



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

March 31, 2014

Mr. Christopher Costanzo
Vice President Nine Mile Point
Nine Mile Point Nuclear Station, LLC.
P. O. Box 63
Lycoming, NY 13093

SUBJECT: NINE MILE POINT NUCLEAR STATION, UNIT NO. 2 – SECOND ROUND OF REQUEST FOR ADDITIONAL INFORMATION REGARDING LICENSE AMENDMENT REQUEST PURSUANT TO 10 CFR 50.90: MAXIMUM EXTENDED LOAD LINE LIMIT ANALYSIS PLUS (MELLLA+) (TAC NO. MF3056)

Dear Mr. Costanzo:

By letter dated November 1, 2013 (Agencywide Document Access and Management System (ADAMS) Package Accession No. ML13316B090), as supplemented by letters dated January 21, February 14 and March 10, 2014 (ADAMS Accession Nos. ML14023A654, ML14051A138 and ML14071A466, respectively), Nine Mile Point Nuclear Station, LLC (the licensee) submitted a license amendment request for Nine Mile Point Nuclear Station, Unit 2. The proposed amendment would (1) allow operation in the expanded Maximum Extended Load Line Limit Analysis Plus (MELLLA+) domain; (2) use of the Detect and Suppress Solution - Confirmation Density (DSS-CD) stability solution, (3) use of the TRACG04 analysis code; (4) increase the isotopic enrichment of boron-10 in the sodium pentaborate solution used to prepare the neutron absorber solution in the Standby Liquid Control System (SLS); and (5) increase the Safety Limit Minimum Critical Power Ratio (SLMCPR) for two recirculation loops in operation.

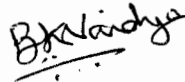
The Nuclear Regulatory Commission (NRC) staff has reviewed the information provided in your submission and has determined that additional information is needed to complete its review. The draft request for additional information (RAI) was transmitted to you by e-mail dated March 12, 2014 (ADAMS Accession No. ML14071A242). In the telephone conversation with your staff, Mr. Kenneth Kristensen, on March 18, 2014, your staff committed your response to these RAIs by May 16, 2014.

C. Costanzo

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The NRC staff's final version of the RAI is provided in the enclosure to this letter.

Sincerely,

A handwritten signature in black ink, appearing to read "Bhalchandra Vaidya". The signature is written in a cursive style with a horizontal line underneath.

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

Docket No. 50-410

Enclosure:
Request for Additional Information

cc w/encl: Distribution via Listserv

SECOND ROUND - DRAFT REQUEST FOR ADDITIONAL INFORMATION RELATED TO

LICENSE AMENDMENT REQUEST

RE: MAXIMUM EXTENDED LOAD LINE LIMIT ANALYSIS PLUS

CONSTELLATION ENERGY

NINE MILE POINT NUCLEAR STATION UNIT 2

DOCKET NO. 50-410

By letter dated November 1, 2013 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML13316B090), Nine Mile Point Nuclear Station, LLC (NMPNS, the licensee) submitted a license amendment request regarding Nine Mile Point Nuclear Station Unit 2 (NMP2) Facility Operating License. The proposed amendment would revise the technical specifications (TSs) to allow plant operation in the expanded Maximum Extended Load Line Limit Analysis Plus (MELLA+) domain.

Regulatory Analysis Basis

Section 50.90, Application for amendment of license, construction permit, or early site permit states:

“Whenever a holder of a license, including a construction permit and operating license under this part, and an early site permit, combined license, and manufacturing license under part 52 of this chapter, desires to amend the license or permit, application for an amendment must be filed with the Commission, as specified in §§ 50.4 or 52.3 of this chapter, as applicable, fully describing the changes desired, and following as far as applicable, the form prescribed for original applications.”

Basis for RAI STSB #1

On January 11, 2013, the NRC safety evaluation (ADAMS Accession No. ML12320A415) approved Topical Report NEDC-33075P. In our safety evaluation we stated the following conclusion:

Section 8 of NEDC-33075P, Revision 7 [1] provides a description of required changes to Technical Specifications, and an example is provided in Appendix A. The proposed Technical Specifications are an acceptable implementation of DSS-CD. (See above note in Section 3.2.5.)

Enclosure

However, if you reference the note in Section 3.2.5 of the safety evaluation, you will find that the note states:

The NRC staff agrees with the technical intent as provided in the example Technical Specifications; however, the example Technical Specifications, as provided, is not written consistent with the improved Standard Technical Specifications format. When applying for this Topical Report, licensees should submit Technical Specifications that are consistent with their current approved Technical Specifications and the improved Standard Technical Specification's use and application section.

This note was placed into the safety evaluation because TS 3.3.1.1 Condition I was not found to be acceptable because its structure is not consistent with NUREG-1430 through NUREG-1434's use and application section. There are three specific problems with the TSs in NEDC-33075:

- (1) The numbering of Condition I, "required actions." They should be numbered I.1, I.2, and I.3. The I.2.1 and I.2.2 nomenclature is not used correctly.
- (2) The completion time for required action I.2.2 is not correctly stated; 90 days is an error in structure, it should state, "immediately." Licensees should immediately initiate action in accordance with specification 5.6.6. Specification 5.6.6 then tells them that they have within the following 90 days to submit the report.
- (3) Specification 5.6.6 is incorrectly stated. It should not state, "Within 90 days of entering Condition I," it should state, "within the following 90 days."

The proposed changes do not incorporate the correct usage and structure of TSs. The corrections stated above are consistent with the approved use and application section in NUREG-1434 and NMP2's current TSs. An example in NUREG-1434 that shows this structure is TS 3.3.3.1, "Post Accident Monitoring Instrumentation," Conditions B and F, and TS 5.6.5, "Post Accident Monitoring Report." An example in NMP2's TS is also TS 3.3.3.1, "Post Accident Monitoring (PAM) Instrumentation," Conditions B and F and TS 5.6.6, "Post Accident Monitoring (PAM) Instrumentation Report."

RAI STSB #1

The proposed change to TS 3.3.1.1 Condition F, required actions and TS 5.6.8 are not consistent with NMP2's current approved TSs and the improved Standard Technical Specification's (STS's) use and application section. In addition, the new proposed note (e) refers to required action F.2.1. The problems stated above are applicable to the proposed TSs for NMP2. Please provide TSs that are consistent with NMP2's current approved TSs and the improved STS's use and application section.

Basis for RAI STSB #2

NMP2's TS Limiting Conditions for Operation (LCO) 3.4.1 states:

Two recirculation loops with matched flows shall be in operation,

OR

One recirculation loop shall be in operation with the following limits applied when the associated LCO is applicable:

- (a). LCO 3.2.1, "AVERAGE PLANAR LINEAR HEAT GENERATION RATE (APLHGR)," single loop operation limits specified in the COLR;
- (b). LCO 3.2.2, "MINIMUM CRITICAL POWER RATIO (MCPR)," single loop operation limits specified in the COLR; and
- (c). LCO 3.3.1.1, "Reactor Protection System (RPS) Instrumentation," Function 2.b (Average Power Range Monitors Flow Biased Simulated Thermal Power - Upscale), Allowable Value of Table 3.3.1.1-1 is reset for single loop operation.

NMPNS proposes to add item (d) to the LCO for TS 3.4.1, "Recirculation Loops Operating." Item (d) would state:

- (d). Intentional operation with only one recirculation loop in operation is prohibited while operating in the MELLA domain or MELLA+ domain as defined in the COLR.

However, the LCO requires that limits be applied when using single recirculation loop operation. Proposed item d does not apply new limits to this LCO and therefore, its proposed placement is not appropriate in TS LCO 3.4.1. Proposed item d applies a restriction to single recirculation loop operation and should be appropriately incorporated directly into the LCO. For example:

One recirculation loop shall be in operation provided the plant is not operating in the MELLA or MELLA+ domain defined in the COLR and provided the following limits are applied when the associated LCO is applicable: ...

RAI STSB #2

The proposed change to TS LCO 3.4.1 is not incorporated correctly into NMP2's TSs. Please provide a TS change that incorporates the restriction into the LCO for TS 3.4.1.

C. A. Costanzo

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The NRC staff's final version of the RAI is provided in the enclosure to this letter.

Sincerely,

/ra/

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

Docket No. 50-410

Enclosure:
Request for Additional Information

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ADAMS Accession No.: ML14083A023 (*) Transmitted by memo dated 03/10/2014 (**) By email

OFFICE	NRR/LPL1-1\PM	NRR/LPL1-1\LA(**)	NRR/STSB/BC(*)	NRR/LPL1-1/BC	NRR/LPL1-1\PM
NAME	BVaidya	KGoldstein	RElliott	BBeasley	BVaidya
DATE	3/25/14	03/25/14	03/10/14	3/28/14	03/31/14

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