From: Vaidya, Bhalchandra

Sent: Friday, September 27, 2013 12:43 PM **To:** 'Darling, Theresa H'; Kristensen, Kenneth J

(Kenneth.Kristensen@cengllc.com)

Cc: McLellan, Thomas; Rosenberg, Stacey; Poehler, Jeffrey; Beall,

Robert; Jackson, Christopher; Parks, Benjamin; Hardgrove,

Matthew

Subject: REVISED ADDITIONAL RAIs, MF0345, LAR Re: Revising and

Relocating PT Limit Curves to PTLR

<u>SUBJECT</u>: <u>REVISED DRAFT FOLLOW-UP RAIS,</u> 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, and September 6, 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).

The Nuclear Regulatory Commission (NRC) staff has determined that additional information is needed to complete its review.

Based on the telephone discussions with the licensee on September 27, 2013, to clarify the ADDITIONAL DRAFT RAIS (ML13268A558), dated September 25, 2013, the NRC staff's Revised Additional request for additional information (RAI) is provided below (Revisions are indicated in Bold Red).

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EVIB - RAI 6:

The conclusions of Appendix J to NEDC-33178P-A indicate that the ART from the adjacent RPV shell material is used in conjunction with the T-RT_{NDT} values determined in the appendix to generate the P-T curve for the instrument nozzle. For the NMP2 water level instrumentation (WLI) nozzle, the calculation of the P-T limits provided in the response to EVIB-RAI-5 uses an ART of 39°F. Appendix B to the PTLR provides a 32 EFPY ART for the WLI nozzle forging of 39°F. The PTLR indicates that in addition to the limiting beltline plate material, the limiting ART for the beltline LPCI N6 and Water Level Instrumentation N12 nozzle forgings and welds are also considered in the development of the beltline PT curves. The PTLR also indicates that the plant-specific copper and nickel content for the WLI nozzle forging were not available, so copper and nickel values were determined based on a bounding estimate for forgings fabricated from SA508 Class 1 material, and that this was defined based on a search of available BWR vessel purchase records for SA508 Class 1 materials. The PTLR further indicates that representative values for copper and nickel content for the WLI nozzle were developed using the mean values plus one standard deviation.

Please provide the following Information

- (a) Clarify whether the WLI nozzle ART or the adjacent RPV shell material ART was used as the basis for generating the P-T limits for the WLI nozzle.
- (b) If the WLI nozzle ART was used as the basis for generating the WLI nozzle P-T limits, explain how this is consistent with the methodology described in NEDC-33178P-A, Appendix J.
- (c) If the WLI nozzle ART was used, provide technical justification for the use of copper and nickel values based on mean plus one standard deviation rather that mean plus two standard deviations. Also, please provide reference(s) to previous pressure-temperature limits approved by NRC that considered a partial-penetration type nozzle in the beltline region, and/or determinations of RPV material copper and nickel values that used a one standard deviation upper bound of available data.

The NRC staff would like to receive the responses to the these RAIs on an expedited basis, along with the Responses for SRXB RAIs # 4 and 5 by COB October 4, 2013. However, if you are not able to submit the response to this RAI along with the Responses for SRXB RAIs # 4 and 5 by COB October 4, 2013, please provide a firm commitment for the Responses to this RAI.

Thanks,

Bhalchandra K. Vaidya Licensing Project Manager NRC/NRR/DORL/LPL1-1 (301)-415-3308 (O) bhalchandra.vaidya@nrc.gov