

Handout:

***Assess proposed
SRO questions to
see if the
requirements are met***

001 Control Rod Drive System (CRDS)

A2.19 Ability to (a) predict the impacts of the following malfunction or operations on the CRDS and (b) based on those predictions, use procedures to correct, control, or mitigate the consequences of those malfunctions or operations: Axial Flux Distribution
[CFR 41.5 / 43.5/ 45.3/ 45.13] SRO 4.0

During a power increase on Unit 1, the following timeline of events occurred:

- 18:00 Power stabilized at 85% for calorimetric. Δ flux target was 0.0%; Δ flux readings were in the target band for the past 48 hours.
- 18:01 Rod control circuit malfunction causes rods to insert
- 18:02 Rod motion is stopped

	<u>Δ Flux</u>	<u>NI-41</u>	<u>NI-42</u>	<u>NI-43</u>	<u>NI-44</u>
18:03	-13.0%	85%	84%	85%	86%
18:17	-13.0%	85%	84%	85%	86%
18:37	-10.0%	85%	84%	85%	86%
19:05	-6.0%	85%	84%	85%	86%
19:10	-5.0%	85%	84%	85%	86%

Which ONE of the following completes the statement in accordance with Tech Spec 3.12, Control Rod Assemblies and Power Distribution Limits, and Tech Spec Bases?

At 19:11, reactor power _____ allowed to be raised above 90%, and the reason for this is because _____.

[REFERENCE PROVIDED]

- A. is NOT;
radial xenon distribution has been affected to the extent that a reactor power reduction and subsequent power range high flux trip setpoint reduction are required.
- B. is NOT;
axial xenon distribution has been affected to the extent that a reactor power reduction and subsequent power range high flux trip setpoint reduction are required.
- C. is;
radial xenon distribution in the core was NOT affected such that the heat flux peaking factors changed and can be returned within the target band at 100% power.
- D. is;
axial xenon distribution control at less than 90% power is not as significant as at 100% power; allowances in the accident analyses (bases for Δ flux procedures) account for heat flux peaking factors during accidents at less than 90% power.

295026 Suppression Pool High Water Temperature

**A2.03 Ability to determine and/or interpret the following as they apply to SUPPRESSION
POOL HIGH WATER TEMPERATURE: Reactor Pressure**

[CFR: 41.10 / 43.5 / 45.13] SRO 4.0

88. An event on Unit One has resulted in the following plant conditions:

Reactor pressure	1000 psig
Reactor Water Level	120 inches
Control Rod Positions	All unknown
APRMs	Downscale
Drywell pressure	3 psig
Supp. Pool pressure	2 psig
Supp. Pool water temp	150° F
Supp. Pool water level	-4 feet

(Reference provided)

Which one of the following identifies the status of the Heat Capacity Temperature Limit (HCTL) and the required procedure for reactor pressure control?

<u>HCTL</u>	<u>Pressure Control Leg of Procedure</u>
A. has been exceeded	RVCP
B. has been exceeded	LPC
C. has NOT been exceeded	RVCP
D. has NOT been exceeded	LPC

003 Dropped Control Rod

AA2.01

Ability to determine and interpret the Rod position indication to actual rod position as they apply to the Dropped Control Rod

[CFR: 43.5/ 45.13]

RO 3.7/ SRO 3.9

Unit 3 is at End of Core Life and Control Bank D Rod M-8 dropped into the core.

One hour after retrieval of Rod M-8, the SRO directs the RO to *"Verify all RCC Assemblies are Aligned to Within the Allowed Rod Misalignment of Step Counters."*

- The "D" Bank step counters currently read D-180 steps.
- RPI indications are:

Control Rod RPI	Indication
M-8	167
H-8	166
O-8	195
H-4	160
H-12	199

As defined by Tech Specs, which ONE of the following describes the condition of Control Bank "D" rod indications and the required SRO response (if any)?

- A. Only Control Rod H-4 exceeds the Allowed Rod Misalignment
Direct RO to restore H-4 alignment w/i 1 hr or reduce power <75% w/i 1 hr
- B. Only Control Rods H-4 & H-12 exceed the Allowed Rod Misalignment
Direct RO to restore H-4 & H-12 alignment w/i 1 hr or Hot Standby w/i 6 hrs.
- C. All control rods in Bank "D" exceed the Allowed Rod Misalignment
Direct RO to restore all Bank "D" rods alignment w/i 1 hr or Hot Standby w/i 6 hrs
- D. All control rods in Bank "D" are within the Allowed Rod Misalignment
No SRO response is required

K/A 295021 Loss of Shutdown Cooling

AA2. Ability to determine and/or interpret the following as they apply to LOSS OF SHUTDOWN COOLING :

AA2.03 Reactor water level

- CFR: 41.10 / 43.5 / 45.13
- RO 3.5 / SRO 3.5

Unit 1 is in Hot Shutdown with "1B" Residual Heat Removal (RHR) aligned for Shutdown Cooling at 7700 gpm with the following conditions:

- o Reactor Coolant temperature / level 220°F / +37"
- o Both Reactor Recirculation Pumps are secured

An electrical fault causes 1E11-F009, "SDC Suction VLV" to CLOSE and it cannot be re-opened. Which ONE of the following choices completes the following statements?

Reactor water level (1) adequate to ensure there is a flow path available for reactor coolant natural circulation. The Shift Supervisor will direct performance of (2).

- A. is **NOT** / 34SO-B31-001-1, "Reactor Recirculation System", Section 7.1.2, "Recirc pump A(B) Startup"
- B. is / 50AC-MNT-001-0, "Maintenance Program" section 8.1.7, "Emergency Maintenance"
- C. is **NOT** / 34SO-E11-010-1, "RHR System" section 7.4.2, "Shifting Shutdown Cooling Loops"
- D. is / 34GO-OPS-013-1, "Plant Shutdown" Attachment 1, Cooldown / Depressurization Check", every 15 minutes