

September 30, 2010

MEMORANDUM TO: Harold K. Chernoff, Chief
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

FROM: Peter Bamford, Project Manager */ra/*
Plant Licensing Branch I-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

SUBJECT: THREE MILE ISLAND, UNIT NO. 1 - ELECTRONIC TRANSMISSION,
DRAFT REQUEST FOR ADDITIONAL INFORMATION REGARDING
30-DAY NOTIFICATION OF CHANGES TO AN EMERGENCY CORE
COOLING SYSTEM EVALUATION RESULTING IN A PEAK CLADDING
TEMPERATURE DIFFERENCE IN EXCESS OF 50 DEGREES
FAHRENHEIT (TAC NO. ME4666)

The attached draft request for additional information (RAI) was transmitted by electronic transmission on September 30, 2010 to Mr. Thomas Loomis, at Exelon Generation Company, LLC (Exelon, the licensee). This draft RAI was transmitted to facilitate the technical review being conducted by the Nuclear Regulatory Commission (NRC) staff and to support a conference call (if needed) with Exelon in order to clarify the licensee's submittal reporting a change or error discovered in an Emergency Core Cooling System evaluation model or in the application of such a model that affects the peak cladding temperature (PCT) calculation at Three Mile Island Nuclear Station, Unit 1 (TMI-1). The draft RAI is related to the licensee's submittal dated September 7, 2010. The draft question was sent to ensure that it was understandable, the regulatory basis was clear, and to determine if the information was previously docketed. Additionally, review of the draft RAI would allow Exelon to evaluate and agree upon a schedule to respond to the RAI. This memorandum and the attachment do not represent an NRC staff position.

Docket Nos. 50-289

Enclosure: As stated

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DATE	09/30/10	09/29/2010

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DRAFT

REQUEST FOR ADDITIONAL INFORMATION
THREE MILE ISLAND UNIT 1
30-DAY NOTIFICATION OF CHANGES TO
AN EMERGENCY CORE COOLING SYSTEM EVALUATION
RESULTING IN A PEAK CLADDING TEMPERATURE DIFFERENCE
IN EXCESS OF 50 DEGREES FAHRENHEIT
DOCKET NO. 50-289

By letter dated September 7, 2010 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML102500300), Exelon Generation Company, LLC (Exelon, the licensee) submitted a notice reporting a change or error discovered in an Emergency Core Cooling System evaluation model or in the application of such a model that affects the peak cladding temperature (PCT) calculation at 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* 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 degrees Fahrenheit (°F)). The intent of this requirement is to enable the U.S. Nuclear Regulatory Commission (NRC) staff to establish the safety significance of this change (See Federal Register Volume 53, No. 180, pp. 35996-36005). Because of the magnitude of the reported change, 225°F, and because the means by which this value was determined is not clear in the submittal, the NRC staff does not have sufficient information to establish the safety significance of this change to the evaluation model and has determined that the following additional information is needed to complete its review.

Please provide additional detailed information regarding Exelon's evaluation of the impact of this PCT modeling error. This information should include, but not be limited to, a discussion of the causes of the error and evidence to support a conclusion that the model as a whole remains adequate to predict PCT. Please include a discussion of the impact of this error on the full spectrum of postulated break sizes, as well as Exelon's planned corrective actions, and actions to prevent recurrence. If a plant-specific assessment regarding the modeling errors was not performed, please justify the use of any generic evaluation.

Enclosure