June 17, 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. M99578)

Dear Mr. Knubel:

The Commission has issued the enclosed Amendment No. 181 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 September 3, 1997. The amendment changes the TSs to revise the number of hours operating personnel can work in a normal shift. The proposed amendment also contains some administrative changes. to allow 12-hour shifts.

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. 181 to DPR-64
2. Safety Evaluation

cc w/encls: See next page

DOCUMENT NAME: G:\IP3\99578.AMD
**To receive a copy of this document, indicate in the box:** "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

| OFFICE | PM:PDI-1 | E | LA:PDI-1 | | D:PDI-1 | | OGC | | SRXB | N |
|---|---|---|---|---|---|---|---|---|---|---|
| NAME | GWunder:lcc | | SLittle | | SBajwa | | | | | |
| DATE | 04/29/98 | | 04/28/98 | | 06/17/98 | | 06/2/98 | | 05/5/98 | |

Official Record Copy

#166

DFO1

NRC FILE CENTER COPY

9806230099 980617
PDR ADOCK 05000286
P PDR

DATED: June 17, 1998

AMENDMENT NO. 181 TO FACILITY OPERATING LICENSE NO. DPR-64 INDIAN POINT NUCLEAR GENERATING UNIT NO. 3.

Docket File
PUBLIC
PDI-1 R/F
J. Zwolinski
S. Bajwa
S. Little
G. Wunder
OGC
G. Hill (2), T-5 C3
W. Beckner
C. Goodman
ACRS
C. Hehl, Region I
T. Harris (e-mail only TLH3)

cc: Plant Service list

DATED: June 17, 1998

AMENDMENT NO. 181 TO FACILITY OPERATING LICENSE NO. DPR-64 INDIAN POINT NUCLEAR GENERATING UNIT NO. 3.

Docket File
PUBLIC
PDI-1 R/F
J. Zwolinski
S. Bajwa
S. Little
G. Wunder
OGC
G. Hill (2), T-5 C3
W. Beckner
C. Goodman
ACRS
C. Hehl, Region I
T. Harris (e-mail only TLH3)

cc: Plant Service list

June 17, 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. M99578)

Dear Mr. Knubel:

The Commission has issued the enclosed Amendment No. 181 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 September 3, 1997. The amendment changes the TSs to revise the number of hours operating personnel can work in a normal shift. The proposed amendment also contains some administrative changes. to allow 12-hour shifts.

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.181 to DPR-64
2. Safety Evaluation

cc w/encls: See next page

DOCUMENT NAME: G:\IP3\99578.AMD
**To receive a copy of this document, indicate in the box:** "C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy

| OFFICE | PM:PDI-1 | E | LA:PDI-1 | | D:PDI-1 | | OGC | | SRXB | N |
|---|---|---|---|---|---|---|---|---|---|---|
| NAME | GWunder:lcc | | SLittle | | SBajwa | | | | | |
| DATE | 04/29/98 | | 04/30/98 | | 06/17/98 | | 06/2/98 | | 05/5/98 | |

Official Record Copy

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

June 17, 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. M99578)

Dear Mr. Knubel:

The Commission has issued the enclosed Amendment No.181 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 September 3, 1997. The amendment changes the TSs to revise the number of hours operating personnel can work in a normal shift. The proposed amendment also contains some administrative changes.

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,

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.181 to DPR-64
2. Safety Evaluation

cc w/encls: See next page

James Knubel
Power Authority of the State
of New York

cc:

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

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

Mr. Eugene W. Zeltmann, President
and Chief Operating Officer
Power Authority of the State
of New York
123 Main Street
White Plains, NY 10601

Mr. Robert J. Barrett
Site Executive Officer
Indian Point 3 Nuclear Power Plant
P.O. Box 215
Buchanan, NY 10511

Ms. Charlene D. Faison
Director Nuclear Licensing
Power Authority of the State
of New York
123 Main Street
White Plains, NY 10601

Mr. F. William Valentino, President
New York State Energy, Research,
and Development Authority
Corporate Plaza West
286 Washington Ave. Extension
Albany, NY 12203-6399

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

Resident Inspector
Indian Point 3 Nuclear Power Plant
U.S. Nuclear Regulatory Commission
P.O. Box 337
Buchanan, NY 10511

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

Mayor, Village of Buchanan
236 Tate Avenue
Buchanan, NY 10511

Mr. Richard L. Patch, Director
Quality Assurance
Power Authority of the State
of New York
123 Main Street
White Plains, NY 10601

Mr. Paul Eddy
New York State Dept. of
Public Service
3 Empire State Plaza, 10th Floor
Albany, NY 12223

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. 181
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 3, 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:

(2) Technical Specifications

The Technical Specifications contained in Appendices A and B, as revised through Amendment No. 181, 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: June 17, 1998

ATTACHMENT TO LICENSE AMENDMENT NO. 181

FACILITY OPERATING LICENSE NO. DPR-64

DOCKET NO. 50-286

Revise Appendix A as follows:

| Remove Pages | Insert Pages |
|---|---|
| 3.10-6 | 3.10-6 |
| 3.10-8 | 3.10-8 |
| Table 4.1-1 (Sheet 6 of 6) | Table 4.1-1 (Sheet 6 of 6) |
| 6-3 | 6-3 |

3.10.5 Rod Misalignment Limitations

3.10.5.1 At least once per shift (allowing one hour for thermal soak after rod motion) the position of each control or shutdown rod shall be determined:

a. For operation less than or equal to 85% of rated thermal power, the indicated misalignment between the group step counter demand position and the analog rod position indicator shall be less than or equal to 18 steps. A control or shutdown rod indicating a misalignment greater than 18 steps shall be realigned within one hour or the core peaking factors shall be determined within two hours and the requirements of Specification 3.10.2 applied.

b. For operation greater than 85% of rated thermal power, the indicated misalignment between the group step counter demand position and the analog rod position indicator shall be $\pm$ 12 steps for less than or equal to 212 steps and +17, -12 steps for greater than 212 steps. A control or shutdown rod indicting a misalignment greater than the above mentioned steps shall be realigned within one hour or the core peaking factors shall be determined within two hours and the requirements of Specification 3.10.2 applied.

3.10.5.2 If the requirements of Specification 3.10.3 are determined not to apply and the core peaking factors have not been determined within two hours and the rod remains misaligned, the high reactor flux setpoint shall be reduced to 85% of its rated value.

3.10.5.3 If the misaligned control rod is not realigned within 8 hours, the rod shall be declared inoperable.

3.10.6 Inoperable Rod Position Indicator Channels

3.10.6.1 If a rod position indicator channel is out of service, then:

a. For operation between 50 percent and 100 percent of rating, the position of the control rod shall be checked indirectly by core instrumentation (excore detectors and/or movable incore detectors) once per 8 hours, or subsequent to rod motion exceeding 24 steps, whichever occurs first.

b. During operation below 50 percent of rating, no special monitoring is required.

3.10.6.2 Not more than one rod position indicator channel per group nor two rod position indicator channels per bank shall be permitted to be inoperable at any time.

3.10.6.3 If a control rod having a rod position indicator channel out of service, is found to be misaligned from 3.10.6.1a above, then Specification 3.10.5 will be applied.

3.10.9 Rod Position Monitor

If the rod position deviation monitor is inoperable, individual rod positions shall be logged once per 8 hours and after a load change greater than 10 percent of rated power.

3.10.10 Reactivity Balance

The overall core reactivity balance shall be compared to predicted values to demonstrate agreement within ± 1% Δk/k at least once per 31 Effective Fuel Power Days (EFPD). This comparison shall, at least consider reactor coolant system boron concentration, control rod position, reactor coolant system average temperature, fuel burnup based on gross thermal energy generation, xenon concentration, and samarium concentration. The predicted reactivity values shall be adjusted (normalized) to correspond to the actual core condition prior to exceeding a fuel burnup of 60 EFPD after each fuel loading.

3.10.11 Notification

Any event requiring plant shutdown on trip setpoint reduction because of Specification 3.10 shall be reported to the Nuclear Regulatory Commission within 30 days.

Basis

Design criteria have been chosen for normal operations, operational transients and those events analyzed in FSAR Section 14.1 which are consistent with the fuel integrity analysis. These relate to fission gas release, pellet temperature and cladding mechanical properties. Also, the minimum DNBR in the core must not be less than the applicable safety limit DNBR in normal operation or in short term transients.

In addition to the above conditions, the peak linear power density must not exceed the limiting Kw/ft values which result from the large break loss of coolant

**Table Notation**

* By means of the movable incore detector system

** Quarterly when reactor power is below the setpoint and prior to each startup if not done previous month.

*** This surveillance requirement may be extended on a one time basis to no later than April 26, 1997.

**** This surveillance requirement may be extended on a one time basis to no later than May 12, 1997.

***** This surveillance requirement may be extended on a one time basis to no later than May 14, 1997.

\# These requirements are applicable when specification 3.3.F.5 is in effect only.

\#\# The "each shift" frequency also requires verification that the DNB parameters (Reactor Coolant Temperature, Reactor Coolant Flow, and Pressurizer Pressure) are within the limits of Technical Specification 3.1.H.

S - Each Shift (i.e., at least once per 12 hours)
W - Weekly
P - Prior to each startup if not done previous week
M - Monthly
NA - Not Applicable
Q - Quarterly
D - Daily
18M - At least once per 18 months
TM - At least every two months on a staggered test basis (i.e., one train per month)
24M - At least once per 24 months
6M - At least once per 6 months

g) Adequate shift coverage shall be maintained without routine heavy use of overtime. The objective shall be to have operating personnel work a normal 8 to 12 hour day, nominal 40-hour week while the unit is operating. (Operating personnel are defined as on shift senior reactor operators, reactor operators, nuclear plant operators, shift technical advisors and shift contingency health physicists, I&C and maintenance personnel.) However, in the event that unforeseen problems require substantial amounts of overtime to be used, or during extended periods of shutdown for refueling, major maintenance, or major plant modification on a temporary basis the following guidelines shall be followed:

1. An individual should not be permitted to work more than 16 hours straight, excluding shift turnover time.

2. An individual should not be permitted to work more than 16 hours in any 24-hour period, nor more than 24 hours in any 48-hour period, nor more than 72 hours in any 168 hour period, all excluding shift turnover time.

3. A break of at least 8 hours should be allowed between work periods, shift turnover time can be included in the breaktime.

4. Except during extended shutdown periods, the use of overtime should be considered on an individual basis and not for the entire staff on a shift.

Any deviation from the above guidelines shall be authorized by the Site Executive Officer or his designee, or higher levels of management, in accordance with established procedures.

h) At least one individual holding a Senior Reactor Operator (SRO) license shall be on duty in the Control Room at all times.

i) The Assistant Operations Manager and Shift Manager shall hold a Senior Reactor Operator (SRO) license. The Operations Manager shall either hold an SRO license or shall have held an SRO license at Indian Point Unit 3.*

---

* For the period ending three years after restart from the 1993/1994 Performance Improvement Outage, The Operations Manager will be permitted to have held an SRO license at a Pressurized Water Reactor other than Indian Point Unit 3.

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

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

RELATED TO AMENDMENT NO. 181TO 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 3, 1997, the Power Authority of the State of New York (PASNY) requested an amendment to change the Technical Specifications (TSs) for Indian Point Nuclear Generating Unit No. 3 (IP3). The proposed amendment would change the TS to revise the number of hours operating personnel can work in a normal shift. The proposed amendment also contains some administrative changes to the TS.

## 2.0 EVALUATION

The licensee proposed the following changes:

1. Revise the number of hours operating personnel can work in a normal shift in Section 6.2.2.g.

2. Clarify language in Section 6.2.2.g without changing the intent or meaning, for administrative purposes.

3. Revise "once per shift" to "once per 8 hours" in the TS Sections 3.10.6.1 and 3.10.9 and clarify the definition for channel checks "each shift" in Table 4.1-1.

**Section 6.2.2.g is revised to allow operating personnel to work 12-hour shifts.**

The first paragraph of Section 6.2.2.g is revised to state that operating personnel work a normal "8 to 12 hour day, nominal 40-hour week." The implementation of 12-hour shifts is consistent with work schedules of other plants in the nuclear industry where nominal work weeks are 36 to 48 hours for operating personnel.

While the length of operating personnel shifts is increased, the licensee will continue to control overtime by site administrative procedures in accordance with the NRC Policy Statement on working hours, Generic Letter 82-12, "Nuclear Plant Staff Working Hours," (June 1982) and the changes are therefore acceptable.

The TS require that certain activities be carried out once per shift. These requirements are found in TS 3.10.3.3, monitoring and logging of rod positions; 3.10.3.4, logging of excore calibrated outputs; 3.10.6.1.a, control rod position logging with a rod position indicator channel out of service; 3.10.9, individual rod position logging when the rod position deviation monitor is out of service; and 4.1.A, frequencies for checks, calibrations, and tests of instrument channels. In the case of the requirements contained in 3.10.6.1.a and 3.10.9 the licensee has changed the TS to require that these be performed once per 8 hours so that the interval for these activities does not change; this change is acceptable. In the case of the other specifications, performance of the required activity on a 12 hour periodicity is acceptable because rod position and instrument drift over a 12-hour period should be small.

**Section 6.2.2.g is revised to make language clarifications.**

The first change is to replace "7 day period" in Section 6.2.2.g.2 with "168 hour period." This will allow for better administrative control of the 72-hour limit on hours worked since the operating personnel are on a rolling schedule.

The purpose of the second change is to clarify that shift turnover time can be part of the 8-hour break that is required between work periods. The proposed TS change replaces the unclear words "including shift turnover time" with the clearer words "shift turnover time can be included in the break time." Since these two changes are clarifications and do not change the TS requirements they are acceptable to the staff.

**Sections 3.10.6.1, 3.10.9 and Section 4.1, Table 4.1-1 are revised to clarify definitions.**

"Once per shift" is revised to "once per 8 hours" in Sections 3.10.6.1.a and 3.10.9. The definition for channel checks is changed to indicate that "each shift" means at least once per 12 hours on the Table Notation in Section 4.1, Table 4.1-1.

All TS checks remain on the required TS frequencies. The changes related to shift checks (channel checks) are consistent with standard industry practice as represented by the Standard Technical Specifications and are therefore, acceptable.

The staff concludes that the proposed amendments to Indian Point, Unit 3, TS are consistent with and meet the relevant criteria in Standard Review Plan 13.1.2 - 13.1.3, "Operating Organization," and Generic Letter 82-12, "Nuclear Plant Staff Working Hours." Therefore, the staff concludes that 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 or 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 (62 FR 54875). The amendment also changes administrative procedures and requirements. Accordingly, the amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9) and (c)(10). 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: C. Goodman

Date: June 17, 1998