

ATTACHMENT II TO IPN-94-104

**REPLACEMENT TECHNICAL SPECIFICATION PAGES 3.5-8 AND 3.5-9
RELATED TO
INSTRUMENT SETTINGS AND ASSOCIATED REQUIREMENTS**

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

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Almost all reactor protection channels are supplied with sufficient redundancy to provide the capability for channel calibration and test at power. Exceptions are backup channels such as reactor coolant pump breakers. The removal of one trip channel on process control equipment is accomplished by placing that channel bistable in a tripped mode; e.g., a two-out-of-three circuit becomes a one-out-of-two circuit. A channel bistable may also be placed in a bypassed mode; e.g., a two-out-of-three circuit becomes a two-out-of-two circuit. The nuclear instrumentation system channels are not intentionally placed in a tripped mode since the test signal is superimposed on the normal detector signal to test at power. Testing of the NIS power range channel requires: (a) bypassing the Dropped Rod protection from NIS, for the channel being tested; and (b) defeating the ΔT protection CHANNEL SET that is being fed from the NIS channel and (c) defeating the power mismatch section of T_{avg} control channels when the appropriate NIS channel is being tested. However, the Rod Position System and remaining NIS channels still provide the dropped-rod protection. Testing does not trip the system unless a trip condition exists in a concurrent channel.

In the event that either the specified Minimum Number of Operable Channels or the Minimum Degree of Redundancy cannot be met, the reactor and the remainder of the plant is placed, utilizing normal operating procedures, in that condition consistent with the loss of protection.

The source range and the intermediate range nuclear instrumentation and the turbine and steam-feedwater flow mismatch trip functions are not required to be operable since they were not used in the transient and safety analysis (FSAR Section 14).

The shunt trip features of the reactor trip and bypass breakers were modified as a result of the Salem ATWS events⁽⁴⁾. Operability requirements for the reactor trip breakers and the reactor protection logic relays were added to the reactor protection instrument operating conditions as a result of NRC review of shunt trip modifications at Westinghouse plants⁽⁵⁾. Operability is demonstrated when the logic coincidence relays are tested to show they are capable of initiating a reactor trip. Reactor trip breakers are considered operable when tested to show they are capable of being opened: (a) by the undervoltage device and the shunt trip device independent of each other from an automatic trip signal and (b) from the Control Room Flight Panel manual trip during refueling outages. An exception of 72 hours is allowed before a reactor trip breaker is declared inoperable if only one of the diverse trip features (undervoltage or shunt trip) fails to open the breaker when tested.

Allowable values contained in these Technical Specifications are determined for the calibration of the complete instrument loop during required calibrations in a refueling cycle. The procedural allowable values for each specific component of the loop have been developed and are included in the applicable calibration or functional test(s). These procedural allowable values have taken into consideration the periodicity of the test and the specific components tested. The allowable value listed in the Technical Specifications can not normally be compared to the results of a specific test due to different calculation methods, but will require an engineering evaluation to determine if the Technical Specification allowable value was exceeded. The number assigned as the Technical Specification allowable value is the worst deviation from the nominal trip setpoint that can occur and still be bounded by setpoint calculations. In all cases the procedural allowable values will be equal to or more restrictive than the allowable values listed in the Technical Specifications.

References:

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|----|---|----|---------------------|
| 1) | FSAR - Section 7.5 | 2) | FSAR - Section 14.3 |
| 3) | FSAR - Section 14.2.5 | 4) | GL 83-28 - Item 4.3 |
| 5) | GL 85-09 | | |
| 6) | NYPA Report IP3-RPT-MULT-00763, Revision 1, "24 Month Operating Cycle Technical Specification Operability and Acceptance Criteria." | | |