

Docket

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DEC 19 1972

Docket Nos. 50-247

50-286

Consolidated Edison Company
of New York, Inc.
ATTN: Mr. William J. Cahill, Jr.
Vice President
4 Irving Place
New York, New York 10003

Gentlemen:

The Regulatory staff's continuing review of reactor power plant safety indicates that the consequences of postulated pipe failures outside of the containment structure, including the rupture of a main steam or feedwater line, need to be adequately documented and analyzed by licensees and applicants, and evaluated by the staff as soon as possible. Criterion No. 4 of the Commission's General Design Criteria, listed in Appendix A of 10 CFR Part 50 requires that:

"Structures, systems, and components important to safety shall be designed to accommodate the effects of and to be compatible with the environmental conditions associated with normal operation, maintenance, testing and postulated accidents, including loss-of-coolant accidents. These structures, systems, and components shall be appropriately protected against dynamic effects, including the effects of missiles, pipe whipping, and discharging fluids, that may result from equipment failures and from events and conditions outside the nuclear power unit."

The previous version of the Commission's General Design Criteria also reflects the above requirements. Thus, a nuclear plant should be designed so that the reactor can be shut down and maintained in a safe shutdown condition in the event of a postulated rupture, outside containment, of a pipe containing a high-energy fluid, including the double-ended rupture of the largest pipe in the main steam and feedwater systems. Plant structures, systems, and components important to safety should be designed and located in the facility to accommodate the effects of such a postulated pipe failure to the extent necessary to assure that a safe shutdown condition of the reactor can be

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accomplished and maintained.

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Based on the information we presently have available to us on Indian Point Unit Numbers 2 and 3, we understand that all steam and feedwater lines run directly from the containment building to the turbine building without passing through any intermediate enclosures. We further understand that the control room, emergency diesel generators, and the auxiliary building which houses most of the engineered safety features, are all separated from the steam and feedwater lines by a considerable distance. We note however that the auxiliary feedwater pumps are located in an enclosure adjacent to the main steam and feedwater line containment penetrations. From this it appears that damage to the auxiliary feedwater system might result from a postulated pipe failure in the main steam or feedwater lines.

We request that you provide us with analyses and other relevant information needed to determine the consequences of such an event, using the guidance provided in the enclosed general information request. The enclosure represents our basic information requirements for plants now being constructed or operating. You should determine the applicability to Indian Point Unit No. 2 and 3 of the items listed in the enclosure.

If the results of your analyses indicate that changes in the design of structures, systems, or components are necessary to assure safe reactor shutdown in the event this postulated accident situation should occur, please provide information on your plans to revise the design of your facility to accommodate the postulated failures described above. Any design modifications proposed should include appropriate consideration of the guidelines and requests for information in the enclosure.

We will also need, as soon as possible, estimates of the schedule for design, fabrication, and installation of any modifications found to be necessary. Please inform us within 7 days after receipt of this letter when we may expect to receive an amendment with your analysis of this postulated accident situation for the Indian Point Units No. 2 and 3, a description of any proposed modifications, and the schedule estimates described above. Sixty copies of this amendment should be provided.

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A copy of the Commission's press announcement on this matter
is also enclosed for your information.

Sincerely,

Original Signed By
ROGER S. BOYD

A. Giambusso, Deputy Director
for Reactor Projects
Directorate of Licensing

Enclosures:
As stated

cc: LeBoeuf, Lamb, Leiby, and MacRae
ATTN: Leonard Trosten, Esquire
1821 Jefferson Street, NW
Washington, D. C. 20036

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