

August 24, 2001

Mr. Mark E. Warner
Vice President - TMI Unit 1
AmerGen Energy Company, LLC
P.O. Box 480
Middletown, PA 17057

SUBJECT: THREE MILE ISLAND NUCLEAR STATION, UNIT 1 - ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT REGARDING AN EXEMPTION FROM CERTAIN REQUIREMENTS OF 10 CFR PART 50, APPENDIX G, AND 10 CFR PART 50, SECTION 50.61 (TAC NOS. MB1585 AND MB1586)

Dear Mr. Warner:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for exemption dated March 29, 2001, as supplemented on June 27 and July 24, 2001. The proposal would exempt Three Mile Island Nuclear Station, Unit 1 (TMI-1) from application of specific requirements of Title 10 of the *Code of Federal Regulations*, (10 CFR) Part 50, Appendix G, and allow instead the use of American Society of Mechanical Engineers Code Cases N-588 and N-640. In addition, the proposal would exempt TMI-1 from application of specific requirements of 10 CFR Part 50.61 and allow instead the use of the master curve approach for determining the initial reference temperature value for weld metal WF-70.

The assessment is being forwarded to the Office of the Federal Register for publication.

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: Environmental Assessment

cc w/encl: See next page

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*see previous concurrence

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| DATE | 8/9/01 | TLC FOR 8/7/01 | 8/21/01 | 08/07/01 | 8/9/01 |

OFFICIAL RECORD COPY

Three Mile Island Nuclear Station, Unit No. 1

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UNITED STATES NUCLEAR REGULATORY COMMISSION

AMERGEN ENERGY COMPANY, LLC

DOCKET NO. 50-289

THREE MILE ISLAND NUCLEAR STATION, UNIT 1

ENVIRONMENTAL ASSESSMENT AND FINDING OF

NO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission is considering issuance of an exemption from 10 CFR Part 50, Appendix G, and 10 CFR 50.61, for Facility Operating License No. DPR-50, issued to AmerGen Energy Company, LLC (the licensee), for operation of the Three Mile Island Nuclear Station, Unit 1 (TMI-1), located in Dauphin County, Pennsylvania.

ENVIRONMENTAL ASSESSMENT

Identification of the Proposed Action:

The proposed action would exempt the licensee from application of specific requirements of 10 CFR Part 50, Appendix G, for TMI-1 and allow instead the use of American Society of Mechanical Engineers (ASME) Code Cases N-588 and N-640. In addition, the proposal would exempt the licensee from application of specific requirements of 10 CFR 50.61 for TMI-1 and allow instead the use of the master curve approach for determining the initial reference temperature value for weld metal WF-70.

The proposed action is in accordance with the licensee's application dated March 29, 2001, as supplemented by letters dated June 27 and July 24, 2001.

The Need for the Proposed Action:

The proposed action is needed in order to address the use of alternative methods used in the development of amendments to the TMI-1 Technical Specification reactor pressure vessel pressure-temperature (P-T) limit curves. These alternative methods include (1) Code

Case N-588, which permits the use of circumferentially oriented flaws in circumferential welds for development of the P-T limits; (2) Code Case N-640, which permits application of the lower bound static initiation fracture toughness value equation as the basis for establishing the P-T curves in lieu of using the lower bound crack arrest fracture toughness value equation; and (3) the master curve approach, which is an alternative to Paragraph NB-2331 of the ASME Code (used in 10 CFR 50.61(a)(5)) to define $RT_{NDT(U)}$, the reference temperature for unirradiated reactor vessel material.

The staff has determined that, pursuant to 10 CFR 50.12.(a)(2)(ii), the underlying purpose of the regulation to protect the integrity of the reactor coolant pressure boundary will continue to be served with the implementation of the Code Cases.

Environmental Impacts of the Proposed Action:

The NRC has completed its evaluation of the proposed action and concludes, as set forth below, that there are no significant environmental impacts associated with the use of the alternative analysis methods to support the revision of the reactor pressure vessel P-T limit curves.

The proposed action will not significantly increase the probability or consequences of accidents, no changes are being made in the types of effluents that may be released off site, and there is no significant increase in occupational or public radiation exposure. Therefore, there are no significant radiological environmental impacts associated with the proposed action.

With regard to potential non-radiological impacts, the proposed action does not have a potential to affect any historic sites. It does not affect non-radiological plant effluents and has no other environmental impact. Therefore, there are no significant non-radiological environmental impacts associated with the proposed action.

Accordingly, the NRC concludes that there are no significant environmental impacts associated with the proposed action.

Environmental Impacts of the Alternatives to the Proposed Action:

As an alternative to the proposed action, the staff considered denial of the proposed action (i.e., the “no-action” alternative). Denial of the application would result in no change in current environmental impacts. The environmental impacts of the proposed action and the alternative action are similar.

Alternative Use of Resources:

The action does not involve the use of any different resource than those previously considered in the Final Environmental Statement for TMI-1 dated December 1972.

Agencies and Persons Consulted:

On August 1, 2001, the staff consulted with the Pennsylvania State official regarding the environmental impact of the proposed action. The State official had no comments.

FINDING OF NO SIGNIFICANT IMPACT

On the basis of the environmental assessment, the NRC concludes that the proposed action will not have a significant effect on the quality of the human environment. Accordingly, the NRC has determined not to prepare an environmental impact statement for the proposed action.

For further details with respect to the proposed action, see the licensee’s letter dated March 29, 2001, as supplemented by letters dated June 27 and July 24, 2001. Documents may be examined, and/or copied for a fee, at the NRC’s Public Document Room, located at One White Flint North, 11555 Rockville Pike (first floor), Rockville, Maryland. Publically available records will be accessible electronically from the ADAMS Public Library component on the NRC Web site, <http://www.nrc.gov> (the Public Electronic Reading Room). If you do not have access to ADAMS or if there are problems in accessing the documents located in ADAMS, contact the

NRC Public Document Room (PDR) Reference staff at 1-800-397-4209, or 301-415-4737, or by e-mail at pdr@nrc.gov.

Dated at Rockville, Maryland, this 24th day of August 2001.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

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