

November 5, 2008

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

Dear Mr. Leyse:

I am responding to the petition for rulemaking (PRM) dated March 15, 2007, that you submitted to the U.S. Nuclear Regulatory Commission (NRC). The petition was docketed as PRM-50-84 and requested that the NRC amend its regulations at Title 10 of the *Code of Federal Regulations* Part 50.46 and Appendix K to Part 50 - Emergency Core Cooling System (ECCS) Evaluation Models in three different areas. Specifically, you requested the NRC to require that nuclear power reactors be operated in a manner to limit the thickness of crud layers and/or the thickness of oxide layers on fuel rod cladding surfaces to ensure that the facilities operate in compliance with the ECCS acceptance criteria. You also requested, that the requirements pertaining to ECCS evaluation models be amended to explicitly require that the steady-state temperature distribution and stored energy in reactor fuel at the onset of a postulated loss-of-coolant accident (LOCA) be calculated by factoring in the role that the thermal resistance of crud and/or oxide layers on fuel cladding plays in increasing the stored energy of the fuel. Lastly, you requested that the acceptance criteria for analyses of ECCS cooling performance for light-water nuclear power reactors be amended to stipulate a maximum allowable percentage of hydrogen content in the cladding of fuel rods.

The notice of receipt of the petition was published in the *Federal Register* on May 23, 2007 (72 FR 28902). The comment period closed on August 6, 2007. Twelve comment letters were received.

In response to this petition, the NRC has determined that the rulemaking requests in PRM-50-84 will be considered in the ongoing 10 CFR 50.46(b) "Performance-Based ECCS Cladding Acceptance Criteria" rulemaking. If the ongoing work to establish the technical basis for this rulemaking does not support the issuance of a proposed rule, the NRC will issue a supplemental *Federal Register* notice that addresses why your requested rulemaking changes were not adopted by the NRC.

The enclosed *Federal Register* notice regarding PRM-50-84 is being transmitted to the Office of the Federal Register for publication.

You can monitor further NRC action on the issues raised by the petition by following the "Performance-Based ECCS Cladding Acceptance Criteria," rulemaking at the federal rulemaking portal, <http://www.regulations.gov>, by searching on rulemaking docket ID: NRC-2008-0332. The NRC also tracks all rulemaking actions in the "NRC Regulatory Agenda: Semiannual Report (NUREG-0936)."

As indicated above, the Commission will consider the issues raised in PRM-50-84 as part of the "Performance-Based ECCS Cladding Acceptance Criteria" rulemaking. With this resolution of your petition, the NRC closes the docket for PRM-50-84.

M. Leyse

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Regulatory history regarding PRM-50-84 can be found at <http://www.regulations.gov>, by searching on rulemaking docket ID: NRC-2007-0013.

Sincerely,

/RA Martin J. Virgilio for/

R. W. Borchardt
Executive Director
for Operations

Enclosure: *Federal Register* Notice

M. Leyse

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Regulatory history regarding PRM-50-84 can be found at <http://www.regulations.gov>, by searching on rulemaking docket ID: NRC-2007-0013.

Sincerely,

/RA Martin J. Virgilio for/

R. W. Borchardt
Executive Director
for Operations

Enclosure: *Federal Register* Notice

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