

May 3, 1996

Mr. William J. Cahill  
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. M94979)

Dear Mr. Cahill:

The Commission has issued the enclosed Amendment No. 165 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 March 14, 1996.

The proposed changes would allow a one-time extension of the intervals for the pressurizer safety valve setpoint and snubber functional testing that is due in May 1996.

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.165 to DPR-64  
2. Safety Evaluation

cc w/encls: See next page

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UNITED STATES  
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

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Power Authority of the State of  
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Sincerely,

A handwritten signature in black ink, 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

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2. Safety Evaluation

cc w/encls: See next page

William J. Cahill, Jr.  
Power Authority of the State  
of New York

Indian Point Nuclear Generating  
Station Unit No. 3

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DATED: May 3, 1996

AMENDMENT NO. 165 TO FACILITY OPERATING LICENSE NO. DPR-64-INDIAN POINT UNIT 3

Docket File

PUBLIC

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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. 165  
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 March 14, 1996, 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:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No.165 , 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



Susan F. Shankman, Acting 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: May 3, 1996

ATTACHMENT TO LICENSE AMENDMENT NO. 165

FACILITY OPERATING LICENSE NO. DPR-64

DOCKET NO. 50-286

Revise Appendix A as follows:

Remove Pages

Table 4.1-3 (sheet 1 of 2)  
4.11-3

Insert Pages

Table 4.1-3 (sheet 1 of 2)  
4.11-3

TABLE 4.1-3 (Sheet 1 of 2)

FREQUENCIES FOR EQUIPMENT TESTS		
	Check	Frequency
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 Control Valves	Closure	Yearly
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)	Monthly
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.

Amendment No. 10, 14, 43, 63, 93, 99, 123, 126, 127, 129, 133, 144, 165

2. Visual inspection shall verify (1) that there are no visible indications of damage or impaired OPERABILITY, and (2) attachments to the foundations or supporting structure are secure. Snubbers which appear inoperable as a result of visual inspections shall be classified as unacceptable and may be reclassified acceptable for the purpose of establishing the next visual inspection interval, provided that (1) the cause of the rejection is clearly established and remedied for the particular snubber and for other snubbers that may be generically susceptible; and (2) the affected snubber is functionally tested in the as found condition and determined OPERABLE per Specification 4.11.B.5. However, when the fluid port of a hydraulic snubber is found to be uncovered, the snubber shall be declared inoperable via functional testing for the purpose of establishing the next visual inspection period. All snubbers connected to an inoperable common hydraulic fluid reservoir shall be counted as inoperable snubbers.

B. Functional Testing

1. At least once per 24 months\* during plant shutdown, a representative sample of 10% of all the safety-related hydraulic snubbers shall be functionally tested for operability, either in place or on a bench test. For each snubber that does not meet the requirement of 4.11.B.5, an additional 10% of the total installed of that type of hydraulic snubber shall be functionally tested. This additional testing will continue until no failures are found or until all snubbers of the same type have been functionally tested. The representative sample shall include each size and type of snubber in use in the plant.
2. The representative sample selected for functional testing should include the various configurations, operating environments, sizes and capacities of snubbers. At least 25% or the maximum possible if less than 25%, of the snubbers in the representative sample should include snubbers from the following three categories:
  - a. The first snubber away from each reactor vessel nozzle.

\* Snubber functional testing due no later than May 1996 may be deferred until the next refueling outage but no later than May 31, 1997.



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 165 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 March 14, 1996, the Power Authority of the State of New York (the licensee) submitted a request for changes to the Indian Point Nuclear Generating Unit No. 3 (IP3) Technical Specifications (TSs). The proposed changes would allow a one-time extension of the intervals for the pressurizer safety valve setpoint and snubber functional testing that is due in May 1996.

TS 4.1 requires that the setpoint of the pressurizer safety valves be tested every 24 months. Similarly, TS 4.11 requires that at least once per 24 months during plant shutdown, a representative sample of 10 percent of all the safety-related hydraulic snubbers shall be functionally tested for operability, either in place or on a bench test. Both of these groups of surveillance tests would be due no later than May 1996, with a 25 percent extension of the interval applied as allowed by TS 1.12. The 25 percent extension is intended to allow the surveillance tests to coincide with the actual refueling outage.

The last refueling outage occurred in 1993. The plant shut down in 1993 to complete a modification related to abnormal transient without scram to comply with NRC requirements. Prior to startup, the Commission required the licensee to complete a number of other outstanding maintenance and design activities to bring the plant into full compliance with regulatory requirements and licensee commitments. The plant began operation in June 1995. In September 1995, a hydrogen leak on the generator forced a plant shutdown. A number of actions caused the plant to remain shut down until the end of March 1996. Since March 1996, the plant has operated.

The proposed change would add a footnote to each of the two specifications indicating that a one-time extension of the test interval allows until May 31, 1997, to complete the surveillance requirements. The proposed extension would be from May 1996 to the next refueling outage (RO-9), which is scheduled to begin in February 1997, though this schedule is subject to change if unplanned outages occur. Nevertheless, the extension will not be beyond May 31, 1997. Without this one-time extension, a forced outage will be necessary to perform the required testing. The licensee maintains that the forced outage will increase the probability of events, which are more likely to occur during transient operation (i.e., heatup and cooldown) than at full power, steady

state operation. Unnecessary equipment wear results from the additional heatup and cooldown cycle.

Pressurizer Safety Valves: The pressurizer safety valves are Crosby Type HB-86-BPE. The pressurizer safety valves protect the reactor coolant pressure boundary from overpressure during abnormal operation conditions in accordance with the design criteria of the American Society of Mechanical Engineers *Boiler and Pressure Vessel Code* (ASME Code), Section III. Normally, the setpoint of all three of the pressurizer safety valves is tested during each refueling outage to meet the 24-month surveillance interval and to verify that the valves lift within  $\pm 1$  percent of the nominal setpoint of 2485 psig. Wyle Laboratories performs the setpoint testing and a seat-tightness test at an off-site test facility. The valves are then reinstalled in the plant prior to startup from the refueling outage. The licensee must schedule testing at the test facility well in advance of the outage and arrange for shipping and transportation of the valves.

The surveillance requirements in TS 4.1 are written such that all three valves are tested every 24 months. The test interval is, in one respect, more conservative than that required by the applicable ASME Code requirements. The licensee has applied the requirements of OM-1-1987 of the ASME *Operations and Maintenance Standards* referenced by the 1989 Edition of the ASME Code (see Relief Request VR-36 approved in NRC's SE dated August 10, 1992). OM-1-1987 specifies that a minimum of 20 percent of a group of Class 1 valves be tested within any 24-month period, but all valves in the group must be tested at a minimum of once every 5 years. Therefore, with testing of all three valves during each 24-month period, the licensee has met the OM-1 requirement for testing the valves within the 5 year period. The 24-month period for testing 20 percent of the valves requires NRC approval for the inservice testing, in addition to the TS amendment.

The acceptance criteria for the pressurizer safety valve setpoint are  $\pm 1$  percent, as noted above. The criteria were established from the design criteria of Section III. OM-1-1987 allows that the setpoint of a valve may vary as much as 3 percent in determining if additional valves must be tested. The test results of the last four groups of tests (i.e., for the last four refueling outages) indicate that a total of 69 tests were conducted on the three valves. Forty-six tests were within the  $\pm 1$  percent of 2485 psig. Only two tests were outside  $\pm 3$  percent of 2485 psig. Though the valves have experienced normal system pressure for only about 4 months since they were last tested, the tests results were analyzed to determine if there were any time-dependent failures. None were identified. The only maintenance activity in the area of the valves since the last test was work done of the pressurizer power-operated relief valve. In addition, the last test report from Wyle was reviewed for any comments on corrosion in the valves. No comments indicating signs of corrosion were in the report.

Snubber Functional Testing: The snubbers prevent unrestrained pipe motion under dynamic loads, such as those caused by earthquakes or severe transients, while allowing normal thermal motion. The periodic tests assure that the snubbers will function properly when needed. A functional test of a 10

percent sample lot of the safety-related hydraulic snubbers is required every 24 months by TS 4.11, with a 25 percent extension allowed to coincide with the actual refueling outage. A failure during tests of the 10 percent sample lot results in functional testing of additional sample lots. Data from the last six functional testing were reviewed to assess the performance of the snubbers. A total of 136 snubbers were tested, with only one failure. Snubber MSR-1-2-H activated prematurely during testing in 1992. An evaluation indicated that improper lubrication (injection of silicon grease into accessible grease fittings in 1986) caused the failure. Since 1986, the licensee developed and implemented a lubrication control program for snubbers. Nevertheless, all snubbers that could have been improperly lubricated were inspected in 1992.

The licensee's assessment of test data indicated no snubber failures due to age-related degradation. The nominal service life of the snubbers is 15 years. Cases where snubbers could be subjected to severe environmental (i.e., aging) conditions are evaluated on a case-by-case basis. Additionally, the licensee implements a service-life monitoring program to ensure that no snubber reached its end-of-service life prior to replacement or reconditioning. No snubbers were identified that will reach end-of-life prior to RO-9. The last visual inspection (1992) of 172 snubbers verified that no visible damage or impaired operability existed and that all snubbers were securely attached to their foundations.

## 2.0 EVALUATION

Pursuant to 10 CFR 50.55a, licensees are required to implement an Inservice Testing (IST) program in accordance with the American Society of Mechanical Engineers (ASME) *Boiler and Pressure Vessel Code* (the Code). IP3 has developed and implemented an IST program in accord with the 1983 Edition of the ASME Code for the current 120-month interval which expires August 31, 1997. For pressurizer safety valves, Relief Request VR-36 (approved by the NRC in an SE dated August 10, 1992) implements the requirements of OM-1. The NRC may authorize alternatives to the requirements of the Code when the alternative offers an acceptable level of quality and safety or when the requirements present an unusual difficulty or undue hardship without a compensating increase in the level of quality and safety (10 CFR 50.55a paragraphs (a)(3)(i) and (a)(3)(ii) respectively). OM-1 requires that the pressurizer safety valves be tested on a schedule such that 20% of the valves be tested within any 24-month period, with each valve tested at least once every 5 years.

IP3 was shut down for extended periods of time during the current fuel cycle and the refueling outage schedules are no longer synchronous with the 24-month surveillance requirements in the plant TSs. The licensee could have performed the tests and complied with the TSs if it had known the duration of the second shutdown; however, the licensee expected to begin startup a number of times during the shutdown. Conducting the testing necessitates advanced planning and scheduling with Wyle Laboratories for both the pressurizer safety valves setpoint testing and snubber functional testing.

Surveillance tests are intended to assure the continued operational readiness of components. Plant conditions are considered when establishing surveillance intervals. Because the setpoint testing and snubber functional testing cannot usually be performed when the plant is operating, the test intervals were established for a period that would usually coincide with a refueling outage, allowing for advanced scheduling. The test intervals have not generally been established based on an expected mean time between failures. Subjecting a plant to a shutdown and restart solely to complete testing is not generally considered to be in the interest of safety, considering that there are no indications that the components would not function as required if conditions warranted.

Compliance with the inservice testing program requirements for the pressurizer safety valve setpoint testing would also require the plant to shutdown prior to the next refueling outage. Considering that all three valves were tested during the last refueling outage, the Code requirement to test Class 1 valves within every 5-year period is met. Compliance with the Code would require that one of the three valves be setpoint tested during May 1996 (with the 25 percent extension allowed by TS included).

The imposition of the inservice testing requirements would, therefore, pose an undue hardship or unusual difficulty without a compensating increase in the level of quality and safety in that no problems were identified when all three valves were tested during the last refueling and the valves have only been in service for about four months since the last test.

Recognizing that the extension is for approximately 12 months, which is one half of the regular surveillance interval, the NRC's approval of the proposed TS change and inservice testing alternative is with the following conditions:

- (1) The licensee must visually inspect all accessible snubbers in the 10 percent sample subject to the extension as well as accessible snubbers in the next 10 percent sample (i.e., for the next 24 months following May 1996).
- (2) During refueling outage RO-9, the extended sample and the next sample shall be functionally tested so that the next regularly scheduled functional test is not extended (i.e., 20 percent shall be functionally tested during RO-9).
- (3) All three pressurizer safety valves shall be setpoint tested during refueling outage RO-9.
- (4) The extension does not extend beyond May 31, 1997, even if an additional extended outage occurs prior to beginning refueling.

The proposed action to amend TS 4.1 and 4.11 to allow a one-time extension of the test interval for setpoint testing of the pressurizer safety valves and for functional testing of a 10-percent sample of safety-related hydraulic snubbers proposed by the licensee is acceptable provided that the licensee also meet the requirements in items 1 through 4 above. In addition, pursuant to 10 CFR 50.55a(a)(3)(ii), an alternative to the inservice testing program

requirements for setpoint testing a minimum of 20 percent of the three valves (i.e., one valve) every 24 months is authorized based on the undue hardship and unusual difficulty without a compensating increase in the level of quality and safety that would ensue if the Code requirements were imposed.

### 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 a requirement with respect to installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 and 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 (61 FR 14835). 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 Contributors: P. Campbell  
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Date: May 3, 1996