May 21, 2003

Mr. John L. Skolds, Chairman
and Chief Executive Officer
AmerGen Energy Company, LLC
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: THREE MILE ISLAND NUCLEAR STATION, UNIT 1 (TMI-1), CYCLE 15 CORE RELOAD DESIGN REQUEST FOR ADDITIONAL INFORMATION (RAI) (TAC NO. MB7270)

Dear Mr. Skolds:

By letter dated January 16, 2003, you requested approval for changes to the TMI-1 Technical Specifications (TSs) associated with the Cycle 15 core reload design analysis. The Nuclear Regulatory Commission staff has reviewed your request and determined that it will need the additional information contained in the enclosure to complete its review. This information was faxed to your staff on May 5, 2003, in preparation for a May 13, 2003, conference call. As discussed with and agreed to by your staff during that call, you are requested to provide your response within 30 days of receipt of this request.

If you have any questions, please contact me at 301-415-1402.

Sincerely,

/RA/

Timothy G. Colburn, Senior Project Manager, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket No. 50-289

Enclosure: RAI

cc w/encl: See next page

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REQUEST FOR ADDITIONAL INFORMATION

REGARDING PROPOSED AMENDMENT TO TECHNICAL SPECIFICATIONS

IMPLEMENTATION OF STATISTICAL CORE DESIGN

THREE MILE ISLAND NUCLEAR STATION, UNIT 1

DOCKET NO. 50-289

By letter dated January 16, 2003, AmerGen Energy Company, LLC (the licensee) submitted a proposed amendment to the Technical Specifications (TSs) for Three Mile Island Nuclear Station, Unit 1 (TMI-1). The proposed amendment would implement the Statistical Core Design (SCD) Methodology described and approved in Framatome ANP Topical Report, BAW-10187P-A.

The Nuclear Regulatory Commission (NRC) staff has reviewed the information the licensee provided that supports the proposed TS changes. In order for the staff to complete its evaluation, the following additional information is requested:

1. As discussed in the NRC staff's letter dated March 24, 1993, that transmitted the safety evaluation for Topical Report BAW-10187P-A to Framatome ANP, the topical report is acceptable for referencing in license amendment applications to the extent specified, and under the limitations delineated in the report, and in the associated safety evaluation. Page 4 of Enclosure 1 of your submittal states that the restrictions specified in the approved topical report have been addressed in the core reload design analysis for TMI-1.

   Please provide the information needed to justify your plant-specific application of this methodology by identifying any TMI-1 features or conditions outside the range of the generic assessment. Refer to Table 3-4 of BAW-10187P-A that specifies the range of applicability.

   Additionally, the hot pin statistical design limit of 1.313 is acceptable with the following limitations. Please provide justification for your plant-specific application of this methodology.

   a. The component uncertainties and their distributions are to be reviewed on a plant-specific basis to determine their applicability.

   b. The “bounding” assembly-wise power distribution assumed in the core-wide SCD calculation should be shown to bound the expected operating power distributions on a cycle-specific basis.

   c All core state variables that were not included in the statistical design must continue to be input to thermal-hydraulic computer codes at their most adverse allowable level rather than at their nominal value.

   d. The response surface model should be validated and revised (as necessary) when applied to new fuel assembly designs and extended operating conditions, and with new computer codes and departure from nucleate boiling (DNB) correlations. The approved

codes are LYNXT, LYNX1, and LYNX2, and the approved correlation is the BWC DNB correlation.

Three Mile Island Nuclear Station, Unit 1

cc:

Site Vice President - Three Mile Island Nuclear Station, Unit 1

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