

June 12, 2003

MEMORANDUM TO: Jack E. Rosenthal, Chief  
Safety Margins and Systems Analysis Branch  
Division of Systems Analysis and Regulatory Effectiveness  
Office of Nuclear Regulatory Research

FROM: Jared S. Wermiel, Chief */RA/*  
Reactor Systems Branch  
Division of Systems Safety Analysis  
Office of Nuclear Reactor Regulation

SUBJECT: TECHNICAL CONCERNS ON FRAMATOME-ANP REALISTIC LOCA  
METHODOLOGY

In your memorandum to me dated May 21, 2003, you presented a number of technical concerns identified by your staff regarding the Framatome ANP Realistic Large Break LOCA Methodology for Pressurized Water Reactors which has been reviewed and approved for use by my staff.

Your memorandum raises concerns in seven areas: (1) break size and type statistical treatment, (2) Phenomena Identification and Ranking Table (PIRT), (3) fuel rod model uncertainties, (4) fuel relocation, (5) calculation of cladding oxidation, (6) applicability to Combustion Engineering plants, and (7) heat transfer package. My staff met with members of your staff to discuss these concerns, and we provided a written response regarding each of these areas of concern prior to receipt of your May 21, 2003 memorandum. We did not identify any new concerns in your May 21, 2003 memorandum, and our position regarding the acceptability of the Framatome methodology has not changed. We believe there are sound technical bases for the acceptance of the methodology as delineated in our safety evaluation report.

I would like to reiterate that the safety evaluation report contains numerous conditions and limitations on use of the methodology by referencing licensees. One such condition is that an individual application of the methodology by a licensee must be submitted for review by the staff. At that time it will receive scrutiny to insure such concerns as fuel rod rupture and fuel relocation, high cladding temperature, etc., do not call into question the basis for the staff's approval of the methodology. Should those conditions exist, the basis for acceptability of the results will be examined.

Because of your staff's interest in the Framatome methodology, I am extending to you an invitation for a rotation to my branch for any of your staff members to participate in a future review of an individual licensee's application of the Framatome ANP methodology when such an application is submitted. We will notify you when such an opportunity arises.

Thank you for identifying your concerns. Continued technical discussions between our respective staff members on issues of significance in computer code safety analyses are welcome and important to ensuring appropriate outcomes.

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