

October 5, 1998

Mr. James Knubel
Chief Nuclear Officer
Power Authority of the State
of New York
123 Main Street
White Plains, NY 10601

SUBJECT: ISSUANCE OF AMENDMENT FOR INDIAN POINT NUCLEAR GENERATING
UNIT NO. 3 (TAC NO. MA0124)

Dear Mr. Knubel:

The Commission has issued the enclosed Amendment No. 182 to Facility Operating License No. DPR-64 for the Indian Point Nuclear Generating Unit No. 3 (IP3). The amendment consists of changes to the Technical Specifications (TSs) in response to your application transmitted by letter dated November 13, 1997. The amendment changes the TSs by increasing the test frequency for the main turbine stop and control valves to agree with the maximum test interval specified in the Westinghouse Report WOG-TVTF-93-17, "Update of BB-95/96 Turbine Valve Failure Rates and Effects on Destructive Overspeed Probabilities."

A copy of the related Safety Evaluation is enclosed. A Notice of Issuance will be included in the Commission's next regular biweekly Federal Register notice.

Sincerely,

Original signed by:

George F. Wunder, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-286

Enclosures: 1. Amendment No. 182 to DPR-64
2. Safety Evaluation

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UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Sincerely,

A handwritten signature in cursive script, appearing to read "George F. Wunder".

George F. Wunder, Project Manager
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Docket No. 50-286

Enclosures: 1. Amendment No. 182 to DPR-64
2. Safety Evaluation

cc w/encls: See next page

Dated: October 5, 1998

AMENDMENT NO.182 TO FACILITY OPERATING LICENSE NO. DPR-64-INDIAN POINT UNIT 3

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J. Rogge, Region I

C. Hehl, Region I

T. Harris (e-mail only, TLH3)

cc: Plant Service list

Dated: October 5, 1998

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cc: Plant Service list

James Knubel
Power Authority of the State
of New York

Indian Point Nuclear Generating
Unit No. 3

cc:

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UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

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. 182
License No. DPR-64

1. The Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application for amendment by the Power Authority of the State of New York (the licensee) dated November 13, 1997, 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 changes to the Technical Specifications as indicated in the attachment to this license amendment, and paragraph 2.C.(2) of Facility Operating License No. DPR-64 is hereby amended to read as follows:

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(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 182 are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of its issuance to be implemented within 30 days.

FOR THE NUCLEAR REGULATORY COMMISSION



S. Singh Bajwa, Director
Project Directorate I-1
Division of Reactor Projects - I/II
Office of Nuclear Reactor Regulation

Attachment:
Changes to the Technical
Specifications

Date of Issuance: October 5, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 182

FACILITY OPERATING LICENSE NO. DPR-64

DOCKET NO. 50-286

Revise Appendix A as follows:

Remove Pages

4.1-5

Table 4.1-3 (Sheet 1 of 2)

Insert Pages

4.1-5

Table 4.1-3 (Sheet 1 of 2)

Specified surveillance intervals for the Reactor Protection System and Engineered Safety Features have been determined in accordance with WCAP - 10271, Supplement 1, "Evaluation of Surveillance Frequencies and Out of Service Times for the Reactor Protection Instrumentation System," and WCAP - 10271, Supplement 2, Revision 1, "Evaluation of Surveillance Frequencies and Out of Service Times for the Engineered Safety Features Actuation System," as approved by the NRC and documented in the SERs (letters to J. J. Sheppard from C. O. Thomas, dated February 21, 1985, and to R. A. Newton from C. E. Rossi, dated February 22, 1989). Surveillance intervals were determined based on maintaining an appropriate level of reliability of the Reactor Protection System and Engineered Safety Features instrumentation.

DELETED

4.1-5

Amendment No. 93, 107, 182

TABLE 4.1-3 (Sheet 1 of 2)

FREQUENCIES FOR EQUIPMENT TESTS		
	<u>Check</u>	<u>Frequency</u>
1. Control Rods	Rod drop times of all control rods	24M
2. Control Rods	Movement of at least 10 steps in any one direction of all control rods	Every 31 days during reactor critical operations
3. Pressurizer Safety Valves	Set Point	24M*
4. Main Steam Safety Valves	Set Point	24M
5. Containment Isolation System	Automatic actuation	24M
6. Refueling System Interlocks	Functioning	Each refueling, prior to movement of core components
7. Primary System Leakage	Evaluate	5 days/week
8. Diesel Generators Nos. 31, 32 & 33 Fuel Supply	Fuel Inventory	Weekly
9. Turbine Steam Stop And Control Valves	Closure	Not to exceed 6 months**
10. L.P. Steam Dump System (6 lines)	Closure	Monthly
11. Service Water System	Each pump starts and operates for 15 minutes (unless already operating)	Quarterly
12. City Water Connections to Charging Pumps and Boric Acid Piping	Temporary connections available and valves operable	24M

* Pressurizer Safety Valve setpoint test due no later than May 1996 may be deferred until the next refueling outage but no later than May 31, 1997.

** The turbine steam stop and control valves shall be tested at a frequency determined by the methodology presented in WCAP-11525, "Probabilistic Evaluation of Reduction in Turbine Valve Test Frequency," as updated by Westinghouse Report, WOG-TVTF-93-17, "Update of BB-95/96 Turbine Valve Failure Rates and Effect on Destructive Overspeed Probabilities." The maximum test interval for these valves shall not exceed six months. Surveillance interval extension as per Technical Specification 1.12 is not applicable to the maximum test interval.



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 182 TO 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

1.0 INTRODUCTION

By letter dated November 13, 1997, the Power Authority of the State of New York (the licensee) requested an amendment to the Technical Specifications (TSs) for the Indian Point Nuclear Generating Unit No. 3 (IP3). The amendment increases the frequency test for the main turbine stop and control valves at IP3. The proposed amendment changes the IP3 TSs to agree with the maximum test interval specified in the Westinghouse Report WOG-TVTF-93-17, "Update of BB-95/96 Turbine Valve Failure Rates and Effects on Destructive Overspeed Probabilities."

General Design Criterion 4 requires, in part, that structures, systems, and components important to safety shall be appropriately protected against dynamic effects, including the effects of missiles, that may result from equipment failure. Because turbine rotors have large masses and rotate at relatively high speeds during normal reactor operation, failure of a rotor may result in the generation of high energy missiles potentially impacting and damaging safety-related structures, systems and components.

Consistent with the staff's position taken on existing turbine rotor designs, the probability of turbine missile generation should be kept to no greater than 10^{-5} per reactor-year (RY) for an unfavorably oriented turbine and 10^{-4} per RY for a favorably oriented turbine.

Indian Point 3 has an unfavorable turbine generator placement and orientation, and the plant is committed to keep the probability of turbine missile generation to no greater than 10^{-5} per reactor-year.

2.0 EVALUATION

The proposed amendment changes the IP3 TSs to agree with the maximum test interval specified in the Westinghouse Report WOG-TVTF-93-17, "Update of BB-95/96 Turbine Valve Failure Rates and Effects on Destructive Overspeed Probabilities." Specifically the licensee is proposing to amend Table 4.1.3, "Frequency For Equipment Test" of the TSs. The proposed amendment will reduce the maximum test interval from 1 year to 6 months for the test frequency of main turbine stop and control valves (TS&CVs). The current test frequency for the main turbine TS&CVs is determined by the methodology presented in Westinghouse Topical Report WCAP-11525, "Probabilistic Evaluation of Reduction in Turbine Valve Test Frequency," and in accordance with established NRC acceptance criteria for determining the probability of a missile generation at the IP3 plant. Westinghouse Report WOG-TVTF-93-17, revises the valve failure rates of WCAP-11525 and adopts a missile event probability of 5.0×10^{-6} per year. This

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probability is more conservative than the NRC specified criterion for an unfavorably oriented turbine. This added conservatism reduces the maximum allowable test interval to 6 months.

The test for TS&CVs is procedurally controlled by site administrative procedure AP-19, "Surveillance Test Program," and 3PT-Q107, "Main Turbine Stop And Valve Exercise And Vibration Monitoring Test," and is currently being performed quarterly. Also, the methodology of actually performing the test has been improved to include condition monitoring of the Turbine Stop Valves per WOG-TVTF-93-17.

The proposed change will make the maximum test interval more conservative. Further, a more conservative acceptance criterion for the probability of missile generation of 5.0×10^{-6} per year is established instead of the NRC specified probability of 1×10^{-5} per year.

The NRC staff finds that amending the IP3 TSs to reduce the test interval for the TS & CVs from 1 year to 6 months will not adversely affect the function or failure modes of any equipment important to safety. The staff concludes that the risk for the proposed plant modification of TSs is acceptable and meets the relevant requirements of GDC-4. This conclusion is based on the licensee having sufficiently demonstrated to the staff that the probability of turbine missile damage to structures, systems, and components important to safety is acceptably low and within the limits specified in Standard Review Plan Section 3.5.1.3, "Turbine Missiles."

3.0 STATE CONSULTATION

In accordance with the Commission's regulations, the New York State official was notified of the proposed issuance of the amendment. The State official had no comments.

4.0 ENVIRONMENTAL CONSIDERATION

The amendment changes surveillance requirements. The NRC staff has determined that the amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that may be released offsite, and that there is no significant increase in individual or cumulative occupational radiation exposure. The Commission has previously issued a proposed finding that the amendment involves no significant hazards consideration, and there has been no public comment on such finding (63 FR 38203). Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b) no environmental impact statement or environmental assessment need be prepared in connection with the issuance of the amendment.

5.0 CONCLUSION

The Commission has concluded, based on the considerations discussed above, that: (1) there is reasonable assurance that the health and safety of the public will not be endangered by operation in the proposed manner, (2) such activities will be conducted in compliance with the Commission's regulations, and (3) the issuance of the amendment will not be inimical to the common defense and security or to the health and safety of the public.

Principal Contributor: G. Georgiev

Date: October 5, 1998