



Proj 693

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Document Control Desk  
ATTN: Chief, Planning, Program and Management Support Branch  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

**Closure of Interim Report 01-001, "Boron Dilution Analyses - Instantaneous Mixing and Dilution Front Models"**

- Ref.: 1. Letter, J. F. Mallay (Framatome ANP) to Document Control Desk (NRC), "Interim Report of Evaluation of a Deviation Pursuant to 10 CFR 21.21(a)(2)," NRC:01:017, April 27, 2001.
- Ref.: 2. Letter, J. F. Mallay (Framatome ANP) to Document Control Desk (NRC), "Interim Report of Evaluation of a Deviation Pursuant to 10 CFR 21.21(a)(2)," NRC:01:034, July 27, 2001.

Two interim reports were made to the NRC concerning the analysis of the boron dilution event (see References 1 and 2). The final evaluation of this situation has been completed and Framatome ANP has concluded that the deviation is not reportable under 10 CFR 21.

Framatome ANP has determined that the boron dilution methodology described in EMF-2310(P)(A), "SRP Chapter 15 Non-LOCA Methodology for Pressurized Water Reactors" needs to be revised as a result of this evaluation. The revised topical report will be submitted by the end of April 2002. The revision will consist of three primary changes:

1. The dilution front model will be used when the RHR system is in operation.
2. Complete mixing of the fluid will be assumed prior to entry of the diluted fluid into the core. This assumption will be validated by Computational Fluid Dynamics (CFD) calculations.
3. All control rods will be assumed to be inserted in modes 4 and 5.

Framatome ANP has evaluated the boron dilution event, for those plants where it has responsibility for this analysis, with the revised methodology and demonstrated compliance to the appropriate criteria.

Very truly yours,

James F. Mallay, Director  
Regulatory Affairs

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