

**From:** Gina Matakas  
**To:** Dave Everhart, Enforcement, Leanne Harrison, Penny Lanzisera, Scott Barber, Wayne Schmidt, William Raymond  
**Date:** Thu, Jul 27, 2000 3:24 PM  
**Subject:** Region I Enforcement Panels - Tuesday, August 1

~~PRE-DECISIONAL ENFORCEMENT INFORMATION - DO NOT DISCLOSE~~

There is one reactor case and two materials cases scheduled for Tuesday, August 1. The panel meetings will begin at 1:00 p.m. Attached is the panel schedule and background information. The Indian Point 2 panel form does not include the Draft NOV. The Draft NOV will be provided separately, either later today or tomorrow.

1:00 p.m. Indian Point 2 - Steam Generator Tube Failure - 1 file attached

3:00 p.m. Mallinckrodt - Extremity Overexposure - 2 files attached

3:30 p.m. Yale - Badge Exposure - 1 file attached

The bridge number for the panel is (301) 231-5539. Passcode: 6656#

4/24

②

**From:** Gina Matakas  
**To:** Enforcement, Leanne Harrison, Scott Barber, Wayne Schmidt, William Raymond  
**Date:** Thu, Jul 27, 2000 4:36 PM  
**Subject:** IP2 Draft NOV for Enf. Panel - Tuesday, August 1

~~PRE-DECISIONAL ENFORCEMENT INFORMATION - DO NOT DISCLOSE~~

Attached is the Indian Point 2 Draft Notice of Violation for the Enforcement/SDP Panel Meeting on Tuesday, August 1.

1:00 p.m. Indian Point 2 - Steam Generator Tube Failure

The bridge number for the panel is (301) 231-5539. Passcode: 6656#

## **APPARENT VIOLATION**

10 CFR 50, Appendix B, Criteria XVI, requires that measures shall be established to assure that conditions adverse to quality are promptly identified and corrected. In the case of significant conditions adverse to quality, the measures shall assure that the cause of the condition is determined and corrective action taken to preclude recurrence.

Contrary to the above, during the 1997 refueling outage, a significant condition adverse to quality existed at Indian Point 2, namely, primary water stress corrosion cracking (PWSCC) flaws in the small radius u-bends of four tubes in steam generators; however, as of February 15, 2000, when one of those tubes failed while the plant was at 100% power, measures were not established to ensure that the condition adverse to quality had been identified and corrected, despite opportunities that existed to do so. Those prior opportunities involved other significant conditions adverse to quality for which the causes had not been determined. Specifically, during eddy current testing of steam generators during the 1997 outage,

1. a PWCSS crack was identified at the apex of one of the low row tubes. Since this was the first time in the facility's history that a crack had been identified at the apex of any tube, it signified the potential for other similar cracks in the low row tubes.
2. indications of tube denting were discovered for the first time in the uppermost support plate of certain low row tubes when restrictions were encountered as eddy current probes were inserted into those tubes. These restrictions in 20 tubes signified the susceptibility to deformation of the flow slots (hour-glassing) in the uppermost support plate, which, in turn, places additional PWCSS stresses on those tubes.
3. significant electrical interference (noise) was encountered in the data obtained during the actual eddy current testing of several other low row tubes, which could have masked flaws that existed in other tubes.

Although the indications of tube denting at the 20 locations, and the identification of the apex crack in one of the small radius tubes, collectively increased the potential for similar steam generator tube flaws existing in other locations, the licensee neither evaluated nor took action to correct the effect of the noise on masking the detection of any other flaws in existence at the time.