

**Murray Selman**  
Vice President

Consolidated Edison Company of New York, Inc.  
Indian Point Station  
Broadway & Bleakley Avenue  
Buchanan, NY 10511  
Telephone (914) 737-8116

October 24, 1986

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

Mr. Stewart D. Ebnetter, Director  
Division of Reactor Safety  
U. S. Nuclear Regulatory Commission  
Region I  
631 Park Avenue  
King of Prussia, PA 19406

Dear Mr. Ebnetter:

This refers to the special operational safety inspection conducted by a team of NRC personnel led by Mr. Jon Johnson of your office on July 21, 1986 through August 1, 1986, at the Indian Point Nuclear Generating Station Unit No. 2.

Your September 24, 1986 letter, which transmitted Inspection Report No. 50-247/86-19, stated that it appeared that certain of our activities were not conducted in full compliance with NRC requirements, as set forth in the Notice of Violation, enclosed therewith as Appendix A. Pursuant to the provisions of 10 CFR 2.201, our response to that Notice is presented in Attachment A to this letter.

In addition, your letter requested that we respond to certain concerns related to our attention to detail. We have recognized the need for attention to detail at Indian Point and have ongoing activities in place that address your concerns in this area.

We have recently initiated a systems engineer approach aimed at enhancing operational and system detail awareness. We are addressing plant trips and equipment malfunctions by performing root cause analysis and equipment failure and reliability analysis with the goal of enhancing the effectiveness of our maintenance activities. In addition, housekeeping has been stepped-up in an effort to facilitate modifications and maintenance. In order to assure followup to required actions and details that require action, we are tracking more closely those open items that are generated by the ongoing licensing and regulatory process, as well as those generated by in-house activities. In our operational and system assessments, inconsistencies that are found are either promptly corrected or scheduled for correction, depending on their level of importance. We are aware that supporting software such as drawings, procedures and the

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simulator need to accurately reflect "as-built" plant conditions, and are routinely assessing our existing programs in these important areas to see where the revision process can be streamlined to facilitate changes. To better implement plant configuration control activities, training of our staff is being conducted in selected areas, such as the NRC unresolved safety issues program, backfitting controls, plant failure analysis and root cause determination, team building as well as operator qualification and requalifications. These actions, to mention a few, are geared towards enhancing the level of attention to detail.

We are integrating the above-mentioned activities into our routine daily operations. We are confident that since we have recognized the need for increased attention to detail, over time we will routinely be focusing our attention and appropriately more sensitive to details.

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

Very truly yours,

*Murray Selman*

Attachments

cc: Senior Resident Inspector  
U. S. Nuclear Regulatory Commission  
Post Office Box 38  
Buchanan, New York 10511

October 24, 1986

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

ATTACHMENT A

Response to Notice of Violation

1. Violation A:

Technical Specification 6.8.1 requires that procedures be established and maintained to combat emergencies and other significant events such as loss of coolant and loss of electrical power (and/or degraded power sources).

Contrary to the above, on July 31, 1986, certain procedures combating a loss of coolant emergency and another significant event such as a degraded power source were not properly established or maintained in that:

- Emergency Operating Procedure (EOP) ES 1.3, Transfer to Cold Leg Recirculation, does not provide for opening valve MOV-744, RHR Pumps Discharge Valve, which is required to be open in order to establish alternate recirculation flow.
- EOP E-1, Loss of Reactor or Secondary Coolant, in the procedural step for resetting containment isolation phases A and B, fails to require operation of personnel and equipment hatch solenoid switches located on Control Room panel SM which must be operated in order to reset containment isolation phase A. This deficiency is also applicable to several other EOPs.
- EOPs, E-0, Reactor Trip or Safety Injection, and ECA-0.2, Loss of All AC Power Recovery with SI Required, align the boron injection tank (BIT) to the suction of the safety injection pumps although the BIT has been removed from service by electrical modifications and retired from use as a safety injection component.
- An abnormal operating procedure had not been established for a degraded or loss of the 138KV offsite power feeder sources.

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

October 24, 1986

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

Response A:

The Emergency Operating Procedures (EOPs) referenced in this violation have been revised. In addition, other EOP discrepancies addressed during the inspection, although not part of the violation, have also been corrected.

The concerns raised by the inspection team with regard to the procedures referenced in the violation have been promptly acted upon. However, we believe the discrepancies noted are mitigated for the following reasons:

In the case of MOV 744 (RHR Pumps Discharge Valve) and the phase A reset questions, the procedures contain contingency actions which address the conditions created by the procedure discrepancies. Therefore, the operator would not be rendered incapable of completing the procedures in question.

In the case of the retirement of the Boron Injection Tank (BIT), the need to change the EOPs to reflect BIT retirement was recognized by plant staff and was in fact underway at the time of the inspection. In addition, Operations personnel were fully aware of the retirement of the BIT and actions had been taken to effectively isolate the BIT and deenergize the associated motor operated valves.

A procedure addressing the loss of 138 KV offsite power will be issued by December 15, 1986. Technical Specification 6.8.1 references Regulatory Guide 1.33 and ANSI 18.7. In the case of R.G. 1.33, Appendix A states "The following are typical activities that should be covered by written procedures". In the case of ANSI N18.7-1976, Section 5.3.9.2 states "The following categories of events may, depending upon the design of the plant, be considered as examples of potential emergencies for which procedures are written ..." "Loss or degradation of vital power sources" is one of the examples. Therefore, we believe that the lack of such a procedure is not in noncompliance with Technical Specification 6.8.1.

October 24, 1986

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

2. Violation B:

10 CFR 50, Appendix B, Criterion V requires that activities affecting quality to be prescribed by and accomplished in accordance with documented instructions, procedures, or drawings.

Contrary to the above, on July 23, 1986 the as-found configuration of the recirculation sump grating and floor plate was not in accordance with the Indian Point Unit 2 Final Safety Analysis Report, Section 6.2, and the Containment Building General Arrangement Drawing No. 9321-F-2503, Rev. 15. This sump, in the as-found configuration, may not have been able to perform one of its safety functions of preventing large size objects from entering the sump and blocking the suction path for the recirculation mode of core cooling.

Further, several other examples of as-found plant conditions which did not match design configurations were identified and are noted in Section 9.1 of this report.

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

Response B:

At the time of discovery, operability of the recirculation pumps was deemed unaffected by these conditions. Nonetheless, as a conservative measure, a decision was subsequently made to repair the floor grating and correct the gap in the floor plating. These efforts were completed on July 25, 1986.

A written safety assessment, based on a previous Bechtel study, was provided to the inspection team on July 31, 1986. That assessment concluded that the floor gaps discovered on July 23, 1986 did not impact recirculation pump operability.

An additional independent analytical assessment by Bechtel was subsequently performed and that assessment concluded that the recirculation sump in the "as-found" condition would not have created adverse effects on the recirculation system.

October 24, 1986

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

3. Violation C:

10 CFR 50, Appendix B, Criterion V requires that activities affecting quality be prescribed by and accomplished in accordance with documented instructions or procedures. Station Administrative Order No. 218 requires that all work areas be cleaned, all recoverable items (i.e., tools, ..., rags, cleaning fluid, ...) be removed and properly dispositioned at the completion of work shift as practical, and that gas cylinders be marked as to type, capped and secured if left unattended.

Contrary to the above, several examples of inadequate restoration or securing of equipment were found:

- On July 29, 1986, twelve Nitrogen bottles for Steam Generator Blowdown and two unmarked gas bottles were observed unsecured. On July 31, 1986, two Hydrogen bottles near the Volume Control Tank Hydrogen cover gas supply area were observed unsecured.
- On July 29, 1986, plastic bags, rags, tools and debris were observed inside the Fuel Handling Building and outside of the Fan House.
- On July 21, 1986 and on July 28, 1986, oil spills were observed on the floors of the cable spreading room and the emergency diesel generator room.
- On July 23, 1986, two large plastic bags and a quantity of soft plastic tubing were left on the floor of the containment in the vicinity of the recirculation sump.
- A two-ton gantry crane and instrument tables with wheels were observed in the cable spreading room unsecured; and four instrument tables with wheels were also found unsecured in the 480 V switchgear room.

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October 24, 1986

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

Response C:

Housekeeping has always been and will continue to be an important priority with station personnel. Notwithstanding the particular conditions cited in this violation, the general appearance of the station has markedly improved. The inspectors noted in the inspection report that housekeeping conditions and plant cleanliness were generally satisfactory. The report stated, in pertinent part, that "...the inspectors concluded that, despite recent improvements in housekeeping conditions and plant cleanliness, additional attention in implementing the provisions of Station Administrative Order No. 218, Rev. 0, 'Housekeeping Policy' was warranted."

Station Administrative Order No. 218 is being revised to give more detailed and improved control of areas of responsibility by redistribution of areas within normal work disciplines. Areas of responsibility for housekeeping are being redefined so as to involve all four General Managers and the Resident Construction Manager. In addition, a booklet on housekeeping, explaining Indian Point's housekeeping philosophy, will be distributed to Station personnel. Housekeeping will be emphasized as part of Indian Point's General Employee Training (GET).

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

ATTACHMENT B

Response to Inspector Concerns

1. Labeling

Con Edison is currently in the process of upgrading the identification of plant equipment. The valve labeling portion of the upgrade is planned to be completed by August 30, 1987. Following completion of the valve labeling portion, Con Edison will continue with system component labeling. Central Control Room labeling adjustments, if required, will be done as part of Con Edison's Detailed Control Room Design Review (DCRDR) implementation process.

2. Procedures

As stated in our response to Violation A, the EOPs referenced in that violation and other EOP discrepancies addressed during the inspection have been corrected. In addition, as a result of discussions with the inspection team, certain other procedures have been or will be revised to incorporate inspector suggestions. We feel that these suggestions are positive contributions to the quality of our procedures. Review of procedures by support personnel and comments from operators as a result of procedure usage facilitate a continuing upgrade of plant procedures.

3. Containment Closeout

To ensure that containment closeout activities are performed in an acceptable manner, a containment closeout check-off list will be developed by January 30, 1987. This check-off list should ensure that the containment is left in an acceptable condition with respect to "housekeeping".

4. Gas Turbine No. 2

Following the unsuccessful black-start attempt during the inspection, a Westinghouse gas turbine engineer was contracted to review the condition of Gas Turbine No. 2. A thorough inspection was performed. As a result of the inspection, the component which resulted in the computer fault was identified. This component is on order. A black-start test will be performed after the component is replaced.



## 5. Plant Configuration Management

As stated in the our cover letter, the establishment of a systems engineer program will enhance operational and system detail awareness.

This program requires the system engineer to develop an intimate level of knowledge, understanding and awareness of the operation and design of assigned plant systems. This would provide the system engineer with the necessary skills and involvement to assist in maintaining a high level of system performance. The system engineer will also provide a channel, where reliable and detailed information is readily accessible to assist support groups in performing their functions. The system engineer will enhance the communication and coordination of efforts between support groups within the station organization.

Individuals designated as system engineers may perform the following functions, for example:

1. Verify accuracy of drawings and initiate a drawing change if necessary.
2. Recommend procedure revisions to the Generation Support Manager, Maintenance Manager or I&C Engineer, as appropriate.
3. Identify and evaluate potentialities for the enhancement of system and equipment performance.
4. Assist in the investigation of operational events in order to determine the cause of the event or to assure that the system functioned properly during the event.
5. Identify and recommend to the Training Department any changes to the system design or operating procedures which may affect the required training of plant personnel.