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

May 5, 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. M85497)

The Commission has issued the enclosed Amendment No. 132 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 (TS) in response to your application transmitted by letter dated January 11, 1993.

The amendment revises Technical Specifications Section 3.3 (Engineered Safety Features) to eliminate the requirement to perform alternate train testing of an emergency safety feature when one train of the safety feature becomes inoperable. The amendment also revises TS Section 3.7 (Auxiliary Electrical Systems) to eliminate the requirement to perform special testing of the emergency diesel generators (EDGs) if an EDG becomes inoperable for a reason other than planned maintenance or testing. These changes reflect the current NRC staff position regarding alternate train and EDG testing. Additionally, the amendment makes administrative changes to TS Section 3.3 and conforming changes to the TS Bases.

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,

N. F. Conicella

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

Enclosures:
1. Amendment No. 132 to DPR-64
2. Safety Evaluation

cc w/enclosures:
See next page

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

cc:

Regional Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pennsylvania 19406

Mr. Gerald C. Goldstein
Assistant General Counsel
Power Authority of the State
of New York
1633 Broadway
New York, New York 10019

Mr. John C. Brons, President
Power Authority of the State
of New York
123 Main Street
White Plains, New York 10601

Mr. William A. Josiger
Resident Manager
Indian Point 3 Nuclear Power Plant
Post Office Box 215
Buchanan, New York 10511

Mr. Peter Kokolakis
Director Nuclear Licensing - PWR
Power Authority of the State
of New York
123 Main Street
White Plains, New York 10601

Ms. Donna Ross
New York State Energy Office
2 Empire State Plaza
16th Floor
Albany, New York 12223

Charles Donaldson, Esquire
Assistant Attorney General
New York Department of Law
120 Broadway
New York, New York 10271

Resident Inspector
Indian Point 3 Nuclear Power Plant
U.S. Nuclear Regulatory Commission
Post Office Box 337
Buchanan, New York 10511

Mr. Charles W. Jackson
Manager, Nuclear Safety and
Licensing
Consolidated Edison Company
of New York, Inc.
Broadway and Bleakley Avenues
Buchanan, New York 10511

Mayor, Village of Buchanan
236 Tate Avenue
Buchanan, New York 10511

DATED: May 5, 1993

AMENDMENT NO. 132 TO FACILITY OPERATING LICENSE NO. DPR-64-INDIAN POINT UNIT 3

Docket File
NRC & Local PDRs
PDI-1 Reading
S. Varga, 14/E/4
J. Calvo, 14/A/4
R. Capra
C. Vogan
N. Conicella
OGC-WF
D. Hagan, 3302 MNBB
G. Hill (2), P1-22
Wanda Jones, P-370
C. Grimes, 11/F/23
ACRS (10)
OPA
OC/LFMB
PD plant-specific file
C. Cowgill, Region I

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. 132
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 January 11, 1993, 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. 132, 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

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: May 5, 1993

ATTACHMENT TO LICENSE AMENDMENT NO. 132

FACILITY OPERATING LICENSE NO. DPR-64

DOCKET NO. 50-286

Revise Appendix A as follows:

Remove Pages	Insert Pages
3.3-4	3.3-4
3.3-6	3.3-6
3.3-7	3.3-7
3.3-9	3.3-9
3.3-14	3.3-14
3.7-2	3.7-2
3.7-4	3.7-4

a. The accumulators may be isolated during the performance of the reactor coolant system hydrostatic tests.

For the purpose of accumulator check valve leakage testing, one accumulator may be isolated at a time, for up to 8 hours, provided the reactor is in the hot shutdown condition.

b. One safety injection pump may be out of service, provided the pump is restored to an operable status within 24 hours.

c. One residual heat removal pump may be out of service, provided the pump is restored to an operable status within 24 hours.

d. One residual heat exchanger may be out of service provided that it is restored to an operable status within 48 hours.

e. Any valve required for the functioning of the system during and following accident conditions may be inoperable provided that it is restored to an operable status within 24 hours and all valves in the system that provide the duplicate function are operable.

f. One channel of heat tracing associated with the Boron Injection Tank and/or its recirculation lines may be out of service provided the failed channel is restored to an operable status within 7 days and the redundant channel is demonstrated to be operable daily during that period.

g. One refueling water storage tank low level alarm may be inoperable for up to 7 days provided the other low level alarm is operable.

a. Fan cooler unit 32, 34, or 35 or the flow path for fan cooler unit 32, 34, or 35 may be out of service for a period not to exceed 24 hours provided both containment spray pumps are operable.

OR

Fan cooler unit 31 or 33, or the flow path for fan cooler unit 31 or 33 may be out of service for a period not to exceed 7 days provided both containment spray pumps are operable.

b. One containment spray pump may be out of service for a period not to exceed 24 hours, provided the five fan cooler units are operable.

c. Any valve required for the functioning of the system during and following accident conditions may be inoperable provided it is restored to an operable status within 24 hours and all valves in the system that provide the duplicate function are operable.

3. If the Containment Cooling and Iodine Removal are not restored to meet the requirements of 3.3.B.1 within the time period specified in 3.3.B.2, then:

a. If the reactor is critical, it shall be in the hot shutdown condition within four hours and in the cold shutdown condition within the following 24 hours.

b. If the reactor is subcritical, the reactor coolant system temperature and pressure shall not be increased more than 25°F and 100 psi, respectively, over existing values. If the requirements of 3.3.A.3 are not satisfied within an additional 48 hours, the reactor shall be brought to the cold shutdown condition utilizing normal operating procedures. The shutdown shall start no later than the end of the 48 hour period.

C. Isolation Valve Seal Water System (IVSWS)

1. The reactor shall not be brought above cold shutdown unless the following requirements are met:

   a. The IVSWS shall be operable.

   b. The IVSW tank shall be maintained at a minimum pressure of 47 psig and contain a minimum of 144 gallons of water.

2. The requirements of 3.3.C.1 may be modified to allow any one of the following components to be inoperable at any one time:

   a. Any one header of the IVSWS may be inoperable for a period not to exceed 7 consecutive days.

   b. Any valve required for the functioning of the system during and following accident conditions provided it is restored to an operable status within 7 days and all valves in the system that provide a duplicate function are operable.

3. If the IVSW System is not restored to an operable status within the time period specified, then:

   a. If the reactor is critical, it shall be brought to the hot shutdown condition utilizing normal operating procedures. The shutdown shall start no later than at the end of the specified time period.

   b. If the reactor is subcritical, the reactor coolant system temperature and pressure shall not be increased more than 25°F and 100 psi, respectively, over existing values.

   c. In either case, if the IVSW System is not restored to an operable status within an additional 48 hours, the reactor shall be brought to the cold shutdown condition utilizing normal operating procedures. The shutdown shall start no later than the end of the 48 hour period.

E. Component Cooling System

1. The reactor shall not be brought above the cold shutdown condition unless the following requirements are met:

   a. Two component cooling pumps, together with their associated piping and valves, are operable.

   b. Two auxiliary component cooling pumps, one per each recirculation pump, together with their associated piping and valves, are operable.

   c. Two component cooling heat exchangers, together with their associated piping and valves, are operable.

2. The requirements of 3.3.E.1 may be modified to allow one of the following components to be inoperable at any one time:

   a. One of the two operable component cooling pumps may be out of service, provided the pump is restored to operable status within 24 hours.

   b. Two auxiliary component cooling pumps serving the same recirculation pump may be out of service, provided at least one is restored to an operable status within 24 hours and at least one auxiliary component cooling pump serving the other recirculation pump is operable.

   c. One component cooling heat exchanger or other passive component may be out of service for a period not to exceed 48 hours, provided the system will still operate at design accident capability.

Bases

The normal procedure for starting the reactor is, first, to heat the reactor coolant to near operating temperature, by running the reactor coolant pumps. The reactor is then made critical by withdrawing control rods and/or diluting boron in the coolant.[1] With this mode of startup, the energy stored in the reactor coolant during the approach to criticality is substantially equal to that during power operation, and, therefore, the minimum required engineered safeguards and auxiliary cooling systems are required to be operable.

The probability of sustaining both a major accident and a simultaneous failure of a safeguards component to operate as designed is necessarily very small. Thus, operation with the reactor above the cold shutdown condition with minimum safeguards operable for a limited period does not significantly increase the probability of an accident having consequences which are more severe than the Design Basis Accident.

The operable status of the various systems and components is demonstrated by periodic tests defined by Specification 4.5. A large fraction of these tests will be performed while the reactor is operating in the power range. If a component is found to be inoperable, it will be possible, in most cases, to effect repairs and restore the system to full operability within a relatively short time. The inoperability of a single component does not negate the ability of the system to perform its function,[2] but it reduces the redundancy provided in the reactor design and thereby limits the ability to tolerate additional equipment failures. Assurance that the redundant component(s) will operate if required to do so exists if the required periodic surveillance testing is current and there are no known reasons to suggest that the redundant component(s) are inoperable. If it develops that (a) the inoperable component is not repaired within the specified allowable time period, or (b) a second component in the same or related system is found to be inoperable, the reactor, if critical, will initially be brought to the hot shutdown condition utilizing normal operating procedures to provide for reduction of the decay heat from the fuel, and consequent reduction of cooling requirements after a postulated loss-of-coolant accident. This will also permit improved access for repairs in some cases. If the reactor was already subcritical, the reactor coolant system temperature and pressure will be maintained within the stated values in order to limit the amount of stored energy in the reactor coolant system. The stated tolerances provide a band for operator control. After a limited time in hot shutdown, if the malfunction(s) are not corrected, the reactor will be placed in the

and is in addition to the fuel requirements for other nuclear units on the site.

6. Three batteries plus three chargers and the D.C. distribution systems operable.

7. No more than one 120 volt A.C. Instrument Bus on the backup power supply.

B. The requirements of 3.7.A may be modified to allow any one of the following power supplies to be inoperable at any one time.

1. One diesel or any diesel fuel oil system or a diesel and its associated fuel oil system may be inoperable for up to 72 hours provided the 138 KV and the 13.8 KV sources of offsite power are available, and the engineered safety features associated with the remaining diesel generator buses are operable. If the inoperable diesel generator became inoperable due to any cause other than preplanned preventive maintenance or testing, the remaining diesel generators shall be tested within 24 hours.

2. The 138 KV or the 13.8 KV sources of power may be inoperable for 48 hours provided the three diesel generators are operable. This operation may be extended beyond 48 hours provided the failure is reported to the NRC within the 48 hour period with an outline of the plans for restoration of offsite power and NRC approval is granted.

The plant auxiliary equipment is arranged electrically so that multiple items receive their power from different buses. Redundant valves are individually supplied from separate motor control centers.

The bus arrangements specified for operation ensure that power is available to an adequate number of safeguards auxiliaries. With additional switching, more equipment could be out of service without infringing on safety.

Two diesel generators have sufficient capacity to start and run within design load the minimum required engineered safeguards equipment.(1) The minimum onsite underground stored diesel fuel oil inventory is maintained at all times to assure the operation of two diesels carrying the minimum required engineered safeguards equipment load for at least 48 hours.(2) Additional fuel oil suitable for use in the diesel generators will be stored either on site or at the Buchanan Substation. The minimum storage of 26,300 gallons of additional fuel oil will assure continuous operation of two diesels at the minimum engineered safeguards load for a total of 7 days. A truck with hosing connections compatible with the underground diesel fuel oil storage tanks is available for transferal of diesel oil from storage areas either on site or at the Buchanan Substation. Commercial oil supplies and trucking facilities are also available.

Periodic diesel outages will be necessary to perform the corrective maintenance required as a result of previous tests or operations and the preventive maintenance recommended by the manufacturer. If a diesel generator is out of service due to preplanned preventive maintenance or testing, special surveillance testing of the remaining diesel generators is not required because the required periodic surveillance testing suffices to provide assurance of their operability. The fact that preplanned corrective maintenance is sometimes performed in conjunction with this preventive maintenance or testing does not necessitate that the remaining diesels be tested, because this corrective maintenance is on defects or potential defects that never called diesel operability into question. If a diesel generator defect or operability concern is discovered while performing this preplanned preventive maintenance or testing, the concern or defect is evaluated to determine if the same concern or defect could render the remaining diesel generators inoperable. Unless this evaluation determines that the potential for the defect or concern to effect the remaining diesel generators has been eliminated, performance of a surveillance test on each of the remaining diesel generators provides adequate assurance of their operability.

One battery charger shall be in service on each battery so that the batteries will always be at full charge in anticipation of a loss-of-AC power incident. This insures that adequate D.C. power will be available for starting the emergency generators and other emergency uses.

The plant can be safely shutdown without the use of offsite power since all vital loads (safety systems, instruments, etc.) can be supplied from the emergency diesel generators.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 132 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 January 11, 1993, 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 TS Section 3.3 (Engineered Safety Features) to eliminate the requirement to perform alternate train testing of an emergency safety feature when one train of the safety feature becomes inoperable. The specific components of TS Section 3.3 which would be affected by the requested change are as follows:

(1) Safety injection (SI) pumps (TS Section 3.3.A.4.b)
(2) Residual heat removal (RHR) pumps (TS Section 3.3.A.4.c)
(3) Valves required for the functioning of the SI and RHR systems (TS Section 3.3.A.4.e)
(4) Fan cooler units (TS Section 3.3.B.2.a)
(5) Containment spray pumps (TS Section 3.3.B.2.b)
(6) Valves required for the functioning of the containment cooling and iodine removal system (TS Section 3.3.B.2.c)
(7) Valves required for the functioning of the isolation valve seal water system (TS Section 3.3.C.2.b)
(8) Auxiliary component cooling pump (TS Section 3.3.E.2.b)

The requested changes would also revise TS Section 3.7 (Auxiliary Electrical Systems), specifically, TS Section 3.7.B.1, to eliminate the requirement to perform special testing of the emergency diesel generators (EDGs) if an EDG becomes inoperable for a reason other than planned maintenance or testing. In addition, administrative changes to TS Section 3.3 and conforming changes to the TS Bases would be made.

2.0 EVALUATION

2.1 Alternate Train Testing

The requirement to demonstrate the operability, by testing, of a redundant system/component when a system/component is declared inoperable is a typical requirement that was included in technical specifications when IP3 was originally issued its operating license. This was referred to as alternate

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train testing. The original intent of this testing requirement was to provide a means to positively verify that a loss of safety function had not occurred. However, based on further operating experience, the NRC staff no longer requires such testing since the added operability assurance provided by such testing is not sufficient to justify the loss of safety function during the test.

The NRC's current position of not requiring testing of redundant systems/components is clearly stated in NUREG-1431, "Standard Technical Specifications for Westinghouse Plants" (W-STS). Operability of the alternate train safety equipment is demonstrated by performance of the required periodic tests. Alternate train testing is not required provided the periodic surveillance testing is current and that there are no known reasons to suggest that the redundant system/component is inoperable. The licensee's proposed alternate train testing changes are consistent with the NRC's current position on the issue.

The proposed administrative changes to TS Section 3.3 serve to improve the readability of the TS. The proposed changes to the Bases for TS Section 3.3 serve to reflect the revised position on alternate train testing.

The NRC staff has reviewed the information presented by the licensee regarding alternate train testing and concludes the requested changes are acceptable. The staff has also reviewed the administrative changes to TS Section 3.3 and finds them acceptable. In addition, the staff has reviewed the proposed changes to the TS Bases related to this change and offers no objection.

2.2 Emergency Diesel Generator (EDG) Special Testing

In Generic Letter 84-15, "Proposed Staff Actions to Improve and Maintain Diesel Generator Reliability," dated July 2, 1984, the NRC staff concluded that excessive testing of EDGs could result in degradation of the diesel engines. In addition, the generic letter indicated that the NRC staff was concerned about the additional EDG testing required by the TS of some of the earlier licensed plants. Accordingly, W-STS has adopted a special EDG testing provision which would require testing of the remaining EDGs within 24 hours if an EDG became inoperable and the cause of inoperability could exist on the remaining EDGs (potential common cause failure). This testing needs to be performed only once. Otherwise, if there is no common cause failure, the remaining EDGs need not be tested since there is no reason to question the operability of the remaining EDGs.

The licensee's TS Section 3.7.B.2 currently requires special daily testing of the remaining operable EDGs if one EDG becomes inoperable, regardless of the reason for the inoperability. The licensee's proposed change would eliminate testing of the redundant EDGs if an EDG became inoperable due to planned maintenance or testing. Inoperability due to other reasons (potential common cause) would still require testing of the redundant EDGs; however, in this case, the redundant EDGs would be tested within 24 hours and need only be

tested once. The proposed changes to the EDG specifications regarding testing of the redundant EDGs are consistent with the W-STS.

The proposed changes to the Bases for TS Section 3.7 serve to reflect the revised position on EDG special testing.

The NRC staff has reviewed the information presented by the licensee regarding EDG special testing and concludes the requested changes are acceptable. In addition, the staff has reviewed the proposed changes to the TS Bases related to this change and offers no objection.

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 8778). 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: May 5, 1993

Docket No. 50-286

May 5, 1993

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. M85497)

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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. 132to DPR-64
2. Safety Evaluation

cc w/enclosures:
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