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March 3, 1989

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

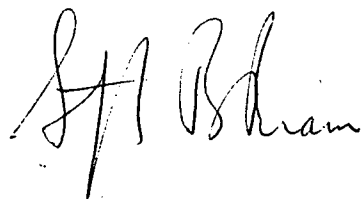
Document Control Desk
US Nuclear Regulatory Commission
Mail Station P1-137
Washington, DC 20555

SUBJECT: Amended Response to Inspection Report No. 50-247/88-33

The attachment to this letter provides our amended response to the Notice of Violation (NRC letter dated December 30, 1988 concerning routine Inspection No. 88-33). This amended response is based on a telephone discussion held with Mr. E. Wenzinger and Mr. P. Swetland of your staff on February 14, 1989 concerning our previous response submitted on January 31, 1989.

If you or your staff have any questions, please contact Mr. Jude G. Del Percio, Manager, Regulatory Affairs.

Very truly yours,



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ATTACHMENT

AMENDED REPLY TO NOTICE OF VIOLATION
DATED DECEMBER 30, 1988

Consolidated Edison Company of New York, Inc.
Indian Point Unit No. 2
Docket No. 50-247
March, 1989

Violation

Technical Specification 6.8.1 requires that written procedures and administrative policies shall be established, implemented and maintained covering the requirements and recommendations of section 5.1 of ANSI N18.7-1972. ANSI N18.7-1972, section 5.1 requires, in part, that a maintenance program shall be developed to maintain safety-related equipment at the quality required for it to perform its intended function. Maintenance that can affect the performance of safety-related equipment shall be properly preplanned and performed in accordance with written procedures.

Central Operations Procedures (COP) 6-2-7, "Station Auxiliary Equipment Lubrication Program," section 3.2, states, in part, that the lubrication schedule will list the equipment to be lubricated, recommended lubricant, and frequency of lubrication.

Contrary to the above, on September 25, 1988, the lubrication program was not adequate to maintain the auxiliary feedwater pumps (ABFPs) at the quality required to perform their intended function, in that the #23 ABFP coupling failed due to lack of lubrication. The lubrication schedule did not specify the lubrication frequency for the ABFP couplings and other safety-related components, nor were such lubrication activities properly preplanned and performed.

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

Corrective Steps Taken/Results Achieved

As soon as possible after the failure of the #23 AEFP coupling, the coupling was removed, disassembled and inspected. It was determined that the coupling internals had worn gear teeth, lacked lubrication and were rusted. The coupling was replaced with a new identical coupling and #23 ABFP was satisfactorily tested and put back in service.

Due to the fact that all three ABFPs use similar couplings from the same manufacturer, this process was then repeated on #21 ABFP. The coupling was also found to be worn and rusted. This coupling was replaced with a new coupling and #21 ABFP was satisfactorily tested and put back in service.

The same process was then initiated on #22 ABFP. However, the coupling was in good condition and well lubricated. The coupling was reinstalled and #22 ABFP was satisfactorily tested and put back in service.

SNSC instituted a task force to determine, for safety-related equipment, what couplings were being utilized and, by physical inspection, the lubrication status of these couplings. The task force determined that the couplings utilized on the ABFPs were not installed on any other safety-related equipment and that the lubrication status of couplings on other safety-related equipment was satisfactory. Additionally, we have reviewed the lubrication schedule to determine what accessible safety-related components on the schedule were missing the "Last Lubrication Done" date. These components have been inspected or verified during Preventive Maintenance to assure that lubrication was present.

It is important to note that safety-related Limitorque motor operated valves are lubricated with the recommended "EQ" lubricants. With respect to safety-related air circuit breakers, they are lubricated with the Westinghouse approved greases. The appropriate grease is delineated in the respective Maintenance Procedure.

Further assurance of adequate lubrication is provided by Operations Personnel who make rounds of Indian Point 2 every four hours. During these rounds the Nuclear Plant Operator (NPO) is required to check certain equipment and note its status on Log DSR-5 ("Unit Two Nuclear Area Log Sheet") or Log DSR-7 ("Unit Two Conventional Area Log Sheet"). Included in these required checks are lubrication checks. In addition, these logs state (DSR-5, page 1, note 6a; DSR-7, page 1, note 4a):

> "A general area inspection shall be accomplished while making rounds. This should include the following...Check of all operating machinery for noise, overheating, normal oil levels, etc."

Furthermore, Section 4.10.2 of Operations Administrative Directive (OAD) 15, "Policy for Conduct of Operations", Revision 11 states that the NPO has the responsibility

> "...to maintain equipment within his assigned area in such a manner as to optimize equipment efficiency and minimize outages. In fulfilling this duty, post stander will perform preventive or minor maintenance such as:...Performing equipment lubrication utilizing specified lubricants in accordance with published lubrication schedule; preparation of equipment for same."

The above statements demonstrate that surveillances by Operations Personnel provide another level of assurance that safety-related equipment is receiving sufficient lubrication.

Based on the corrective steps discussed above, we believe that the lubrication schedule now provides sufficient assurance that the lubrication program will maintain the lubrication requirements of safety-related equipment in a manner that assures this equipment is not degraded.

Corrective Steps Being Taken/Completion Dates

As discussed in Inspection Reports 88-26 and 88-33 the difficulties with the lubrication program are due to the incompleteness of the lubrication schedule. In the case of #23 ABFP, the lubrication schedule did not specify a date for the next required lubrication, thereby resulting in a missed lubrication frequency. The lubrication schedule is described in Central Operations Procedure (COP) 6-2-7, "Station Auxiliary Equipment Lubrication Program." Per the COP, the schedule is to designate which equipment is to be lubricated, the recommended lubricant, and the frequency of lubrication. The lubrication schedule consists of a computer generated printout of equipment that requires periodic lubrication. The schedule lists the equipment, the work required to lubricate the equipment, type of lubricant required, when the equipment was last lubricated, when the next lubrication is required, and the lubrication frequency. At the beginning of each month, the schedule is reviewed by a maintenance foreman to determine which equipment needs to be lubricated. At the end of the month, the schedule is updated as to which equipment has been lubricated and the date on which the lubrication was applied.

In September 1988, we began a review to confirm that the lubrication currently required in the lubrication schedule for safety-related and non-safety-related equipment at Indian Point 2 is in accordance with vendor recommendations as to type of lubrication and frequency of lubrication. This ongoing review correlates the vendor requirements to Con Edison specifications and, as necessary, develops revised lubrication data for the lubrication schedule. The results of this effort are then reviewed by the Power Generation Lubrication Specialist. Approximately 110 components on about 30 safety-related and non-safety-related pump types have been reviewed to date and the changes to the lubrication schedule are currently being implemented by Maintenance. In addition, the review of the lubrication schedule clarified any obvious errors and determined that major safety-related equipment is included in the currently utilized lubrication schedule. Minor safety-related equipment (i.e., maintenance valves, local instrumentation, etc.) will be added to the lubrication schedule as part of the ongoing review process.

Generally, the System Engineers will review lubrication requirements on a system-by-system basis with the system review priority being established via the Indian Point 2 PRA system risk importance ranking. Additionally, the System Engineers will review lubrication requirements on a case-by-case basis when a concern or question is raised by Planning or Maintenance. Finally, when new equipment is added, the System Engineer will review the vendor requirements, correlate the requirements to Con Edison specifications and develop new lubrication data for the lubrication schedule. In any case, the results of the lubrication review will then be reviewed by the Power Generation Lubrication Specialist and forwarded to Maintenance for implementation.

Since it is estimated that there are approximately 25,000 components (i.e., pumps, valves, instruments, orifices, circuit breakers, indicators, etc.) to be reviewed at Indian Point 2 for possible lubrication requirements, this updating will take time. However, we are confident that the present lubrication schedule is acceptable in the interim, since our review to date has determined that major safety-related equipment is already on the schedule; our ISI, surveillances and test program periodically assess the operability of safety-related equipment; and our operating experience does not indicate a history of lubrication-related problems. In addition, a significant portion of the 25,000 components will not require lubrication (i.e., sealed components, electronics, hangers, etc.) or are non-safety-related components. Nevertheless, all of the estimated 25,000 components will be reviewed for lubrication requirements. It is projected that a majority of the update program will be completed by August 1990 with some small part remaining to be completed thereafter.

Additionally, by the end of the 1989 refueling outage (scheduled to start in mid-March), we will have provided additional assurance, via Engineering re-review of the lubrication schedule and via Maintenance providing documentation of lubrication, that major safety-related equipment requiring lubrication has been included in the lubrication schedule, that the proper lubrication is being used and that the equipment is lubricated at an approved frequency. Furthermore, the Quality Assurance Department will perform a surveillance of the Lubrication Program specifically to determine, for the components and lubrication points listed on the lubrication schedule, the degree of completeness of the schedule information and to determine the degree of compliance with the schedule. This surveillance will utilize a sample size of sufficient quantity to provide a relatively high degree of confidence in projecting the sample results to the total population. This QA surveillance will also be completed by the end of the 1989 refueling outage.

Therefore, we believe that the completion of these corrective actions provide additional assurance that the lubrication program will maintain the lubrication requirements of safety-related equipment in a manner that assures this equipment is not degraded.

The enclosed table provides an outline of the lubrication schedule update program.

TABLE

Lubrication Schedule Update Program

I. Controls

- Procedure to define the process
- Forms with sign-offs required from the System Engineer and the Power Generation Lubrication Specialist

II. Identify All Safety-Related And Non-Safety-Related Equipment At Indian Point 2 To Be Lubricated

- Compare list to Operating Experience Data Base

III. Identify Requirements For Each Component

- Review vendor information
- Convert to Con Edison lubrication specification
- Identify lubrication frequency
- Recommend for Lubrication Oil Sampling Program

IV. Review

- System Engineer to review
- Power Generation Lubrication Specialist to review

V. Implement

- Planning and Maintenance to implement

NOTE: Items I through V are concurrent activities. Items II through IV will be continuing functions.