

Based upon a review of the 2011 NRC written exam for the initial license class the following issues arose.

QUESTION 82 (2 of the 3 SRO candidates missed this question)

Question:	SRO Question # 82
<p>Given the following:</p> <ul style="list-style-type: none"> • The plant is at 100% power • The Shutdown Transformer is out of service • A grid disturbance results in momentary LINE 342 and 355 UNDERVOLTAGE alarms, C3R-A7 and C3R-A8 • The Main Generator Voltage Regulator trips to manual • Main Generator voltage and MVAR loading is stabilized using the Manual Voltage Regulator • ISO New England/NSTAR notifies PNPS that voltage cannot be maintained ≥ 343.5 KV if Pilgrim were to trip. <p>Which one of the following is correct regarding offsite notifications IAW PNPS 2.4.144, Degraded Voltage?</p> <p>Notify:</p>	
A.	ISO New England within 30 minutes that the Main Generator Voltage Regulator is in Manual. NRC notification is not required.
B.	ISO New England within 60 minutes that the Main Generator Voltage Regulator is in Manual. NRC notification is not required.
C.	ISO New England within 60 minutes that the Main Generator Voltage Regulator is in Manual. NRC notification of plant status is required.
D.	ISO New England within 30 minutes that the Main Generator Voltage Regulator is in Manual. NRC notification of plant status is required.

The stem of the question states that the Shutdown Transformer is "Out of Service". It is the belief of Pilgrim Nuclear Power Station Operations and Training department management that this wording is ambiguous and confusing to the students and leads to two correct answers.

The Shutdown transformer is a source of standby offsite power to the plant during periods when the normal supply of offsite power (startup transformer) is not operable or available. It is normally not in service supplying any power boards or loads and is therefore considered out of service during normal plant ops (similar to how the core spray and Residual Heat Removal systems are not normally in service but are available and operable during normal plant ops).

Students are taught that equipment is either operable or inoperable throughout the course. No intermediate state exists. Throughout the exam (6 times) the words "inop", "inoperable" or "inoperative" are used to describe equipment status and in most cases tech spec allowable out of service times given. In the only other question (#56) that uses the term "out of service" it is clearly stated that the equipment is danger tagged out of service (i.e. clearly inop).

For this question two of the three SRO candidates concluded that the shutdown transformer was available, in standby, but not in service. These students reasonably assumed that, "out of service", as the phrase was used in this question, meant that the equipment was in its ***normal standby*** condition (operable, available to perform its intended function but not in service until needed). This led two of the three students to conclude that answer **A** would be correct because the only inop source of offsite power would be from the startup transformer. Therefore, the direction given in subsequent step 4.2.a of PNPS 2.4.144 would not apply. The other student interpreted that "out of service" meant Tech Spec inop. This led that student to conclude the correct answer was **D** because both the startup and shutdown transformers were inop. Therefore, the direction given in subsequent step 4.2.a of PNPS 2.4.144 applied.

Pilgrim Nuclear Power Station Operations and Training department management proposes that because of the inconsistent and interpretive nature of the information given in the stem of the question, both A and D be allowed as correct answers.

A condition report (CR #2011-988) has been initiated to perform a determination as to why this issue was not captured during the in house exam validation process.

QUESTION 90 (All three SRO candidates missed this question)

Question:	SRO Question # 90
Given the following:	
<ul style="list-style-type: none"> Reactor level is +30" on the feedwater range level indication and steady. On the SPDS Critical Plant Variables Display, the digital readout for RPV "ACTUAL LEVEL" is displayed in YELLOW numbers reading +32" and surrounded by a YELLOW border. 	
The SPDS display means that the SPDS calculated RPV water level	
A.	has exceeded the allowable difference between the calculated value and the output of the feedwater level control instruments.
B.	has reached the high level alarm setpoint.
C.	has insufficient data to validate the calculation
D.	is using at least one bad data input in its calculation.

The stem of this question is not technically accurate. It is not possible under any circumstances for the following statement to be true, "the digital readout for RPV "ACTUAL LEVEL" is displayed in YELLOW numbers reading +32...."

SPDS values are always displayed in white characters. The only color change would occur on the borders surrounding the characters.

The following is an excerpt from station procedure 2.6.1, page 27 describing the SPDS color codes,

"WHITE - used for static display demarcation lines, coordinate axis, labels, structural features, etc. Also used for dynamic elements as follows:

a. System Status - used when a system is operating in the intended mode but there is insufficient flow to signify that the intended function is being accomplished (e.g., LPCI is running and lined up to the RPV but RPV pressure is too high to permit injection).

b. Limit Tags - used for permissive limits when required plant conditions are satisfied to permit an action (e.g., DW Spray is permitted).

c. Text - used for all text. This includes all limit and alarm tag text as well as system status (e.g., pump run) and event status (e.g., Scram, No Scram) text, and all numerical values unless set to Bad Data."

Any change in color of the text could lead the students to conclude that there are significant errors occurring with the process computer. No given answer reflects problems with the computer and thus the stem of the question is unintentionally misleading.

Pilgrim Nuclear Power Station Operations and Training department management proposes eliminating this question because the stem of the question made any of the answers and the entire question implausible.

A condition report (CR #2011-988) has been initiated to perform a determination as to why this issue was not captured during the in house exam validation process.