



FRAMATOME ANP

An AREVA and Siemens company

FRAMATOME ANP, Inc.

November 26, 2002
NRC:02:058

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

Interim Report on the Evaluation of a Potential Safety Concern Pursuant to 10CFR21(a)(2)

Framatome ANP initiated a potential safety concern (PSC 4-02) on September 30, 2002, as a result of findings from a limited set of chemical samples taken at Davis Besse that may indicate leakage from a source other than the upper reactor vessel head. This PSC led to the immediate initiation of an evaluation under the provisions of 10CFR21. Since the evaluation of this potential for a substantial safety hazard could not be completed within 60 days, an interim report is being submitted. The enclosed interim report describes the findings and the actions taken to date to determine whether this situation is reportable.

The PSC states that the findings could apply to each B&W-supplied unit operated by members of the B&WOG. Each member of the B&WOG has received a copy of the PSC along with a brief description of the situation. They will also receive a copy of this letter and the enclosed interim report.

Framatome ANP does not possess sufficient information to determine whether this situation is reportable under Part 21. In addition, Framatome ANP is not in a position to decide on the reportability of this matter; only the operators of those reactor vessels delivered as part of B&W-supplied nuclear steam systems can make such a determination. Under Part 21.2(c), licensees may satisfy this reporting requirement by making a determination under 10CFR50.72 or 50.73.

Framatome ANP is asking that each member of the B&WOG evaluate its situation concerning the matters described in the PSC and in this interim report, and to individually determine whether there is a reportable condition.

Very truly yours,


James F. Mallay, Director
Regulatory Affairs

Enclosure

cc: D. G. Holland
Project 693

*045
IF19*

Interim Report (02-002)

Subject:

Interim Report of the Evaluation of a Potential Safety Concern Pursuant to 10CFR21.21(a)(2).

Title:

Findings from a limited set of samples taken at Davis Besse.

Identification of Basic Activity:

Potential leakage from B&WOG reactor vessels.

Nature of Deviation:

Framatome ANP initiated a potential safety concern (PSC 4-02) as a result of findings from a limited set of chemical samples taken at Davis Besse that may indicate leakage from a source other than the upper reactor vessel head and may involve the incore monitoring instrumentation (IMI) nozzles. A chemical analysis was conducted of numerous scratch samples that were taken by FirstEnergy from the lower reactor vessel head. The samples were taken from two debris trails and from 12 IMI nozzles.

FirstEnergy had performed a series of visual inspections of the lower head and the associated insulation. These inspections, which were conducted from May 6 to June 5, 2002, were documented in video tapes that were evaluated by Framatome ANP personnel. The videos showed two trails coming down the sides of the Davis Besse reactor vessel: one on the SE side was white in appearance (apparently boric acid), and one on the NW side that was rusty. Both trails were apparently from the upper head, which had experienced several instances of leakage and corrosion and had been washed down. These trails ran along the bottom head and terminated along the length of several of the IMI nozzles. There were no significant boric acid deposits on any of the IMI nozzles nor was there any evidence of sufficient leakage to cause corrosion on the lower head or nozzles.

Several samples were taken from the two trails and from 12 nozzles, some of which were in the path of the trails, and some that did not appear to be affected by either debris trail. The samples were obtained on June 18. A chemical and isotopic analysis was performed on the 14 samples, which were typically a few milligrams each.

A preliminary assessment of the results of these analyses was conducted, and the results were characterized as conflicting. However, it was noted that two of the nozzles (# 3 and 27) had lithium and boron spikes, which might indicate local leakage not associated with either trail. Specifically, the trails contained about 2000 ppm of boron, whereas the nozzles in question have about 10 to 40,000 ppm. In addition, there were five other nozzles that were believed to be suspect on the same basis, but less dramatic in nature.

Discovery Date:

September 30, 2002

Corrective Actions:

Because Framatome ANP is unable to perform the necessary evaluation of the potential for a significant safety hazard, the pertinent licensees (that is, operators of B&W-supplied nuclear steam systems) are being advised of this concern so they can make appropriate evaluations.