



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

November 13, 2012

Mr. Michael J. Pacilio
President and Chief Nuclear Officer
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: THREE MILE ISLAND NUCLEAR STATION, UNIT 1 - REQUEST FOR
ADDITIONAL INFORMATION REGARDING 30-DAY REPORT FOR
EMERGENCY CORE COOLING SYSTEM MODEL CHANGES PURSUANT TO
THE REQUIREMENTS OF 10 CFR 50.46 (TAC NO. ME8237)

Dear Mr. Pacilio:

By letter dated March 21, 2012 (Agencywide Documents Access and Management System Accession No. ML12081A083), Exelon Generation Company, LLC (Exelon) reported an error correction discovered in the Emergency Core Cooling System evaluation model, or in the application of such a model, that affects the peak cladding temperature calculation at Three Mile Island Nuclear Station, Unit 1. The letter reports two error corrections of an absolute value magnitude of 80 degrees Fahrenheit, impacting the analysis for a postulated large break loss-of-coolant accident.

The Nuclear Regulatory Commission staff has been reviewing the submittal and has determined that additional information is needed to complete its review. The specific questions are found in the enclosed request for additional information (RAI). The questions were sent via electronic transmission on November 5, 2012, to Mr. Thomas Loomis, of your staff. The draft questions were sent to ensure that the questions were understandable, the regulatory basis for the questions was clear, and to determine if the information was previously docketed. The draft questions were discussed with Mr. Loomis on November 6, 2012, and it was agreed that no clarification teleconference was necessary. Further, it was agreed that a response to this RAI would be submitted by December 20, 2012.

Please contact me at 301-415-2833, if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Peter Bamford".

Peter Bamford, Project Manager
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-289

Enclosure: As stated

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION

THREE MILE ISLAND NUCLEAR STATION, UNIT 1

30-DAY REPORT FOR EMERGENCY CORE COOLING SYSTEM MODEL CHANGES

PURSUANT TO THE REQUIREMENTS OF 10 CFR 50.46

DOCKET NO. 50-289

By letter dated March 21, 2012 (Agencywide Documents Access and Management System Accession No. ML12081A083), Exelon Generation Company, LLC (the licensee), sent a notice reporting a change or error discovered in an evaluation model or in the application of such a model that affects the peak cladding temperature (PCT) calculation for Three Mile Island Nuclear Station, Unit 1 (TMI-1). This report was submitted pursuant to the requirements of Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.46, which requires, in part, that licensees report a change in the evaluation model used resulting in a significant change in PCT (greater than 50°F). As described in the statements of consideration published in the *Federal Register* (FR), the intent of this requirement is to enable the staff to establish the safety significance of this change (53 FR 35996-36005).

1. There are two changes to PCT for large break loss-of-coolant accident (LBLOCA) analysis discussed in the report submitted by the licensee. The first change is an Evaluation Model (EM) application error in the determination of the end of Emergency Core Cooling System (ECCS) bypass, which resulted in an 80°F decrease in PCT. The second change is an EM modeling change to include the effects of the upper plenum column weldments, which resulted in an 80°F increase in PCT.

Provide the analysis that lead to each change having an 80 degree change in PCT.

2. Paragraph 50.46(a)(3)(ii) of 10 CFR states: "... If the change or error is significant, the applicant or licensee shall provide this report within 30 days and include with the report a proposed schedule for providing a reanalysis or taking other action as may be needed to show compliance with 50.46 requirements ..."

The PCT for LBLOCA for TMI-1 has changed by an absolute value of 160°F since the analysis was performed. Simply reporting the changes and errors in the methodology does not satisfy the intent of the regulation.

Justify not providing a schedule for reanalysis or taking other action to show compliance with Section 50.46.

Enclosure

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/RA/

Peter Bamford, Project Manager
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ADAMS Accession Number: ML12310A175 * concurrence via memo **via email

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