

## ArevaEPRDCPEm Resource

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**From:** Curran, Gordon  
**Sent:** Thursday, April 18, 2013 10:47 AM  
**To:** Hearn, Peter  
**Cc:** McKenna, Eileen; Lee, Samuel; Snyder, Amy  
**Subject:** RE: Advanced Response to U.S. EPR Design Certification Application RAI No. 525 (6194, 6154), FSAR Ch. 9, Questions 09.01.04-22, -24, -25, -26 & -30

Peter,

I looked over RAI 9.1.4-22 Advanced response and have some items to discuss. This RAI response may not qualify as an advanced RAI response that only requires clarifications, since the response didn't address some of the question. The response contains only a markup of a table of interlocks and lacks any description of the table or interlocks. The response refers to some interlocks as Tier 2\* with no description or rationale. In addition, I&C provided input on the RAI response and have questions. We have the following feedback:

1. Suggest to provide in RAI response a summary description and purpose of the interlocks shown in the FSAR table. Also, consider including Table 9.1.4-2 in RAI response and including information similar to RAI 385, Page 10 of 44 (Item d) in FSAR for the non-Tier 2\* interlocks.
2. General clarifications:
  - CF5 and CF10, clarify "anti-seismic locking device for the upper cover hoist" which is switched off on emergency stop.
  - CF7, clarify if "Alarm off on SFCTF HIS" be shown as "Alarm 'off' on SFCTF HIS" in the clearance column
  - CF15, confirm whether "and" missing in Description and "sensor" spelled incorrectly
  - CF16, clarify which seals are referred to in description and what valves is AA013
  - CF18, clarify whether alarm is only activated during operation or also during non-use
  - Clarify why the "Control Function" numbers are not in sequential order. Clarify whether controls not listed or missing.

3. Areva's disposition of RAI 9.1.4-22 response states:

"A new table and text will be added to the U.S. EPR FSAR that provides a description of the interlock and emergency stop protection associated with the SFCTF equipment. Some of these interlocks are designed for Tier 2\*. U.S. EPR FSAR Tier 2, Section 9.1.4.5 will be revised to include a new U.S. EPR FSAR Tier 2, Table 9.1.4-2—SFCTF Non-Safety Related Interlocks and Emergency Stops."

To fully understand the interlocks, suggest RAI response contain an summary and purpose of the interlocks and the Tier 2\* portions.

4. The RAI 9.1.4-22 FSAR markup provides a table of interlocks and a statement referring to the "following" interlocks. It is not clear what the "following" is referencing (i.e. list, bulleted items, discussion, etc.). The RAI response states:

"The following SFCTF interlocks and emergency stops are described in Table 9.1.4-2-SFCTF Non-Safety Related Interlocks and Emergency Stops."

It seems like this statement is missing something and reader expects a list, bulleted items, or similar. Possibly, remove word "following"

5. Table 9.1.4-2 contains undefined parameters/items and their location (i.e. valve AA013, relay torque switches, etc...) or inconsistent titles of components.
6. Areva failed to address the portion of the RAI question that requested clarification of Table 09.01.04-15-6 (provided in previous RAI 9.1.4-15 response) and justification why table was not included in FSAR. The response does not include any discussion of Table 09.01.04-15-6. This table provides a very good summary of how the system safely operates at each stage during the loading process.
7. NRC I&C has the following questions (see attached) regarding the interlock table provided in the RAI 9.1.4-22 response:

“Please see my comments on response to RAI Question 09.01.04-22 and the corresponding DC markup:

1. In the new Table 9.1.4-2 created, pressure and temperature sensors are included for protection interlock, but these two types of sensors are not included in the list of I&C devices.
2. The interlock description for the re-classified accelerometers and its associated circuit breaks are not clear in the new Table 9.1.4-2.”

The list of I&C devices referenced above as not including two types of sensor is found in RAI 9.1.4-38 response.

8. Suggest to include ITAAC to verify interlocks are included and properly operate.

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**From:** Snyder, Amy  
**Sent:** Friday, March 15, 2013 1:58 PM  
**To:** Curran, Gordon  
**Cc:** Segala, John; Hearn, Peter; McKirgan, John; Lee, Samuel  
**Subject:** FW: Advanced Response to U.S. EPR Design Certification Application RAI No. 525 (6194, 6154), FSAR Ch. 9, Questions 09.01.04-22, -24, -25, -26 & -30

Not sure if Peter is in today- and AREVA has a backup person sending us RAI responses and they are not copying the Chapter PM-

So I am moving this forward today (see attached RAI response) but will ask Peter to followup on this to ensure it gets to the right people.

If you have questions, please work with Peter.

Thank you.

Amy

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