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**Sent:** Wednesday, November 06, 2013 4:18 PM  
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**Cc:** McLellan, Thomas; Rosenberg, Stacey; Poehler, Jeffrey; Beall,  
Robert; Jackson, Christopher; Parks, Benjamin; Hardgrove,  
Matthew  
**Subject:** ADDITIONAL FOLLOW-UP RAI, MF0345, LAR Re: Revising and  
Relocating PT Limit Curves to PTLR

**SUBJECT: REVISED DRAFT FOLLOW-UP RAIs,** Nine Mile Point Nuclear Station, Unit No. 2, Docket No. 50-410, License Amendment Request Pursuant to 10 CFR 50.90: Relocation of Pressure and Temperature Limit Curves to the Pressure and Temperature Limits Report (TAC NO.MF0345)

By letter dated November 21, 2012, as supplemented by letter dated March 25, 2013, Nine Mile Point Nuclear Station, LLC (NMPNS, the Licensee), submitted a license amendment request (LAR) for Nine Mile Point Unit 2. The proposed amendment would modify Technical Specification (TS) Section 3.4.11, "RCS Pressure and Temperature (P/T) Limits," by replacing the existing reactor vessel heatup and cooldown rate limits and the pressure and temperature (P-T) limit curves with references to the Pressure and Temperature Limits Report (PTLR). In addition, a new definition for the PTLR would be added to TS Section 1.1, "Definitions," and a new section addressing administrative requirements for the PTLR would be added to TS Section 5.0, "Administrative Controls." By letters dated July 31, September 6, 2013, and November 4, 2013, the licensee provided the responses, to the RAIs transmitted by NRC on June 20, 2013 (ADAMS Accession Package No. ML13214A396). The Licensee's Responses contained Proprietary information. (Agencywide Document Access and Management System (ADAMS) Accession Nos. ML123380336 for November 21, 2012, submission, and ML13214A396 for July 31, 2012, submission, and ML13254A156 respectively).

With particular reference to the licensee's November 4, 2013, submission, **the Nuclear Regulatory Commission (NRC) staff has determined that additional information, which is provided below, is needed to complete its review.**

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Based on its review of the November 4, 2013, submission, the NRC staff has determined that the section of the revised PTLR, which states:

"The appendix B Adjusted Reference Temperature (ART) is defined based on a conservative extrapolation for up to 32 EFPY. The neutron fluence used for the ART was verified conservative per the NMP2 plant specific Reg. Guide 1.190 methods documented in Reference 6.2, approved in Reference 6.3 and 6.10," is not consistent with Section 4.2.1.2, "Fluence," of NEDC-33178P-A, which states that "It is noted that this report does not include development or licensing of vessel fluence methods, which are covered by other LTRs. It is assumed that such fluence methods would be utilized to develop the necessary and appropriate inputs for use in the P-T curve development methodology outlined in this report."

The licensee's use of a "conservative extrapolation," which does not specify how the extrapolation was performed, and subsequent verification of the conservatism using a RG 1.190-adherent method, is a plant-specific change to the methodology that the licensee proposes to reference in TS. Therefore, the NRC does not agree with licensee response to RAI 6, "This approach is fully consistent with NEDO-33178-A... which states that the input for fluence will be based on an approved RG 1.190 fluence method." The licensee's input is not based on such a method; rather, as the above quote from the PTLR (in blue) shows, it is *verified* using such a method.

The NRC staff will review and consider approval of such an approach as a plant-specific exception to NEDC-33178P-A. The staff notes that the licensee will calculate the fluence for determining the ART using either (1) values determined using an NRC-approved, RG 1.190-adherent method, or (2) a fluence estimate, which the licensee has verified is as conservative, using an NRC-approved, RG 1.190-adherent method.

The NRC staff has determined that the NMP2 disposition for fluence is different from every BWR precedent in that it introduces “an NRC-approved RG 1.190 fluence monitoring program and reviews actual fluence on a routine basis,” and proposes that, “The fluence projections [in the PTLR] have been confirmed to be conservative...” (Page 2 of Enclosure to LAR). BWR Precedential amendments generally state which methods were used to determine the fluence value on which the ART calculations were based explicitly, without mention of a fluence monitoring program or verification effort.

Therefore, the proposed TS 5.6.7.b, in this LAR, will require the insertion of a note indicating that the analytical methods contain a plant-specific exception, approved by the NRC in its safety evaluation approving the proposed amendment. The licensee may wish to format the citation as follows:

1. NEDC-33178P-A, Revision 1, “General Electric Methodology for Development of Reactor Pressure Vessel Pressure-Temperature Curves,” dated June 2009, *with noted exception for reactor vessel fluence calculations, as approved by NRC Safety Evaluation dated [Date would be supplied by NRC upon issuance of amendment]*.

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Please contact me, ASAP, to schedule a tele-conference between the NRC staff and the licensee to discuss this request for follow-up RAI and to provide a firm commitment from the licensee for the Response to this RAI.

Since there have several tele-conferences on this LAR to discuss the NRC staff’s concerns in the past, some involvement of managerial level would be helpful to ascertain that the licensee clearly understands the NRC staff’s concerns.

Thanks,

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