

Salem 07-01 NRC Written Exam Post Exam Change

During the initial grading of the Salem NRC Written exam conducted on September 4, 2008, a question was identified as having 2 correct answers.

RO Exam Question 43

Which ONE of the following indications is NOT available at the Hot Shutdown Panel 213?

- A. PRT pressure.
- B. CCW Surge Tank levels.
- C. CCW header pressures.
- D. 21-24 SG Narrow Range levels.

Correct Answer: C

Reference Title: Hot Shutdown Station Panel 213

Facility Reference: Drawing 217149 Rev. 23

Explanation of Answer: All of the choices are at the HSD panel except CCW header pressure. That is not present in the control room.

Station Comments on justification for accepting 2 correct answers "A" and "C":

The Hot Shutdown Panel 213 does NOT contain CCW header pressures as noted in the original question. During exam review, it was noted that ALL candidates chose choice "A". When the question was reviewed, it was noted that PRT pressure, choice "A" is also NOT available at the Hot Shutdown Panel, and is a correct choice along with the answer key identified choice "C".

There are 2 possible causes for this to have been missed during the exam review and validation. The first is that it was somehow overlooked by the Exam Author, Reviewer, and Validators. The second is that it may have been inadvertently changed from "PZR" pressure to "PRT" pressure during a spell check in the Access Database where the exam was constructed. PZR pressure IS available at the Hot Shutdown Panel.

**Salem Written Exam
Post Exam Comment Resolution**

Licensee Comment: Accept 2 answers for RO question #43.

Resolution:

This question was inadvertently modified by the licensee after the question had been approved. During the final exam review by the licensee, a spell check was completed for all questions. Originally, the approved version of question #43 read:

"Which ONE of the following indications is NOT available at the Hot Shutdown Panel 213?

- a. **PZR Pressure**
- b. *CCW Surge Tank levels*
- c. *CCW header pressures*
- d. *21-24 SG Narrow Range levels"*

During the final exam review process by the licensee, distracter "A" was changed to read:

- a. **PRT Pressure**

This change most likely occurred during the final spell-check of the exam.

PRT pressure is not available on Hot Shutdown Panel 213. PZR pressure is available on the Hot Shutdown Panel. This fact was established by the licensee and subsequently verified by a review of Salem Unit 2 Engineering Drawing 219456 rev 30.

As a result, the NRC has accepted the licensee's post exam contention and accepted 2 answers for RO question #43, "A" and "C".

Discussion of JPM Sim e (SRO) extra Tech Spec identification in NRC Exam

During performance of Sim JPM e (SRO Only) 2 of the 4 operators identified a Tech Spec entry requirement not contained in the JPM.

The JPM contained a Task Standard of identifying TSAS 3.6.2.3 for INOPERABLE CFCU. This JPM has the operator perform surveillance S2.OP-ST.CBV-0003, Containment Systems-Cooling Systems, for 25 CFCU operability. In the Purpose section of the procedure, it states that it is intended to demonstrate operability of the CFCU by ensuring it starts in LO speed, operates for 15 minutes, and has the minimum required service water flow through it, to satisfy TS Surveillance requirements 4.6.2.3.b.1,2 and 3.

The Acceptance Criteria do not specify what Tech Spec entry is required if the CFCU fails the surveillance. Since it is being tested to confirm operability of the CFCU which is covered under TSAS 3.6.2.3, it is logical to infer that that is the Tech Spec that will be entered. All 4 of the candidates, when presented information that showed the surveillance was unsat, identified this Tech Spec as applicable.

2 candidates went further than the Task Standard of the JPM, and identified that the Containment Integrity Tech Spec 3.6.1.1 was also applicable, as discussed in S2.OP-SO.SW-0005, Service Water System Operation, Attachment 2, Service Water System Operability Guidelines, page 126-127. The containment integrity Tech Spec is entered until the CFCU has been electrically isolated.

While this was excellent performance on the part of the 2 SRO candidates who identified this additional Tech Spec requirement, it should not be considered for inclusion in this JPM for this exam administration because:

1. It was not in the Task Standard for Successful Completion for the reviewed, validated and approved JPM for this exam.
2. The 2 candidates who did not identify the additional Tech Spec may have had the JPM terminated after the identification of the Tech Spec identified in the standard, as called for in the JPM. This would have prevented them from further investigating additional requirements associated with the inoperable CFCU.

Discussion of Critical Task #3 contained in NRC Exam ESG-2

During the performance of Exam Scenario Guide -2 during the administration of the Salem 07-01 Initial License, the #3 Critical Task was only partially performed by both of the crews. The critical task in the ESG-2 is:

CT#3 (ECA-1.1 -- B): Make up to the RWST and minimize RWST outflow prior to Lo Lo level where ECCS pumps must be stopped

Basis: Under the postulated plant conditions, failure to establish make up flow to the RWST and/or to minimize RWST outflow leads to or accelerates depletion of the RWST inventory to the point at which the ECCS pumps taking suction on the RWST must be stopped. Loss of pumped injection coincident with loss of emergency cooling Recirculation will lead to a severe or an extreme challenge to the core cooling CSF. Failure to perform the critical task causes these challenges to occur needlessly or, at best, prematurely. Thus failure to perform the critical task leads to “significant reduction in safety margin beyond that irreparably introduced by the scenario.” It also represents “demonstrated inability by the crew to take an action or combination of actions that would prevent a challenge to plant safety.”

The 2 crews failed to minimize RWST outflow prior to reaching the lo lo level setpoint of 1.2’ in the RWST. When this level was reached, the crews stopped all operating ECCS pumps taking suction from the RWST IAW the LOCA-5 Continuous Action Step...

<u>CONDITION</u>	<u>ACTION</u>
“RWST LEVEL LO LO ALARM (1.2 FT)	STOP SAFEGUARDS PUMPS WITH SUCTION FROM THE RWST

Salem feels that this Critical Task remains valid despite the inability of the crews to reach the step (13) of EOP-LOCA-5 for SI Flow Reduction to One Train. The crews inability to reach this step can be attributed to:

- An Initial License Crew is comprised of 3 operators, a SRO and 2 control board operators. The number of malfunctions inserted into the scenario places the plant in an area outside the DBA to allow better observation of the operators. This introduces actions which are not necessarily considered in the Westinghouse Critical Task Book.