

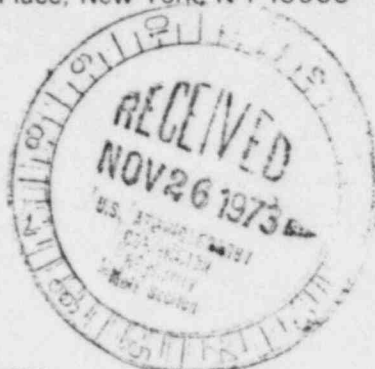
50-247

Consolidated Edison

Consolidated Edison Company of New York, Inc.  
4 Irving Place, New York, N Y 10003



November 12, 1973



Re: Indian Point Unit No. 2  
Facility Operating  
License DPR-26  
A.O. 3-2-15

Mr. John F. O'Leary  
Directorate of Licensing  
Office of Regulation  
U.S. Atomic Energy Commission

Dear Mr. O'Leary:

The following report is provided pursuant to the requirements of Section 6.12.2 (a) of the Technical Specification of Facility Operating License DPR-26.

During the course of routine plant status inspections on October 30, 1973, leaks were observed at the 3/4 inch pipe to socket weld branch connections for vents S-47 and S-51. These vents are part of the Residual Heat Removal (RHR) System which when in operation, forms a portion of the Reactor Coolant System boundary. The leaks, therefore, represented an Abnormal Occurrence in accordance with Technical Specification 1.8.e. At the time of the occurrence, the reactor was in a "Cold Shutdown Condition".

Following discovery of the leaks, circumstances relating to the past history of these connections were investigated. Examination of the records disclosed that valve S-47 had been reworked in October 1972 to replace a thinwall nipple between the branch connection socket and the valve. Also, at that time repairs were made to the

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coupling to header attachment weld for vent valves S-47 and S-51. Both Con Edison and WEDCO Quality Control personnel inspected the repairs and verified the absence of defects. The vent valve assemblies were then hydrostatically tested to verify the structural integrity of the repairs.

On May 15, 1973, leakage was observed at the weld on the 3/4 inch pipe-to-socket weld branch connection between valve S-47 and line 355. The weld was repaired and the vent valve assembly was shortened to reduce any vibration induced cyclic stress which might have contributed to the failure. The repair weld was again dye penetrant inspected and subjected to a hydrostatic test to verify its structural integrity.

Following the leaks that were observed on October 30, 1973, we initiated a metallurgical examination of the piping and welds involved. Results of this examination indicate fatigue failure of the pipe to socket welds probably caused by excessive vibration. Since venting at these connections is not required for operation, we have replaced the vent valve assemblies with socket welded plugs in the half couplings welded to the RHR system. This entirely eliminates the vibration induced cyclic stresses that might have been a factor in causing the failures. A similar vent valve, S-48, which is adjacent to and on the same line as vent valve S-47 was also removed.

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Although no leak was observed in the weld on S-48, its removal and the installation of a weld plug in its place would preclude the possibility of such a crack from forming.

Additionally, as the result of this occurrence, an inspection of other systems which connect to the Reactor Coolant System was performed. All the vent and drain valves in these systems were examined for excessive vibration while the plant was put in a number of different operating conditions. None of these operating modes, however, produced any significant vibration in any of the vents or drains.

The above described leaks did not adversely affect the safe operation of Indian Point Unit No. 2 and were well within the makeup capabilities of the plant Chemical and Volume Control System. During plant operation at power these vent connections on the RHR System are isolated from the Reactor Coolant System. For these reasons, the safety implications of the leakage are considered to be negligible.

Very truly yours,

Warren R. Coburn

cc: J.P. O'Reilly