

January 8, 2002

Mr. Oliver D. Kingsley, President  
and Chief Nuclear Officer  
Exelon Nuclear  
Exelon Generation Company, LLC  
4300 Winfield Road  
Warrenville, IL 60555

SUBJECT: THREE MILE ISLAND NUCLEAR STATION (TMI-1) RE: ENVIRONMENTAL  
ASSESSMENT FOR EXEMPTION FROM 10 CFR 50.44 CONCERNING  
CONTAINMENT HYDROGEN RECOMBINERS (TAC NO. MB0065)

Dear Mr. Kingsley:

Enclosed is a copy of the Environmental Assessment and Finding of No Significant Impact related to your application for an exemption dated September 20, 2000, as supplemented August 2 and September 28, 2001. The proposed exemption would exempt TMI-1 from certain requirements of Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.44; 10 CFR Part 50, Appendix A, General Design Criterion 41; and 10 CFR Part 50, Appendix E, Section VI, pertaining to the hydrogen control system requirements (i.e., containment post-accident hydrogen monitors, recombiners, and hydrogen purge system); and remove the exempted requirements from the TMI-1 design basis. The Nuclear Regulatory Commission (NRC) staff has determined that it cannot support your request for an exemption from the functional requirement for hydrogen monitoring. The NRC staff's position will be documented in the exemption. Consequently, this environmental assessment addresses only the proposed exemption from the requirements relating to the recombiners and hydrogen purge system.

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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cc w/encl: See next page

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DATE	1/8/02	1/8/02	12/17/01	1/8/02	12/21/01

OFFICIAL RECORD COPY

Three Mile Island Nuclear Station, Unit No. 1

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Three Mile Island Nuclear Station, Unit No. 1

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UNITED STATES NUCLEAR REGULATORY COMMISSIONAMERGEN ENERGY COMPANY, LLCDOCKET NO. 50-289THREE MILE ISLAND NUCLEAR STATION, UNIT 1ENVIRONMENTAL ASSESSMENT AND FINDING OFNO SIGNIFICANT IMPACT

The U.S. Nuclear Regulatory Commission (NRC) is considering issuance of an exemption from the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR), Section 50.44; 10 CFR Part 50, Appendix A, General Design Criterion 41; and 10 CFR Part 50, Appendix E, Section VI, 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. Therefore, as required by 10 CFR 51.21, the NRC is issuing this environmental assessment and finding of no significant impact.

ENVIRONMENTAL ASSESSMENTIdentification of the Proposed Action:

The proposed action would exempt TMI-1 from certain requirements of 10 CFR 50.44; 10 CFR Part 50, Appendix A, General Design Criterion 41; and Part 10 CFR 50, Appendix E, Section VI, pertaining to the hydrogen control system requirements (i.e., containment post-accident hydrogen monitors, recombiners, and hydrogen purge system); and remove these requirements from the TMI-1 design basis. The licensee's request for an exemption from the functional requirement for hydrogen monitoring is not being approved. The NRC staff's position, with respect to each of the licensee's specific exemption requests, will be documented in the exemption. Consequently, this environmental assessment addresses only the exemption

from the requirements related to the recombiners and the hydrogen purge system and the removal of these requirements from the TMI-1 design basis.

The proposed action is in accordance with the licensee's letter dated September 20, 2000, as supplemented by letters dated August 2 and September 28, 2001.

The Need for the Proposed Action:

The proposed exemption from the requirements pertaining to recombiners and the hydrogen purge system, and their associated removal from the design basis, would improve the safety focus at TMI-1 during an accident, and provide for a more effective and efficient method of maintaining adequate protection of public health and safety by simplifying the Emergency Plan and Emergency Plan Implementing Procedures. This would reduce the operators' post-accident burden and allow them to give higher priority to more important safety functions following postulated plant accidents.

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 environmental impacts associated with the removal of the recombiners and hydrogen purge system from the TMI-1 design basis.

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 nonradiological impacts, the proposed action does not involve any historic sites. It does not affect nonradiological plant effluents and has no other environmental impact. Therefore, there are no significant nonradiological environmental impacts associated with the proposed action.

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

Alternatives to the Proposed Action:

As an alternative to the proposed action, the NRC 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 resources not previously considered in the Final Environmental Statement for TMI-1, dated December 1972.

Agencies and Persons Consulted:

On December 11, 2001, the staff consulted with the Pennsylvania State official, Mr. Michael Murphy of the Pennsylvania Bureau of Radiation Protection, 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 September 20, 2000, as supplemented by letters dated August 2 and September 28, 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. Publicly available records will be accessible electronically from the Agencywide Documents Access and Management System (ADAMS) Public Library component on the NRC Web site,

<http://www.nrc.gov> (the Public Electronic Reading Room). Persons who do not have access to ADAMS or who encounter problems in accessing the documents located in ADAMS, should contact the NRC PDR Reference staff by telephone at 1-800-397-4209, or 301-415-4737, or by e-mail at [pdr@nrc.gov](mailto:pdr@nrc.gov).

Dated at Rockville, Maryland, this 8th day of January 2002.

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