NRR-PMDAPEm Resource

From: Wang, Alan
Sent: Thursday, July 31, 2014 1:53 PM
To: BURMEISTER, BARRY M; WILLIAMSON, DANNY H; Joseph Clark (JCLARK@entergy.com)
Cc: Burkhardt, Janet
Subject: River Bend Station, Unit 1, Request for Additional Information Regarding Heavy Load Movement Over Fuel Assembleis (TAC No. MF2495)

Barry, Danny, and Joey,

by letter dated July 29, 2013 (Agency-wide Documents Access and Management System (ADAMS) Accession No. ML13214A334), Entergy Operations, Inc., (Entergy, the licensee) requested an amendment to revise the River Bend Station, Unit 1 (RBS) Technical Specification (TS). Specifically, the requested amendment would allow movement of a heavy load (spent fuel pool gates) over stored fuel located in the Spent Fuel Pool (SFP).

In reviewing the License Amendment Request (LAR), the US Nuclear Regulatory Commission (NRC) staff used the guidance of NRC Standard Review Plan (SRP) Section 9.1.5, "Overhead Heavy Load Handling Systems," and NUREG-0612, "Control of Heavy Loads at Nuclear Power Plants." The NRC staff also considered precedent from past license amendments associated with similar load handling activities. The NRC staff has reviewed the July 29, 2013, submittal and has determined that the following additional information is required to complete its review of the amendment request:

1) The guidance in Section 4.1, "Reeving System," of NUREG-0554, "Single-Failure-Proof Cranes for Nuclear Power Plants," which is referenced by both SRP Section 9.1.5 and NUREG-0612, calls for a dual, balanced reeving system. The proposed configuration using two cranes fails to ensure a similar balance in loading between the two reeving systems. This configuration could easily allow for overload of the individual hoist reeving systems due to uncoordinated movement of the two cranes. Explain how this overload condition would be reliably avoided or provide a load drop analysis demonstrating that potential consequences of hoist system failure would be within limits specified within the regulatory guidance.

2) Section 5.2.d of Attachment 1 to the amendment request includes the following statement:

> RBS has evaluated the rigging components for 2/3 of the unhinging load. The calculations did not consider dynamic load as required by ASME B14.6. Thus, the lifting devices have been further evaluated for having adequate margin (safety margin of at least 10) by considering the static and dynamic loads.

Explain in detail how static and dynamic loadings associated with hoist failures and uncoordinated movements of the two cranes were considered in the evaluation of all rigging components. Address the effect on safety margins if the distance between cranes were to increase. Explain how specified safety margins would be maintained considering potential changes in rigging configuration or propose an alternate rigging configuration using a single hoist.

This request was discussed with Mr. Danny Williamson of your staff on July 31, 2014, and it was agreed that a response would be provided within 30 days from the issuance of this email. If circumstances result in the need to revise the requested response date, please contact me at (301) 415-1445 or via e-mail at Alan.Wang@nrc.gov.

Alan B. Wang

Project Manager (River Bend Station)

Nuclear Regulatory Commission

Division of Operating Reactor Licensing

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