William J. Cahill, Jr.
Vice President

CENTRAL FILES

Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N Y 10003
Telephone (212) 460-3819

July 16, 1979

Re: Indian Point Units Nos. 1 & 2
Docket Nos. 50-3 & 50-247

Mr. Boyce H. Grier, Director
Office of Inspection and Enforcement
Region I
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Dear Mr. Grier:

In accordance with your June 25, 1979 letter, Attachment A to this letter provides our response to IE Bulletin No. 79-13 for Indian Point Unit No. 2.

With respect to Indian Point Unit No. 1, the unit was shutdown on October 31, 1974 and is presently in the defueled condition awaiting a decision by the company whether or not to install an emergency core cooling system in accordance with the Commission's regulations. The information requested in the Bulletin will be provided if an affirmative decision is reached to return the unit to service.

Should you or your staff have any questions, please contact us.

Very truly yours,

William J. Cahill, Jr.
Vice President

attach.
cc: Office of Inspection and Enforcement
Division of Reactor Operations Inspection
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

Mr. T. Rebelowski, Resident Inspector
U. S. Nuclear Regulatory Commission
P. O. Box 38
Buchanan, N. Y. 10511

Mr. A. Schwencer, Chief
Operating Reactors Branch No. 1
Division of Operating Reactors
U. S. Nuclear Regulatory Commission
Washington, D. C. 20555

ATTACHMENT A

Response to

IE Bulletin 79-13

(Cracking in Feedwater System Piping)

Consolidated Edison Company of New York, Inc.
Indian Point Unit No. 2
Docket No. 50-247
July, 1979

Con Edison was informed on May 25, 1979 by Westinghouse of the discovery of feedwater nozzle cracks in D.C. Cook Units 1 & 2. Subsequently, on May 29, 1979, we received the NRC's May 25, 1979 letter from Mr. Victor Stello, Jr. to All Pressurized Water Reactor Licensees addressing the same subject. After reviewing the available data, Con Edison believed that cracking in the Indian Point Unit No. 2 feedwater nozzles was unlikely since no discontinuity of wall thickness was known to exist at the feedwater piping/steam generator nozzle interfaces.

Nonetheless, we adjusted the schedule for our present refueling/maintenance outage (which began on June 16, 1979) to accomodate volumetric (non destructive) examination of all four (4) steam generator nozzle-to-pipe welds at the earliest possible time. During the first week of the outage, all four (4) nozzle-to-pipe welds were radiographed using methods per ASME Code Section V, Article 2, Summer 1978 Addenda, with at least 2-4T penetrameter sensitivity. Evaluation of the radiographs yielded no indications of cracking as had occurred at other nuclear facilities. These results were reported to the NRC Project Manager for Indian Point Unit No. 2 on June 22, 1979.

On June 29, 1979, we received IE Bulletin No. 79-13, dated June 25, 1979, addressing action to be taken by licensees regarding the recent discovery of cracking in the feedwater systems of a number of Westinghouse pressurized water reactor facilities. Upon review of this Bulletin, it was noted that item 1.a required that radiographs be evaluated in accordance with ASME Section III, Subsection NC, Article NC-5000, and that the radiography be performed to the 2-2T penetrameter sensitivity level in lieu of the Table NC-5111-1. Although Indian Point Unit No. 2 could be excluded from mandatory reexamination of feedwater nozzles by item 1 of the Bulletin, all four (4) nozzle-to-pipe welds were radiographed a second time obtaining the requested 2-2T penetrameter sensitivity level. The results of that second examination still yielded no indications of cracking.

As discussed in our June 18, 1979 response to the NRC's May 25, 1979 information request, the special volumetric examinations of the steam generator nozzle-to-pipe welds were performed as an addition to the originally planned inservice inspection (ISI) of the feedwater line to steam generator no. 22 (i.e., line no. 5). This planned inservice inspection of line no. 5 has also been completed and no indications of cracking have been observed.

Although item 2 of IE Bulletin No. 79-13 specifically requires special volumetric examination of all feedwater pipe welds in containment and examination of all main feedwater/auxiliary feedwater connecting welds at the next outage of sufficient duration or at the next refueling outage, the work schedule for the present refueling/maintenance outage has permitted the performance of additional feedwater system examinations at the following selected locations:

(a) The highest stressed weld in each of the four (4) main feedwater lines inside containment,

(b) The first piping weld inside containment at the penetration area for each of the four (4) main feedwater lines, and

(c) The welds connecting the auxiliary feedwater piping to the main feedwater piping outside containment.

Evaluation of the results of these additional examinations has also revealed no indications of cracking. In addition, as requested by item 2.a of the Bulletin, we have radiographed areas of one pipe diameter on each of the four (4) main feedwater lines downstream of their respective auxiliary feedwater piping connections. The results will be reported when the evaluation of the radiographs is completed. Based on results to date, no degradation of feedwater piping system integrity has been observed and volumetric examination of the remaining accessible feedwater pipe girth welds inside containment has now been scheduled for the next outage of sufficient duration or the fourth refueling outage (presently planned for late 1980 or early 1981).

Furthermore, the performance of a visual inspection of feedwater system piping supports and snubbers inside containment, as requested by items 1.c and 2.c of the Bulletin, is essentially completed and operability and conformance to design has been confirmed for the areas inspected. Inspection of the few remaining areas will be completed prior to the end of the present refueling/maintenance outage.

Finally, item 5 of the Bulletin requested information regarding the methods and sensitivity of detection of feedwater leaks in containment and the adequacy of our operating and emergency procedures to recognize and respond to a feedwater line break accident. With regard to leak detection, several methods are available to the operator:

(a) Humidity detectors are located in containment. These instruments are sensitive to incremental increases of water leakage to the containment atmosphere on the order of 0.25 gpm per ^{o}F of dewpoint temperature increase.

(b) A leakage detection system is located in containment which determines leakage losses from all water and steam systems within containment. This system collects and measures moisture condensed from the containment atmosphere by cooling coils of the main internal air recirculation units. This system provides a dependable and accurate means of measuring integrated total leakage, including leaks from the cooling coils themselves which are part of the containment boundary. Condensate flows from approximately 1 gpm to 30 gpm per detector can be measured by this system. Leaks less than 1 gpm may be determined by periodic observation of the water accumulation in the standpipes of the condensate collection system.

(c) Major feedwater line breaks within containment will be indicated by decreasing steam generator level, increasing containment sump levels and increasing containment temperature.

With regard to the adequacy of our operating and emergency procedures to recognize and respond to a feedwater line break, we have reviewed these procedures and find them to be satisfactory. These procedures are essentially embodied in our overall Loss of Feedwater Emergency Procedure E-3. This particular procedure describes in detail indications available to the operator and immediate and subsequent actions required of the operator in event of a feedwater line break.