

**From:** Marc Ferdas  
**To:** David Lew  
**Date:** Wed, Jan 31, 2001 12:22 PM  
**Subject:** NRC response to NOV denial, version 2

Dave,  
I incorporated some of your comments from our discussion. I think I was able to consolidate some of the wording of the cover letter by merging some of the repetitive statements made throughout version 1 of the letter.

-Marc

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A/131

EA-00-179, EA-01-033

Mr. John Groth  
Senior Vice President - Nuclear Operations  
Consolidated Edison Company of  
New York, Inc.  
Indian Point 2 Station  
Broadway and Bleakley Avenue  
Buchanan, NY 10511

**SUBJECT: CON ED RESPONSE, DATED JANUARY 19, 2001 TO THE NOTICE OF VIOLATION ISSUED BY THE NRC ON NOVEMBER 20, 2000, FOR A VIOLATION THAT OCCURRED AT INDIAN POINT 2**

This refers to your letter, dated January 19, 2001, from Mr. J. Baumstark, in response to the Notice of Violation issued by the NRC on November 20, 2000 for a violation that occurred at Indian Point 2. The violation involved the failure, in 1997, to fully identify and correct a significant condition adverse to quality involving the steam generators at your facility, despite opportunities during the 1997 steam generator inspections to do so. The significant condition adverse to quality entailed the presence of primary water stress corrosion cracking (PWSCC) flaws in four Row 2 steam generator tubes, in the small radius low-row U-bend apex area. This significant condition adverse to quality was not identified and corrected during the 1997 steam generator inservice inspection, because of the failure to adequately account for conditions that adversely affected the detectability of, and increased the susceptibility to, tube flaws.

In your January 19 response, you denied that the violation occurred. As a basis for the denial, you contended that the 1997 steam generator tube inservice examination at Indian Point 2 was conducted in accordance with industry guidelines and requirements applicable at the time. You noted that the NRC inspection report, upon which the Notice of Violation was based, does not reference any requirement, industry standard, benchmark, or guidance that was not met in 1997 which could have led to a failure to detect PWSCC tube defects.

In your denial, you also indicated that the ease of discovery should be fully considered in evaluating licensee problem identification and resolution. While acknowledging that it is clear that the PWSCC indication was not identified in the case of tube Row 2 Column 5 of steam generator 24, you maintained that the ease of discovery regarding the subject indication was questionable. You also provided several affidavits prepared by individuals with experience in steam generator inspection and eddy current testing, which you attest found your performance to be acceptable.

The NRC has carefully reviewed and considered your entire response including, the bases that you have provided for denial of the violation. Based on our review, we have concluded that no additional information was presented that would alter the NRC's conclusion that a violation existed. The information in your letter was not substantially different than provided to the NRC

during the NRC special inspection and subsequent meetings, including during the regulatory conference conducted on September 26, 2000.

10 CFR 50, Appendix B, Criterion XVI, requires in part, that significant conditions adverse to quality be evaluated and actions taken to prevent recurrence. This regulation recognizes that prescriptive requirements cannot be written for every condition that may be encountered, particularly in the case of plant specific conditions. Therefore, when such conditions are encountered, licensees must take actions that are commensurate with its significance. Such conditions were encountered during the 1997 steam generator inspections.

As documented in NRC inspection report 247-010, specific opportunities and conditions existed to recognize degraded tubes during your 1997 steam generator inspections. Specifically, (1) significant eddy current test signal interference (i.e. high noise) was experienced and data analysis techniques were not adjusted to compensate for, (2) indications of tube denting exhibited by "hour glassing" and tube restrictions were not assessed following the identification in 1997 of eddy current probe restrictions at the upper support plate, and (3) industry information about recent degradation affecting small radius (row 1 and 2) u-bend regions of tubes in steam generators was available. The NRC agrees with your statements that Con Edison adhered to the current industry guidance and requirements applicable to the time. This however, does not necessarily satisfy the requirements of 10 CFR50 Appendix B, Criterion XVI, which calls for measures to determine the cause of the significant condition to quality and that corrective actions are taken to preclude repetition.

While the NRC does not intend to prescribe what Con Edison should have done in response to the conditions encountered by Con Edison in 1997, the NRC believes that adequate evaluations and corrective actions in response to the significant identified conditions encountered and known industry information during 1997, would have reasonably prevented leaving the flaws in the low row u-bends in service. The high signal noise in areas susceptible to PWSCC (i.e., the low row u-bends) could have been accounted for in the inspection program. Adjustments could have been made to closely interrogate those susceptible areas or actions could have been taken to simply plug the potentially effected tube. Neither of these adjustments were considered in 1997, although the NRC considers that it was reasonable for you to have done so given these factors. Therefore, your evaluation of these conditions and corrective actions at the time were not adequate and contributed to leaving tubes with PWSCC flaws in the low row tube in service.

For these reasons, the NRC has concluded that the violation remains as cited in the Notice. Although you denied the violation, you have agreed that corrective actions were needed to improve your steam generator program in general, and the steam generator inspection program, in particular. We have reviewed the actions that you have taken and planned and have no further questions at this time. We will continue to review these programs during future inspections. Therefore, no response to this letter is required.

Additionally, your response and the associated affidavits contain a number of statements referencing NRC generic communication and inspection reports. We believe that some of these statements do not accurately reflect NRC staff's positions on this matter. Attachment 1 of this letter is composed of selected issues that we believe need to be highlighted and responded to.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the

Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/NRC/ADAMS/index.html> (the Public Electronic Reading Room).