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December 18, 2000

Re: Indian Point Unit No. 2
Docket No. 50-247
NL-00-152

Mr. Hubert J. Miller
Regional Administrator-Region I
US Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406

Subject: Final Significance Determination For a Red Finding and Notice of
Violation at Indian Point 2 (NRC Inspection Report 05000247/2000-
010)

Reference: NRC Inspection Report 05000247/2000-010, and NRC Letter to Mr.
John Groth from Mr. H. J. Miller, Final Significance Determination and
Notice of Violation, dated November 20, 2000.

Dear Mr. Miller:

The purpose of this letter is to confirm the basic elements of the programmatic improvements we have made in conjunction with the replacement of the original equipment steam generators. These changes provide a high level of confidence that events such as the February 15, 2000 steam generator tube failure (which is the subject of the referenced inspection report and accompanying notice of violation) will not recur following the unit's return to service.

The replacement steam generators, Westinghouse Model 44Fs, have numerous passive features that reduce the potential for in-service tube failures. They have thermally treated alloy 600 tubes which exhibit improved corrosion resistance over mill annealed tubes. The support plates are manufactured from Type 405 stainless steel, which minimizes the potential for denting due to lower corrosion susceptibility compared to carbon steel plates. The quatrefoil tube hole design of the replacement steam generator support plates and the full depth expansion of the tubes in the tubesheet significantly reduce the amount of crevice area, and thus the potential for crevice environments to experience secondary side corrosion mechanisms. In addition, flow slots in the upper support plate of the original steam generators are replaced with two

rows of flow holes. This design feature eliminates the possibility of flow slot hourglassing and the resultant introduction of stress in the low row U-bends.

Furthermore, the low row tubes (Rows 1-7) of the replacement steam generators were stress relieved during manufacturing to lower the residual stress in the tubes imparted during the bending process, thereby reducing conditions that could contribute to the onset of primary water stress corrosion cracking (PWSCC) in the U-bend area.

Thorough pre-service eddy current examinations of replacement steam generator tubes were also performed on all four of the replacement generators to establish reliable baseline eddy current data. The eddy current inspection consisted of 100% full length bobbin, 100% hot leg top of tube sheet inspection with a rotating pancake coil (RPC) probe, 100% Row 1 and 2 U-bend inspections with a RPC probe, and inspection of 80 of the Row 1, 2 and 3 U-bend tubes with a 800 kHz +Point Probe. No tubes had to be plugged based on the results of these inspections. A full secondary side inspection and foreign object search and retrieval (FOSAR) program was also conducted.

The station has also taken significant actions to alleviate conditions that could contribute to corrosion onset. The copper removal program initiated in 1982 has been continued with the replacement during the current outage of the last six (6) low-pressure feedwater heat exchangers. This replacement completed the removal of copper-bearing alloys in the main components of the secondary side of the plant. A copper flush has also been performed on the feedwater system to remove residual copper from this system.

Complementing these equipment changes, we have made administrative changes as well. On March 22, 2000 a station procedure was adopted that implements the industry guidelines of NEI 97-06. Elements of this procedure include:

- The establishment of a Steam Generator Management Committee, chaired by the Vice President of Nuclear Engineering. Committee members include department and section level managers from applicable organizations such as Chemistry, Operations, Outage Planning and Maintenance.
- The establishment of a Steam Generator Program Manager for overall implementation of the program.
- Integrity elements such as the requirement for assessment of potential degradation mechanisms, inspections, tube integrity assessments, primary to secondary leakage monitoring, maintenance of secondary integrity, and reporting requirements.
- Support elements such as primary and secondary water chemistry programs, foreign material exclusion procedures, and program self-assessments.

Based on the corrective steps outlined above, we are confident that steam generator tube degradation mechanisms will be minimized and our ability to detect these mechanisms will be

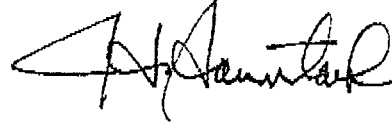
significantly enhanced.

Because we are currently engaged in unit restart and power ascension activities, we request an additional thirty (30) days to complete our response to the November 20, 2000 final significance determination for a red finding and notice of violation. This confirms our telephone request of December 15, 2000.

No new regulatory commitments are being made by Con Edison in this correspondence.

Should you or your staff have any questions regarding this submittal, please contact Mr. John F. McCann, Manager, Nuclear Safety and Licensing.

Sincerely,



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