ATTACHMENT I TO IPN-97-118

PROPOSED CHANGES TO THE ADMINISTRATIVE SECTION OF THE TECHNICAL SPECIFICATIONS AND ASSOCIATED CHANGES

NEW YORK POWER AUTHORITY
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286
DPR-64

3.10.5 Rod Misalignment Limitations

3.10.5.1 If a control rod is misaligned from its bank demand position by more than 12 steps (indicated position), then realign the rod or determine the core peaking factors within 2 hours and apply Specification 3.10.2.

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.

ATTACHMENT II TO IPN-97-118

SAFETY EVALUATION FOR THE PROPOSED CHANGES TO THE ADMINISTRATIVE SECTION OF THE TECHNICAL SPECIFICATIONS AND ASSOCIATED CHANGES

NEW YORK POWER AUTHORITY
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286
DPR-64

Section I - Description of Changes

This application for amendment to the Indian Point 3 Technical Specification proposes to:

A. Revise the number of hours operating personnel can work in a normal day in section 6.2.2.g.

B. Changes to clarify section 6.2.2.g without changing the intent or meaning.

C. Revise "once per shift' to "once per 8 hours" in technical specification sections 3.10.6.1.a and 3.10.9. Clarify the definition for channel checks "each shift" to indicate "each shift (i.e., at least once per 12 hours)" on the Table Notation in section 4.1, Table 4.1-1 (Sheet 6 of 6).

Section II - Evaluation of Changes

Change (A): Revise the number of hours operating personnel can work in a normal day in section 6.2.2.g

Establishing operating personnel hours at, "an 8 to 12-hour day, nominal 40-hour week," does not adversely affect their performance. Implementation of 12-hour shifts potentially allows completion of plant testing and other important evolutions that normally require more than 8-hours to complete, without the interruption of shift turnovers that result in a loss of continuity. Based on management discretion, if 8 hour shifts are maintained in part or whole, then acceptable levels of performance from operating personnel is assured through effective control of shift turnovers and plant activities. Utilization of 12-hour shifts is also consistent with the 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 intent of this section is also to ensure excessive overtime is not utilized to complete normal routine operations department tasks. The proposed change meets the intent of the section in that overtime remains controlled by site administrative procedures in accordance with the NRC Policy Statement on working hours (Generic Letter 82-12).

Change (B): Changes to clarify section 6.2.2.g without changing the intent or meaning.

The changes include the substitution of a "7 day period" in section 6.2.2.g.2 to a "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 second change is in section 6.2.2.g.3. This clarifies that the shift turnover time is part of the minimal 8 hour break that is required between work periods. The proposed change meets the intent of the NRC Policy Statement on working hours (Generic Letter 82-12).

Change (C): Revise "once per shift' to "once per 8 hours" in technical specification sections 3.10.6.1.a and 3.10.9. Also, clarify the definition for channel

checks "each shift" to indicate "each shift (i.e., at least once per 12 hours) on the Table Notation in section 4.1, Table 4.1-1 (Sheet 6 of 6).

Operating personnel awareness of plant conditions is maintained. All technical specification checks remain on the required technical specification frequencies. Shift checks to monitor plant conditions will continue as intended but are allowed to increase up to at least once per 12 hours. This increase is consistent with standard industry practice as represented by the Standard Technical Specifications (STS), Reference 1. The surveillance performed at IP3 on a shift frequency are found in specifications 3.10.3.3, 3.10.3.4, 3.10.6.1.a, 3.10.9, and 4.1.A. The STS use a 12 hour surveillance frequency for the corresponding specifications (note that there are no corresponding specifications in some cases since the STS has removed the requirements) with two exceptions. The STS have a once per 8 hour surveillance for the specifications corresponding to IP3 specifications 3.10.6.1.a and 3.10.9. These were revised to surveillance once per 8 hours to maintain current requirements. The applicability of Technical Specification 1.12, "Surveillance Interval," will be maintained.

Section III - No Significant Hazards Evaluation

In accordance with the requirements of 10 CFR 50.92, the enclosed application is judged to involve no significant hazards based upon the following information:

1. **Does the proposed license amendment involve a significant increase in the probability or consequences of an accident previously evaluated?**

A. Establishing operating personnel work hours at, "an 8 to 12 hour day, nominal 40 hour week," allows normal plant operations to be managed more effectively and does not adversely effect performance of operating personnel. Overtime remains controlled by site administrative procedures in accordance with NRC Policy Statement on working hours (Generic Letter 82-12). If 8 hour shifts are maintained in part or whole, then acceptable levels of performance from operating personnel is assured through effective control of shift turnovers and plant activities. No physical plant modifications are involved and none of the precursors of previously evaluated accidents are affected. Therefore, this change will not involve a significant increase in the probability or consequence of an accident previously evaluated.

B. Editorial changes clarify section 6.2.2.g without changing the intent or meaning. The proposed change meets the intent of the NRC Policy Statement on working hours (Generic Letter 82-12).

C. Changes to sections 3.10.6.1.a and 3.10.9 do not change the intent or meaning of the technical specification sections. Clarification to the table notation in section 4.1 related to the definition of shift checks to monitor plant conditions will continue as intended but are allowed to increase up to at least once per 12 hours. This increase is consistent with standard industry practice as represented by the Standard Technical Specifications (STS), Reference 1.

2. Does the proposed license amendment create the possibility of a new or different kind of accident from any accident previously evaluated?

A. Establishing operating personnel work hours at, "an 8 to 12 hour day, nominal 40 hour week," allows normal plant operations to be managed more effectively and does not adversely effect performance of operating personnel. If 8 hour shifts are maintained in part or whole, then acceptable levels of performance from operating personnel is assured through effective control of shift turnovers and plant activities. Overtime remains controlled by site administrative procedures in accordance with the NRC Policy Statement on working hours (Generic Letter 82-12). No physical modification of the plant is involved. As such, the change does not introduce any new failure modes or conditions that may create a new or different accident. Therefore, operation in accordance with the proposed amendment will not create the possibility of a new or different kind of accident from any previously evaluated.

B. Editorial changes clarify section 6.2.2.g without changing the intent or meaning. The proposed change meets the intent of the NRC Policy Statement on working hours (Generic Letter 82-12).

C. Changes to sections 3.10.6.1.a and 3.10.9 do not change the intent or meaning of the technical specification sections. Clarification to the table notation in section 4.1 related to the definition of shift checks to monitor plant conditions will continue as intended but are allowed to increase up to at least once per 12 hours. This increase is consistent with standard industry practice as represented by the Standard Technical Specifications (STS), Reference 1.

3. Does the proposed amendment involve a significant reduction in a margin of safety?

A. Establishing operating personnel work hours at, "an 8 to 12 hour day, nominal 40 hour week," allows normal plant operations to be managed more effectively and does not adversely effect performance of operating personnel. If 8 hour shifts are maintained in part or whole, then acceptable levels of performance from operating personnel is assured through effective control of shift turnovers and plant activities. Overtime remains controlled by site administrative procedures in accordance with the NRC Policy Statement on working hours (Generic Letter 82-12) and is consistent with the Standard Technical Specifications. The proposed change involves no physical modification of the plant, or alterations to any accident or transient analysis. There is no Basis to section 6 of the Technical Specifications, and the changes are administrative in nature. Therefore, the change does not involve any significant reduction in a margin of safety.

B. Editorial changes clarify section 6.2.2.g without changing the intent or meaning. The proposed change meets the intent of the NRC Policy Statement on working hours (Generic Letter 82-12).

C. Changes to sections 3.10.6.1.a and 3.10.9 do not change the intent or meaning of the technical specification sections. Clarification to the table notation in section 4.1 related to the definition of shift checks to monitor plant conditions will continue as

intended but are allowed to increase up to at least once per 12 hours. This increase is consistent with standard industry practice as represented by the Standard Technical Specifications (STS), Reference 1.

Section IV - Impact of Changes

These changes will not adversely impact the following:

1. ALARA Program
2. Security and Fire Protection Programs
3. Emergency Plan
4. FSAR or SER Conclusions
5. Overall Plant Operations and the Environment

Section V - Conclusions

The incorporation of these changes: a) will not increase the probability nor the consequences of an accident or malfunction of equipment important to safety as previously evaluated in the Safety Analysis Report; b) will not increase the possibility for an accident or malfunction of a different type than any evaluated previously in the Safety Analysis Report; c) will not reduce the margin of safety as defined in the bases for any technical specification; d) does not constitute an unreviewed safety question; e) involves no significant hazards considerations a defined in 10 CFR 50.92; and f) will not reduce the intent of any Quality Assurance Program commitments.

Section VI - References

1. NUREG 1431 - Westinghouse Standard Technical Specifications.

ATTACHMENT III TO IPN-97-118

MARK-UP OF TECHNICAL SPECIFICATION PAGES REGARDING THE PROPOSED CHANGES TO THE ADMINISTRATIVE SECTION AND ASSOCIATED CHANGES

NOTE 1: Deletions are shown in ~~strikeout~~. Additions are shown in **bold**.

NOTE 2: Previous amendment numbers and the revision bars are not shown.

NEW YORK POWER AUTHORITY
INDIAN POINT 3 NUCLEAR POWER PLANT
DOCKET NO. 50-286
DPR-64

3.10.5 Rod Misalignment Limitations

3.10.5.1 If a control rod is misaligned from its bank demand position by more than 12 steps (indicated position), then realign the rod or determine the core peaking factors within 2 hours and apply Specification 3.10.2.

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) ~~every shift~~ **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 ~~shift~~ **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 ~~7 day~~ **168 hour** period, all excluding shift turnover time.

3. A break of at least 8 hours should be allowed between work periods, ~~including shift turnover time~~ **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.