November 22, 2005

Mr. James A. Spina Vice President Nine Mile Point Nuclear Station, LLC P.O. Box 63 Lycoming, NY 13093

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE REVIEW OF NINE MILE POINT NUCLEAR STATION, UNITS 1 AND 2, AMENDED LICENSE RENEWAL APPLICATION (TAC NOS. MC3272 AND MC3273)

Dear Mr. Spina:

By letter dated July 14, 2005, Constellation Energy Group, Inc. (CEG), resubmitted an application pursuant to Title 10 of the *Code of Federal Regulations* Part 54 (10 CFR Part 54), to renew the operating licenses for the Nine Mile Point Nuclear Station (NMP), Units 1 and 2, for review by the U.S. Nuclear Regulatory Commission (NRC). The NRC staff is reviewing the information contained in the amended license renewal application (ALRA) and has identified, in the enclosure, areas where additional information is needed to complete the review.

Based on discussions with Mr. David Dellario of your staff, a mutually agreeable date for your response is within 30 days from the date of this letter. If you have any questions regarding this letter or if circumstances result in your need to revise the response date, please contact me by telephone at 301-415-1458 or via e-mail at <a href="mailto:nbl@nrc.gov">nbl@nrc.gov</a>.

Sincerely,

## /**RA**/

N. B. (Tommy) Le, Senior Project Manager License Renewal Branch A Division of License Renewal Office of Nuclear Reactor Regulation

Docket Nos.: 50-220 and 50-410

Enclosure: As stated

cc w/encl: See next page

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DATE	11/16/05	11/16/05	11/22/05

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# NINE MILE POINT NUCLEAR STATION, UNITS 1 AND 2 (NMP1 AND NMP2) AMENDED LICENSE RENEWAL APPLICATION (ALRA) REQUEST FOR ADDITIONAL INFORMATION (RAI) - BATCH 4

# PART I - ENGINEERED SAFETY FEATURES AND STEAM AND POWER CONVERSION SYSTEMS (UNIT 2)

# <u>a-RAI 3.4.2.B-1</u>

In ALRA Table 3.4.2.B-2, the applicant states that the aging effects, cracking and loss of materials in the fiberglass tanks exposed to a treated water, temperature <140°F and low flow environment, would be managed with a One-Time Inspection Program. Please provide justification to assure that a one-time inspection alone is adequate to manage the aging effects identified. It also is the staff's understanding that the tank nozzles are connected to rubber expansion joints or flanges. Please discuss how the aging effects of these joints or flanges would be managed. In addition, please provide the NMP operational experience with these tanks and the bases for identifying the aging effects for the specific fiberglass (Altac 382 resin) in this environment.

# a-RAI 3.4.2.B-2

In ALRA Table 3.4.2.B-4, the applicant states that loss of material in wrought austenitic stainless steel "T" quenchers, piping and fittings, exposed to demineralized untreated water, and low flow environment would be managed with a One-Time Inspection Program. Please provide justification to assure that a one-time inspection alone is adequate to manage the aging effect. Also discuss the specifics of the tests and inspections for these components.

# <u>a-RAI 3.2.2.B-1</u>

In ALRA Table 3.2.2.B-6, the applicant states that loss of material in wrought austenitic stainless steel heaters, valves, piping and fittings and aluminum, aluminum alloyed with manganese, magnesium and magnesium plus silicon valves exposed to air with moisture or wetting temperature <140°F, would be managed with a One-Time Inspection program. Please provide justification to assure that a One-Time Inspection alone is adequate to manage the aging effect. In addition, please discuss the specifics of the tests and inspections for these components.

# PART II - CORE PLATE HOLD-DOWN BOLTS (UNIT 2)

Please provide commitment for the Core Plate Hold-Down Bolts for NMP2. The staff considers that the applicant shall either: (1) Install core plate wedges (as part of a proposed core shroud tie-rod repair) to eliminate the need for the enhanced inspections of the core plate hold-down bolts recommended by BWRVIP-25; or (2) Perform an analysis (incorporating detailed flux/fluence analyses and improved stress relaxation correlations) in accordance to BWRVIP-25 to demonstrate that the core plate hold-down bolts and the core plate can withstand all normal, emergency, and faulted loads considering the effects of stress relaxation, until the end of the period of extended operation. The analysis shall be submitted for staff review and approval 2 years prior to entering the license renewal period.

### PART III - CONFIRMATION REGARDING AMR TABLES ON REACTOR VESSEL

### a-RAI 3.1.2.A-1

For the AMR in Tables 3.1.2.A-1 (ALRA Page 3.1-44) and 3.1.2.B-1 (ALRA Page 3.1-75) on loss of material for penetrations (core differential pressure, CRD stub tube, flux monitor, etc.) crediting the Flow-Accelerated Corrosion Program, confirm that the mechanism for loss material is flow-accelerated corrosion only. If other loss of material mechanisms are applicable, please identify them.

### a-RAI 3.1.2.A-2

For the AMR in Tables 3.1.2.A-1 (ALRA Page 3.1-45) and 3.1.2.B-1 (ALRA Page 3.1-75) on loss of material for support skirt and attachment welds, crediting the ASME Section XI ISI Program, confirm that the mechanism for loss material is general, pitting, or crevice corrosion only. If other loss of material mechanisms are applicable, please identify them.

### a-RAI 3.1.2.A-3

For the AMR in Tables 3.1.2.A-1 (ALRA Page 3.1-46) and 3.1.2.B-1 (ALRA Page 3.1-76) on loss of material for top head (closure studs and nuts), crediting the Reactor Head Closure Studs Program, confirm that the mechanism for loss material is general, pitting, or crevice corrosion only. If other loss of material mechanisms are applicable, please identify them.

### a-RAI 3.1.2.A-4

For the AMR in Table 3.1.2.B-2 (ALRA Page 3.1-83) on cracking for the core shroud head bolts, crediting the BWRVIP program and the Water Chemistry Program, confirm that the mechanism for cracking is SCC/IGSCC only. If other cracking mechanisms are applicable, please identify them.

## a-RAI 3.1.2.B-1

For the AMR in Tables 3.1.2.B-2 (ALRA Page 3.1-84) on cracking for the core shroud support structures (bolts, brackets, cap screws, etc) crediting the BWRVIP program and the Water Chemistry Program, confirm that the mechanism for cracking is SCC/IGSCC only. If other cracking mechanisms are applicable, please identify them.

## <u>a-RAI 3.1.1-1</u>

For Tables 3.1.1.A-1 and 3.1.1.B-1, the applicant credits the ASME Section XI Inservice Inspection (Subsections IWB, IWC, and IWD) Program to manage loss of material for the RPV support skirt. The staff believes that the RPV support skirt is an ASME Class MC support and therefore should be managed under the ASME Section XI ISI Subsection IWF Program. Please verify whether the aging effect of loss of material of the RPV support skirt should be managed by the ASME Section XI Inservice Inspection (Subsections IWB, IWC, and IWD) Program or by the ASME Section XI Inservice Inspection (Subsection IWF) Program for NMPNS, Units 1 and 2.

## PART IV - SECTION 4.0, TIME-LIMITED AGING ANALYSIS

### <u>a-RAI 4.2.2-1</u>

During its review of ALRA Section 4.0, Time-Limited Aging Analysis (TLAA), the staff finds that the proper disposition of TLAA 4.2.2 should be that of 54.21 ( c)(1)(iii) instead of the 54.21( c)(1)(iii) as identified by the applicant in that section. Please clarify.

### a-RAI 4.7.4-1

During its review of ALRA Section 4.0, Time-Limited Aging Analysis (TLAA), the staff finds that the commitment as stated by the applicant on page 4.7-7 to be vague. Please provide a commitment to state that the Analysis is to be submitted for the staff review and approval no later than two years prior to entry into the period of extended operation.

Nine Mile Point Nuclear Station, Units 1 and 2

CC:

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