

December 17, 2004

Mr. James F. Mallay  
Director, Regulatory Affairs  
Framatome ANP  
3815 Old Forest Road  
Lynchburg, VA 24501

SUBJECT: FINAL SAFETY EVALUATION FOR FRAMATOME ANP TOPICAL REPORT  
BAW-10179(P), REVISION 5, "SAFETY CRITERIA AND METHODOLOGY FOR  
ACCEPTABLE CYCLE RELOAD ANALYSES" (TAC NO. MB9684)

Dear Mr. Mallay:

By letter dated December 18, 2002, and its supplement dated March 5, 2004, Framatome ANP (FANP) submitted Topical Report (TR) BAW-10179(P), Revision 5, "Safety Criteria and Methodology for Acceptable Cycle Reload Analyses," to the staff for review. On October 29, 2004, an NRC draft safety evaluation (SE) regarding our approval of BAW-10179(P) was provided for your review and comments. FANP had no comments on the draft SE.

The staff has found that BAW-10179(P) is acceptable for referencing in licensing applications for Babcock & Wilcox 177-fuel assembly designed pressurized or boiling water reactors, to the extent specified and under the limitations delineated in the TR and in the enclosed SE. The SE defines the basis for acceptance of the TR.

Our acceptance applies only to material provided in the subject TR. We do not intend to repeat our review of the acceptable material described in the TR. When the TR appears as a reference in license applications, our review will ensure that the material presented applies to the specific plant involved. License amendment requests that deviate from this TR will be subject to a plant-specific review in accordance with applicable review standards.

In accordance with the guidance provided on the NRC website, we request that FANP publish accepted proprietary and non-proprietary versions of this TR within three months of receipt of this letter. The accepted versions shall incorporate this letter and the enclosed SE between the title page and the abstract. They must be well indexed such that information is readily located. Also, they must contain historical review information, such as questions and accepted responses, draft SE comments, and original TR pages that were replaced. The accepted versions shall include a "-A" (designating accepted) following the TR identification symbol.

James F. Mallay

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If future changes to the NRC's regulatory requirements affect the acceptability of this TR, FANP and/or licensees referencing it will be expected to revise the TR appropriately, or justify its continued applicability for subsequent referencing.

Sincerely,

**/RA by Robert Gramm for/**  
Herbert N. Berkow, Director  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Project No. 728

Enclosure: Safety Evaluation

James F. Mallay

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Enclosure: Safety Evaluation

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SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

BAW-10179(P), REVISION 5, "SAFETY CRITERIA AND METHODOLOGY FOR

ACCEPTABLE CYCLE RELOAD ANALYSES"

FRAMATOME ANP

PROJECT NO. 728

1.0 INTRODUCTION

By letter dated December 18, 2002 (ADAMS Accession No. ML023600285), as supplemented by letter dated March 5, 2004 (ADAMS Accession No. ML040690723), Framatome ANP (FANP) submitted Topical Report (TR) BAW-10179(P), Revision 5, "Safety Criteria and Methodology for Acceptable Cycle Reload Analyses" for NRC staff review. BAW-10179(P) provides the criteria and methodology for determining cycle-specific limits and setpoints that are included in the Core Operating Limits Reports (COLRs) for the Babcock and Wilcox (B&W) 177-fuel assembly class of nuclear power plants. The TR serves as the approved methodology that is referenced in the COLR portion of the Administrative Controls section of a plant's technical specifications.

2.0 REGULATORY EVALUATION

In Revision 5 to BAW-10179(P), FANP added three TRs that have been approved by the NRC since Revision 4 of BAW-10179(P) was approved. Each TR is briefly described in an appendix, and the description includes the conditions and limitations on the applicability of the TR.

The following have been incorporated in BAW-10179(P), Revision 5:

Appendix U: BAW 10164P-A, "RELAP5/MOD2 - B&W - An Advanced Computer Program for Light Water Reactor LOCA and Non-LOCA Transient Analysis," Revision 4, November 2002.

Appendix V: BAW-10241P-A, "BHTP DNB Correlation Applied With LYNXT," September 2004.

Appendix W: BAW-10166P-A, "BEACH - Best Estimate Analysis Core Heat Transfer, A Computer Program for Reflood Heat Transfer During LOCA," Revision 5, November 2003.

The NRC staff reviewed the safety evaluations that were issued for the above TRs, FANP's descriptions of the TRs, and the limitations, if any, on the applicability to B&W 177-fuel assembly class of nuclear power plants. The NRC staff finds that the summaries for the TRs,

including limitations on applicability to the B&W 177-fuel assembly class of nuclear power plants, are adequate.

### 3.0 CONCLUSION

The NRC staff concludes that BAW-10179(P), Revision 5, adds only TRs that are approved for B&W 177-fuel assembly class of nuclear power plants, and that the summaries of the TRs are adequate. Therefore, Revision 5 may be referenced in a plant's technical specifications as the current approved version of BAW-10179(P).

Principal Contributor: M. Honcharik

Date: December 17, 2004