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February 28, 1997

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

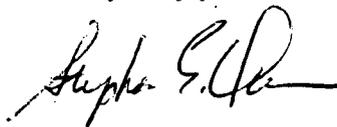
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US Nuclear Regulatory Commission  
Mail Station P1-137  
Washington, D.C. 20555

**SUBJECT:** Reply to Notice of Violation (96-80-02, 96-80-04, 96-80-05, 96-80-07, 96-80-09), Inspection Report 50-247/96-80

The attachment to this letter constitutes Con Edison's Reply to the Notice of Violation included as Enclosure 1 to your January 28, 1997 letter which transmitted the Integrated Performance Assessment Process Final Assessment Report. The site inspection phase was conducted from November 12 through 22, 1996 at the Indian Point 2 facility.

Should you have any questions regarding this matter, please contact Mr. Charles W. Jackson, Manager, Nuclear Safety and Licensing.

Very truly yours,



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Attachment

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ATTACHMENT

REPLY TO NOTICE OF VIOLATION

INSPECTION REPORT 50-247/96-80

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.  
INDIAN POINT UNIT NO. 2  
DOCKET NO. 50-247  
February 1997

## NOTICE OF VIOLATION

The Notice of Violation enclosed in Inspection Report 50-247/96-80 contained five apparent violations listed as paragraphs A through E is stated as follows:

- A. 10 CFR 50, Appendix B, Criterion III, Design Control, requires in part that measures shall be established to assure suitability of application of parts and equipment that are essential to the safety related functions of structures, systems and components.

Contrary to the above, as of July 26, 1996, adequate measures were not established in that the temporary nitrogen rig provided for valve 863 was lacking relief protection which could have prevented it from performing the intended function by over-pressurizing and damaging valve 863.

This is a Severity Level IV violation (Supplement I).

### Response to Apparent Violation A

Con Edison respectfully disagrees with this apparent violation based upon the intended use of the equipment and our interpretation of the regulatory design requirements for alternative and dedicated shutdown capability as identified within 10 CFR 50, Appendix R. Specifically, Section III.L.6 of Appendix R states that, "Shutdown systems installed to ensure postfire shutdown capability need not be designed to meet seismic Category I criteria, single failure criteria, or other design basis accident criteria, except where required for other reasons, e.g., because of interface with or impact on existing safety systems, or because of adverse valve actions due to fire damage."

Valve 863 has a safety-related function (closed for containment isolation of the nitrogen line into containment), which subjects the valve to the requirements of 10 CFR 50, Appendix B, and a 10 CFR 50, Appendix R function (open for supply of backup nitrogen to the pneumatic instruments inside containment).

The question raised by this apparent violation concerns the necessity of providing over-pressure relief protection on the temporary nitrogen supply rig for valve 863. This temporary nitrogen supply was not intended to be connected during normal plant operation, but was to be connected only in the postulated event that fire damage disables both the instrument air and nitrogen supplies to containment. In that event, this temporary nitrogen rig was to be connected to the diaphragm of valve 863 in order to open the valve, thereby providing the required nitrogen supply to the alternate safe shutdown system pneumatic instruments inside containment. As such, the function of this temporary nitrogen rig was to ensure that installed systems were available to ensure safe shutdown following a fire. There would have been no potential interface between valve 863 and the rig while the valve performed its intended safety-related function

(containment isolation of the nitrogen line) during a postulated design basis event. Containment isolation is the safety-related function of valve 863 which is governed by 10 CFR 50, Appendix B quality assurance requirements.

Since the equipment would have been connected to the safety-related valve only for an Appendix R event, and Section III.L.6 does not require consideration of single failure or other design basis accident criteria concurrent with a fire, a relief valve in addition to the regulator for redundant pressure protection was not required. Therefore, Con Edison believes that the pressure protection provided by the pressure regulator in the nitrogen rig was adequate for the purpose of protecting the diaphragm of valve 863 from overpressure such that the valve would not have failed closed when required to be open during a fire scenario.

We have since installed a permanent backup supply of nitrogen to the diaphragm of valve 863 and no longer require the temporary nitrogen rig.

- B. Technical Specification (TS) 6.8.1 requires that written procedures be implemented covering activities referenced in Regulatory Guide 1.33, Quality Assurance Program Requirements, November 1972. Regulatory Guide 1.33, Appendix A, lists typical safety-related activities that should be covered by written procedures, including procedures for maintenance that can affect the performance of safety-related equipment. Work order 9687364, which was prepared and performed to replace the Number 22 backup pressurized heater transformer, required verification and signatures by an electrician and a quality control inspector for leads that were removed.

Contrary to the above, as of November 19, 1996, verifications required by the work order were not adequately performed in that the ground wire to a current transformer circuit was verified as removed when it in fact was not. An electrician and a quality control inspector signed on the termination data sheet for Work Order 9687364 that the grey ground wire had been determined.

This is a Severity Level IV violation (Supplement I).

#### Response to Apparent Violation B

We acknowledge the concern addressed by this apparent violation and agree that inattention to field work practices regarding the conduct of maintenance had occurred. This event involved maintenance activities associated with the replacement of 22 backup pressurizer heater transformer which is located in the 480V Switchgear Room. Station procedures require that when a mechanic signs for an action within a work procedure, the signature indicates that he has either correctly performed the step, or personally observed another individual correctly completing the step.

After performing troubleshooting activities on 22 backup pressurizer heater transformer, it was determined that an undesirable ground existed on the secondary side, which necessitated the replacement of the transformer. Because of asbestos insulation on the wires, extra precautions were taken to limit asbestos contamination. While performing this asbestos-related activity, both a mechanic and a QC inspector failed to perform the proper verification of lifted leads. Neither the mechanic nor the QC inspector physically observed the wire actually being lifted because the work was being performed in an area containing asbestos material. They subsequently inspected the lifted leads and mistakenly noted the ground wire as lifted. Consequently, their verification that a ground wire was lifted was incorrect. As part of the work in progress, the ground wire was not required to be lifted.

Upon discovery of this incident, both the mechanic and QC inspector were immediately disqualified from work assignments involving their required signatures until they completed corrective action remedial training on the meaning and importance of verification signatures. In addition, this incident was reviewed with Maintenance and QC personnel in order to reinforce the requirements and expectations for the documentation of work and inspections performed.

- C. 10 CFR 50, Appendix B, Criterion XI, Test Control, requires in part that all testing required to demonstrate structures, systems and components will perform satisfactorily in service is identified and performed.

Contrary to the above, as of November 20, 1996, testing required to demonstrate the satisfactory performance of relief valves protecting the recirculation pump motor housings and the containment fan cooler unit motor cooler housings had not been identified or performed. This condition existed since initial construction.

This is a Severity Level IV violation (Supplement I).

#### Response to Apparent Violation C

We acknowledge the concerns addressed in this apparent violation and agree that there was inadequate implementation of a test program for the recirculation pump motor cooler ductwork relief damper and a similar device on the containment fan cooler unit motor coolers. This relief damper/device consists of a 2" by 7" rectangular cutout opening in the ductwork with an elastomer "flapper" door which is held in a closed position by gravity. As described in UFSAR Section 6.4.2.2.5, this vent valve on the containment fan cooler unit motor cooler is intended to allow the increasing containment pressure occurring during a postulated design basis accident to enter the motor cooler ductwork so that the bearings would not be subjected to a differential pressure.

Prior to becoming aware of this apparent violation, these relief devices were not within our periodic testing program. Upon further investigation, it became evident that these relief devices

were not properly identified and tagged in various plant design documents. Since these dampers were not identified in a test program, their past operability could not be ascertained. However on November 21, 1996, containment entry was made and the acceptable operability of these relief dampers was confirmed.

The following corrective actions will be completed to ensure the capability of these relief devices to continue their ability to perform their intended safety function during a postulated design basis accident. Both the recirculation pump motor cooler relief damper and the containment fan cooler unit motor cooler relief dampers will be tested during each refueling outage as part of surveillance test procedures PT-R16 and PT-R10, respectively (these procedure numbers are subject to change). In addition, all appropriate design drawings, documents, and databases will be revised to include these dampers. Implementation of these corrective actions is intended prevent a repetition of this event.

- D. Technical Specification (TS) 6.5.1.6.a, states in part, that the Station Nuclear Safety Committee (SNSC) shall be responsible for review of all procedures required by TS 6.8.1 and changes thereto. TS 6.8.1 requires that written procedures be implemented covering activities referenced in Regulatory Guide 1.33, Quality Assurance Program Requirements, November 1972. Regulatory Guide (RG) 1.33, Appendix A, lists typical safety-related activities that should be covered by written procedures, such as procedures for the control of radioactivity including operation of the liquid radioactive waste system.

Contrary to the above, at Unit 2, as of November 21, 1996, a checklist developed to remove oil from a liner of spent resin beads, that had not been reviewed by the Station Nuclear Safety Committee per TS 6.5.1.6.a, was used in the operation of a system to which TS 6.8.1 and RG 1.33, Appendix A are applicable.

This is a Severity Level IV violation (Supplement I).

#### Response to Apparent Violation D

We acknowledge the concerns addressed in this apparent violation and agree that removal of oil from a radwaste resin liner absent a procedure approved by the Station Nuclear Safety Committee (SNSC) had occurred. In November 1996, a radwaste activity to remove oil from a resin liner was in progress. The task was being performed using a work step list that was prepared in accordance with Administrative Directive (AD-S-2.305), "Radiation Protection Step List Procedure." This administrative directive, which allows the use of work step lists, was reviewed and approved by the SNSC. However, the administrative directive was silent on the requirements for obtaining the approval of the SNSC for work step lists involving Process Control Program activities. Due to the presence of oil in the liner, the normal SNSC- approved procedure (RW-SQ-4.007), "Process Control Program", could not be used. Consequently, the

Radwaste Department developed a work step list, in accordance with AD-S-2.305, to pump the oil from the top of the container prior to transferring the waste to a High Integrity Container for dewatering. This work step list was reviewed and approved by the Radwaste Department as well as the contractor who would actually perform this work; however, it was not submitted to the SNSC for review and approval.

Upon notification of this discrepancy, the Radwaste Department immediately suspended all sluicing operations associated with this activity until such time that the required SNSC approval was obtained. A 10 CFR 50.59 safety evaluation was written and submitted along with the work step list to the SNSC for review. Approval was granted on December 12, 1996.

To prevent a repetition of this type of event, both AD-S-2.305 and RW-SQ-4.007 will be revised to indicate that the use of a work step list to perform an activity described within the Process Control Program requires approval from the SNSC.

- E. 10 CFR 50.9, Completeness and Accuracy of Information, requires in part that information provided to the Commission by a licensee shall be accurate in all material respects.

Contrary to the above, on October 30, 1996, Consolidated Edison of New York, sent a letter to the NRC containing information that was not accurate in all material respects. The letter stated that the study and the system configuration "leads to the conclusion that waterhammer ... will not occur within the fan cooler unit (FCU) tubes under postulated accident conditions." Whereas, the study did not address the potential for waterhammer in the FCU tubes.

This is a Severity Level IV violation (Supplement I).

#### Response to Apparent Violation E

Con Edison respectfully disagrees with this apparent violation based upon our understanding and the intent of our 30-day letter response, dated October 30, 1996, to Generic Letter 96-06. In our response, we expressly referred to a "preliminary" analysis that had been completed for fan cooler unit heat up which, "in combination with the system piping configuration leads to the conclusion" that there would be no boiling during the first 25 seconds following a postulated design basis accident. The October 30 letter also stated that "[f]urther analyses will be performed" and that "completion of all Generic Letter 96-06 reviews [would be completed] within the requested time period."

The contractor responsible for the preliminary analysis of this issue as set forth in the October 30 letter supported the limited conclusion as it was stated, which he believed was reasonably (albeit preliminary) supported by the analysis performed. Accordingly, it seems clear that the initial

conclusion of the October 30, 1996 response which was stated to be drawn from the specified "preliminary" analysis must also be viewed as equally preliminary. The preliminary nature of the limited conclusion set forth in the October 30 letter was reiterated in a November 18, 1996 letter to the NRC staff. Indeed, given the limited time frame that defines a "30-day response," and the recognition that additional analyses were to be completed and a full response to Generic Letter 96-06 was to be subsequently submitted, it is not apparent to us that any conclusions set forth in the October 30 letter could be deemed as anything but preliminary.

Subsequent to the preliminary analysis and conclusion set forth in Con Edison's 30-day response, a more extensive review of the susceptibility of containment fan cooler cooling water systems to either waterhammer or two-phase flow conditions during postulated accident conditions was conducted in accordance with the response time frame set forth in Generic Letter 96-06. Con Edison's complete response to the Generic Letter, including the revised conclusion regarding waterhammer within the fan cooler tubes, was submitted to NRC on January 28, 1997, as required. Consequently, in accordance with the requirements of 10 CFR 50.9, Con Edison believes that its response was accurate at the time it was made in that the analyses and conclusion drawn at the time were preliminary and, therefore, subject to change.