



UNITED STATES
NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

March 10, 1993

Docket No. 50-286

Mr. Ralph E. Beedle
Executive Vice President - Nuclear Generation
Power Authority of the State of New York
123 Main Street
White Plains, New York 10601

Dear Mr. Beedle:

SUBJECT: ISSUANCE OF AMENDMENT FOR INDIAN POINT NUCLEAR GENERATING
UNIT NO. 3 (TAC NO. M84649)

The Commission has issued the enclosed Amendment No. 128 to Facility Operating License No. DPR-64 for the Indian Point Nuclear Generating Unit No. 3. The amendment consists of changes to the Technical Specifications in response to your application transmitted by letter dated September 29, 1992, as supplemented December 23, 1992.

The amendment revises the Technical Specifications (TS) to incorporate the following changes:

- (1) The auxiliary feedwater (AFW) pump full-flow testing frequency (specified in TS Section 4.8.1.a) has been changed to accommodate operation on a 24-month cycle.
- (2) The AFW pump automatic start verification frequency (specified in TS Section 4.8.3.b) has been changed to accommodate operation on a 24-month cycle. In addition, the wording of the AFW pump automatic start verification requirement has been changed from "each" actuation signal to "an" actuation signal.
- (3) The AFW recirculation valve actuation verification frequency (specified in TS Section 4.8.3.a) has been changed to accommodate operation on a 24-month cycle.
- (4) The AFW backup supply valve testing frequency (specified in TS Section 4.8.1.c) has been changed to accommodate operation on a 24-month cycle.

These changes followed the guidance provided in Generic Letter 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle," as applicable.

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Mr. Ralph E. Beedle

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March 10, 1993

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,



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

Enclosures:

1. Amendment No. 128 to DPR-64
2. Safety Evaluation

cc w/enclosures:
See next page

Mr. Ralph E. Beedle
Power Authority of the State
of New York

Indian Point Nuclear Generating
Station Unit No. 3

cc:

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DATED: March 10, 1993

AMENDMENT NO. 128 TO FACILITY OPERATING LICENSE NO. DPR-64-INDIAN POINT UNIT 3

Docket File

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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. 128
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 September 29, 1992, as supplemented December 23, 1992, 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. 128, 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



Robert A. Capra, 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: March 10, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 128

FACILITY OPERATING LICENSE NO. DPR-64

DOCKET NO. 50-286

Revise Appendix A as follows:

Remove Page

4.8-1

Insert Page

4.8-1

4.8 AUXILIARY FEEDWATER SYSTEM

Applicability

Applies to periodic testing requirements of the Auxiliary Feedwater System.

Objective

To verify the operability of the Auxiliary Feedwater System and its ability to respond properly when required.

Specification

1. a. Each auxiliary feedwater pump will be started manually from the control room at monthly intervals with full flow established to the steam generators at least once per 24 months.
- b. The auxiliary feedwater pumps discharge valves will be tested by operator action at intervals not greater than six months.
- c. Backup supply valves from the city water system will be tested at least once per 24 months.
2. Acceptance levels of performance shall be that the pumps start, reach their required developed head and operate for at least fifteen minutes.
3. At least once per 24 months,
 - a. Verify that the recirculation valve will actuate to its correct position.
 - b. Verify that each auxiliary feedwater pump will start as designated automatically upon receipt of an auxiliary feedwater actuation test signal.

Basis

The testing of the auxiliary feedwater pumps will verify their operability. The capacity of any one of the three auxiliary feedwater pumps is sufficient to meet decay heat removal requirements.

Amendment No. 38, 123, 128



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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION
RELATED TO AMENDMENT NO. 128 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 September 29, 1992, as supplemented December 23, 1992, 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 (TS). The requested changes would revise the TS to incorporate the following auxiliary feedwater (AFW) system changes:

- (1) The AFW pump full-flow testing frequency (specified in TS Section 4.8.1.a) would be changed to accommodate operation on a 24-month cycle.
- (2) The AFW pump automatic start verification frequency (specified in TS Section 4.8.3.b) would be changed to accommodate operation on a 24-month cycle. In addition, the wording of the AFW pump automatic start verification requirement would be changed from "each" actuation signal to "an" actuation signal to be consistent with NUREG-1431, "Standard Technical Specifications for Westinghouse Plants."
- (3) The AFW recirculation valve actuation verification frequency (specified in TS Section 4.8.3.a) would be changed to accommodate operation on a 24-month cycle.
- (4) The AFW backup supply valve testing frequency (specified in TS Section 4.8.1.c) would be changed to accommodate operation on a 24-month cycle.

The requested changes are needed to accommodate operation on a 24-month fuel cycle. The licensee commenced operating on a 24-month fuel cycle, instead of the previous 18-month fuel cycle, with fuel cycle 9. Fuel cycle 9 started in August 1992. The proposed changes follow the guidance provided in Generic Letter 91-04, "Changes in Technical Specification Surveillance Intervals to Accommodate a 24-Month Fuel Cycle," as applicable.

2.0 EVALUATION

The licensee considered the following factors in evaluating the AFW system surveillance interval extensions from 18 to 24 months:

- Does on-line testing adequately demonstrate operability or are failures only being detected during these refueling tests?
- Did past equipment performance have an effect on system safety functions?
- Does performing the surveillance test at power present an unacceptable burden?

2.1 AFW Pump Full-Flow Testing

The AFW system supplies feedwater to the steam generators to remove decay heat from the reactor coolant system upon loss of the normal feedwater supply. The AFW system is also capable of supplying feedwater to the steam generators during normal plant startup, shutdown, and hot shutdown conditions. The AFW system consists of two 100% capacity motor-driven pumps and one 200% capacity turbine-driven pump.

The AFW system does not have a full-flow test loop. The only method of achieving full-flow is direct injection to the steam generators. Since this test involves injection of cold water directly into the steam generators, possibly causing steam generator nozzle thermal shocks, it is not desirable to perform this test during power operations.

The AFW system is tested on-line in accordance with the inservice testing (IST) requirements of Section XI of the ASME Code. This testing includes monthly and quarterly surveillances which actually test the operation of the AFW pumps. The flowpath for the on-line testing is the minimum flow line for each pump. Therefore, full flow cannot be achieved on-line; however, the on-line testing is adequate to demonstrate AFW system operability.

The licensee reviewed data from 1986 to 1990 related to AFW full-flow testing. The data indicated that there were no failures during the performance of the refueling tests. Therefore, the licensee concluded that this surveillance test interval could be extended since the results of the refueling tests were satisfactory and there was no evidence that AFW pump performance was a function of the surveillance interval. In addition, the IST program ensures continued availability of the AFW system.

The NRC staff has reviewed the information presented by the licensee regarding AFW pump full-flow testing and concludes the requested change is acceptable.

2.2 AFW Pump Automatic Start Verification

The motor-driven AFW pumps will automatically start and inject into the steam generators upon receipt of any of the following signals: loss of 480 VAC bus voltage on bus 3A or 6A (non-SI blackout), low-low steam generator level in any steam generator, trip of either main feedwater pump, or a safety injection signal. The turbine-driven AFW pump will automatically start upon receipt of

any of the following signals: non-SI blackout or low-low steam generator level in any two of the four steam generators. The purpose of the AFW pump automatic start verification surveillance test is to demonstrate that all AFW pumps automatically start on an actual or simulated actuation signal. This surveillance can only be performed during a plant shutdown since there is the potential for a plant transient if the surveillance was done at power.

The licensee performs the AFW pump automatic start verification surveillance test each refueling outage in conjunction with the AFW pump full-flow test. The licensee reviewed data from 1986 to 1990 related to AFW pump automatic start verification testing. The data indicated that there were no failures during the performance of the refueling tests. Therefore, the licensee concluded that this surveillance test interval could be extended since the results of the refueling tests were satisfactory and there was no evidence that AFW pump automatic start capability was a function of the surveillance interval.

As discussed in NUREG-1431, "Standard Technical Specifications for Westinghouse Plants" (W-STs), the purpose of the AFW pump automatic start verification surveillance test is to demonstrate that all AFW pumps automatically start on "an" actual or "a" simulated actuation signal. The licensee's TS required that the AFW pump automatic start verification be performed for "each" actuation signal. The licensee requested that the wording of the TS requirement be changed to be consistent with the W-STs. The licensee states that all the automatic start signals are currently being tested per the requirements of TS Table 4.1-1 (instrumentation surveillances) and TS Section 4.5.A.1.b (safety injection surveillances) by instrumentation channel functional tests, logic tests, checks, and calibrations. Therefore, the licensee concluded that changing the wording of the AFW automatic start verification surveillance test to be consistent with the W-STs would not affect the licensee's ability to ensure the AFW system remains able to perform its intended function.

The NRC staff has reviewed the information presented by the licensee regarding AFW pump automatic start verification surveillance testing and concludes the requested changes are acceptable.

2.3 AFW Recirculation Valve Actuation Verification

Flow recirculation lines are provided to protect the AFW pumps from excessive vibration and overheating during low AFW flow conditions. The valves are designed to automatically open when AFW flow is 40 gpm, decreasing, and to automatically close at 170 gpm, increasing.

The licensee verifies proper AFW recirculation valve operation during the refueling outage AFW full-flow test. As previously discussed, the AFW full-flow test cannot be performed during power operations, therefore, the AFW recirculation valve actuation verification cannot be performed on-line.

The licensee reviewed data from 1986 to 1990 related to the AFW recirculation valve actuation verification. The data indicated that there was only one valve failure during the performance of these refueling tests. Based on the results of the review, the licensee concluded that this surveillance test interval could be extended since, with one exception, the results of the refueling tests were satisfactory and there was no evidence that AFW recirculation valve performance was a function of the surveillance interval.

The NRC staff has reviewed the information presented by the licensee regarding AFW recirculation valve testing and concludes the requested change is acceptable.

2.4 AFW Backup Supply Valve (City Water) Testing

The AFW system is provided with both primary and backup water sources. The condensate storage tank (CST) is the primary source and city water is the backup source. The minimum required CST level will ensure 24 hours of makeup water in the hot shutdown condition. When the CST is exhausted, city water will be used as makeup water.

The AFW backup supply valves (city water) are pneumatic valves which are normally air-operated that have an emergency nitrogen backup. In addition, the valves can be manually operated locally, therefore, it is extremely unlikely that these valves could not be opened if needed. The licensee stroke tests these valves at each refueling outage to ensure they can be cycled open and closed within the required time. This stroke test cannot be done unless the plant is shutdown since opening these valves could result in contamination of the condensate system which would be detrimental to plant operation. The licensee reviewed data from 1986 to 1990 related to the AFW backup supply valves. The data indicated that there were no failures during the performance of the refueling tests. Therefore, the licensee concluded that this surveillance test interval could be extended since the results of the refueling tests were satisfactory and there was no evidence that AFW backup supply valve performance was a function of the surveillance interval. In addition, several alternate methods of valve operation are available.

The NRC staff has reviewed the information presented by the licensee regarding AFW backup supply valve testing and concludes the requested change is acceptable.

2.5 Summary

The licensee has evaluated the effect of the increase in the surveillance interval on safety for each of the proposed changes and has concluded that the effect is small. The licensee has confirmed that historical plant maintenance and surveillance data do not invalidate this conclusion. The increase in each of the surveillance intervals to accommodate a 24-month fuel cycle does not invalidate any assumption in the IP3 licensing basis.

The staff has reviewed the information presented by the licensee and concludes that the proposed changes do not have a significant effect on safety and they are consistent with the W-STs or follow the guidance of Generic Letter 91-04, as applicable. Therefore, all the proposed changes are acceptable.

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 (58 FR 7004). 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:
Nicola F. Conicella

Date: March 10, 1993

Mr. Ralph E. Beedle

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March 10, 1993

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:

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

Enclosures:

1. Amendment No. 128 to DPR-64
2. Safety Evaluation

cc w/enclosures:
See next page

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