



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

April 26, 2011

Mr. Mark Edward Leyse  
P.O. Box 1314  
New York, NY 10025

Dear Mr. Leyse:

I am responding to your petition dated December 10, 2010, addressed to Mr. William Borchardt, Executive Director for Operations, U.S. Nuclear Regulatory Commission (NRC), which was referred to the Office of Nuclear Reactor Regulation (NRR) pursuant to Section 2.206 of Title 10 of the *Code of Federal Regulations* (10 CFR 2.206).

The petition was filed under 10 CFR 2.206 requesting enforcement action against the licensee for the Oyster Creek Nuclear Generating Station (Oyster Creek) and Nine Mile Point Nuclear Station, Unit 1 (NMP-1), which are Exelon Generation Company, LLC, and Nine Mile Point Nuclear Station, LLC, respectively. Specifically, you requested that the NRC order the licensees: 1) to lower the licensing basis peak cladding temperatures at Oyster Creek and NMP-1 to below 1832°F; and 2) to demonstrate that the BWR/2 Emergency Core Cooling Systems (ECCSs) at Oyster Creek and NMP-1 are capable of quenching the fuel cladding in the event of a loss-of-coolant accident (LOCA). As the basis for your requests, you cited experimental evidence that you claim demonstrates that an autocatalytic reaction can occur between the fuel cladding and steam at temperatures lower than 2200°F.

On December 16, 2010, NRR Project Manager, Mr. G. Edward Miller, contacted you by e-mail and discussed the 10 CFR 2.206 process. Mr. Miller offered you the opportunity to address the NRC's Petition Review Board (PRB) prior to the PRB's initial internal meeting to make the initial recommendation. You accepted the offer and on January 13, 2011, you addressed the PRB by teleconference. A copy of the transcript from that teleconference is publically available in the Agencywide Documents and Management System (ADAMS), under Accession No. ML110840219, Enclosure 1.

On January 20, 2011, the PRB met internally and discussed your petition, along with the information provided during the January 13, 2011, teleconference. The PRB's initial recommendation was that your petition did not meet the criteria for review in accordance with NRC Management Directive (MD) 8.11, "Review Process for 10 CFR 2.206 Petitions." With respect to your first request, the PRB's basis for recommending that your first concern did not meet the criteria for review was because your petition addressed deficiencies with existing NRC rules. Specifically, the third criterion provided in MD 8.11, Section III (C), states that "there is no NRC proceeding available in which the petitioner is or could be a party and through which the petitioner's concerns could be addressed." The PRB's initial recommendation was that this issue would more-appropriately be handled as a petition for rulemaking. Further, this issue is currently in the rulemaking process under petitions for rulemaking (PRMs) 50-93 and 50-95.

With respect to your second request, the PRB's basis for recommending that your petition did not meet the criteria for review was that you had not provided sufficient information to warrant further inquiry. The second criterion provided in MD 8.11, Section III (C), states that "the facts

that constitute the bases for taking the particular action are specified. The petitioner must provide some element of support beyond the bare assertion. The supporting facts must be credible and sufficient to warrant further inquiry.” The PRB’s initial recommendation was that your concern regarding the capability of BWR/2 ECCSs at Oyster Creek and NMP-1 did not provide some element of support beyond the bare assertion.

On January 31, 2011, the NRR petition manager, Mr. Miller, informed you of the PRB’s initial recommendation and offered you a second opportunity to address the PRB and provide additional information to support your petition. On the same day, you accepted the second opportunity and on February 17, 2011, you addressed the PRB by teleconference. A copy of the transcript from that teleconference is publically available in ADAMS under Accession No. ML110840219, Enclosure 2.

On March 3, 2011, the PRB met internally to discuss your petition, along with the information provided during the January 13 and February 17, 2011, teleconferences. The PRB’s final recommendation is that your petition still does not meet the criteria for review under 10 CFR 2.206, in accordance with NRC MD 8.11. With respect for your first request, the PRB’s basis for determining that it does not meet the criteria for review, as initially recommended, is that you addressed deficiencies with existing NRC rules, which are properly handled through a petition for rulemaking. The PRB notes that, as mentioned previously, there are currently two PRMs under NRC review that relate to this concern.

With respect to your second request, during the February 17, 2011, teleconference, you discussed the PRB’s initial recommendation that your second request, pertaining to BWR/2 ECCS capability at Oyster Creek and NMP-1, had not provided sufficient information to warrant further inquiry. As supporting facts for your second request, you drew the PRB’s attention to pages 72 and 73 of your December 20, 2010, petition, and provided additional information verbally. In these pages and your comments to the PRB, you clarify that your second concern considers the potential for autocatalytic oxidation occurring at temperatures below 2200°F an important part of why you believe that the BWR/2 ECCSs would not be able to adequately quench the core.

Upon review of the additional information provided during the February 17, 2011, teleconference, the PRB has determined that concerns raised regarding the ability of BWR/2 ECCSs to adequately quench the fuel cladding in the event of a LOCA are subsumed by your first request and will be addressed by rulemaking process currently evaluating this concern. The licensing basis accident analyses for Oyster Creek and NMP-1 show that the ECCSs are capable of maintaining the peak cladding temperature below the regulatory limit of 2200°F, which includes confidence that there will not be an autocatalytic reaction between the zirconium cladding and steam. Any changes to the NRC’s rules that result from the staff’s review of the PRMs related to this concern would also require an evaluation of changes necessary to the licensing basis of currently-operating plants with respect to the revised rule. Therefore, per MD 8.11, the PRB’s final recommendation is that your second request will be addressed by resolution of your first request and is more appropriately handled via the rulemaking process.

The PRB has forwarded the information in your 10 CFR 2.206 petition and the transcripts available to the rulemaking branch, so that any additional information contained in this petition can be considered during the review of the PRMs.

Thank you for bringing these issues to the attention of the NRC.

Sincerely,

A handwritten signature in black ink that reads "Thomas B. Blount". The signature is written in a cursive style with a large, prominent initial "T".

Thomas B. Blount, Deputy Division Director  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

Docket Nos. 50-219 and 50-220

cc: w/ incoming 2.206 Petition

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

Mr. Samuel L. Belcher  
Vice President, Nine Mile Point  
Nine Mile Point Nuclear Station, LLC  
P.O. Box 63  
Lycoming, NY 13093

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M. Leyse

- 3 -

The PRB has forwarded the information in your 10 CFR 2.206 petition and the transcripts available to the rulemaking branch, so that any additional information contained in this petition can be considered during the review of the PRMs.

Thank you for bringing these issues to the attention of the NRC.

Sincerely,

*/ra/*

Thomas B. Blount, Deputy Division Director  
Division of Policy and Rulemaking  
Office of Nuclear Reactor Regulation

Docket Nos. 50-219 and 50-220

cc: w/ incoming 2.206 Petition

Mr. Michael Pacilio  
President and Chief Nuclear Officer  
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