

## NRR-PMDAPEm Resource

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**From:** Barillas, Martha  
**Sent:** Monday, June 16, 2014 1:25 PM  
**To:** Richard.Hightower@duke-energy.com; Connelly, Scott (Scott.Connelly@duke-energy.com)  
**Cc:** Regner, Lisa; Rosenberg, Stacey; Cheruvenki, Ganesh  
**Subject:** H. B. Robinson MRP-227-A RAI status (TAC No. ME9633)

Richard,

By letter dated September 26, 2012 (Agencywide Documents Access and Management (ADAMS) Accession No. ML12278A398), as supplemented by letters dated May 23, 2013 (ADAMS Accession No. ML13156A144) and July 25, 2013 (ADAMS Accession No. ML13219A252), Carolina Power and light Company (currently known as Duke Energy Progress, Inc.) (the licensee), submitted an aging management program (AMP) for the reactor vessel internals (RVI) at H.B. Robinson Steam Electric Plant, also known as Robinson Nuclear plant (RNP). The Materials Reliability Program (MRP)-227-A report, "Pressurized Water Reactor Internals Inspection and Evaluation Guidelines," (ADAMS Accession No. ML120170453) and its supporting reports were used as technical bases for developing Robinson's AMP. The Nuclear Regulatory Commission (NRC) staff reviewed this MRP-227-A report and issued a final safety evaluation (SE) on December 16, 2011 (ADAMS Accession No. ML11334A009). The NRC staff developed a set of RAIs for RNP (ADAMS Accession No. ML13240A499) and it includes issues related to Action Item 1 of the staff's SE for the MRP-227-A.

By letter dated January 8, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14016A279), the U.S. Nuclear Regulatory Commission (NRC) staff issued a follow-up request for additional information (RAI), RAI-5(b)-1, as a part of its review of the aging management program (AMP) for the reactor vessel internals (RVI) at H.B. Robinson Nuclear Plant (RNP). RAI-5(b)-1 is in reference to the AMP related to RNP's cast austenitic stainless steel (CASS) lower support columns in the reactor vessel. By a letter dated February 19, 2014 (ADAMS Accession No. ML14056A193), Duke Energy Progress, Inc. (the licensee) responded to RAI-5(b)-1 and provided delta ferrite values for all of its 68 lower support columns. The NRC staff reviewed the licensee's response and determined the need to issue a follow-up RAI-5(b)-1-1, based on the new staff consensus on the threshold limits for neutron irradiation embrittlement (IE) and thermal embrittlement (TE) of CASS materials. The bases for the NRC staff's new consensus on the threshold limits are described in Attachment 1 of correspondence dated April 24, 2014 (ADAMS Accession No. ML14115A440).

This email correspondence is to follow-up on the status of the MRP-227A, PWR Internals Inspection and Evaluation Guidelines, pending RAI-5(b)-1-1 and RAI-3-3 responses for RNP.

With respect to RAI 3-3 (ADAMS Accession No. ML13240A499), aging degradation of the clevis insert bolts, the staff requests the licensee provide a summary of the latest inspection results of the clevis insert bolts at Robinson in its response.

With respect to RAI-5(b)-1-1 (ADAMS Accession No. ML14115A440), the licensee can defer answering the RAI related to thermal and neutron embrittlement in cast austenitic stainless steel (CASS) until a new screening criterion is established for the vessel in CASS materials. The staff and industry are currently working to achieve this goal.

If you have any questions, please contact me at 301-415-2760 or [Martha.Barillas@nrc.gov](mailto:Martha.Barillas@nrc.gov).

Martha Barillas  
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US Nuclear Regulatory Commission



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