

September 27, 2011

MEMORANDUM TO: Eric J. Leeds, Director  
Office of Nuclear Reactor Regulation

FROM: Brian W. Sheron, Director *IRA*  
Office of Nuclear Regulatory Research

SUBJECT: TRANSMITTAL OF AN EVALUATION OF LOFT LP-FP-2 DATA  
RELATED TO THE USER NEED REQUEST FOR TECHNICAL  
ANALYSIS OF PETITION FOR RULEMAKING ON 10 CFR 50

Petitions for Rulemaking (PRM)-50-93 (Agencywide Documents Access and Management System (ADAMS) ML093290250) and 50-95 (ADAMS ML102770018) were submitted on November 17, 2009, by Mark Leyse and on June 7, 2010, by Mark Leyse and Raymond Shadis, respectively. Both petitions assert that the NRC's Emergency Core Coolant System (ECCS) regulations are inadequate in various areas. Due to their similar nature, the staff is concurrently addressing these two petitions.

The Office of Nuclear Regulatory Research has been supporting the review effort, which was initiated by your memorandum dated April 26, 2010 (ADAMS ML100770117). Due to the large number of issues raised by the two petitions the working group (WG) of staff members established a priority-driven process to determine the order in which these issues should be evaluated. The staff also plans to publicly release the WG's draft determinations and recommended positions on each group or category of issues on a periodic basis during the Petition for Rulemaking (PRM) review process. While this approach differs from the NRC's established PRM review process as described in Management Directive 6.3, "The Rulemaking Process," it is considered necessary for these petitions due to the unusually large number of issues. The staff informed the Commissioners' Assistants of its intended approach.

The WG began its review of the petitioners' concerns by first selecting the series of tests that appeared most likely to have data that could challenge the adequacy of NRC regulations. The severe accident tests known as the "CORA" series of tests were thus selected and evaluated. The CORA evaluation was transmitted to you in a memorandum dated August 23, 2011 (ADAMS ML112211930).

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E. Leeds

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The second of the petitioners' concerns that the WG addressed involved the Loss of Fluid Test (LOFT) Experiment LP-FP-2. This memorandum transmits the attached interim evaluation of this test, which contains the WG's conclusion that these LOFT data do not support the petition's assertions that NRC's ECCS regulations are inadequate or non-conservative. Consistent with the revised PRM review process for these petitions, we understand that this interim evaluation may be released publicly prior to completion of the PRM review. Thus, the evaluation contains a disclaimer indicating the NRC's conclusions on PRM-50-93/95 will not be final until after the Commission has acted on all staff recommendations and has published its conclusions in the Federal Register.

The WG, including representatives from your office, has reviewed the attached report and concur with its conclusions. If you have any questions please contact Dr. Stephen Bajorek of my staff at 301-251-7561.

Enclosure:  
As stated

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Enclosure:  
As stated

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