

March 15, 2001

Mr. T. A. Coleman, Vice President
Government Relations
Framatome ANP
3315 Old Forest Road
P.O. Box 10935
Lynchburg, Virginia 24506-0935

SUBJECT: FUEL CLADDING DUCTILITY

Reference: Nuclear Engineering and Design, Volume 147, No. 1, Page 53, Comparative Studies on High-Temperature Corrosion of ZrNb1 and Zircoloy-4

Dear Mr. Coleman:

On January 26, 2001, the Nuclear Regulatory Commission (NRC) staff sent you a letter requesting a meeting or a submittal on the above subject, in light of questions raised by published embrittlement data on ZrNb1 cladding (Reference). In response to our request, Framatome met with the NRC staff on February 23, 2001. At the meeting, you presented the results of an experimental program which directly addressed the question of applicability of the 17 percent loss-of-coolant accident (LOCA) oxidation limit to M5 cladding. The data included results from ring compression tests and post LOCA quench tests, as well as a discussion of the material differences relative to the material tested in the Reference. The NRC staff was impressed with the quantity and quality of the data presented.

As the NRC staff stated at the conclusion of the meeting, Framatome has made a convincing case that the approved LOCA oxidation limit of 17 percent is appropriate for M5 cladding. We consider questions regarding M5 post-LOCA embrittlement, which were suggested by the data in the Reference, to be satisfactorily addressed. The staff's meeting summary, which documents the presentation, discussion, and the staff's conclusions, is available under ADAMS accession number ML010740359.

I wish to commend you and your staff for the prompt response in scheduling the meeting and for the excellent presentation of technical data at the meeting.

Sincerely,

/RA/

Stephen Dembek, Chief, Section 2
Project Directorate IV and Decommissioning
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Project No. 693

cc: See next page

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