Per CPS 4001.02C001, page 8, this is a Group 8 valve. Div 1 NSPS services the Load Driver for the Inboard
valves. A ZERO input to the Load Driver produces an energized function to close the Inboard valves.

A. Incorrect – These Inboard valves would close if the malfunction were to occur in Div 2 NSPS.
C. Incorrect – This is a Group 4 valve.
D. Incorrect – This is a Group 9 valve.

System No:	KA No:	RO:	SRO:
223002	K6.01	3.1	3.3

System/Evolution:

Primary Containment Isolation System/Nuclear Steam Supply Shut-Off

Category Statement:

Knowledge of the effect that a loss or malfunction of the following will have on the PRIMARY CONTAINMENT ISOLATION
SYSTEM/NUCLEAR STEAM SUPPLY SHUT-OFF :

K/A Statement:

A.C. electrical distribution

Cog Level:

High

TIER:	GROUP:
2	1

10CFR:

41.7/45.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 61

Question No: ILT-7148 STA_Question RO Question SRO Question

A.

Reference Provided:
None

Reference:
4005.01 Loss of feedwater heating. Revision 017

Explanation:

A. Correct. Reactor power rises and stays higher due to loss of feedwater heating

B. Incorrect. Reactor water level swells and is then returned to its setpoint by Feedwater level control.
C. Incorrect. Reactor water level swells not lowers and is returned to its setpoint by Feedwater level control.
D. Incorrect. MW electrical lowers and will remain less than it was due to steam bypassing the turbine.

System No:	KA No:	RO:	SRO:
239002	A1.06	3.7	3.8

System/Evolution:

Relief/Safety Valves

Category Statement:

Ability to predict and/or monitor changes in parameters associated with operating the RELIEF/SAFETY VALVES controls including:

K/A Statement:

Reactor power

Cog Level:

High

TIER:	GROUP:
2	1

10CFR:

41.7/45.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 62

Question No: ILT-7109 STA_Question RO Question SRO Question

C. CPS No. 5002.03, Page 1 calls for reducing turbine speed until alarm clears. Performed this way to allow "B" RFP to remain on the Master Controller.

Reference Provided:
NONE

Reference:
CPS No. 5002.03, Page 1 calls for reducing turbine

Explanation:

C. Correct. CPS No. 5002.03, Page 1 calls for reducing turbine speed until alarm clears. Performed this way to allow "B" RFP to remain on the Master Controller.

A. Incorrect. This is not required one TRFP can support 65% Rx power.
B. Incorrect. This will hinder the actions and cause more load on the TDRFP not less.
D. Incorrect. This will due nothing to the FWLC system unless the start up level controller is active and this turbine is to be
slowed down.

System No:	KA No:	RO:	SRO:
259002	K5.01	3.1	3.1

System/Evolution:

Reactor Water Level Control System

Category Statement:

Knowledge of the operational implications of the following concepts as they apply to REACTOR WATER LEVEL CONTROL SYSTEM :

K/A Statement:

GEMAC/Foxboro/Bailey controller operation: Plant-Specific

Cog Level:

High

TIER:	GROUP:
2	1

10CFR:

41.5/43.5

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 63

Question No: ILT-4874 STA_Question RO Question SRO Question

A.

Reference Provided:
NONE

Reference:
3319.01 Standby Gas Treatment (VG) Revision 16

Explanation:

A Correct. 1VF09Y shuts as Fuel Building Vents ISOLATE, the AXM 0RIX-PR008 is RUNNING.

B Incorrect. AXM 0RIX-PR008 is RUNNING.
C Incorrect. 1VF09Y shuts.
D Incorrect. 1VF09Y shuts, AXM 0RIX-PR008 is RUNNING..

System No:	KA No:	RO:	SRO:
261000	A4.01	3.2	4

System/Evolution:

Standby Gas Treatment System

Category Statement:

Ability to manually operate and/or monitor in the control room:

K/A Statement:

Off-site release levels: Plant-Specific

Cog Level:

Memory

TIER:	GROUP:
2	1

10CFR:

41.7/45.5

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 64

Question No: ILT-3420 STA_Question RO Question SRO Question

C.

Reference Provided:
NONE

Reference:
3501.10 High Voltage auxiliary power system Revision 26

Explanation:

C. Correct. Loads auto transfer to the ERAT, load shed does not occur, EDGs do not start unless ERAT does not pick up the
bus.

A. Incorrect. no load shed occurs only on LOCA signal, EDGs do not start.
B Incorrect. no load shed occurs only on LOCA signal.
D Incorrect. no transfer to the UAT, EDGs do not start since ERAT is available.

System No:	KA No:	RO:	SRO:
262001	K4.06	3.6	3.9

System/Evolution:

A.C. Electrical Distribution

Category Statement:

Knowledge of A.C. ELECTRICAL DISTRIBUTION design feature(s) and/or interlocks which provide for the following:

K/A Statement:

Redundant power sources to vital buses

Cog Level:

High

TIER:	GROUP:
2	1

10CFR:

41.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 65

Question No: ILT-0994 STA_Question RO Question SRO Question

A

Reference Provided:
None

Reference:
3105.01, Turbine R35a

Explanation:

A. Correct - Since the Main Turbine is < 75% the PMG is not in control. The Loss Of EHC 125 VDC power would result in a
turbine trip.

B. Incorrect - turbine control valves fast close.
C. Incorrect - the turbine trips.
D. Incorrect - the turbine trips.

System No:	KA No:	RO:	SRO:
262002	K3.15	2.6	2.7

System/Evolution:

Uninterruptable Power Supply (A.C./D.C.)

Category Statement:

Knowledge of the effect that a loss or malfunction of the UNINTERRUPTABLE POWER SUPPLY (A.C./D.C.) will have on
following:

K/A Statement:

Main turbine operation: Plant-Specific

Cog Level:

Memory

TIER: GROUP:

2 1

10CFR:

CFR: 41.7 / 45.4

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 66

Question No: ILT-4877 STA_Question RO Question SRO Question

D

Reference Provided: Reference:

4979.01, Abnormal Release of Airborne Radioactivity

R10a

Explanation:

D is correct, 0RIX-PR012 is in operation, enter Abnormal Release of Airborne Radioactivity. RED Tile implies HIGH Alarm.
0RIX-PR001 in High Alarm starts 0RIX-PR012.

A is incorrect, 0RIX-PR012 is in operation, enter Abnormal Release of Airborne Radioactivity.
B is incorrect, 0RIX-PR012 is in operation.
C is incorrect, enter Abnormal Release of Airborne Radioactivity.

System No:	KA No:	RO:	SRO:
Generic	2.3.15	2.9	3.1

System/Evolution:

Category Statement:

Knowledge of radiation monitoring systems, such as fixed radiation monitors and alarms, portable survey instruments, personnel monitoring equipment, etc.

K/A Statement:

Cog Level:

High

TIER: GROUP:

3

10CFR:

CFR: 41.12 /
43.4 / 45.9

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 67

Question No: ILT-6491 STA_Question RO Question SRO Question

D

Reference Provided:
EOPs without entry conditions.

Reference:
EOP Technical Bases

Explanation:

Answer: D Explanation: The conditions put operation in the unsafe region of the SRV tailpipe limit (Fig. Q). Since unsuccessful attempts have been made to control Supp Pool level and reactor water level is stable and Press can not be lowered then a blowdown is required. The SRV Tail Pipe Level Limit is a function of RPV pressure. SRV operation with suppression pool water level above the SRV Tail Pipe Level Limit could damage the SRV discharge lines. This, in turn, could lead to containment failure from direct pressurization and damage to equipment inside the containment from pipe-whip and jet-impingement loads.

Distracters:

A is incorrect because operation is still in the safe region of the Heat Capacity Limit graph.
B is incorrect because a large margin exists to the drywell design temperature 330ºF design vs. 185ºF actual.
C is incorrect because a large margin exists to the containment design temperature 185ºF design vs. 155ºF actual.

System No:	KA No:	RO:	SRO:
Generic	2.4.18	3.3	4

System/Evolution:

Category Statement:

Knowledge of the specific bases for EOPs

K/A Statement:

Cog Level:

High

TIER: GROUP:

10CFR:

41.10 / 43.1 /
45.13

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 68

Question No: ILT-2133 STA_Question RO Question SRO Question

B

Reference Provided:
None

Reference:
EP-AA-1000 R 19

Explanation:

B is correct, the Station Emergency Director would have command authority from the TSC

A is incorrect, the Shift Manager would have command authority from the Main Control Room
C is incorrect, the TSC Director reports to the Station Emergency Director
D is incorrect, the Corporate Emergency Director would have command authority from the EOF

System No:	KA No:	RO:	SRO:
Generic	2.4.37	3	4.1

System/Evolution:

Category Statement:

Knowledge of the lines of authority during implementation of the emergency plan.

K/A Statement:

Cog Level:

Memory

TIER: GROUP:

3

10CFR:

CFR: 41.10 /
45.13

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 69

Question No: ILT-7136 STA_Question RO Question SRO Question

C

Reference Provided:
None

Reference:
ODCM 2.3.6 R 21a

Explanation:

C is correct, CCW pressure is higher than WS pressure and will leak into WS with the resultant radioactive release to the
environment.

A is incorrect, with CCW leaking into WS there will not be any increase in Hx fouling.
B is incorrect, with CCW leaking into WS there will not be any increase demineralizer resin depletion.
D is incorrect, CCW expansion tank level will decrease.

System No:	KA No:	RO:	SRO:
400000	K1.01	3.2	3.3

System/Evolution:

Component Cooling Water System (CCWS)

Category Statement:

Knowledge of the physical connections and / or cause-effect relationships between CCWS and the following:

K/A Statement:

Service water system

Cog Level:

High

TIER:	GROUP:
2	1

10CFR:

41.2 to 41.9 /
45.7 to 45.8

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 70

Question No: ILT-7112 STA_Question RO Question SRO Question

C

Reference Provided:
None

Reference:
3214.01, CCW R24d

Explanation:

C. Correct - Because the compressors would trip on high discharge air temperature due to the loss of CCW. The near instantaneous rupture of the system and subsequent trip of the CC pumps would result in the loss of cooling water flow and pressure to the compressors and their subsequent trip on high discharge air temperature.

A. Incorrect - Because the compressors would trip on discharge air temperature before the low lube oil pressure trip would occur.
B. Incorrect - The loss of cooling water pressure is just an alarm and no longer a signal to trip the compressors.
D. Incorrect - The loss of CCW will not effect seal temperatures.

System No:	KA No:	RO:	SRO:
300000	A3.02	2.9	2.7

System/Evolution:

Instrument Air System (IAS)

Category Statement:

Ability to monitor automatic operations of the INSTRUMENT AIR SYSTEM including:

K/A Statement:

Air temperature

Cog Level:

Memory

TIER:	GROUP:
2	1

10CFR:

41.7 / 45.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 71

Question No: ILT-7147 STA_Question RO Question SRO Question

B

Reference Provided:
None

Reference:
3506.01, Diesel Generator R 33

Explanation:

B is correct, raising the governor setpoint will give the D/G more fuel and it will pickup more real load (Amps) but speed will
not change.

A is incorrect, raising the governor setpoint will give the D/G more fuel and it will pickup more real load (Amps)
C is incorrect, raising the governor setpoint will give the D/G more fuel and it will pickup more real load (Amps) but speed
will not change.
D is incorrect, raising the governor setpoint will give the D/G more fuel and it will pickup more real load (Amps) but speed
will not change.

System No:	KA No:	RO:	SRO:
264000	A1.03	2.8	2.9

System/Evolution:

Emergency Generators (Diesel/Jet)

Category Statement:

Ability to predict and/or monitor changes in parameters associated with operating the EMERGENCY GENERATORS (DIESEL/JET) controls including:

K/A Statement:

Operating voltages, currents, and temperatures

Cog Level:

High

TIER:	GROUP:
2	1

10CFR:

41.5 / 45.5

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 72

Question No: ILT-7113 STA_Question RO Question SRO Question

C

Reference Provided:
None

Reference:
USAR 8.3.2.1.2

Explanation:

C is correct, negative Amps and low Voltage shows the Div 2 battery is discharging. Div 4 indicates a normal condition with the battery on a Float charge.

A is incorrect, negative Amps and low Voltage shows the Div 2 battery is discharging.
B is incorrect, negative Amps and low Voltage shows the Div 2 battery is discharging.
D is incorrect, Div 4 indicates a normal condition with the battery on a Float charge.

System No:	KA No:	RO:	SRO:
263000	A4.03	2.7	2.8

System/Evolution:

D.C. Electrical Distribution

Category Statement:

Ability to manually operate and/or monitor in the control room:

K/A Statement:

Battery discharge rate: Plant-Specific

Cog Level:

High

TIER:	GROUP:
2	1

10CFR:

CFR: 41.7 /
45.5 to 45.8

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 73

Question No: ILT-5808 STA_Question RO Question SRO Question

C.

Reference Provided:
None

Reference:
CPS No. 4200.01, Loss Of AC Power

Explanation:

C. Correct. Load shedding is a timely action.

A. Incorrect. Must be started within one hour. Not required if there is an ac source available powering the battery chargers for the associated dc bus.
B. Incorrect. Must be started within one hour
D. Incorrect. Not required if there is an ac source available powering the battery chargers for the associated dc bus.

System No:	KA No:	RO:	SRO:
263000	2.4.11	4	4.2

System/Evolution:

D.C. Electrical Distribution

Category Statement:

Knowledge of abnormal condition procedures.

K/A Statement:

Cog Level:

High

TIER:	GROUP:
2	1

10CFR:

41.1/43.5/45.13

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 74

Question No: ILT-7114 STA_Question RO Question SRO Question

A

Reference Provided:
None

Reference:
3314.01E001, SLC Electrical Lineup R 9a

Explanation:

A is correct AB MCC 1B1 is the power supply to the B SLC Pump.

B is incorrect, CRD Drive Water Pump 1B is powered from 4160 V Bus 1B.
C is incorrect, RWCU Recirculation Pump 1B is powered from AB MCC 1E.
D is incorrect, Cycled Condensate Pump 1B is powered from 480V Unit Sub 1K.

System No:	KA No:	RO:	SRO:
211000	K2.01	2.9	3.1

System/Evolution:

Standby Liquid Control System

Category Statement:

Knowledge of electrical power supplies to the following:

K/A Statement:

SBLC pumps

Cog Level:

Memory

TIER:	GROUP:
2	1

10CFR:

CFR: 41.7

ANSWER KEY

ILT 08-01 RO

ILT 08-01 NRC RO Exam

Exam Question Number 75

Question No: ILT-7138 STA_Question RO Question SRO Question

B

Reference Provided:
None

Reference:
3505.03, RAT & ERAT SVC R 6

Explanation:

B is Correct – Refer to CPS 3505.03, Section 8.3 and Appendix A. The + MVARs indication means that the SVC is acting to raise voltage. When the SVC is removed from service, the resulting (uncompensated) voltage will ramp down to 4,140 volts. The rule of thumb is 20 volts per MVAR. In this case, that amounts to -80 volts, or a FINAL value of 4,140 volts.

A Incorrect – Plausible to the candidate who either, does not recall the rule of thumb (applies 40 volts per MVAR instead of 20 volts per MVAR), or cannot distinguish between a + MVAR reading and a – MVAR reading.
C Incorrect – Plausible to the candidate who either, does not recall the rule of thumb (applies 40 volts per MVAR instead of 20 volts per MVAR), or cannot distinguish between a + MVAR reading and a – MVAR reading.
D Incorrect – Plausible to the candidate who either, does not recall the rule of thumb (applies 40 volts per MVAR instead of 20 volts per MVAR), or cannot distinguish between a + MVAR reading and a – MVAR reading.

System No:	KA No:	RO:	SRO:
262001	2.1.20	4.6	4.6

System/Evolution:

A.C. Electrical Distribution

Category Statement:

Ability to interpret and execute procedure steps.

K/A Statement:

Cog Level:

High

TIER: 2

GROUP: 1

10CFR:

CFR: 41.10 / 43.5 / 45.12