



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

January 7, 2016

Mr. Bryan C. Hanson  
President and Chief Nuclear Officer  
Exelon Nuclear  
R. E. Ginna Nuclear Power Plant  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: R.E. GINNA NUCLEAR POWER PLANT - REQUEST FOR ADDITIONAL  
INFORMATION REGARDING REACTOR VESSELS INTERNALS PROGRAM  
(CAC NO. MF6713)

Dear Mr. Hanson:

On September 28, 2012, Constellation Energy Nuclear Generation Group (now operating as Exelon Generation Company, LLC, the licensee) submitted the document titled "Reactor Vessels Internals Program," based on the Electric Power Research Institute Report MRP-227, Revision 0, for the U.S. Nuclear Regulatory Commission (NRC) staff review and approval.

The NRC staff is reviewing the submittal and has determined that additional information is needed to complete its review. The specific questions are found in the enclosed request for additional information (RAI). On December 10, 2015, Exelon staff indicated that a response to the RAI would be provided by February 11, 2016.

Please contact me at (301) 415-3629 if you have any questions on this request.

Sincerely,

A handwritten signature in black ink, appearing to read "Diane Render", is written over a circular stamp or seal.

Diane Render, Project Manager  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-244

Enclosure:  
As stated

cc w/encl: Listserv

REQUEST FOR ADDITIONAL INFORMATION  
REGARDING AGING MANAGEMENT PROGRAM  
FOR THE REACTOR VESSEL INTERNALS  
EXELON GENERATION COMPANY, LLC  
R. E. GINNA NUCLEAR POWER PLANT, LLC  
DOCKET NO. 50-244

In a letter dated September 28, 2012, Constellation Energy Nuclear Generation Group (now operating as Exelon Generation Company, LLC, the licensee) submitted an aging management program (AMP) for the reactor vessel internals (RVI) at R.E. Ginna Nuclear Power Plant (Ginna). The NRC staff is reviewing Ginna's AMP report and based on the review conducted, the staff has developed the following request for additional information (RAI). The MRP-227 report, "Pressurized Water Reactor (PWR) Internals Inspection and Evaluation Guidelines," and its supporting reports were used as technical bases for developing Ginna's AMP.

**RAI 1:** The MRP-2013-025, "MRP-227-A Applicability Template Guidelines," (Agencywide Documents Access and Management System Accession No. ML13322A454) report identifies two additional issues that all Combustion Engineering, Inc. and Westinghouse design plants referencing topical report MRP-227-A must address to close Applicant/Licensee Action Item 1 related to plant-specific applicability of the topical report. The staff therefore requests the following information:

1. Do the Ginna RVI components have non-weld or bolting austenitic stainless steel components with 20% cold work or greater? If so, do the affected components have operating stresses greater than 30 ksi? The licensee can apply "Option 1" or "Option 2," as addressed in Appendix A of the MRP-2013-025 report. If "Option 2" is applicable to Ginna, the licensee should list plant-specific RVI components that have been exposed to cold work equal to or greater than 20%.
2. Has Ginna ever utilized atypical design or fuel management that could make the assumptions of MRP-227-A regarding core loading/core design non-representative for that plant, including power changes/uprates? The licensee is requested to use MRP-2013-025 and apply "Option 1" or "Option 2," as addressed in Appendix B of the report. If Option 1 is used, the following plant-specific values should be submitted:

Enclosure

- (a) Active fuel to upper core plate distance;
- (b) Average core power density; and
- (c) Heat generation figure of merit.

**RAI 2:** Historically, the following materials used in the PWR RVI components were known to be susceptible to some of the aging degradation mechanisms that are identified in the MRP-227-A report. In this context, the NRC staff requests that the licensee confirm that these materials are not currently used in the RVI components at Ginna. This RAI is applicable to the components classified under "Primary," or "Expansion," or "Existing," categories in MRP-227-A report.

- (1) Nickel base alloys—Inconel 600; Weld Metals—Alloy 82 and 182 and Alloy X-750 (excluding control rod guide tube split pins)
- (2) Alloy A-286 ASTM A 453 Grade 660, Condition A or B
- (3) Stainless steel type 347 material (excluding baffle-former bolts, and, barrel former bolts)
- (4) Precipitation hardened stainless steel materials—17-4 and 15-5
- (5) Type 431 stainless steel material

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/RA/

Diane Render, Project Manager  
Plant Licensing Branch I-1  
Division of Operating Reactor Licensing  
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cc w/encl: Listserv

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**\*by email**

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