

May 31, 2001

MEMORANDUM TO: Richard Correia, Acting Chief, Section 1
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

FROM: Lawrence J. Burkhart, Project Manager, Section 1 */RA/*
Project Directorate I
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

SUBJECT: CORRESPONDENCE WITH FIRSTENERGY NUCLEAR OPERATING
COMPANY (FENOC) REGARDING STEAM GENERATOR (SG)
INSPECTION ISSUES

The Nuclear Regulatory Commission (NRC) has engaged certain licensees of pressurized water reactors regarding details surrounding inspection of SGs. Attachment 1 was forwarded to FENOC via e-mail on March 20, 2001, and contains talking points for discussions with FENOC regarding inspection of the SGs at Beaver Valley Power Station (BVPS), Unit Nos. 1 and 2. A brief teleconference with the licensee was conducted on March 20, 2001, to discuss the talking points and the general information that the NRC staff would like to review regarding this issue. There is no requirement for the licensee to submit the requested information, but they could forward the information voluntarily. A brief teleconference with the licensee was held on April 5, 2001, to further discuss this issue. Attachment 2 was forwarded to the NRC from FENOC and included detailed information regarding recent SG inspections at BVPS. This submittal supported a subsequent teleconference conducted on April 20, 2001, to discuss the information. The purpose of this memorandum is to ensure that all of the information exchanged between the NRC and FENOC is placed on the BVPS dockets.

Docket Nos. 50-334 and 50-412

Attachments: As stated

CONTACT: L. Burkhart, NRR
301-415-3053

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DATE	5/7/01	5/7/01	5/29/01	5/30/01

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Talking Points for March 20, 2001, call

Subject: NRC staff would like to discuss the most recent eddy current inspections performed at Units 1 and 2, particularly with respect to the low row U-bend and sludge pile regions in the steam generators

- The staff and the industry now have a better understanding of the events surrounding the steam generator tube failure that occurred at Indian Point Unit 2 (IP2) in February 2000 such as eddy current data quality and noise levels. The low row U-bend and sludge pile regions are particularly vulnerable areas due to the inspection challenges and active degradation.
- The staff discussed eddy current inspection results with FENOC in the Spring of 2000 for Unit 1 and in the Fall of 2000 for Unit 2. FENOC provided the staff some fairly high level discussions of data quality controls and noise levels in the SG tubes at Unit 2 during the Fall 2000 phone calls. Now that the events surrounding the IP2 tube failure have been documented and the "lessons learned" report has been issued, the staff would like to discuss with FENOC how they assessed the IP2 event with respect to the conditions in the Beaver Valley SGs, particularly for the low row U-bends and sludge pile regions.
- The staff has had similar discussions with the licensee for Prairie Island regarding their low row U-bend inspections. We met with them at HQ on February 9, 2001. We had followup questions that we forwarded to NMC on February 12, 2001. They responded in a letter dated February 28, 2001. These may be useful references.

Areas of discussion with FENOC would include:

- The specific characteristics of the active degradation mechanism in the low row U-bends and sludge pile regions. For example, location (e.g., unit, bend tangent or apex, row and column, location relative to the TTS), flaw size (e.g., voltage, phase angle, average depth, maximum depth, length), characteristics (e.g., ODSCC or PWSCC, axial or circumferential), cycle or EFPY identified, cycle or EFPY plugged, measured growth rates, and in situ pressure test results.
- Criteria for the application of the high frequency Plus-Point probe, if used.
- The range of eddy current noise levels present in the low row U-bends and sludge pile regions at Beaver Valley, compared with the eddy current "size" of a structurally significant indication. Discuss factors such as signal-to-noise ratios and noise parameters, including volts peak-to-peak and vertical maximum.
- The level of denting that exists in the SGs and the results of any secondary side visual inspections that FENOC performed.
- Specific plant action(s) taken in response to RIS 2000-22, "Issues Stemming from NRC Staff Review of Recent Difficulties Experienced in Maintaining Steam Generator Tube Integrity," particularly with respect to the IP2 experience.