

License and NRC comments and the resultant changes to Draft Written Exam

RO Exam:

#2 - Formatting, added bullets to stem.

#4 - Formatting, added bullets to stem.

#6 - Simplified stem, changed "in preparation for entering Cold Shutdown" to "Current RCS Temperature is 275°F". Eliminated the human error discussion in stem.

#7 - Changed stem wording from "combined" to "cross connected".

#8 - Formatting, added bullets to stem. Also pulled the words "If valve(s) NOT closed" into the stem.

#21 - Changed question to ask for the rod heights respective of the Rod Insertion Limit that both the "ROD INSERTION LOW LIMIT" AND "ROD INSERTION LOW-LOW LIMIT" alarms will actuate instead of just the "ROD INSERTION LOW LIMIT" alarm.

#25 - Formatting, added bullets to stem.

#26 - Corrected typo in stem, procedure nomenclature should have been ES-0.3.

#28 - Changed choice b to "of 255°F for 52 hours" instead of "> 250°F for > 50 hours" to ensure consistency across all the choices.

#32 - Changed 1200 psig to 1100 psig in the question stem. Updated the numbers in explanation section as well.

#34 - Simplified the choices to a 2/2 format eliminating trivial information regarding specific loading sequence times.

#39 - Changed RWST Temperature in stem from 95°F to 90°F and changed Containment Temperature in stem from 125°F to 120°F.

#42 - Corrected typo in stem. Changed CFU to FCU.

#44 - Clarified all choice wording to state: "may" instead of "would".

#45 - Formatting, added bullets to stem.

#53 - Corrected typo in choice a, changed "rest" to "reset".

#54 - Simplified question by changing the plant initial conditions in the stem to MODE 1 instead of MODE 3.

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SRO Exam:

#1 – Simplified question by bolding the words “next two actions” in stem and changing turbine trip time from 60 seconds to 90 seconds in choices a & b. Also changed AFW flow to 365 gpm in choice b.

#2 – Changed question to ask EOP procedure implementation / strategy differences in a 2/2 format. This corrected a technical error in the original question regarding when a charging pump would be started during EOP implementation.

#3 – Added to the stem that the STA was monitoring Critical Safety Function Status Trees for 30 minutes after the Reactor Trip.

#6 – Reworded the stem to provide better clarification as to the status of the 31 Recirc Pump. Also corrected a typo regarding EDG status, 31 and 33 EDG have started and loaded, 32 EDG has tripped.

#8 – Corrected wording in choices b & c to eliminate “and latch” and “inflate the fuel transfer canal gate valve”. Changed choices to simply state the words “close the fuel transfer canal gate valve”. The change resulted in consistent use of the term in all four choices.

#11 – Corrected typo for “flow” in stem. Also clarified valve nomenclature in choices b & c by simply stating; “close the associated spray valve”.

#14 – Deleted original question and rejected the KA based on asking trivial information. This condition has not been a problem at Indian Point and the instructions to mitigate are in an unused attachment of a normal operating instruction. Replaced with a new question related to the same system and KA category.

#15 – Changed question to more clearly ask the event classification for a loss of off-site power and what personnel can relieve the CRS/SM as Emergency Director. Changed question to a 2/2 format.

#17 – Deleted unnecessary information in the question stem.

#19 – Added an additional condition, “VI; Draining Refueling Cavity Level with fuel in the Reactor Vessel” to stem and reconfigured choices to eliminate any potential for one choice to be a “subset” of another. Also deleted “Upper or” from stem condition III.

#21 – Corrected typo, all four choices should have stated “32 EDG” instead of “33 EDG”.

#23 – Changed choice d from “Site Vice President” to “Radiation Protection Manager”.

#24 – Changed wording in stem from “must” to “may”.

Licensee and NRC comments and resultant changes to the Operating Exam

Simulator Scenarios:

1. Based on input from examiners, decided to make Scenarios 2 and 5 the spares.
2. Updated all Scenarios with more specific Technical Specification action requirements.
3. Updated Scenario 1 with the following changes:
 - a. Changed event #2 to 31 Steam Generator Pressure (PT-419B) Channel fails high from 31 Steam Generator Loop 1B Steam Flow Channel failing high.
 - b. Updated associated bistable trip information for event #2.
 - c. Provided specific required procedural steps to isolate #31 SG in E-2 (event 8).
4. Updated Scenario 4 with the following changes:
 - a. Changed event #1 to 35 SWP trips from 33 SWP trips.
 - b. Swapped the order of events #2 and #3/4. This ensured that the ATC was able to respond to the failure of NI41 prior to the shutdown initiation and subsequent loss of 5A bus.
 - c. Added "before exiting ECA-0.0" to critical task ECA-0.0 standard (events 7 & 8).

Simulator JPMs:

1. Updated all to include validation times.
2. Updated the alternate path JPMs to state "ALTERNATE PATH BEGINS HERE".
3. Deleted Excess Letdown JPM from RO JPMs due to safety system overlap and examiner comments. Replaced with "Transfer Buses 1-4 to the Station Aux Transformer".
4. Deleted Excess Letdown JPM from SRO JPMs due to examiner comments and replaced with "Fill an Accumulator with an SI Pump".
5. Updated initial conditions on Turbine First Stage Pressure Transmitter failure JPM to 50% Reactor Power.
6. Updated initial conditions on the AOP-RHR-1 JPM and stated in cue that an additional operator would handle RCS inventory control.
7. Updated the RCS depressurization JPM with additional termination criteria from step 19 of E-3 and a specific follow-up question if step 19 termination criteria are met.
8. Changed the Swapping Service Water Pump JPM to remove 36 SWP instead of 33 SWP.
9. Added the seven (7) specific Phase B isolation valves that require isolation in the Verify Containment Spray JPM.

In-Plant JPMs:

1. Updated In-Plant JPM 3, "Local Charging Pump Operation from RWST with CCW not available" to cue the loss of all CCW instead of providing information upfront in the initial conditions.

Licensee and NRC comments and resultant changes to the Operating Exam (cont.)

RO Admin JPMs:

1. Changed RO Admin #1 to “Electrical Verification – Offsite Power Sources Surveillance” from “Perform a Shutdown Margin Calculation” based on initial Licensee feedback that the shutdown margin calculation was only performed via computer station in the control room. Changed KA from 2.1.37 to 2.1.18.

SRO Admin JPMs:

1. Changed SRO Admin #1 to “Update Electrical Power Availability for Shutdown Safety Assessment” from “Perform a Shutdown Margin Calculation” based on initial Licensee feedback that the shutdown margin calculation was only performed via computer station in the control room. Changed KA from 2.1.37 to 2.1.18.
2. Corrected the SRO Admin #2 listed KA from 2.2.41 to 2.1.25.
3. Corrected SRO Admin #4 answer key and step standard for Permissible Radioactive Discharge Rate (Dr) calculation to 1995 gpm from 1950 gpm.
4. Changed SRO Admin #5 to “Classify Event and Complete Form EP-1, Part 1” from “Determine Protective Action Requirements” based on initial Licensee feedback. Changed KA from 2.4.44 to 2.4.41.