

UNITED STATES NUCLEAR REGULATORY COMMISSION ADVISORY COMMITTEE ON REACTOR SAFEGUARDS WASHINGTON, D. C. 20555

July 13, 1978

Honorable Joseph M. Hendrie Chairman U. S. Nuclear Regulatory Commission Washington, DC 20555

SUBJECT: REPORT ON INDIAN POINT NUCLEAR GENERATING UNIT No. 3

Dear Dr. Hendrie:

During its 219th meeting, July 6-8, 1978, the Advisory Committee on Reactor Safeguards completed its review of the request by the Power Authority of the State of New York (PASNY) for authorization to increase the power level of Indian Point Nuclear Generating Unit No. 3 from the current maximum authorized power of 2760 MWt to the design power of 3025 MWt. This matter was considered at Subcommittee meetings on April 24, 1978, and June 16, 1978. During its review, the Committee had the benefit of discussions with representatives of PASNY and its consultants, and the Nuclear Regulatory Commission Staff, as well as comments from individuals studying the seismicity of the region. The Committee also had the benefit of the documents listed.

In its interim report, November 14, 1973, on operation of Indian Point Unit No. 3, the Committee recommended that the power be restricted to 2760 MWt because of limited operating experience at that time with very large highpower-density reactors; the Committee also recommended that specified items receive further attention. The Committee made similar recommendations with respect to the Zion reactors. Following suitable periods of operation at the restricted power levels, the Committee recommended that the Zion reactors be permitted to operate up to their design power.

The Committee finds that the specific issues raised in its interim report of November 14, 1973, have been satisfactorily resolved, and also that operating experience accumulated at Indian Point Unit No. 3 and other large plants warrants approval of the operation of Indian Point Unit No. 3 up to the design power level. However, the Committee urges that continuing effort be made to update safety related features to the maximum degree practical. In particular, the Committee believes attention should be given to the following:

- 1. Review of the Station for systems interactions that might lead to significant degradation of safety.
- 2. Review of the Station with regard to differences from current criteria, and judgments concerning possible backfitting requirements.

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- 3. Review of instrumentation to provide early information concerning the course of a full range of postulated serious accidents, and procedures for interpreting and relating this information to emergency plans.
- 4. A selective audit of the capability for safe shutdown and residual heat removal, using only safety grade equipment.

Since the Committee's interim report, ownership and operating responsibility for Indian Point Unit No. 3 have been transferred from the Consolidated Edison Company to PASNY. The Committee finds that the administrative separation and plans for physical separation are satisfactory.

During the review, the Committee considered recent studies concerning the seismicity of the Indian Point region and found insufficient basis for suggesting a change in the current seismic criteria.

The Advisory Committee on Reactor Safeguards believes that, if due regard is given to the items mentioned above, there is reasonable assurance that the Indian Point Nuclear Generating Unit No. 3 can be operated at full power, 3025 MWt, without undue risk to the health and safety of the public.

Additional comments by Members W. Kerr and P. Shewmon are presented below.

Sincerely yours, Stephen Lawroski

Stephen Lawroski Chairman

Additional Comments by Members W. Kerr and P. Shewmon

We do not concur in the request for "review. . . for systems interactions. . . . " We consider the request too vague to have a working interpretation.

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References:

- Safety Evaluation by the Office of Nuclear Reactor Regulation, U. S. Nuclear Regulatory Commission in the matter of the Power Authority of the State of New York removal of license condition limiting operation to 91% of rated thermal power for Indian Point Nuclear Generating Unit No. 3, dated April 6, 1978.
- 2. Supplement 1 to the Safety Evaluation by the Office of Nuclear Reactor Regulation, U. S. Nuclear Regulatory Commission in the matter of the Power Authority of the State of New York removal of license condition limiting operation to 91% of rated thermal power for Indian Point Nuclear Generating Unit No. 3, dated April 17, 1978.
- 3. Letter from W. J. Cahill, Consolidated Edison Company, to B. Rusche, NRC, Subject: PASNY desire to operate Indian Point Unit No. 3, dated March 11, 1977.
- 4. Letter from L. R. Bennett, Power Authority of the State of New York, to A. Schwencer, NRC, Subject: ECCS analysis for full power, dated April 13, 1978.
- 5. Letter from W. J. Cahill, Consolidated Edison Company, to R. Reid, NRC, Subject: Requesting authorization to increase power from 2760 MWt to 3025 MWt, dated April 20, 1977.
- Letter from G. T. Berry, Power Authority of the State of New York, to A. Schwencer, NRC, Subject: Amendment to Operating License for Cycle 2, Power Control Maneuvers, dated May 19, 1978.
- Letter from G. T. Berry, Power Authority of the State of New York, to A. Schwencer, NRC, Subject: Analysis of constant axial offset control, dated May 24, 1978.
- 8. Report by Drs. Y. Aggarwal and L. Sykes, Lamont-Doherty Geological Observatory, Subject: Earthquakes, Faults and Nuclear Power Plants in Southern New York and Northern New Jersey, Science, Vol. 200, dated April 28, 1978.
- 9. Prepublication draft report by Dr. L. Sykes, Lamont-Doherty Geological Observatory, Subject: Intra-plate Seismicity, Reactivation of Pre-existing Zones of Weakness, Alkaline Magmatism, and Other Tectonism Post-Dating Continental Fragmentation, Undated.