

AUGUST 18 1978

DISTRIBUTION

Docket

CMiles

Docket No. 50-286.

Power Authority of the State  
of New York  
ATTN: Mr. George T. Berry  
General Manager and  
Chief Engineer  
10 Columbus Circle  
New York, New York 10019

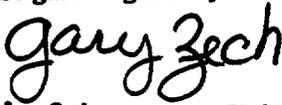
- NRC PDR
- LOCAL PDR
- ORB#1 Reading
- ASchwencer
- TVWambach
- CParrish
- VStello
- DEisenhut
- OELD
- OI&E(5)
- ACRS(16)
- BJones(4)
- BScharf(15)
- TBAbrnathy
- JRBuchanan
- JmcGough
- JSaltzman
- BHarless
- BDiggs

Gentlemen:

The Commission has issued the enclosed Amendment No. 17 to Facility Operating License No. DPR-64 for the Indian Point Nuclear Generating Unit No. 3. This is in response to your application dated April 20, 1977, and increases the authorized maximum steady state reactor core power level from 2760 megawatts thermal to 3025 megawatts thermal.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,  
Original signed by

*for*   
 Gary Zech  
 A. Schwencer, Chief  
 Operating Reactors Branch #1  
 Division of Operating Reactors

- Enclosures:
1. Amendment No. 17 to DPR-64
  2. Safety Evaluation
  3. Notice

cc w/encl:  
See next page

8110310240 780818  
PDR ADDCK 05000286  
PDR

*Const I*

OFFICE >	DOR:ORB#1 <i>TVW</i>	OELD	DOR:ORB#1 <i>ASchwencer</i>		
SURNAME >	TVWambach:1b	<i>M. Mulkey</i>	ASchwencer		
DATE >	8/8/78	8/16/78	8/8/78		



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

August 18, 1978

Docket No. 50-286

Power Authority of the State  
of New York  
ATTN: Mr. George T. Berry  
General Manager and  
Chief Engineer  
10 Columbus Circle  
New York, New York 10019

Gentlemen:

The Commission has issued the enclosed Amendment No. 17 to Facility Operating License No. DPR-64 for the Indian Point Nuclear Generating Unit No. 3. This is in response to your application dated April 20, 1977, and increases the authorized maximum steady state reactor core power level from 2760 megawatts thermal to 3025 megawatts thermal.

Copies of the Safety Evaluation and the Notice of Issuance are also enclosed.

Sincerely,

A handwritten signature in cursive script, appearing to read "A. Schwencer".

for A. Schwencer, Chief  
Operating Reactors Branch #1  
Division of Operating Reactors

Enclosures:

1. Amendment No. 17 to DPR-64
2. Safety Evaluation
3. Notice

cc w/encl:  
See next page

August 18, 1978

cc: White Plains Public Library  
100 Martine Avenue  
White Plains, New York 10610

Leonard M. Trosten, Esquire  
LeBoeuf, Lamb, Leiby & MacRae  
1757 N Street, NW  
Washington, D.C. 20036

Anthony Z. Roisman  
Natural Resources Defense Council  
917 - 15th Street, NW  
Washington, D.C. 20005

Paul S. Shemin, Esquire  
Assistant Attorney General  
State of New York  
Department of Law  
Two World Trade Center  
New York, New York 10047

Sarah Chasis, Esquire  
Natural Resources Defense Council  
122 East 42nd Street  
New York, New York 10017

Mr. George M. Wilverding  
Licensing Supervisor  
Power Authority of the State  
of New York  
10 Columbus Circle  
New York, New York 10019

Mr. P. W. Lyon  
Manager - Nuclear Operations  
Power Authority of the State  
of New York  
10 Columbus Circle  
New York, New York 10019

Mr. J. P. Bayne, Resident Manager  
Indian Point 3 Nuclear Power Plant  
P. O. Box 215  
Buchanan, New York 10511

Power Authority of the State  
of New York  
Environmental Programs  
J. W. Blake, Ph.D.  
Director  
10 Columbus Circle  
New York, New York 10019

Edward J. Sack, Esquire  
Law Department  
Consolidated Edison Company  
of New York, Inc.  
4 Irving Place  
New York, New York 10003

Jeffrey C. Cohen, Esquire  
New York State Energy Office  
Swan Street Building  
CORE 1 - Second Floor  
Empire State Plaza  
Albany, New York 12223

Honorable George Begany  
Mayor, Village of Buchanan  
188 Westchester Avenue  
Buchanan, New York 10511

Director, Technical Development  
Programs  
State of New York Energy Office  
Agency Building 2  
Empire State Plaza  
Albany, New York 12223

Chief, Energy Systems  
Analyses Branch (AW-459)  
Office of Radiation Programs  
U.S. Environmental Protection Agency  
Room 645, East Tower  
401 M Street, SW  
Washington, D.C. 20460

U.S. Environmental Protection Agency  
Region II Office  
ATTN: EIS COORDINATOR  
26 Federal Plaza  
New York, New York 10007



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

POWER AUTHORITY OF THE STATE OF NEW YORK

DOCKET NO. 50-286

INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 17  
License No. DPR-64

1. The Nuclear Regulatory Commission (the Commission) has found that:
  - A. The application for amendment by Power Authority of the State of New York (the licensee) dated April 20, 1977, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations set forth in 10 CFR Chapter I;
  - B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;
  - C. There is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations;
  - D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public; and
  - E. The issuance of this amendment is in accordance with 10 CFR Part 51 of the Commission's regulations and all applicable requirements have been satisfied.
2. Accordingly, the license is amended by revising paragraph 2.C.(1) of Facility Operating License No. DPR-64 to read as follows:

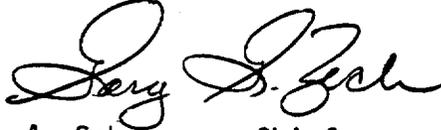
8110310246 780818  
PDR ADOCK 05000286  
P PDR

"(1) Maximum Power Level

The licensee is authorized to operate the facility at steady state reactor core power levels not in excess of 3025 megawatts thermal (100% of rated power)."

3. This license amendment is effective as of the date of its issuance

FOR THE NUCLEAR REGULATORY COMMISSION



for

A. Schwencer, Chief  
Operating Reactors Branch #1  
Division of Operating Reactors

Date of Issuance: August 18, 1978



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D. C. 20555

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

FOR FACILITY OPERATING LICENSE NO. DPR-64

POWER AUTHORITY OF THE STATE OF NEW YORK

INDIAN POINT NUCLEAR GENERATING UNIT NO. 3

DOCKET NO. 50-286

Introduction

By application dated April 20, 1977, the Power Authority of the State of New York (PASNY) and Consolidated Edison Company of New York, Inc. (Con Edison) requested authorization to increase the steady state power of Indian Point Unit No. 3 from 91% to 100% of rated power or from 2760 MW(t) to 3025 MW(t). On March 8, 1978, an amendment was issued to the license effective March 10, 1978, which authorized PASNY to assume sole operating authorization for the facility from Con Edison. The application for the increase in power was accompanied by the results of an augmented physics testing program conducted at Indian Point Unit No. 3 to demonstrate the adequacy of the models used to predict and follow core behavior. The results of the augmented physics testing program are in addition to the data base of operating experience and core performance verification for other large pressurized water reactors.

The NRC staff's restriction of Indian Point Unit No. 3 power level to 91% of rated power was the result of accepting a recommendation by the Advisory Committee on Reactor Safeguards (ACRS). The ACRS stated that, "Because there is limited operating experience with very large, high power density reactors, the ACRS believes that initial operation should be limited to power levels no greater than 2760 MW(t) and that further review by the Committee is appropriate before higher power levels are permitted."

The NRC staff issued its Safety Evaluation on this application for power increase on April 6, 1978, and sent it by letter to the Chairman of the ACRS, Dr. Stephen Lawroski, on the same date. On April 17, 1978, Supplement No. 1 to the Safety Evaluation was also sent to the Chairman of the ACRS.

8110310274 780818  
PDR ADDCK 05000286  
PDR

## Discussion

The NRC staff's evaluation of the increase in power from 2760 MW(t) to 3025 MW(t) can be found in the Safety Evaluation Report issued April 6, 1978, and Supplement 1 to that report issued April 17, 1978. This evaluation and its supplement conclude that Indian Point 3 can be safely operated at its design rating of 3025 MW(t) and that the license may be amended to grant that authorization.

On April 24, 1978, the Indian Point Unit No. 3 Subcommittee of the ACRS held a meeting with the NRC staff and PASNY to discuss PASNY's application and the NRC staff's evaluation. On June 16, 1978, a joint meeting of the Indian Point Unit No. 3 and the Seismic Activity Subcommittees of the ACRS met with the NRC staff and PASNY to discuss a report by Dr. Yash Aggarwal and Dr. Lynn Sykes entitled, "Earthquakes, Faults and Nuclear Power Plants in Southern New York and Northern New Jersey". Drs. Aggarwal and Sykes also attended the meeting, made a presentation and responded to questions by the members of the Subcommittees and their seismic consultants. The NRC staff reported at this meeting that the information in the report by Drs. Aggarwal and Sykes did not alter the staff's conclusions that the seismic design of the Indian Point Unit No. 3 plant was acceptable.

The full ACRS met with PASNY and the NRC staff regarding the request for increase in authorized power on July 7, 1978. By letter to NRC Chairman Joseph Hendrie dated July 13, 1978, the ACRS concluded that Indian Point Unit No. 3 can be operated at full power, 3025 MW(t), without undue risk to the health and safety of the public. A copy of the letter is included as Appendix A to this Safety Evaluation. That letter also included a recommendation that continuing effort be made to update safety related features to the maximum degree practical. Four specific items for consideration were mentioned in the letter. The NRC staff is pursuing these matters with the licensee.

## Evaluation

The NRC staff's evaluation of the increase in power from 2760 MW(t) to 3025 MW(t) can be found in the Safety Evaluation Report issued April 6, 1978, and Supplement 1 to that report issued April 17, 1978.

The July 13, 1978 letter from the Chairman of the ACRS to the Chairman of the NRC included a recommendation that continuing effort be made to update safety related features to the maximum degree practical. Four specific items for consideration were mentioned in the letter. See Appendix A to this SER. The NRC staff has scheduled a meeting with PASNY to pursue with the licensee a review of these matters.

### Environmental Consideration

The Final Environmental Statement related to the operation of Indian Point Nuclear Generating Plant Unit No. 3, issued in February 1975 was based on full power operation of 3025 MW(t). Therefore, we have determined that the amendment does not authorize a change in effluent types or total amounts nor an increase in power level and will not result in any significant environmental impact. Having made this determination, we have further concluded that the amendment involves an action which is insignificant from the standpoint of environmental impact, and pursuant to 10 CFR §51.5(d)(4), that an environmental impact statement or negative declaration and environmental impact appraisal need not be prepared in connection with the issuance of this amendment.

### Conclusion

The original application for a construction permit and operating license for Indian Point 3 dated April 26, 1967, as well as the Final Facility Description and Safety Analysis Report, Amendment No. 13 to the application dated December 4, 1970, requested authorization for operation at a rated power level of 3025 MW(t). The NRC Safety Evaluation Report of the Indian Point Nuclear Generating Unit No. 3 dated September 21, 1973, and its Supplements also evaluated the plant for operation at 3025 MW(t), and concluded that operation at that power level was acceptable. Therefore, we have concluded based on the considerations discussed above and in the Safety Evaluation Report issued April 6, 1978, and its Supplement 1 issued April 17, 1978, that: (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously considered and does not involve a significant decrease in a safety margin, the amendment does not involve a significant hazards consideration, (2) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, and (3) such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

Date: August 18, 1978



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 high-power-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.

dupe of ~~7912190356~~

July 13, 1978

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.

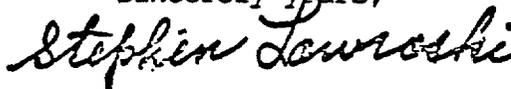
Since the Committee's interim report, ownership and operating responsibility for Indian Point Unit No. 3 have been transferred from the Consolidated Edison Company to PASNY. The Committee finds that the administrative separation and plans for physical separation are satisfactory.

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  
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.

July 13, 1978

References:

1. 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.
6. 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.
7. 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.

UNITED STATES NUCLEAR REGULATORY COMMISSIONDOCKET NO. 50-286POWER AUTHORITY OF THE STATE OF NEW YORKNOTICE OF ISSUANCE OF AMENDMENT TO FACILITY  
OPERATING LICENSE

The U.S. Nuclear Regulatory Commission (the Commission) has issued Amendment No. 17 to Facility Operating License No. DPR-64, issued to the Power Authority of the State of New York (the licensee), for the operation of the Indian Point Nuclear Generating Unit No. 3, located in Buchanan, Westchester County, New York. The amendment is effective as of its date of issuance.

The amendment increases the authorized maximum steady state reactor core power level from 2760 megawatts thermal to 3025 megawatts thermal (100% of rated power).

The application for the amendment complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the Commission's rules and regulations. The Commission has made appropriate findings as required by the Act and the Commission's rules and regulations in 10 CFR Chapter I, which are set forth in the license amendment. Prior public notice of this amendment was not required since the amendment does not involve a significant hazards consideration.

The Commission has determined that the issuance of this amendment will not result in any significant environmental impact and that pursuant to 10 CFR §51.5(d)(4) an environmental impact statement, negative declaration or environmental impact appraisal need not be prepared in connection with issuance of this amendment.

8110310279 780818  
PDR ADOCK 05000286  
P PDR

For further details with respect to this action, see (1) the application for amendment dated April 20, 1977, (2) Amendment No. 17 to License No. DPR-64, (3) the Commission's related Safety Evaluation, (4) the Commission's Safety Evaluation dated April 6, 1978 relating to the removal of license condition limiting operation to 91% of Rated Thermal Power for Indian Point Nuclear Generating Unit No. 3, and (5) Supplement 1 to Item (4) dated April 17, 1978. All of these items are available for public inspection at the Commission's Public Document Room, 1717 H Street, NW., Washington, D.C. and at the White Plains Public Library, 100 Martine Avenue, White Plains, New York. A copy of items (2), (3), (4) and (5) may be obtained upon request addressed to the U.S. Nuclear Regulatory Commission, Washington, D.C. 20555, Attention: Director, Division of Operating Reactors.

Dated at Bethesda, Maryland, this 18th day of August 1978.

FOR THE NUCLEAR REGULATORY COMMISSION



Gary G. Zech, Acting Chief  
Operating Reactors Branch #1  
Division of Operating Reactors