

ArevaEPRDCPEm Resource

From: Miernicki, Michael
Sent: Thursday, November 07, 2013 3:42 PM
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Cc: McKenna, Eileen; Curran, Gordon; Hearn, Peter; Segala, John; Gleaves, Bill; ArevaEPRDCPEm Resource
Subject: US EPR DC DRAFT RAI 620, Chapter 9, Section 09.01.05 Overhead Heavy Load Handling Systems
Attachments: Draft RAI 620 BPTS _7255.docx

Attached please find Draft RAI No. 620 regarding your application for standard design certification of the U.S. EPR. If you have any questions or need clarification regarding this Draft RAI, please let me know as soon as possible, I will have our technical Staff available to discuss them with you.

Please also review the Draft RAI to ensure that we have not inadvertently included proprietary information. If there is any proprietary information, please let me know within the next ten days. If I do not hear from you within the next ten days, I will assume there are none and will make the Draft RAI publicly available.

Thank you,

Mike

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Draft Request for Additional Information 620

Issue Date: 11/07/2013

Application Title: U. S. EPR Standard Design Certification - Docket Number 52-020

Operating Company: AREVA NP Inc.

Docket No. 52-020

Review Section: 09.01.05 - Overhead Heavy Load Handling Systems

Application Section: 9.1.5

QUESTIONS

09.01.05-25

In accordance with 10 CFR50 Appendix A and GDC 1, OHLHS and equipment in and around the area of the OHLHS should be properly designed, fabricated, and installed to reduce the likelihood of a single failure. A failure that could cause the release of radioactive materials from damaged irradiated fuel, a criticality accident, or damage to essential safe-shutdown equipment could cause unacceptable radiation exposures.

Based on the staff's review of US-EPR FSAR Revision 5, the following questions are needed related to the Heavy Load Handling.

1. Table 9.1.5-1 includes a listing of the primary HLHE which are located in areas containing safety-related equipment that could be potentially impacted by drops of heavy loads. Since these cranes are located in areas containing safety related equipment, the staff needs to verify their classification. However, details of some cranes are not found. Please address the following:

- a. Table 3.2.2-1 refers to "Auxiliary Crane" and Table 9.1.5-1 referring to "Fuel Building Auxiliary Crane". Confirm these are referencing the same component and reword for consistently.
- b. Table 3.2.2-1 refers to "Outdoor Crane" and Table 9.1.5-1 refers to "Gantry Crane" located outside fuel building. Confirm these are referencing the same component and reword for consistently.
- c. Table 9.1.5-1 shows a "Decontamination Area Crane". Clarify where this crane classification is located in Table 3.2.2-1.

GDC 4 requires protection for SSCs important to safety against the effects of internally-generated missiles. GDC 4 applies to SRP Section 9.1.5 because GDC 4 specifies protection against the effects of internally-generated missiles (i.e., dropped loads). A dropped heavy load in a critical area could cause a release of radioactive materials, a criticality accident, or inability to cool fuel within the reactor vessel or spent fuel pool or could prevent safe shutdown of the reactor.

2. The statement found in RAI 9.1.5-24 and RAI 9.1.4-26 response, and FSAR (Rev 5) Section 9.1.5.2.4 appears inaccurate. FSAR Section 9.1.5.2.4 states:

"Design of these devices, in accordance with ASME NOG-1, ensures that the criteria specified in CMAA-70, 2000 and ASME B30.2-2005 is satisfied."

The staff understands CMAA 70 and ASME NOG-1 are design standards and do overlap. However, ASME B30.2 includes a small amount of design information, but it also includes operational, maintenance, and testing/inspection attributes that are not in the other standards. Therefore, the staff requests Areva to provide additional details to justify how meeting NOG-1 ensures B30.2 is met.

3. The statements found in RAI 9.1.5-24 response and FSAR Revision-5 seems contradictory. It is unclear to the staff whether ANSI N14.6 is applicable to the SFCTF components. FSAR Section 9.1.5.2.4 contains both of the following statements:

“These lifting devices are not conventional cranes, but components of these devices are designed per the guidance of ASME NOG-1 for Type I cranes and ANSI N14.6-2004 (Reference 9).”

“Since these lifting devices do not require the use of special below the hook lifting devices, the criteria of ANSI N14.6 and ASME 30.9, for below the hook lifting devices, do not apply.”

Provide additional details regarding application of ANSI N14.6