



April 3, 2001  
NRC:01:015

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

**10 CFR Part 21 Evaluation and Notification for an Incorrect Calculation of the Minimum Critical Power Ratio**

This letter provides notification of a reportable defect in accordance with 10 CFR Part 21, which was reported to the NRC Operations Center by facsimile at 14:48 PDT on March 29, 2001. Report No. 37874 was assigned to the notification by the Duty Officer.

The affected utilities have been informed, and the actions taken and to be taken to address the issue are provided in the Attachment to this letter.

Very truly yours,

A handwritten signature in black ink, appearing to read 'James F. Mallay'.

James F. Mallay, Director  
Regulatory Affairs

/arn

Attachment

cc: Mr. E. W. Merschoff  
Mr. N. Kalyanam

**Framatome ANP Richland, Inc.**

2101 Horn Rapids Road  
Richland, WA 99352

Tel: (509) 375-8100  
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### **REPORTABLE DEFECT**

- (i.) *Name and address of the individual informing the Commission*

James F. Mallay, Director, Regulatory Affairs, Framatome ANP Richland, Inc., 2101 Horn Rapids Road, Richland, WA 99352.

- (ii.) *Identification of the facility, the activity, or the basic component supplied for such facility or such activity within the United States which fails to comply or contains a defect.*

Framatome ANP Richland, Inc.; calculation of the minimum critical power ratio (MCPR).

- (iii.) *Identification of the firm constructing the facility or supplying the basic component which fails to comply or contains a defect.*

Framatome ANP Richland, Inc.

- (iv.) *Nature of the defect or failure to comply and the safety hazard which is created or could be created by such a defect or failure to comply.*

In the performance of the analysis used to establish the MCPR operating limits, the use of an inappropriate reference temperature resulted in an overprediction of the thermal conductivity of the fuel. This overprediction produced MCPR operating limits that were lower than they should have been. Therefore, the MCPR limits must be raised by up to 0.01 or 0.02, depending on the affected power plants.

- (v.) *The date on which the information of such defect or failure to comply was obtained.*

Condition Report 9191 was prepared on February 21, 2001, and identified a possible deviation. Notification that this situation represented a defect was developed on March 27, 2001.

- (vi.) *In the case of a basic component which fails to comply, the number and the location of all such components in use at, supplied for, or being supplied for one or more facilities or activities subject to the regulations in this part.*

The MCPR must be raised by up to 0.01 from the limits previously provided for Dresden Units 2 and 3, and for Quad Cities Units 1 and 2. The MCPR limits for LaSalle Units 1 and 2 must be revised by up to 0.01 for power levels of 60 percent and above and by up to 0.02 below 60 percent. Calculations for Susquehanna Units 1 and 2 were affected but the MCPR limits were unchanged. Continued compliance with the over-pressurization criteria specified by the ASME code has been demonstrated.

- (vii.) *The corrective action which has been, is being, or will be taken; the name of the individual or organization responsible for the action; and the length of time that has been or will be taken to complete the action.*

All units, including Susquehanna, have been notified. Compensatory measures have been provided to the affected plants until confirmatory analyses have been completed. The appropriate reference temperature has been installed in the computer code used for the MCPR analysis.

- (viii.) *Any advice related to the defect or failure to comply about the facility, activity, or basic component that has been, is being, or will be given to purchasers or licensees.*

See (vii) above.