

PROPOSED FACILITY-DEVELOPED RO WRITTEN EXAM

FOR THE FERMI RETAKE EXAMINATION - JULY 7, 2003

Question #1 Details
EQ-OP-315-0104-000-B004-001

NRC RO Retake 2003

Question Text

The following initial conditions exists at 09:00:00

- Reactor Power100%
- Total core flow98 Mlbm/hr
- Recirc Pump "A" speed.....85%
- Recirc Pump "B" speed.....84%

The following events occur:

- 09:10:00.....Breaker 65G-G3 trips open
- 09:10:20.....Recirculation Pump "A" trips
- 09:12:00.....Loss of Heater Drains due to power reduction

At 09:20:00, with no operator action, what is the indicated demand on the RR MG Set Speed Controllers?

Response A

Loop A - 40% , Loop B - 40%

40% is the setpoint for the 2/3 Limiter, which is not in effect.

Response B - Correct Answer

Loop A - 28% , Loop B - 75%

References 1, 2, 3, 4

Response C

Loop A - 28% , Loop B - 40%

Loop A would be at 28% due to failed breaker being open, 40% is the setpoint for the 2/3 Limiter, which is not in effect.

Response D

Loop A - 75% , Loop B - 28%

These are backwards from the correct answer.

Author: BOLLINGER

Keywords: RRS

Date Last Used: 5/16/2002

_RO retake 2001

Time: 2

Points: 1

Cognitive Level: 2

Not Archived

Question ID: 34697

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
295001	A1.01	3.5	3.6

☒ RO
☐ SRO
☐ STAC
☐ STAI
☐ LOR
☐ NOC
☐ INO

☒ ILO
☐ ESP
☐ Part A
☐ Part B
☐ Open Ref.
☒ Close Ref.
☐ Static

References:

ST-OP-315-0004-001

23.138.01

Question #2 Details
EQ-OP-315-0165-000-B007-002

NRC RO Retake 2003

Question Text

The plant was operating at 100% when a loss of offsite power occurred. The following conditions exist:

- Drywell Pressure is 1.89 psig
- EDG 13 has failed to start.

What ECCS equipment will be unavailable?

Response A

Core Spray Pump A and RHR Pump A
EDG 11 supplies these pumps.

Response B - Correct Answer

Core Spray Pump B and RHR Pump B
Reference 1

Response C

Core Spray Pump C and RHR Pump C
EDG 12 supplies these pumps.

Response D

Core Spray Pump D and RHR Pump D
EDG 14 supplies these pumps.

Author: BOLLINGER

Keywords: EDG

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 1

Question ID: 34698

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
295003	K1.04	3.1	3.2

References:

ST-OP-315-0065-01

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #3 Details**EQ-OP-315-0164-000-C002-001****NRC RO Retake 2003****Question Text**

The plant is operating at 55% Reactor power when 260/130VDC BOP power is lost.

Select the statement that correctly describes the plant response.

Response A

Power is lost to the RCIC logic circuit which will result in RCIC failing to auto start on a valid initiation signal.

RCIC logic circuit is powered from ESF DC.

Response B - Correct Answer

Power is lost to the Main Turbine Trip circuits resulting in a Main Turbine Trip and a Reactor Scram.

Reference - 1

Response C

The running Turbine Lube Oil pumps will trip causing a Main Turbine Trip and a Reactor Scram.

The running Turbine Lube Oil Pumps are AC powered, not affected by loss of DC.

Response D

Loss of Feedwater to the Reactor vessel due to closure of Reactor Feed pump speed governor. Governor is electrohydraulic – oil from an AC pump, power from UPS.

Author: BOLLINGER
Date Last Used: 6/6/2000
Time: 0
Points: 1
Cognitive Level: 1

Keywords:

Not Archived

Question ID: 34699
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
295004	K3.03	3.1	3.5

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

References:

ST-OP-315-0164-001

Question #4 Details
EQ-OP-315-0127-000-C013-002

NRC RO Retake 2003

Question Text

The plant is at 100% power when the following conditions occur:

- Main Turbine trips
- Bypass Valves open
- ARI air supply valves are open
- ARI vent valves are closed

The reactor will scram in anticipation of the rapid:

Response A - Correct Answer

INCREASE in thermal power

References – 1, 2

Response B

INCREASE in reactor water level

This is opposite of what actually happens.

Response C

DECREASE in reactor water level

Level will decrease, but RPS doesn't SCRAM in anticipation of lowering level.

Response D

DECREASE in main steam line pressure

Pressure would actually INCREASE.

Author: BOLLINGER

Keywords: RPS

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 2

Question ID: 34703

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
295005	K1.01	4.0	4.1

References:

ST-OP-315-0028-001

ST-OP-315-0027-001

☒ RO
☐ SRO
☐ STAC
☐ STAI
☐ LOR
☐ NOC
☐ INO

☒ ILO
☐ ESP
☐ Part A
☐ Part B
☐ Open Ref.
☒ Close Ref.
☐ Static

Question #5 Details
EQ-OP-315-0127-000-B002-002

NRC RO Retake 2003

Question Text

The plant is operating at 100% with the following conditions:

Recirc Pump A Setpoint.....88.9%
Recirc Pump B Setpoint.....83.6%
Core Flow.....98.5 X 10⁶ lb/hr
Reactor water Level.....172 inches
Reactor Pressure.....1020 psig
North Reactor Feed Pump.....4580 rpm, increasing
South Reactor Feed Pump.....4620 rpm, increasing

Based on these conditions, what action should the operator take?

Response A

Lower the Recirc Pump A Speed

The difference between the two can be up to 5%, but the action is still not correct for these conditions.

Response B - Correct Answer

Place the Mode Switch in Shutdown

Reference 1

Response C

Start the Standby Feedwater pumps

This would be correct for a loss of Reactor Feed Pump, but both are running.

Response D

Initiate a rapid power reduction

Not correct when trip setpoint is exceeded.

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords:

Not Archived

Question ID: 34704
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
295006	A2.05	4.6	4.6

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

References:

ST-OP-315-0127-001

Question #6 Details**EQ-OP-315-0127-000-B002-003****NRC RO Retake 2003****Question Text**

Which of the following will result in an Automatic Reactor scram?

Response A

Drywell Pressure of 1.63 psig.
Scram setpoint is 1.68 psig.

Response B

Reactor Vessel Low Water Level of 180 inches.
Scram setpoint is 173 inches.

Response C - Correct Answer

APRM Fixed Neutron Flux Upscale of 118%.
Reference - 1

Response D

Reactor Vessel Steam Dome Pressure of 1045 psig.
Scram setpoint is 1093 psig

Author: BOLLINGER**Keywords:** RPS**Not Archived****Date Last Used:****Time:** 0**Points:** 1**Cognitive Level:** 1**Question ID:** 34705**Parent ID:** 0**Child ID:** 0

KA System	KA Number	RO Value	SRO Value
295006	K2.06	4.2	4.3

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

References:

ST-OP-315-0027-001

Question #7 Details
EQ-OP-802-2017-000-0001-010

NRC RO Retake 2003

Question Text

The Control Room (CR) has become uninhabitable. As a result, the plant has entered 20.000.19, Shutdown From Outside the Control Room.

The transfer of certain CR controls to outside the CR is needed to....

Response A

preclude the effects of hot shorts.

This is true for Dedicated shutdown Panel, not Remote.

Response B - Correct Answer

continue shutdown and cooldown.

References – ST-OP-315-0044

Response C

allow proper fire fighting response.

Firefighters have nothing to do with the switches transferred.

Response D

allow rapid re-entry into the CR.

although the AOP override says to move back into the CR when feasible, that's not why the switches are transferred.

Author: BOLLINGER

Keywords:

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 1

Question ID: 34706

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
295016	K3.03	3.5	3.7

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

References:

ST-OP-315-0044

Question #8 Details**EQ-OP-202-0901-000-A001-031****NRC RO Retake 2003****Question Text**

The plant is operating at 100% with the following conditions:

North TBCCW pump.....tripped
Center TBCCW pump.....running
Stator Cooling Water Outlet Temperature....173°F and rising

Attempts to start the South TBCCW pump have been unsuccessful.

What actions should be taken?

Response A

Perform a rapid power reduction

This would be true if the outlet temperature had not already been exceeded.

Response B

Increase GSW flow to the Stator Cooling Water heat exchanger

GSW cools TBCCW which cools Stator Cooling, GSW doesn't cool Stator Cooling.

Response C - Correct Answer

Trip the Reactor and Main Turbine

Reference - 1

Response D

Attempt a restart of the North TBCCW pump

While plausible, the outlet temperature has been exceeded, per the override.

Author: BOLLINGER

Keywords:

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 2

Question ID: 34712

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
295018	2.4.50	3.3	3.3

References:

20.128.01

- | | |
|---|--|
| <input checked="" type="checkbox"/> RO | <input checked="" type="checkbox"/> ILO |
| <input checked="" type="checkbox"/> SRO | <input type="checkbox"/> ESP |
| <input type="checkbox"/> STAC | <input type="checkbox"/> Part A |
| <input type="checkbox"/> STAI | <input type="checkbox"/> Part B |
| <input type="checkbox"/> LOR | <input type="checkbox"/> Open Ref. |
| <input type="checkbox"/> NOC | <input checked="" type="checkbox"/> Close Ref. |
| <input type="checkbox"/> INO | <input type="checkbox"/> Static |

Question #9 Details**EQ-OP-802-2001-000-R005-001****NRC RO Retake 2003****Question Text**

The plant experienced a Station Blackout and all Station Air Compressors (SAC) stopped. Instrument Air pressure has decreased to 72 psig. Power has since been restored, and you have been directed to start the West SAC. When the West SAC is started, it fails to load.

Why did the West SAC fail to load, and what action must be taken by procedure?

Response A

Instrument Air Pressure is too high to allow loading the SAC, start the SAC with Instrument Air isolated

Instrument Air should be at least 75 psig to allow loading, isolating Instrument Air would defeat the purpose.

Response B

Station Air Pressure is too low to allow loading the SAC, start the East SAC

Instrument Air is too low, not Station Air, and the procedure directs starting with nitrogen to increase Instrument Air Pressure.

Response C - Correct Answer

Instrument Air Pressure is too low to allow loading the SAC, start the SAC using nitrogen bottles

References – 1, 2

Response D

Station Air Pressure is too high to allow loading the SAC, isolate Station Air from Control Air

Station Air can not be too high in this application, Control Air is already automatically isolated.

Author: BOLLINGER**Keywords:** COMPRESSED AIR**Not Archived****Date Last Used:****Time:** 0**Question ID:** 34711**Points:** 1**Parent ID:** 0**Cognitive Level:** 2**Child ID:** 0

KA System	KA Number	RO Value	SRO Value
295019	2.1.32	3.4	3.8

☒ RO☒ ILO☐ SRO☐ ESP☐ STAC☐ Part A☐ STAI☐ Part B☐ LOR☐ Open Ref.☐ NOC☒ Close Ref.☐ INO☐ Static**References:**

23.129

20.300.SBO

Question #10 Details
EQ-OP-802-2001-000-0001-002

NRC RO Retake 2003

Question Text

The plant is in Mode 4. The following conditions exist:

Division 1 RHR.....Shutdown Cooling (SDC)
Division 2 RHR.....NOT available.
Reactor Pressure Vessel (RPV) level.....230 inches
RPV pressure.....0 psig

Division 1 RHR tripped and can NOT be restarted.

What action will the Reactor Operator be directed to perform?

Response A - Correct Answer

Start Reactor Recirculation pumps

Reference 20.205.01, ST-OP-315-0041

Response B

Raise RPV pressure

Raising pressure above 89.5 psig causes a SDC isolation

Response C

Lower RPV level

Lowering level below L3 (173 inches) will cause a SDC isolation

Response D

Shift Fuel Pool Cleaning to the Reactor Well

Mode 4 – head is fully tensioned - shifting FPCCU to reactor well won't cool RPV

Author: BOLLINGER

Keywords:

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 2

Question ID: 34735

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
295021	A1.05	3.0	3.0

References:

20.205.01

ST-OP-315-0004

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #11 Details**EQ-OP-315-0190-000-A012-001****NRC RO Retake 2003****Question Text**

Select the response that correctly completes the following statement.

The refueling interlocks ensure that criticality does not occur during fuel handling operations by preventing _____.

Response A - Correct Answer

control rod withdrawal whenever fuel loading equipment is over the core

Reference - 1

Response B

control rod withdrawal whenever fuel loading equipment is energized

Would not allow refueling at all, no matter the conditions

Response C

refueling hoist movement when fuel pool level is below 22' 8"

there is a TS limit of greater than 20' 6", but there is no associated interlock

Response D

preventing withdrawal of any control rods with the Mode Switch in the REFUEL position

Interlocks prevent the withdrawal of more than one control rod.

Author: BOLLINGER

Keywords:

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 1

Question ID: 34714

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
295023	K3.02	3.4	3.8

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

References:

ST-OP-315-0190-001

Question #12 Details**EQ-OP-315-0165-000-A021-002****NRC RO Retake 2003****Question Text**

The plant has experienced a high drywell pressure scram. HPCI is maintaining vessel level and drywell pressure is stable at 2.2 psig. The SM has directed you to remove EDG 11 from service. What two steps are needed to accomplish this?

Response A

Take Local Control of EDG 11; Stop EDG

As long as there is a LOCA signal and the LOCA defeat switch is not bypassed, the EDG will run.

Response B

Take Remote Control of EDG 11; Open EDG 11 output breaker

As long as there is a LOCA signal and the LOCA defeat switch is not bypassed, the EDG will run.

Response C - Correct Answer

Place EDG 11 LOCA defeat switch to bypass; Place CMC switch to OFF

Reference 1**Response D**

Take Remote Control of EDG 11; Place CMC switch to OFF

As long as there is a LOCA signal and the LOCA defeat switch is not bypassed, the EDG will run.

Author: BOLLINGER**Keywords:** EDG**Not Archived****Date Last Used:****Time:** 0**Question ID:** 34715**Points:** 1**Parent ID:** 0**Cognitive Level:** 1**Child ID:** 0**KA System****KA Number****RO Value****SRO Value**

295024

K2.10

3.5

3.5

References:

ST-OP-315-0065

☒ RO☒ ILO☒ SRO☐ ESP☐ STAC☐ Part A☐ STAI☐ Part B☐ LOR☐ Open Ref.☐ NOC☒ Close Ref.☐ INO☐ Static

Question #13 Details
EQ-OP-315-0027-000-A018-001

NRC RO Retake 2003

Question Text

The main turbine trips at 45% power. RPS B scram relays fail to reposition when deenergized causing a failure to scram.

ASSUMING NO OPERATOR ACTIONS, select the statement that describes the expected response to this situation.

Response A

The backup scram valves associated with RPS A will energize when the RPS A scram relays trip.

Both RPS channels must trip in order to energize the valves

Response B

The backup scram valves associated with RPS A will deenergize when the RPS A scram relays trip.

Both RPS channels must trip in order to energize the valves

Response C

The alternate rod insertion valves deenergize when the high reactor pressure setpoint is exceeded on one trip unit in each trip channel.

The ARI valves energize on high pressure or low level

Response D - Correct Answer

The alternate rod insertion valves energize when the high reactor pressure setpoint is exceeded on both trip units in one trip channel.

Reference 1, 23.603 Pg. 25

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords:

Not Archived

Question ID: 34716
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
295025	K2.04	3.9	4.1

References:

ST-OP-315-0021
ST-OP-315-0010

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #14 Details
EQ-OP-802-3002-000-0001-011

NRC RO Retake 2003

Question Text

The plant has experienced a full power ATWS
The crew failed to initiate boron injection before Torus water temperature reached the BIIT.
Alternate means to shutdown the reactor have been unsuccessful.

These events could lead to exceeding the...

Response A

minimum RPV flooding pressure.

Has to do with (1) the Minimum SRV Re-opening Pressure or (2) the lowest differential pressure between the RPV and the suppression chamber at which steam flow through the Minimum Number of SRVs Required for Emergency Depressurization is sufficient to remove all decay heat from the core.

Response B - Correct Answer

heat capacity limit of the containment.

Reference: ST-OP-802-3002

Response C

RPV saturation limit.

The RPV Saturation Temperature is based simply on the properties of water.

Response D

peak clad limit of the fuel.

The Maximum Core Uncovery Time Limit is defined to be the greatest amount of time the reactor core can remain completely uncovered and uncooled without resulting in a peak clad temperature in excess of 1500°F.

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords:

Not Archived

Question ID: 34811
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
295026	K3.04	3.7	4.1

References:
ST-OP-802-3002

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #15 Details**EQ-OP-802-3004-000-0007-012****NRC RO Retake 2003****Question Text**

The reactor was operating at 100% power when a loss of feedwater occurred. The following conditions are observed:

RPV level is 25" and steady on wide range

Drywell pressure is 1.5 psig and slowly rising

Drywell temperature is 155°F and slowly rising

Which one of the following actions, if taken, will prevent drywell pressure from exceeding the high drywell pressure scram setpoint?

Response A

Manually shift all dual speed drywell cooling fans to low speed

Shifting fans to low speed will cause temperature and pressure to increase, only 4 of 14 fans can be shifted to slow.

Response B - Correct Answer

Manually start all single speed drywell cooling fans

Reference ST-OP-8002-3004, 23.415 Section 5.0

Response C

Manually initiate both divisions of EECW

There would still only be 4 fans running in slow speed with no increased cooling of the DW.

Response D

Increase GSW flow through the RBCCW Hx

Although this will lower the temperature of the cooling water in the DW Coolers, there is still only 4 fans running in slow speed, which is not enough to prevent exceeding the setpoint.

Author: BOLLINGER

Keywords: EOP PCP

Not Archived

Date Last Used:

Time: 2

Points: 1

Cognitive Level: 2

Question ID: 34718

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
295028	A1.04	3.9	4.0

☒ RO
☒ SRO
☐ STAC
☐ STAI
☐ LOR
☐ NOC
☐ INO

☒ ILO
☐ ESP
☐ Part A
☐ Part B
☐ Open Ref.
☒ Close Ref.
☐ Static

References:

ST-OP-802-3004

Question #16 Details**EQ-OP-315-0116-000-C013-002****NRC RO Retake 2003****Question Text**

What is the consequence of Torus water level dropping below -112 inches?

Response A - Correct Answer

Actuation of an SRV would directly pressurize the Torus with little or no steam condensation.

Reference ST-OP-315-0016

Response B

Ensure a sufficient quantity of water to prevent excessive pool swell and flooding of the downcomers during a DBA LOCA.

This is part of the basis for upper level limit for the Torus

Response C

Ensure a sufficient quantity of water to prevent violation of the Vortex Limit for the HPCI and/or RCIC Pumps.

Vortex Limit applies to the LPCI pumps, not HPCI and RCIC. HPCI and RCIC use NPSH limits which are based on Torus temperature.

Response D

Ensure a sufficient quantity of water to prevent excessive clearing loads from SRV discharges.

This is part of the basis for upper level limit for the Torus

Author: BOLLINGER

Keywords: CONTAINMENT

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 1

Question ID: 34719

Parent ID: 0

Child ID: 0

KA System

295030

KA Number

K2.08

RO Value

3.5

SRO Value

3.8

References:

ST-OP-315-0016

☒ RO

☒ SRO

☐ STAC

☐ STAI

☐ LOR

☐ NOC

☐ INO

☒ ILO

☐ ESP

☐ Part A

☐ Part B

☐ Open Ref.

☒ Close Ref.

☐ Static

Question #17 Details**EQ-OP-315-0121-000-B006-001****NRC RO Retake 2003****Question Text**

Which one of the following would indicate a leak in the variable leg of a RPV Narrow Range level instrument outside containment?

Response A

Reactor Feed Pump Trip

Feed pump trips on level 8 Narrow Range**Response B**

Emergency Diesel Generator start

Starts on Wide Range Level 1**Response C - Correct Answer**

RPV low level scram

Reference: ST-OP-315-0021**Response D**

Recirc Pump Trip

Trips on Wide Range Level 2**Author:** BOLLINGER**Keywords:** RPV INST**Not Archived****Date Last Used:****Time:** 0**Points:** 1**Cognitive Level:** 2**Question ID:** 34720**Parent ID:** 0**Child ID:** 0

KA System	KA Number	RO Value	SRO Value
295031	K2.11	4.4	4.4

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

References:

ST-OP-315-0121-001

Question #18 Details**EQ-OP-213-0021-000-C002-017****NRC RO Retake 2003****Question Text**

The plant is in an ATWS. An RO has been assigned to perform 29.ESP.11, Defeat of RPV Level 1 and High Rad MSIV and Main Steam Line Drain Valve Isolation Signals. Prior to completing the procedure, the MSIVs automatically close on RPV level.

Where does the assigned operator perform the defeats for this procedure, and how will the MSIVs be affected by performing this procedure after the MSIVs are closed?

Response A

RR H11-P609 and RR H11-P611, MSIVs automatically open with no operator action.
MSIVs have no automatic open feature.

Response B

H11-P601 and H11-P602, MSIVs automatically open after a 30 second time delay.
MSIVs have no automatic open feature

Response C

H11-P601 and H11-P602, MSIVs can be opened manually when the RPV level isolation signal is cleared.
The signal has to be cleared and reset

Response D - Correct Answer

RR H11-P609 and RR H11-P611, MSIVs can be manually opened after the isolation signal is reset.

Reference: 29.ESP.11

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords: ESP

Not Archived

Question ID: 34721
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
295037	2.4.34	3.8	3.6

References:

29.ESP.11

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #19 Details**EQ-OP-315-0166-000-B003-004****NRC RO Retake 2003****Question Text**

The plant is operating at 100% power when the following alarms occur:

- 3D32, Div I/II RB Vent Radn Monitor Upscale
- 3D36, Div I/II RB Vent Exh Radn Monitor Upscale Trip

What actions must the CRNSO perform?

Response A - Correct Answer

Verify Secondary Containment isolated and SGTS initiated.

Reference LP-OP-315-066, 3D36

Response B

Direct a channel function test performed on all RB Vent Exhaust radiation monitors to verify readings.

Although surveys and samples would be directed, a "channel function test" is not performed.

Response C

Declare the radiation monitors inoperable, notify Chemistry to take samples, and initiate a plant shutdown.

None of these alarms would indicate the rad monitors are inoperable.

Response D

Perform an immediate plant shutdown due to loss of Secondary Containment integrity.

These are not indications of a loss of Secondary Containment.

Author: BOLLINGER**Keywords:****Not Archived****Date Last Used:****Time:** 0**Points:** 1**Cognitive Level:** 2**Question ID:** 34722**Parent ID:** 0**Child ID:** 0

KA System	KA Number	RO Value	SRO Value
295038	A1.06	3.5	3.6

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

References:

3D36

LP-OP-315-0166

Question #20 Details
EQ-OP-802-0201-000-0001-001

NRC RO Retake 2003

Question Text

The plant is operating at 96% with a fire in progress.

A plant shutdown and Control Room evacuation is **REQUIRED** when the fire is.....

Response A - Correct Answer

in a zone that may cause spurious actuation of equipment.

Reference: 20.000.22, 20.000.18 bases

Response B

lasts longer than 15 minutes.

This is reportable, but doesn't REQUIRE shutdown and evacuation

Response C

affects fire fighting equipment.

If true, more help would be called from outside the plant.

Response D

on the third floor of the Turbine Building.

Although there is direct access to the CR from the TB, it's not REQUIRED.

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 1

Keywords:

Not Archived

Question ID: 34736
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
600000	A2.13	3.2	3.8

References:

20.000.22
20.000.18 bases

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question # 21 Details**EQ-OP-315-0121-000-A008-001****NRC RO Retake 2003****Question Text**

The plant has experienced a loss of Feedwater (FW). High Pressure Coolant Injection (HPCI) has automatically started. Reactor Core Isolation Cooling (RCIC) started and tripped.

A short time later, HPCI trips on L8.

HPCI trips to prevent...

Response A - Correct Answer**turbine damage from carry-over****Reference ST-OP-315-0021****Response B**

overspeed of the HPCI turbine

Turbine would not be expected to go faster with water as the moving medium.**Response C**

operations with insufficient water above the core

Water level will be too high, not too low.**Response D**

operations with the steam separator skirts uncovered

Water level will be too high, not too low.**Author:** BOLLINGER**Keywords:****Not Archived****Date Last Used:****Time:** 0**Points:** 1**Cognitive Level:** 1**Question ID:** 34723**Parent ID:** 0**Child ID:** 0

KA System	KA Number	RO Value	SRO Value
295008	K3.05	3.5	3.6

References:

ST-OP-315-0021

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #22 Details**EQ-OP-315-0121-000-A008-002****NRC RO Retake 2003****Question Text**

What condition can lead to carryunder, and what is the potential impact of carryunder on the plant?

Response A - Correct Answer

Low RPV level, cavitation of the recirculation pumps

Reference: ST-OP-315-0007, ST-OP-174 Unit 8 page 13

Response B

High RPV level, exceeding core thermal limits

High RPV level would cause carryover, Core thermal limits are threatened by loss of FW heating

Response C

High RPV level, damage to main turbine blading

High RPV level would cause carryover

Response D

Low RPV level, neutron flux instabilities

Low RPV level would cause carryunder, but the direct result would be cavitation of the recirculation pumps.

Author: BOLLINGER

Keywords:

Not Archived

Date Last Used:

Time: 2

Points: 1

Cognitive Level: 1

Question ID: 34737

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
295009	K1.01	2.7	2.9

☒ RO
☒ SRO
☐ STAC
☐ STAI
☐ LOR
☐ NOC
☐ INO

☒ ILO
☐ ESP
☐ Part A
☐ Part B
☐ Open Ref.
☒ Close Ref.
☐ Static

References:

ST-OP-315-0007

ST-OP-174 Unit 8

Question #23 Details
EQ-OP-315-0117-000-C001-001

NRC RO Retake 2003

Question Text

The plant is operating at full power and the following conditions exist :

- 8D41 ☐ Div 1 DW Temp Hi Ann.....activates
- All DW Cooling Fans.....operating
- T47-R803A, point 16.....> 155°F

If the average drywell temperature has risen from 132°F to 135°F during the last 8 hours, which one of the following actions is appropriate?

Response A - Correct Answer

Increase GSW cooling to RBCCW per ARP 8D41.

Reference: 8D41, 23.415

Response B

Operate all available Drywell Cooling per 29.100.01.

Haven't entered the EOPs, all DW cooling is already operating.

Response C

Shift DW Cool Fans 1,2,3 and 4 to low speed per 23.415.

Would cause temperature to go up

Response D

Manually initiate EECW and EESW Systems per 20.127.01.

Not in this procedure.

Author: BOLLINGER
Date Last Used: 10/22/1999
Time: 3
Points: 1
Cognitive Level: 2

Keywords: CONTAINMENT
GSW

Not Archived

Question ID: 34724
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
295012	A1.01	3.5	3.6

References

8D41
23.415

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #24 Details
EQ-OP-315-0105-000-A019-001

NRC RO Retake 2003

Question Text

The plant was operating at 100% power.
Due to multiple instrument malfunctions, a MSIV isolation has occurred while operating at full power.
No operator action is taken, and all systems and automatic actions function as designed.
Which of the following indicates the expected range of reactor pressure 15 minutes after the MSIVs have closed?

Response A

50 to 150 psig

This is expected pressure range after a depressurization, not MSIV isolation.

Response B - Correct Answer

905 to 1017 psig

Reference: ST-OP-315-0005, 23.201

Response C

935 to 1047 psig

This is the range of G SRV, expected to be in the range of A SRV.

Response D

944 to 960 psig

Expected range if the MSIVs were open with pressure controlled by the bypass valves

Author: BOLLINGER
Date Last Used: 10/22/1999
Time: 0
Points: 1
Cognitive Level: 2

Keywords:

Not Archived

Question ID: 34725
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
295020	K2.01	3.6	3.7

References:

23.201
ST-OP-315-0015

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #25 Details**EQ-OP-315-0139-000-C005-001****NRC RO Retake 2003****Question Text**

Preparations are in progress to start High Pressure Coolant Injection (HPCI) following maintenance activities. Torus water level is +1.5 inches. Which of the following applies?

Response A

Raise Torus level to account for level drop when filling HPCI lines.
HPCI lines already full, lower level to perform test.

Response B

Raise Torus level to account for swell during the the start of HPCI
Starting HPCI doesn't cause swell in the Torus.

Response C

Lower Torus level to prevent auto suction transfer when starting HPCI
Starting HPCI won't cause an auto suction transfer.

Response D - Correct Answer

Lower Torus level to prevent auto suction transfer when starting Torus cooling.
Reference: 23.202 Precaution 3.10

Author: BOLLINGER
Date Last Used:
Time: 2
Points: 1
Cognitive Level: 1

Keywords:**Not Archived**

Question ID: 34738
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
295029	K3.02	3.6	4.0

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

References:

23.202

Question #26 Details
EQ-OP-802-3005-000-0003-003

NRC RO Retake 2003

Question Text

While the plant was operating at 100% power, the following plant conditions exist:

1D66, STEAM LEAK DETECTION AMBIENT TEMP HIGH.....on

1D70, STEAM LEAK DETECTION DIFF TEMP HIGH.....on

A Group 8 isolation has also occurred.

Where is the leak coming from?

Response A - Correct Answer

Reactor Core Isolation Cooling

Reference: 1D66, 1D70, ST-OP-315-0048

Response B

Steam Tunnel

Group 1 Isolation

Response C

High Pressure Coolant Injection

Group 6 Isolation

Response D

Reactor Water Cleanup

Group 10, 11 Isolation

Author: BOLLINGER

Keywords:

Not Archived

Date Last Used:

Time: 3

Points: 1

Cognitive Level: 1

Question ID: 34728

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
295032	A2.03	3.8	4.0

References:

1D66

1D70

ST-OP-315-0048

☒ RO
☒ SRO
☐ STAC
☐ STAI
☐ LOR
☐ NOC
☐ INO

☒ ILO
☐ ESP
☐ Part A
☐ Part B
☐ Open Ref.
☒ Close Ref.
☐ Static

Question #27 Details
EQ-OP-802-3005-000-0001-017

NRC RO Retake 2003

Question Text

The following conditions exist:

Reactor Power.....96% and stable.
Control Room Pressure.....+ 0.075" H₂O and stable.
Reactor Building Pressure.....-0.20" H₂O and stable.
Turbine Building Pressure.....-0.10" H₂O and stable.
Which one of the following actions is required?

Response A

Enter 20.413.01, Control Center HVAC System Failure.
No entry condition for 20.413.01

Response B

Enter 29.100.01, Secondary Containment and Radioactive Release.
No entry condition for EOPs

Response C

Enter ARP 8D13, Turbine BLDG Press High.
Turbine Bldg pressure is in acceptable range.

Response D - Correct Answer

Enter ARP 8D10, MCR Building Pressure High/Low.
Reference: 8D10

Author: BOLLINGER
Date Last Used:
Time: 2
Points: 1
Cognitive Level: 2

Keywords: Not Archived

Question ID: 34730
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
295035	A2.01	3.8	3.9

References:
8D10

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #28 Details**EQ-OP-315-0141-000-A021-004****NRC RO Retake 2003****Question Text**

Reactor pressure is 900 psig and RHR Loop B is running in response to a valid LPCI initiation signal.

Which statement describes the expected flow indication on the Division II RHR System Flow Recorder?

Response A - Correct Answer

0 gpm

Reference: ST-OP-315-0041, ST-OP-315-0041**Response B**

3000 gpm

Doesn't sense flow through the min flow valve.

Response C

10,000 gpm

Reasonable flow but RPV pressure is greater than LPCI shutoff head.

Response D

20,000 gpm

Reasonable flow but RPV pressure is greater than LPCI shutoff head.

Author: BOLLINGER

Keywords:

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 1

Question ID: 34739

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
203000	A1.02	3.9	4.0

References:

ST-OP-315-0041

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #29 Details**EQ-OP-315-0141-000-A014-004****NRC RO Retake 2003****Question Text**

The plant is in a refueling outage. Residual Heat Removal (RHR) is aligned for Shutdown Cooling using RHR pump B.

What is the power supply to RHR pump B?

Response A

Bus 64 A
BOP 4160V bus

Response B

Bus 64 B
RHR pump A

Response C - Correct Answer

Bus 65 E
Reference: ST-OP-315-0041

Response D

Bus 65 F
RHR pump D

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 1

Keywords:**Not Archived**

Question ID: 34740
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
205000	K2.01	3.1	3.1

References:
ST-OP-315-0041

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #30 Details
EQ-OP-315-0141-000-A012-001

NRC RO Retake 2003

Question Text

Division I Residual Heat Removal (RHR) System is operating in the Shutdown Cooling Mode with RHR Pump C running.

Post Maintenance Testing requires that E1150-F004C, Division I RHR Pump C Torus Suction Isolation Valve be to manually stroked open and closed.

What is the consequence of operating this valve?

Response A

Violation of brittle fracture temperature limits due to cold water being pumped from the Torus to the Reactor Pressure Vessel.

Brittle fracture a concern when the RPV is pressurized.

Response B - Correct Answer

Lowering RPV level by establishing a drain path from the Reactor Pressure Vessel to the Torus.

Reference: ST-OP-315-0041, 23.205 Step 3.2.8

Response C

Overflow of the Reactor Well and Fuel Pool due to Torus water being pumped into them.

Would actually cause water level to go down.

Response D

Severe water hammer due to improper fill and vent.

Lines are already filled and vented.

Author: BOLLINGER

Keywords:

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 2

Question ID: 34741

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
205000	K5.02	2.8	2.9

References:

ST-OP-315-0041

23.205

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #31 Details
EQ-OP-315-0139-000-B007-004

NRC RO Retake 2003

Question Text

The plant has experienced a Station Blackout. High Pressure Coolant Injection (HPCI) has started automatically and is supplying the Reactor Pressure Vessel (RPV).

What is the HPCI response to Automatic Depressurization System blowdown?

Response A

HPCI isolates to prevent pump cavitation.
Steam supply pressure doesn't affect cavitation.

Response B

The Minimum Flow Valve opens to maintain the set flowrate.
Opening the valve would cause indicated flow to decrease

Response C

The Suction Valves switch to the Condensate Storage Tank to prevent pump cavitation.
Suction valves normally switch from the CST to the Torus

Response D - Correct Answer

The Turbine Control Valve opens to maintain the set flowrate.
Reference: ST-OP-315-0039

Author: BOLLINGER
Date Last Used:
Time: 2
Points: 1
Cognitive Level: 2

Keywords: HPCI
DC ELEC

Not Archived

Question ID: 34742
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
206000	K6.08	3.8	3.8

References:
ST-OP-315-0039

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #32 Details
EQ-OP-315-0140-000-A021-001

NRC RO Retake 2003

Question Text

The Core Spray System is lined up in the Normal Standby Mode when a plant transient occurs.

Drywell Pressure.....1.89 psig.

Reactor Pressure.....210 psig.

All systems are operating normally.

What is the status of the Core Spray System?

Response A - Correct Answer

- Core Spray Pumps are running
- E21-F005A/B CSS Loop A/B Inboard Iso Valves are OPEN
- F006A/B CSS Loop A/B Inboard Check Valve OPEN

Reference: ST-OP-315-0040, 23.203 Section 5.3

Response B

- Core Spray Pumps are running
- E21-F005A/B CSS Loop A/B Inboard Iso Valves are OPEN
- F006A/B CSS Loop A/B Inboard Check Valve CLOSED

Below the injection pressure, should have flow with check valves open.

Response C

- Core Spray Pumps are running
- E21-F005A/B CSS Loop A/B Inboard Iso Valves are CLOSED
- F006A/B CSS Loop A/B Inboard Check Valve OPEN

Below the injection pressure, should have flow with check valves open.

Response D

- Core Spray Pumps are not running
- E21-F005A/B CSS Loop A/B Inboard Iso Valves are CLOSED
- F006A/B CSS Loop A/B Inboard Check Valve CLOSED

Below the injection pressure, should have flow with check valves open.

Author: BOLLINGER

Date Last Used: 2/13/2002

Time: 2

Points: 1

Cognitive Level: 2

KA System	KA Number	RO Value	SRO Value
209001	2.4.2	3.9	4.1

References:

ST-OP-315-0040

23.203

Keywords:

Not Archived

Question ID: 34743

Parent ID: 0

Child ID: 0

- | | |
|---|--|
| <input checked="" type="checkbox"/> RO | <input checked="" type="checkbox"/> ILO |
| <input checked="" type="checkbox"/> SRO | <input type="checkbox"/> ESP |
| <input type="checkbox"/> STAC | <input type="checkbox"/> Part A |
| <input type="checkbox"/> STAI | <input type="checkbox"/> Part B |
| <input type="checkbox"/> LOR | <input type="checkbox"/> Open Ref. |
| <input type="checkbox"/> NOC | <input checked="" type="checkbox"/> Close Ref. |
| <input type="checkbox"/> INO | <input type="checkbox"/> Static |

Question #33 Details
EQ-OP-315-0140-000-A021-002

NRC RO Retake 2003

Question Text

The plant was operating at 100% when there was a simultaneous Loss of Offsite Power and a Loss Of Coolant Accident.

How are the Core Spray system pumps affected?

Response A

All pumps start on a Reactor Pressure Vessel Level 2 signal.
Pumps start on Level 1 or high DW pressure.

Response B

All pumps must be manually started after the Emergency Diesel Generators (EDG) energize the ESF buses.
Pumps start automatically after ESF busses energize on Level 1 or high DW pressure.

Response C - Correct Answer

All pumps start 5 seconds after the EDGs energize the ESF buses.
Reference: ST-OP-315-0040

Response D

Division I pumps start when CTG 11-1 energizes the Division I ESF buses.
Division II pumps start after the Division II EDGs energize the Division II ESF buses.
Half right – Div 1 pumps start after Div 1 EDGS energize the Div 1 ESF busses.

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 1

Keywords: CSS
LOCA

Not Archived

Question ID: 34744
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
209001	A3.02	3.8	3.7

References:
ST-OP-315-0040

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #34 Details
EQ-OP-315-0114-000-C010-002

NRC RO Retake 2003

Question Text

On direction from the CRS, an operator has placed the SLC Initiation Keylock Switch (C4100-M004) in the PMP A Run position.

The following indications are noted 30 seconds later:

- C41 LIR601 (SLC Tank Level) steady
- Primer circuit continuity indicators OFF
- SLC pump A red light ON, green light OFF
- C41 PI R600 (SLC Pump Discharge Pressure) pulsating at 1400 psig

These are indications of what condition, and what should the operator do?

Response A

Normal operation for the SLC System; monitor SLC Tank level.
Not normal indication –level, pressure not right.

Response B - Correct Answer

C41-F004A, Pump A Squib Valve, failed to fire; start SLC pump B.

Reference: 23.139 Step 5.3.2

Response C

C41-F001, SLC Storage Tank Outlet Valve, is open; dispatch operator to close C41-F001.
This is normal lineup.

Response D

C41-F029A, SLC Pump A Discharge Relief Valve, failed open; dispatch operator to gag open C41-F029A.
This would indicate a lower pump discharge pressure.

Author: BOLLINGER

Keywords: SLC

Not Archived

Date Last Used:

Time: 3

Points: 1

Cognitive Level: 2

Question ID: 34745

Parent ID: 0

Child ID: 0

KA System

KA Number

RO Value

SRO Value

211000

A2.02

3.6

3.9

References:

23.139

- ☒ RO
- ☒ SRO
- ☐ STAC
- ☐ STAI
- ☐ LOR
- ☐ NOC
- ☐ INO

- ☒ ILO
- ☐ ESP
- ☐ Part A
- ☐ Part B
- ☐ Open Ref.
- ☒ Close Ref.
- ☐ Static

Question #35 Details**EQ-OP-315-0127-000-A018-003****NRC RO Retake 2003****Question Text**

The plant is operating at 96%. The Reactor Vessel Steam Dome Pressure - High Trip Unit (B21-N678) for Channel A2 has failed high.

How will this failure affect the plant?

Response A

No affect

Satisfies logic for half scram in A.

Response B

Full Scram

The RPS logic is 1 out of 2 twice, not satisfied in this case.

Response C - Correct Answer

Half Scram A

Reference: ST-OP-315-0027, 23.601 Page 10

Response D

Half Scram B

The RPS logic is 1 out of 2 twice, satisfied for A trip string, not B.

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords:

Not Archived

Question ID: 34747
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
212000	K1.02	3.7	3.9

References:
ST-OP-315-0027
23.601

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #36 Details

EQ-OP-315-0123-000-A015-001

NRC RO Retake 2003

Question Text

During a reactor start-up with all IRM's on Range 5, IRM A failed high. IRM A is then bypassed using the Bypass Switch.

IRM A has caused a...

Response A

full scram and rod block due to a Upscale Trip
Will not cause a full scram

Response B - Correct Answer

half scram and rod block due to a Upscale Trip
Reference: ST-OP-315-0023, ST-OP-315-0023

Response C

full scram and rod block when placed in Bypass
Will not cause a full scram;

Response

half scram and rod block when placed in Bypass
The half scram and rod block was caused before being placed in bypass, Bypass could be confused with Mode switch in Standby

Author: BOLLINGER

Keywords:

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 2

Question ID: 34748

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
215003	K3.01	3.9	4.0

References:

ST-OP-315-0023

- | | |
|---|--|
| <input checked="" type="checkbox"/> RO | <input checked="" type="checkbox"/> ILO |
| <input checked="" type="checkbox"/> SRO | <input type="checkbox"/> ESP |
| <input type="checkbox"/> STAC | <input type="checkbox"/> Part A |
| <input type="checkbox"/> STAI | <input type="checkbox"/> Part B |
| <input type="checkbox"/> LOR | <input type="checkbox"/> Open Ref. |
| <input type="checkbox"/> NOC | <input checked="" type="checkbox"/> Close Ref. |
| <input type="checkbox"/> INO | <input type="checkbox"/> Static |

Question #37 Details
EQ-OP-315-0122-000-A017-002

NRC RO Retake 2003

Question Text

A plant startup is in progress. The SRM Retract Permit Light is on. The Reactor Operator attempts to retract Source Range Monitor (SRM) A, but the detector does not move.

The SRM detector will not move because the

Response A

Intermediate Range Monitor range switch is in the wrong position

IRM range determines when the SRM Retract Permit light comes on, but doesn't prevent the SRM from being moved.

Response B - Correct Answer

drive in signal is sealed in

Reference: ST-OP-315-0022

Response C

SRM detector is not in the full in position

Detector not full in doesn't prevent outward movement.

Response D

SRM counts are less than 100 CPS

SRM counts are an administrative limit, not an interlock for movement.

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords:

Not Archived

Question ID: 34749
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
215004	K4.04	2.8	2.9

References:

ST-OP-315-0022

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #38 Details
EQ-OP-315-0122-000-A017-003

NRC RO Retake 2003

Question Text

A plant startup is in progress.

Source Range Monitor A downscale rod blocks are bypassed when Intermediate Range Monitor Channel(s)....

Response A

A is on range 1.

SRM A, C are ganged with IRM A,C,E,G on Range 3

Response B

A, C are on range 1.

SRM A, C are ganged with IRM A,C,E,G on Range 3

Response C

A, C are on range 3.

SRM A, C are ganged with IRM A,C,E,G on Range 3

Response D - Correct Answer

A, C, E, G are on range 3.

Reference: ST-OP-315-0022

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 1

Keywords:

Not Archived

Question ID: 34750
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
215004	A3.04	3.6	3.6

References:

ST-OP-315-0022

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input checked="" type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #39 Details**EQ-OP-315-0024-000-A011-001****NRC RO Retake 2003****Question Text**

What portion of the Power Range Neutron Monitoring (PRNM) System generates a safety trip signal and alarm if the Simulated Thermal Power (STP) signal value exceeds the Flow-Biased upscale setpoint?

Response A

Local Power Range Monitor detectors

Detectors don't generate trip signals

Response B

2 of 4 Logic Modules

Don't generate an alarm signal

Response C

Recirculation Flow Monitors

Monitors don't generate trip signals

Response D - Correct Answer

Average Power Range Monitor channels

Reference: ST OP-315-0024

Author: BOLLINGER

Keywords: PRNM

Not Archived

Date Last Used:

Time: 2

Points: 1

Cognitive Level: 1

Question ID: 34751

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
215005	K4.07	3.7	3.7

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

References:

ST OP-315-0024

Question #40 Details**EQ-OP-315-0143-000-A014-001****NRC RO Retake 2003****Question Text**

Motor Control Center (MCC) 2PA-1 has been removed from service. Which component is affected by the loss of MCC 2PA-1?

Response A

A Recirc MG emergency oil pump

BOP DC

Response B

South Reactor Feed Pump emergency oil pump

BOP DC

Response C - Correct Answer

Reactor Core Isolation Cooling (RCIC) Barometric Condenser Vacuum pump

Reference: ST-OP-315-0043

Response D

High Pressure Coolant Injection (HPCI) Barometric Condenser Vacuum pump
2PB-1 vs. 2PA-1

Author: BOLLINGER

Keywords: RCIC

Not Archived

Date Last Used:

Time: 1

Points: 1

Cognitive Level: 1

Question ID: 34752

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
217000	K2.04	2.6	2.6

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

References:

ST-OP-315-0043

Question #41 Details
EQ-OP-315-0142-000-A012-001

NRC RO Retake 2003

Question Text

The Control Room is performing 24.137.11, Safety Relief Valve (SRV) Operability Test. The test has progressed to testing B2104-F013P, Main Steam Line D SRV.

After B2104-F013P is cycled for the test, annunciator 1D61, SRV Open, remains on.

What is the cause for this alarm?

Response A

B2104-F013P is open

Annunciator status is determined by tailpipe temperature, not actual valve position

Response B

B2104-F013P close contacts failed

There are no close contacts for the SRVs

Response C - Correct Answer

B2104-F013P tail pipe temperature is 225°F

Reference: ST-OP-315-0042

Response D

B2104-F013P tail pipe pressure is 20 psig

Tail pipe pressure of 30 psig gives the alarm

Author: BOLLINGER

Keywords: ADS

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 1

Question ID: 34753

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
218000	A1.01	3.4	3.6

References:

ST-OP-315-0042

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #42 Details
EQ-OP-315-0127-000-A018-004

NRC RO Retake 2003

Question Text

The plant is operating at 85% power when the following occurs:

- RPS MG set 'A' trips
- Various alarms indicate in the Control Room
- All other systems function as designed

Which of the following would be an expected alarm?

Response A

10D71 Div II 120V RPS Bus 1B Power Failure.
This a Div I RPS failure

Response B

3D74 Trip Actuators B1/B2 Tripped
This a Div I RPS failure, Trip actuator A1/A2 would be tripped.

Response C

2D36 NSSSS Isolation CH B/D
Division 2 alarm, Div 1 is lost.

Response D - Correct Answer

1D39 NSSSS Isolation CH A/C.
Reference: ST-OP-315-0027

Author: BOLLINGER
Date Last Used:
Time: 2
Points: 1
Cognitive Level: 1

Keywords:

Not Archived

Question ID: 34754
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
223002	2.4.46	3.5	3.6

References:

ST-OP-315-0027
23.316

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #43 Details**EQ-OP-315-0198-000-0005-004****NRC RO Retake 2003****Question Text**

How will a loss of Reactor Building Closed Cooling Water affect the Primary Containment Isolation System (PCIS)?

PCIS will...

Response A

shut down Steam Tunnel Cooling on High Steam Tunnel Temperature.
Nothing shuts down Steam Tunnel Cooling

Response B

isolate the Steam Tunnel area on High Steam Tunnel Temperature.
No isolation of Steam Tunnel area

Response C

scram the Reactor on High Steam Tunnel Temperature.
MSIVs close, which would cause a scram, but there is no scram on high Steam Tunnel Temperature

Response D - Correct Answer

isolate the Main Steam Lines on High Steam Tunnel Temperature.

Reference: ST-OP-315-0098

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 1

Keywords:

Not Archived

Question ID: 34755
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
223002	K1.19	2.7	2.9

References:
ST-OP-315-0098

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #44 Details
EQ-OP-315-0105-000-0206-001

NRC RO Retake 2003

Question Text

The reactor was operating at 100% power, when an automatic scram signal occurred and the following plant conditions exist :

- ATWS, reactor power.....12 %
- Control Rods.....alternate rod insertion activities unsuccessful
- Reactor pressure940 psig and stable
- RPV water level+ 115 inches
- MSIVs.....failed closed
- Torus temperature.....95°F (rising 4°F/min)
- Drywell temperature.....125 F
- Drywell pressure.....1.1 psig
- RHR System.....both loops in Torus Cooling
- SLC Pumps.....inoperable
- Alternate Boron Injection.....being aligned by the Operating Crew

Given the above conditions, how many Safety Relief Valves are open?

Response A

1

Would only pass about 6% steam flow, pressure would be rising

Response B . - Correct Answer

2

Reference: ST-OP-315-0005, ST-OP-315-0005

Response C

4

At this pressure, only Lo-Lo set valves would be open, with 4 open, pressure would be lowering.

Response D

5

At this pressure, only Lo-Lo set valves would be open, with 4 open, pressure would be lowering.

Author: BOLLINGER
Date Last Used:
Time: 4
Points: 1
Cognitive Level: 2

Keywords:

Not Archived

Question ID: 34756
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
239002	K5.01	3.4	3.5

References:
ST-OP-315-0005

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #45 Details
EQ-OP-315-0107-000-0006-007

NRC RO Retake 2003

Question Text

A Reactor Startup is in progress. Reactor Power is currently 20%. RPV level control is currently on the Start Up Level Control Valve. At what point, and why, is Feedwater Control transferred to Single element control?

Response A

At 25% power so that the Main Turbine Generator can be synchronized to the offsite grid without violating Thermal Limits.

Main Generator is synchronized earlier in startup.

Response B

When feedwater temperature is within 5°F of RPV temperature to prevent power transients in the Reactor.

Feedwater temperature is never within 5°F of RPV temperature when the Mode switch is in run.

Response C

Prior to placing a second Condenser pump in service due to the condensate minimum flow setting of 9000 gpm.

The second Condenser pump is placed in service prior to starting a heater feed pump.

Response D - Correct Answer

When RFP suction flow is greater than 25% to prevent oscillations of the Reactor Feed Pump Minimum Flow Valve and Reactor Water Level.

Reference:23.107 Step 3.1.4

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 1

Keywords: RX FEEDWATER

Not Archived

Question ID: 34757
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
259002	A4.06	3.1	3.2

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

References:

23.107

Question #46 Details
EQ-OP-315-0120-000-B007-003

NRC RO Retake 2003

Question Text

The plant is operating at 100% power steady state conditions when the following alarms are received:

- 9D70 Div 1 120V RPS Bus 1A Power Failure
- 3D73 Trip Actuators A1/A2 Tripped
- 3D75 Reactor Vessel High Press Channel Trip
- 3D79 Reac Vessel Water Level L3 Channel Trip
- 3D85 Primary Containment High Press Channel Trip.

Based on these alarms, which of the following would the operator expect?

Response A

MSIVs are shut

There will only be a half isolation signal

Response B - Correct Answer

Div 1 SGTS is running

Reference: ST-OP-315-0020, 23.316 Enclosure A, Page 2 of 6

Response C

Full scram

There will only be a half scram.

Response D

Div 2 Control Air Compressor is running

Div 1 CAC auto starts on Div 1 RPS loss.

Author: BOLLINGER
Date Last Used:
Time: 2
Points: 1
Cognitive Level: 2

Keywords: RPS

Not Archived

Question ID: 34782
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
261000	K6.05	3.1	3.2

References:
ST-OP-315-0020

- | | |
|---|--|
| <input checked="" type="checkbox"/> RO | <input checked="" type="checkbox"/> ILO |
| <input checked="" type="checkbox"/> SRO | <input type="checkbox"/> ESP |
| <input type="checkbox"/> STAC | <input type="checkbox"/> Part A |
| <input type="checkbox"/> STAI | <input type="checkbox"/> Part B |
| <input type="checkbox"/> LOR | <input type="checkbox"/> Open Ref. |
| <input type="checkbox"/> NOC | <input checked="" type="checkbox"/> Close Ref. |
| <input type="checkbox"/> INO | <input type="checkbox"/> Static |

Question #47 Details
EQ-OP-315-0165-000-A021-003

NRC RO Retake 2003

Question Text

The following conditions exist:

- Reactor power.....98%
- Drywell Pressure.....1.1 psig, raising slowly
- Reactor water level.....185 inches, lowering slowly

All other systems are functioning as designed.

If the pressure and level trends continue, what can the operator expect to happen to the Emergency Diesel Generators (EDG), and what action should be taken?

Response A

EDG will auto start, EDG output breaker will close, and loads will be sequenced onto the EDG.
Dispatch operator to verify proper operation of the EDG.
Loads won't sequence without a loss of power

Response B

EDG will not auto start.
Dispatch operator to start the EDG.
EDG will auto start.

Response C - Correct Answer

EDG will auto start.
Run the EDG loaded for at least 1 hour before stopping.
Reference: ST-OP-315-0065, 23.307

Response D

EDG auto starts, load sequencer strips loads.
Dispatch operator to verify proper operation of the EDG.
Loads won't sequence without a loss of power

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords: EDG

Not Archived

Question ID: 34766
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
262001	A2.02	3.6	3.9

References:
ST-OP-315-0065
23.307

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #48 Details
EQ-OP-315-0162-000-A001-001

NRC RO Retake 2003

Question Text

With the plant operating at full power, several alarms, including annunciator 3D22 (UPS UNIT A/B TROUBLE), are received. The following conditions exist:

- UPS Bus A Rectifier DC Output 0 amps
- UPS Bus B Sync Monitor lightON Bright
- UPS Bus A Inverter AC Output Light.....ON
- UPS Bus B Inverter AC Output Light.....ON
- Bypass to Alternate Line Switch (Units A and B).....NORMAL

Which of the following caused annunciator 3D22 to activate?

Response A

Unit B Static Transfer Switch Failure.
Unit B is not affected

Response B

Unit B Test Switch has been placed in "ALT LINE".
Unit B is not affected

Response C

Loss of bus 72R.
72R affects B rectifier

Response D - Correct Answer

Loss of bus 72M.
Reference: ST-OP-315-0062

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords:

Not Archived

Question ID: 34758
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
262002	K4.01	3.1	3.4

References:

ST-OP-315-0062

- | | |
|---|--|
| <input checked="" type="checkbox"/> RO | <input checked="" type="checkbox"/> ILO |
| <input checked="" type="checkbox"/> SRO | <input type="checkbox"/> ESP |
| <input type="checkbox"/> STAC | <input type="checkbox"/> Part A |
| <input type="checkbox"/> STAI | <input type="checkbox"/> Part B |
| <input type="checkbox"/> LOR | <input type="checkbox"/> Open Ref. |
| <input type="checkbox"/> NOC | <input checked="" type="checkbox"/> Close Ref. |
| <input type="checkbox"/> INO | <input type="checkbox"/> Static |

Question #49 Details**EQ-OP-315-0164-000-C002-002****NRC RO Retake 2003****Question Text**

A reactor startup is in progress with the mode switch in START-UP. Due to a malfunction, the 24/48 V Division 1 bus is de-energized. What is the plant response to this event?

Response A - Correct Answer

Half scram, rod block

Reference: ST-OP-315-0023, ST-OP-315-0023

Response B

Full scram, rod block

Only Div 1 affected, causes half scram.

Response C

Full scram, no rod block

Only Div 1 affected, causes half scram.

Response D

Rod block, no half or full scram

Only Div 1 affected, causes half scram.

Author: BOLLINGER

Keywords:

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 2

Question ID: 34791

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
263000	K3.03	3.4	3.8

References:

ST-OP-315-0023

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #50 Details
EQ-OP-315-0165-000-A016-001

NRC RO Retake 2003

Question Text

The plant experienced a loss of Bus 64B.

The bus was subsequently restored to the normal lineup EXCEPT the operators neglected to reset the digital load sequencer.

Following the restoration, all power is again lost to Bus 64B.

How will the EDG and electrical distribution system respond to this event?

Response A

The EDG will require a manual start. The loads on bus 64B will sequence after the output breaker is closed.

EDG auto starts on a loss of power

Response B

The EDG will require a manual start. The loads on bus 64B will NOT sequence after the output breaker is closed.

EDG auto starts on a loss of power

Response C - Correct Answer

The EDG will automatically start. The loads on bus 64B will sequence after the output breaker is closed.

Reference: ST-OP-315-0065

Response D

The EDG will automatically start. The loads on bus 64B will NOT sequence after the output breaker is closed.

Anytime the output breaker closes, and the sequencer has not been reset, the loads will sequence on.

Author: BOLLINGER

Keywords:

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 2

Question ID: 34760

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
264000	K5.06	3.4	3.5

References:

ST-OP-315-0065

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #51 Details
EQ-OP-802-2001-000-R001-005

NRC RO Retake 2003

Question Text

The plant has experienced a seismic event. A small steam leak in the drywell and loss of offsite power have occurred. The following conditions exist:

Drywell pressure.....5 psig
Drywell temperature.....150°F
RHR pumps A, B, D.....running
CS pumps A, B, D.....running
Breaker C8, 4160 X-TIE to Bus 12EB.....closed
Breaker C6, 4160 Normal Feed To Bus 64C.....open

What is the status of the Emergency Diesel Generators (EDG), and what action should be taken?

Response A

EDG 12 is running but not loaded due to bus lockout, Perform actions of 20.300.64C, Loss of Bus 64C

There is no bus lockout because C6 is closed

Response B - Correct Answer

EDG 12 failed to start, perform actions of 20.307.01, Emergency Diesel Generator Failure.

Reference: 20.307.01

Response C

EDG 13 is running but not loaded due to bus lockout, Perform actions of 20.300.65E, Loss of Bus 65E

EDG is running and loaded

Response D

EDG 13 failed to start, perform actions of 20.307.01, Emergency Diesel Generator Failure.

EDG is running and loaded

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords: EDG
4160/480V ELEC

Not Archived

Question ID: 34792
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
264000	A2.10	3.9	4.2

References:
23.307.01

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #52 Details
EQ-OP-802-2001-000-R006-003

NRC RO Retake 2003

Question Text

The plant was operating at 85% power when a progressive loss of IAS occurred. The CRS directed the mode switch placed in shutdown.

Which of the following was the reason the CRS directed shutdown of the plant?

Response A - Correct Answer

Scram Air Header Pressure Low

Reference: 20.129.01

Response B

The SULCV failed open

This will eventually happen, but we're not feeding with SULCV.

Response C

The SRVs failed open.

MSIVs may be affected, not SRVs.

Response D

Condensate Filter Demin Bypass Valve failed open

This might happen, but is not the reason for a scram.

Author: BOLLINGER

Keywords:

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 1

Question ID: 34761

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
300000	K3.02	3.3	3.4

References:

20.129.01

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #53 Details
EQ-OP-315-0167-000-B007-002

NRC RO Retake 2003

Question Text

Reactor Power is raised from 25% to 75%.

Which of the following describes the response of the RBCCW/EECW system?

Response A

The RBCCW differential pressure control valve opens.
More load on system, valve will close.

Response B - Correct Answer

The RBCCW differential pressure control valve closes.
Reference: ST-OP-315-0067

Response C

The RBCCW temperature control valve closes.
More load on system, valve will open.

Response D

The EECW temperature control valve opens.
EECW shut down in this condition.

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords:

Not Archived

Question ID: 34763
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
400000	A1.03	2.7	2.7

References:
ST-OP-315-0067

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #54 Details
EQ-OP-315-0110-000-B002-002

NRC RO Retake 2003

Question Text

Fill in the blanks

The Rod Movement Control Switch is taken to "IN."

__(a)__ Directional Control Valves __(b)__, and the below piston area of the Drive Piston is
__(c)__. .

Response A

(a) 4 (b) deenergize (c) vented

There are 4 Directional Control Valves, but only 2 are energized at a time.

Response B

(a) 4 (b) energize (c) pressurized

There are 4 Directional Control Valves, but only 2 are energized at a time.

Response C

(a) 2 (b) deenergize (c) vented

There are 4 Directional Control Valves, but only 2 are energized at a time.

Response D - Correct Answer

(a) 2 (b) energize (c) pressurized

Reference: ST-OP-315-0010

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords: CRDH

Not Archived

Question ID: 34764
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
201002	K1.01	3.2	3.2

References:
ST-OP-315-0010

RO	<input checked="" type="checkbox"/> ILO
SRO	<input type="checkbox"/> ESP
STAC	<input type="checkbox"/> Part A
STAI	<input type="checkbox"/> Part B
LOR	<input type="checkbox"/> Open Ref.
NOC	<input checked="" type="checkbox"/> Close Ref.
INO	<input type="checkbox"/> Static

Question #55 Details
EQ-OP-315-0111-000-A013-001

NRC RO Retake 2003

Question Text

A reactor startup is in progress with the following conditions:

- Rod Select Power Switch.....ON
- Select button for rod 26-31.....ON
- 3D80, Control Rod Drift.....ON

What is the cause of the Control Rod Drift Alarm?

Response A - Correct Answer

Rod 26-31 at position 35 with the Rod Control Movement Switch in OFF

Reference:ST-OP-315-011

Response B

Rod 26-31 at position 35 with the Rod Control Movement Switch in OUT NOTCH

Rod Drift Alarm is caused by no drive signal, an odd reed switch picked up and or an even reed switch not picked up.

Response C

Rod 26-31 at position 34 with the Rod Control Movement Switch in OFF

Rod Drift Alarm is caused by no drive signal, an odd reed switch picked up and or an even reed switch not picked up.

Response D

Rod 26-31 at position 34 with the Rod Control Movement Switch in OUT NOTCH

Rod Drift Alarm is caused by no drive signal, an odd reed switch picked up and or an even reed switch not picked up.

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords:

Not Archived

Question ID: 34765
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
214000	A3.02	3.2	3.1

References:
ST-OP-315-011

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #56 Details**EQ-OP-802-3002-000-0004-017****NRC RO Retake 2003****Question Text**

The ambient temperature near a Reactor Pressure Vessel (RPV) level instrument has exceeded the RPV saturation temperature.

Which of the following describes the effect on RPV indicated level?

Response A

Boiling in the reference leg increases the sensed differential pressure which results in indicated level decreasing.

Fundamentals question

Response B

Boiling in the variable leg decreases the sensed differential pressure which results in indicated level decreasing.

Fundamentals question

Response C - Correct Answer

Boiling in the reference leg decreases the sensed differential pressure which results in indicated level increasing.

Reference: ST-OP-802-3002

Response D

Boiling in the variable leg increases the sensed differential pressure which results in indicated level increasing.

Fundamentals question

Author: BOLLINGER

Keywords:

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 2

Question ID: 34767

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
216000	K3.24	3.9	4.1

References:

ST-OP-802-3002

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #57 Details**EQ-OP-315-0149-000-A011-001****NRC RO Retake 2003****Question Text**

With regard to the Primary Containment Monitoring System, what is the preferred alignment of the H₂O₂ monitoring subsystem sampling points and why is this alignment preferred?

Response A

Alignment of either Div I or Div II H₂O₂ monitoring subsystem sampling points to the Drywell or the Torus is equally acceptable. Operation of PCRMS is not affected by the sampling point selection.

Rad monitoring is only in Div I and it needs to be aligned to the drywell to be operable.

Response B

Alignment of either Div I or Div II H₂O₂ monitoring subsystem to either the Drywell or the Torus is equally acceptable. PCRMS is not required to be in operation when Ho monitoring is in service.

PCRMS is required to be operable.

Response C - Correct Answer

Div I H₂O₂ monitoring subsystem aligned to the Drywell and Div II H₂O₂ monitoring subsystem aligned to the Torus. This ensures PCRMS will meet its intended function.

Reference: ST-OP-315-0049, 23.408

Response D

Div II H₂O₂ monitoring subsystem aligned to the Drywell and Div I H₂O₂ monitoring subsystem aligned to the Torus. This ensures PCRMS will meet its intended function.

Rad monitoring is only in Div I and it needs to be aligned to the drywell to be operable.

Author: BARRETT

Keywords: CONTAINMENT MON SYS

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 2

Question ID: 34794

Parent ID: 0

Child ID: 0

KA System

KA Number

RO Value

SRO Value

223001

A4.04

3.5

3.6

References:

ST-OP-315-0049

23.408

☒ RO

☒ SRO

☐ STAC

☐ STAI

☐ LOR

☐ NOC

☐ INO

☒ ILO

☐ ESP

☐ Part A

☐ Part B

☐ Open Ref.

☒ Close Ref.

☐ Static

Question #58 Details**EQ-OP-315-0141-000-A021-005****NRC RO Retake 2003****Question Text**

The plant has experienced a LOCA and RHR started in the LPCI mode.

Which of the following describes the operation of the RHR pump Minimum Flow Valve?

The Minimum Flow Valve

Response A

opens when loop flow exceeds 3000 gpm
Actually closes on increasing flow.

Response B

opens when loop flow exceeds 5000 gpm
Actually closes on increasing flow.

Response C - Correct Answer

closes when loop flow exceeds 3000 gpm

Reference: ST-OP-315-0041

Response D

closes when loop flow exceeds 5000 gpm
Fully closed at 3000 gpm

Author: BOLLINGER

Keywords:

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 1

Question ID: 34768

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
226001	K4.05	2.5	2.5

References:

ST-OP-315-0041

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #59 Details
EQ-OP-802-2002-000-0014-003

NRC RO Retake 2003

Question Text

The following conditions exist:

Reactor power.....85%
RPV pressure.....950 psig lowering
In service pressure regulator.....failed high

The operator has performed the following:

Placed the mode switch in shutdown.
Tripped the Main Turbine.
Unsuccessfully attempted to close the Turbine Bypass Valves.

What is the effect on the plant?

Response A

MSIVs close on excessive flow, pressure then stabilizes.
Can't get excessive flow through the bypass valves.

Response B

Turbine control valves throttle open, pressure continues to decrease.
Turbine is tripped, these valves are closed.

Response C

MSIVs close on lowering pressure, pressure then stabilizes.
Mode switch in shutdown removes the MSIV closure on low pressure.

Response D - Correct Answer

RPV pressure decreases, cooldown limit is exceeded.

Reference: 20.109.02 bases

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords:

Not Archived

Question ID: 34769
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
241000	K6.10	3.6	3.7

References:

20.109.02 bases

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #60 Details**EQ-OP-315-0107-000-B007-001****NRC RO Retake 2003****Question Text**

With the reactor operating at rated power, a reduction in the Reactor Feed Pump Suction pressure was observed.

Which of the following is the cause for this lowering of suction pressure?

Response A

Inadvertent initiation of High Pressure Coolant Injection
Causes feed pump suction pressure to increase.

Response B

N22-F415 Heater Drain Pump N disch line LCV failed open
Causes feed pump suction pressure to increase.

Response C

Standby Feedwater was started
Causes feed pump suction pressure to increase.

Response D - Correct Answer

Heater Drain Pumps tripped
Reference: ST-OP-315-0031

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords:

Not Archived

Question ID: 34784
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
259001	A4.03	2.9	3.0

References:
ST-OP-315-0031

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #61 Details
EQ-OP-802-2001-000-0008-002

NRC RO Retake 2003

Question Text

The plant is returning to operation after a refueling outage with power at 25%. The following conditions exist:

East Mechanical Vacuum Pump (MVP).....OFF
West MVP.....OFF
North Off Gas Ring Water Pump.....Tripped
South Off Gas Ring Water Pump.....OFF
6D23 Off Gas 18" Manifold Pressure High.....ON
6D16 Off Gas Sys Mn Cond Press High.....ON
Steam Jet Air Ejector (SJAE) #1.....In service
SJAE #3.....In service

What action should be taken and why?

Response A - Correct Answer

Start the South Off Gas Ringwater Pump to prevent a turbine trip.

Reference: 20.125.01

Response B

Perform a rapid power reduction to prevent a further loss of vacuum.
Can't perform at his level except by scram.

Response C

Start MVPs to lower the 18" Manifold pressure.
Greater than 5% power, can't start MVPs.

Response D

Secure SJAE #1 to lower the 18" Manifold pressure.
Start additional SJAE, not shut them down.

Author: BOLLINGER
Date Last Used:
Time:
Points: 1
Cognitive Level: 2

Keywords:

Not Archived

Question ID: 34797
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
271000	K3.01	3.5	3.5

References:

20.125.01

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #62 Details**EQ-OP-315-0172-000-A021-001****NRC RO Retake 2003****Question Text**

The pre-action sprinkler system for the Warehouse A loading dock activates, causing flow in the Fire Protection Header and causing an Auto start of the Electric Fire Pump. Following isolation of the sprinkler what action(s) is(are) required to be performed to return the Electric Fire Pump to automatic standby?

When the demand on the fire water suppression system is removed and the jockey pump restores normal Fire Header pressure...

Response A

The Electric Fire Pump automatically shuts down and returns to automatic standby.
The Electric Fire Pump does not automatically shut down

Response B

Place Electric Fire Pump CMC switch in OFF/RESET and back to AUTO in MCR.
Must be shut down locally.

Response C - Correct Answer

Place Electric Fire Pump CMC switch in OFF/RESET in MCR. Stop Electric Fire Pump locally. Place Electric Fire Pump CMC switch in AUTO.

Reference: ST-OP-315-0072, 23.501.01

Response D

The Electric Fire Pump is Shutdown locally in the GSW pump house, which restores it to AUTO.

Shutting down locally doesn't restore to AUTO.

Author: BARRETT**Keywords:** FIRE PROT/DET**Not Archived****Date Last Used:****Time:** 0**Points:** 1**Cognitive Level:** 1**Question ID:** 34796**Parent ID:** 0**Child ID:** 0

KA System	KA Number	RO Value	SRO Value
286000	A4.05	3.3	3.3

References:

ST-OP-315-0072

23.501.01

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> IILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #63 Details**EQ-OP-315-0116-000-A018-001****NRC RO Retake 2003****Question Text**

The plant has been operating at 100% thermal power. A transient occurs resulting in an elevated fission product release. The following conditions exist:

- 3D36 Div I/II RB Vent Exh Radn Monitor Upscale trip is in alarm
- 3D36 Div I/II RB Vent Exh Radn Monitor is in alarm

Given the above conditions, what is the status of RB HVAC Fans and isolation dampers, and why?

Response A

RB HVAC continues to operate normally to ensure Secondary Containment pressure remains negative.

RBHVAC is isolated due Secondary Containment Isolation.

Response B

RB HVAC fans trip and isolation dampers remain open to ensure all effluent is processed through SGTS.

RBHVAC is isolated due Secondary Containment Isolation.

Response C - Correct Answer

RB HVAC fans trip and isolate to stop the unfiltered release of radioactive particles to the environment.

Reference: ST-OP-315-0016, 20.000.02 Bases

Response D

RB HVAC fans trip and isolate to prevent overpressurizing the SGTS filter trains.

Has nothing to do with overpressurization of the filter trains

Author: BARRETT
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords: CONTAINMENT
RB HVAC
SGTS

Not Archived

Question ID: 34798
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
290001	K3.01	4.0	4.4

References:

ST-OP-315-0016
20.000.02 Bases

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #64 Details**EQ-OP-802-2001-000-0001-003****NRC RO Retake 2003****Question Text**

The plant is operating at 100% with the following conditions:

Control Room (CR) differential pressure.....0.1" H₂O and lowering
Reactor Building (RB) differential pressure.....-0.2" H₂O and stable
Turbine Building (TB) differential pressure.....-0.25" H₂O and stable
Div 1 CCHVAC Supply fanTripped
Div 1 Master CMC SwitchAuto

What should the operator do and why?

Response A

Enter 20.413.01, Control Center HVAC Failure, start Div 2 CCHVAC to lower CR pressure.
Pressure needs to be raised.

Response B - Correct Answer

Enter 20.413.01, Control Center HVAC Failure, start Div 2 CCHVAC to raise CR pressure.
Reference: 20.413.01, ST-OP-315-0073

Response C

Enter 23.413, Control Center HVAC, ensure Div 2 CCHVAC auto starts to lower CR pressure.
Pressure needs to be raised, there is no auto start.

Response D

Enter 23.413, Control Center HVAC, ensure Div 2 CCHVAC auto starts to raise CR pressure.
Pressure needs to be raised, there is no auto start.

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords: CCHVAC

Not Archived

Question ID: 34800
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
290003	2.4.11	3.4	3.6

References:
20.413.01
ST-OP-315-0073

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #65 Details**EQ-OP-315-0102-000-B001-001****NRC RO Retake 2003****Question Text**

The reactor vessel flange low temperature limit of 71° may be adjusted during the design life of the plant to minimize the possibility of brittle fracture of the reactor pressure vessel and internals.

Which ONE of the following would cause the low temperature limit to be raised?

Response A - Correct Answer

neutron embrittlement

Reference: ST-OP-315-0002**Response B**

core shroud cracking

Based on the vessel, not the shroud**Response C**

chloride stress corrosion

Low temp is not a factor of chloride stress corrosion**Response D**

temperature embrittlement

There is no such thing.**Author:** BOLLINGER**Keywords:** RPV & INTERNALS**Not Archived****Date Last Used:****Time:** 0**Points:** 1**Cognitive Level:** 1**Question ID:** 34783**Parent ID:** 0**Child ID:** 0**KA System****KA Number****RO Value****SRO Value**

290002

K5.05

3.1

3.3

References:

ST-OP-315-0002

☒ RO☒ SRO☐ STAC☐ STAI☐ LOR☐ NOC☐ INO☒ ILO☐ ESP☐ Part A☐ Part B☐ Open Ref.☒ Close Ref.☐ Static

Question #66 Details
EQ-OP-802-4101-000-0026-005

NRC RO Retake 2003

Question Text

What does MOP07, Shift Turnover, say about performing major evolutions during shift turnover?

Response A

Not allowed.
Not IAW with MOP7

Response B - Correct Answer

Can continue with caution after obtaining supervisor permission.
Reference: MOP07

Response C

Can continue with caution after obtaining Operations Engineer permission.
Not IAW with MOP7

Response D

Can continue with caution after Operations Manager permission.
Not IAW with MOP7

Author: BOLLINGER
Date Last Used:
Time: 2
Points: 1
Cognitive Level: 1

Keywords: ADMIN

Not Archived

Question ID: 34772
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
generic	2.1.3	3.0	3.4

References:
MOP07

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #67 Details**EQ-OP-008-0273-000-0104-011****NRC RO Retake 2003****Question Text**

The reactor mode switch is in the shutdown position with average reactor coolant temperature at 200°F, all control rods fully inserted, and all reactor vessel head bolts fully tensioned.

Which operating MODE is the unit in?

Response A

MODE 2

Mode switch in startup

Response B - Correct Answer

MODE 4

Reference: Tech Spec Table 1.1-1**Response C**

MODE 5

Vessel head bolts are fully tensioned

Response D

No specified MODE

We're always in a Mode

Author: BOLLINGER**Keywords:****Not Archived****Date Last Used:****Time:** 0**Points:** 1**Cognitive Level:** 1**Question ID:** 34773**Parent ID:** 0**Child ID:** 0

KA System	KA Number	RO Value	SRO Value
Generic	2.1.22	2.8	3.3

References:

Tech Spec Table 1.1-1

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #68 Details
EQ-OP-802-4101-000-0023-004

NRC RO Retake 2003

Question Text

Performance of a pre-startup valve lineup will involve aligning a valve that is to be locked CLOSED. The valve in question is located in a high radiation area with the dose expected to be greater than 100 mrem. In this situation, independent verification of valve position

Response A - Correct Answer

may be waived by the Shift Manager

Reference: MOP02

Response B

shall be performed at the same time as the initial positioning

Wouldn't be an independent verification

Response C

may be performed by removing the locking device, checking the valve position, and re-installing the locking device

Locking devices are not removed to check locked valve positions

Response D

shall be accomplished by visual verification that the locking device is properly installed

An attempt to turn is to be made

Author: BOLLINGER
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 1

Keywords:

Not Archived

Question ID: 34774
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
294001	2.1.29	3.4	3.3

References:

MOP02

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #69 Details**EQ-OP-315-0190-000-A017-001****NRC RO Retake 2003****Question Text**

Select the correct sequence of new fuel movement from receipt on the Refuel Floor to ready to place in the reactor.

Response A - Correct Answer

Unloading Stand, New Fuel Inspection Stand, Fuel Preparation Machines, Fuel Storage Pool
Reference: ST-OP-315-0190

Response B

New Fuel Inspection Stand, Channel Gauging Stand, Fuel Preparation Machines, Fuel Storage Pool
Wrong sequence

Response C

New Fuel Inspection Stand, Fuel Preparation Machines, Channel Gauging Stand, Fuel Storage Pool
Wrong sequence

Response D

New Fuel Inspection Stand, New Fuel Storage Vault, Fuel Preparation Machines, Fuel Storage Pool
Wrong sequence

Author: BARRETT
Date Last Used:
Time: 0
Points: 1
Cognitive Level: 2

Keywords: REFUELING

Not Archived

Question ID: 34799
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
234000	2.2.27	2.6	3.5

References:
ST-OP-315-0190

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #70 Details**EQ-OP-315-0113-000-A018-001****NRC RO Retake 2003****Question Text**

The plant is shutting down for a mid-cycle outage.

Reactor Power is 20%.

The P603 operator inserted the selected Control Rod past its Group Insert Limit.

All other Control Rods are at their correct positions.

For these conditions, which of the following indications would result?

Response A

An Insert Error and Insert Block

In the transition Zone, only an Insert Error would be generated.

Response B

A Withdraw Error and Withdraw Block

In the transition Zone, only an Insert Error would be generated.

Response C - Correct Answer

An Insert Error

Reference: ST-OP-315-0013, ST-OP-315-0013

Response D

A Withdraw Error.

In the transition Zone, only an Insert Error would be generated.

Author: BOLLINGER

Keywords: RWM

Not Archived

Date Last Used:

Time: 2

Points: 1

Cognitive Level: 2

Question ID: 34775

Parent ID: 0

Child ID: 0

KA System

KA Number

RO Value

SRO Value

201006

2.2.33

2.5

2.9

References:

ST-OP-315-0013

☒ RO

☒ SRO

☐ STAC

☐ STAI

☐ LOR

☐ NOC

☐ INO

☒ ILO

☐ ESP

☐ Part A

☐ Part B

☐ Open Ref.

☒ Close Ref.

☐ Static

Question #71 Details**EQ-OP-508-0001-000-A013-003****NRC RO Retake 2003****Question Text**

Which one of the following describes the annual limits for Total Effective Dose Equivalent (TEDE) as set forth in (1) 10CFR20 and (2) Fermi 2 Administrative Guidelines for those qualified as Full Radiation Worker?

Response A - Correct Answer

1. 5000mrem
2. 1000mrem

Reference: ST-GN-508**Response B**

1. 5000mrem
2. 500mrem

Not IAW ST-GN-508**Response C**

1. 1500mrem
2. 1000mrem

Not IAW ST-GN-508**Response D**

1. 1500mrem
2. 500mrem

Not IAW ST-GN-508

Author: BOLLINGER
Date Last Used:
Time: 2
Points: 1
Cognitive Level: 1

Keywords: _RO retake 2001
ADMIN

Not Archived

Question ID: 34812
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
generic	2.3.1	2.6	3.0
generic	2.3.2	2.5	2.9

References:

ST-GN-508

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #72 Details
EQ-OP-315-0120-000-B007-002

NRC RO Retake 2003

Question Text

In accordance with 23.406, Standby Gas Treatment System procedure; when performing a containment purge, the Standby Gas Treatment System (SGTS) should be used when

Response A

RBHVAC is available.

This is opposite of what's in the procedure.

Response B

effluent release monitoring is required.

Effluent release monitoring is always required

Response C

the containment is NOT completely inerted.

RBHVAC is the preferred choice

Response D - Correct Answer

needed to comply with the Effluent Release Limit.

Reference: 23.406

Author: BOLLINGER

Keywords:

Not Archived

Date Last Used:

Time: 0

Points: 1

Cognitive Level: 1

Question ID: 34777

Parent ID: 0

Child ID: 0

KA System	KA Number	RO Value	SRO Value
	2.3.9	2.5	3.4

References:

23.406

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #73 Details**EQ-OP-802-3002-000-0006-027****NRC RO Retake 2003****Question Text**

During an emergency event in which a LOCA has occurred, RHR Loop B (Pumps B & D) is the only RPV injection available. The plant conditions are as follows:

- RPV pressure.....150 psig
- RPV water level.....-5 inches (steady)
- Torus water level.....- 80 inches (slowly decreasing)
- RHR Loop B flow.....20,000 gpm
- E1150-F015B, Loop B Inbd Iso Vlv.....Full open
- E1150-F017B, Loop B Otbd Iso Vlv.....Full open

The Nuclear Operator in the reactor building calls to report the running RHR pumps are rattling and beginning to vibrate severely.

The operating crew can continue to maintain long term adequate core cooling by:

Response A

Raising the RHR loop flow to 22,000 gpm and RPV level well above TAF.
Might be true if flow wasn't already at max

Response B

Commence adding water to the torus in an effort to lower the water temperature.
Water temperature is not given

Response C

Lowering the RHR loop flow to 17,500 gpm even if RPV water level drops to -40 inches.
Don't lower flow once past L-6 and L-10

Response D - Correct Answer

Allowing conditions to remain as they currently are since the RPV water level is above - 28 inches.

Reference: EOP 29.100.01 SH1, EOP 29.100.01 SH6

Author: BOLLINGER
Date Last Used:
Time: 2
Points: 1
Cognitive Level: 2

Keywords: RHR - GENERAL
VORTEX

Not Archived

Question ID: 34801
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
203000	K3.04	4.6	4.6
203000	A2.16	4.4	4.5
Generc	2.4.6	3.1	4.0

References:

EOP 29.100.01 SH1 Step L-17
EOP 29.100.01 SH6

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input checked="" type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #74 Details**EQ-OP-802-4101-000-0023-005****NRC RO Retake 2003****Question Text**

The plant is in an ATWS evolution. The CRS has directed the P603 operator to inject SLC. In accordance with ODE-10, Emergency Operating Procedure Expectations, what information **MUST** the P603 operator give the CRS when SLC is injecting?

Response A

SLC is injecting, SLC pump discharge pressure, SLC tank level, and time injection started
Not according to ODE-10

Response B - Correct Answer

SLC is injecting, SLC tank level, and time injection started
Reference: ODE-10

Response C

SLC is injecting, time injection started
Not according to ODE-10

Response D

SLC is injecting
Not according to ODE-10

Author: BOLLINGER
Date Last Used:
Time:
Points: 1
Cognitive Level: 1

Keywords: SAG

Not Archived

Question ID: 34778
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
Generic	2.4.13	3.3	3.9

References:
ODE-10

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static

Question #75 Details
EQ-OP-802-4101-000-0028-004

NRC RO Retake 2003

Question Text

In accordance with MOP10, "Fire Brigade", which of the following is a requirement for Fire Brigade members?

Response A

Hold an active RO or SRO License
Not according to MOP10

Response B

Completely qualified as a Nuclear Operator
Not according to MOP10

Response C - Correct Answer

Up to date radworker qualifications
Reference: MOP10 Step 3.1.3

Response D

Up to date confined space qualifications
Not according to MOP10

Author: BOLLINGER
Date Last Used:
Time: 2
Points: 1
Cognitive Level: 1

Keywords:

Not Archived

Question ID: 34779
Parent ID: 0
Child ID: 0

KA System	KA Number	RO Value	SRO Value
286000	2.4.26	2.9	3.3

References:
MOP10

<input checked="" type="checkbox"/> RO	<input checked="" type="checkbox"/> ILO
<input checked="" type="checkbox"/> SRO	<input type="checkbox"/> ESP
<input type="checkbox"/> STAC	<input type="checkbox"/> Part A
<input type="checkbox"/> STAI	<input type="checkbox"/> Part B
<input type="checkbox"/> LOR	<input type="checkbox"/> Open Ref.
<input type="checkbox"/> NOC	<input checked="" type="checkbox"/> Close Ref.
<input type="checkbox"/> INO	<input type="checkbox"/> Static