

ATTACHMENT I TO IPN-98-085

Revision to the Technical Specification Pages 3.10-6 and 6-3

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

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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 ± 12 steps for less than or equal to 212 steps and ± 17 , ± 12 steps for greater than 212 steps. A control or shutdown rod indicating 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.

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 individuals holding Senior Reactor Operator or Reactor Operator licenses, 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-98-085

Technical Specification Pages 5.3-1 and 5.3-2

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DOCKET NO. 50-286
DPR-64

5.3 REACTOR

Applicability

Applies to the reactor core, and reactor coolant system.

Objective

To define those design features which are essential in providing for safe system operations.

A. Reactor Core

1. The reactor core contains approximately 89 metric tons of uranium in the form of slightly enriched uranium dioxide pellets. The pellets are encapsulated in Zircaloy-4 or ZIRLO™ tubing to form fuel rods. The reactor core is made up of 193 fuel assemblies. Limited substitutions of zirconium alloy or stainless steel filler rods for fuel rods, in accordance with approved applications of fuel rod configurations, may be used. Fuel assemblies shall be limited to those fuel designs that have been analyzed with applicable NRC staff approved codes and methods and shown by tests or analyses to comply with all fuel safety design bases.
2. The average enrichment of the initial core was a nominal 2.8 weight percent of U-235. Three fuel enrichments were used in the initial core. The highest enrichment was a nominal 3.3 weight percent of U-235.⁽²⁾
3. Reload fuel will be similar in design to the initial core. The enrichment of reload fuel will be no more than 5.0 weight percent of U-235.
4. Burnable poison rods were incorporated in the initial core. There were 1434 poison rods in the form of 8, 9, 12, 16, and 20-rod clusters, which are located in vacant rod cluster control guide tubes.⁽³⁾ The burnable poison rods consist of borosilicate glass clad with stainless steel.⁽⁴⁾ Burnable poison rods of an approved design may be used in reload cores for reactivity and/or power distribution control.

5. There are 53 control rods in the reactor core. The control rods contain 142 inch lengths of silver-indium-cadmium alloy clad with the stainless steel.⁽⁵⁾

B. Reactor Coolant System

1. The design of the reactor coolant system complies with the code requirements.⁽⁶⁾
2. All piping, components and supporting structures of the reactor coolant system are designed to Class I requirements, and have been designed to withstand the maximum potential seismic ground acceleration, 0.15g, acting in the horizontal and 0.10g acting in the vertical planes simultaneously with no loss of function.
3. The nominal liquid volume of the reactor coolant system, at rated operating conditions and with 0% equivalent steam generator tube plugging, is 11,522 cubic feet.

Basis

The fuel assembly reconstitution methodology, WCAP 13060-P-A, has been NRC staff approved as shown by tests or analyses to comply with all fuel safety design bases.

References

- (1) FSAR Section 3.2.2
- (2) FSAR Section 3.2.1
- (3) FSAR Section 3.2.1
- (4) FSAR Section 3.2.3
- (5) FSAR Sections 3.2.1 & 3.2.3
- (6) FSAR Table 4.1-9