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December 21, 1990

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: Response to Generic Letter 90-06, "Resolution of Generic Issue 70, 'Power-Operated Relief Valve and Block Valve Reliability,' and Generic Issue 94, 'Additional Low-Temperature Overpressure Protection for Light-Water Reactors'"

This letter is in response to the subject generic letter dated June 25, 1990, which suggested several specific actions to improve the reliability of Power-Operated Relief Valves (PORVs) and their block valves. These actions involve quality assurance, maintenance and testing programs, and modifications to technical specifications.

Many of the suggested actions are already in existence for the PORVs at Indian Point Unit No. 2 and we will continue to maintain the programs. At this time, we do not believe it is necessary to modify the Technical Specifications as suggested in the generic letter. Pursuant to Section 182 of the Atomic Energy Act and 10 CFR 50.54(f), detailed responses to the suggestions presented in the generic letter are provided in the attachment.

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

Very truly yours,



Subscribed and sworn to
before me this 21st day
of December, 1990.

Karen L. Lancaster
Notary Public

KAREN L. LANCASTER
Notary Public, State of New York
No. 60-4643659
Qualified in Westchester County
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ATTACHMENT

RESPONSE TO GENERIC LETTER 90-06

RESOLUTION OF GENERIC ISSUE 70, "POWER-OPERATED RELIEF VALVE
AND BLOCK VALVE RELIABILITY", AND GENERIC ISSUE 94, "ADDITIONAL
LOW-TEMPERATURE OVERPRESSURE PROTECTION FOR LIGHT-WATER REACTORS"

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.
INDIAN POINT UNIT NO. 2
DOCKET NO. 50-247
DECEMBER, 1990

RESPONSE TO GENERIC LETTER 90-06

As stated in the generic letter, the response shall include the following specific items:

Item 1

A statement by licensees as to whether they will commit to incorporate improvements 1, 2, and 3 in Section 3.1 of Enclosure A. With respect to improvement 3 in Section 3.1 of Enclosure A, licensees shall state whether they will commit to use those modified limiting conditions of operation of PORVs and block valves in the technical specifications for Modes 1, 2, and 3 in Attachment A-1 of Enclosure A for Westinghouse designed plants with two PORVs. In addition to this 10 CFR 50.54(f) request, if the licensees commit to implement these recommended technical specifications, it is requested that they submit modifications to their current technical specifications in a licensee amendment to be submitted by the end of the first refueling outage that starts 6 months or later from the date of this letter.

Response to Item 1

Improvement 1 suggested the following actions:

Include PORVs and block valves within the scope of an operational quality assurance program that is in compliance with 10 CFR Part 50, Appendix B. This program should include the following elements:

- a. The addition of PORVs and block valves to the plant operational Quality Assurance List.
- b. Implementation of a maintenance/refurbishment program for PORVs and block valves that is based on the manufacturer's recommendations or guidelines and is implemented by trained plant maintenance personnel.
- c. When replacement parts and spares, as well as complete components, are required for existing non-safety-grade PORVs and block valves (and associated control systems), it is the intent of this generic letter that these items may be procured in accordance with the original construction codes and standards.

The actions suggested in improvement 1 are currently in effect at Indian Point Unit No. 2. The PORVs and block valves as well as all regulating systems, controlling systems and instrumentation used with these valves are listed in Exhibit A of corporate instruction CI-240-1, 'Quality Assurance Program for Operating Nuclear Plants'. Exhibit A includes those systems, structures and components that affect safety as determined in accordance with 10 CFR 50, Appendix B. Further, CI-240-1 describes a quality assurance program which is in accordance with 10 CFR 50, Appendix B.

The PORVs and block valves are included in the station Preventive Maintenance (PM) program which is based on manufacturer's recommendations. Elements of the PM program include disassembly, inspection, refurbishment and testing as necessary, by qualified personnel. These PM programs are subject to change based on experience, vendor recommendations and guidelines.

The PORVs, block valves and associated control systems were manufactured and procured to the original construction codes for the plant. Replacement parts and spares, as well as complete components, will be procured in accordance with the original construction codes, or to a later suitable code, or in accordance with a commercial grade dedication program. In all cases, the replacement items will be determined to be suitable for their application.

Improvement 2 suggested the following actions:

Include PORVs, valves in PORV control air systems, and block valves within the scope of a program covered by Subsection IWV, "Inservice Testing of Valves in Nuclear Power Plants," of Section XI of the ASME Boiler and Pressure Vessel code. Stroke testing of PORVs should only be performed during Mode 3 (Hot Standby) or Mode 4 (Hot Shutdown) and in all cases prior to establishing conditions where the PORVs are used for low-temperature overpressure protection. Stroke testing of the PORVs should not be performed during power operation. Additionally, the PORV block valves should be included in the licensee's expanded MOV test program discussed in NRC Generic Letter 89-10, "Safety-Related Motor Operated Valve Testing and Surveillance", dated June 28, 1989.

The PORVs and block valves at Indian Point Unit No. 2 are currently and will continue to be included within the scope of a program covered by Subsection IWV of Section XI. The PORVs are stroke tested at cold shutdown under this program. A study was recently conducted in accordance with Generic Letter 89-04, "Guidance on Developing Acceptable Inservice Testing Programs", to determine if additional valves should be included in the Section XI test program. As a result, several valves in the PORV nitrogen control system will be added to the program by January, 1991. Two automatically actuated valves in the control system, the solenoids that admit control nitrogen to each PORV, that are subject to a program covered by subsection IWV are considered components of each PORV and are presently cycled when the PORVs are stroke tested. Additionally, every refueling outage the nitrogen control system is subject to a surveillance test to verify operability. Further, the PORVs and block valves are functionally tested as part of the overpressure protection system logic tests while in hot shutdown. The block valves are currently included in a MOV test program which is being evaluated in accordance with Generic Letter 89-10, "Safety Related Motor-Operated Valve Testing and Surveillance".

Improvement 3 suggested the following actions:

Modify the limiting conditions of operation of PORVs and block valves in the technical specifications for Modes 1, 2, and 3 to incorporate the position adopted by the staff in recent licensing actions. These recent technical specifications require that plants that run with the block valves closed (e.g., due to leaking PORVs) maintain electrical power to the block valves so they can be readily opened from the control room upon demand. Additionally, plant operation in Modes 1, 2, and 3 with PORVs and block valves inoperable for reasons other than seat leakage is not permitted for periods of more than 72 hours. Attachments A-1 and A-3 [applicable to Indian Point Unit No. 2] are provided for guidance.

The technical specifications for Indian Point Unit No. 2 currently require that a block valve associated with an inoperable PORV be maintained in the closed position but not be de-energized. Only if a block valve becomes inoperable would it be closed and de-energized.

The ability to relieve primary system pressure using the PORVs is not credited in any design basis accident analyses. Additionally, the PORVs are not solely relied on to mitigate a steam generator tube rupture accident, but their use is one alternative among several others to accomplish that purpose. Further, as indicated in the response to Item 1, the PORVs, block valves and all regulating systems, controlling systems and instrumentation used with these valves are classified as safety-related and maintained and tested accordingly. The Indian Point Unit No. 2 PORVs and block valves have been highly reliable (excluding PORV seat leakage) and available. Therefore, based on the above, Con Edison does not believe it is necessary to institute a 72 hour allowed outage time (AOT) in a limiting condition of operation for the PORVs and block valves.

Item 2

A statement by licensees as to whether they will submit a license amendment request to modify the technical specifications and commit to use the modified technical specifications for the low-temperature overpressure protection system concerning the limiting conditions of operation in Modes 5 and 6 as identified in Attachment B-1 of Enclosure B. In addition to this 10 CFR 50.54(f) request, if the licensees commit to implement these recommended technical specifications, it is requested that they submit modifications to their current technical specifications by the end of the first refueling outage that starts 6 months or later from the date of this letter.

Response to Item 2

The modification recommended in Attachment B-1 concerning the limiting conditions of operation in Modes 5 and 6 involves reducing the AOT of one inoperable PORV from the current 7 days to a proposed 24 hours. Con Edison does not believe this AOT reduction is necessary for Indian Point Unit No. 2 as the overpressure protection system (OPS) is a safety-grade system. Actuation of the OPS is controlled by a channelized logic circuitry which meets seismic design criteria and the single failure requirements of IEEE 279, as there are redundant channels that are physically separated and supplied by separate independent safeguards power supplies. Also, as discussed in the response to Item 1, the PORVs and block valves are safety-related. Therefore, all components of the OPS are subject to maintenance and surveillance testing activities that satisfy our Quality Assurance Program requirements for safety-related equipment.

Additionally, we are sensitive to the need to avoid low temperature overpressure events and would minimize unavailability of the OPS or any component of the system. It should be noted that the PORVs and block valves have proven to be highly reliable (excluding PORV seat leakage) and the unit has not experienced any low temperature overpressure events since installation of the OPS in 1978.