

ATTACHMENT I  
APPLICATION FOR AMENDMENT  
TO OPERATING LICENSE

PROPOSED TECHNICAL SPECIFICATION CHANGES

Power Authority of the State of New York

Indian Point Unit No. 3  
Docket No. 50-286  
August , 1978

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#### 4.13 SECONDARY CHEMISTRY

##### Applicability

Applies to each steam generator at all times whenever the reactor is heated above 350°F.

##### Objective

To ensure implementation of a secondary chemistry monitoring program to inhibit steam generator tube degradation for operation with AVT or other chemistry control agent.

##### Specification

A. Secondary water chemistry shall be analyzed in accordance with the requirements given below:

1. The secondary side steam generator blowdown shall be sampled and analyzed five (5) days per week with no more than three (3) days between measurements to determine pH, conductivity, and chloride content. The main feedwater shall be analyzed for dissolved oxygen content at the same sampling frequency as steam generator blowdown.
2. Within 24 hours of performing each set of the required measurements of A.1 above:
  - (a) A comparison to operating limits shall be made,
  - (b) Parameters exceeding operational criteria shall be identified, and
  - (c) Preplanned actions to correct out-of-limit conditions shall have been initiated.
3. The authority for interpretation of this data and defining corrective actions shall be clearly established in the plant operating procedures.
4. In the event that on-line monitors are used to meet the requirements of A.1 the monitor shall be checked against a calibrated laboratory monitor once per week.

##### Bases

Impurities that are introduced to the steam generator secondary side coolant can concentrate in locales immediately adjacent to the steam generator tubes. The degree of concentration can reach sufficient proportions of the impurities to become aggressive to the tubing. Tube degradation and impairment of the integrity of the tube can result. For this reason, the establishment of a steam generator chemistry control program is required to assure the long term integrity of the tubing. This program will include:

1. Identification of a sampling schedule for the critical parameters.
2. Identification of the chemical procedures used to quantify the critical parameters.

3. Procedures for the calibration of monitors.
4. Procedures for the recording and management of analytical results.
5. Procedures defining corrective actions for adverse chemistry conditions.
6. A procedure identifying a) the authority responsible for the interpretation of the analytical results and b) the sequence of administrative events required to initiate corrective action(s).

The above technical specifications ensure that this program is properly implemented. Specification 4.13.A.1 requires measurement of those parameters which provide earlier indication of chemistry conditions affecting tube degradation. Specification 4.13.A.2 requires proper record keeping and development of analytical methods necessary to define appropriate corrective actions for adverse chemistry conditions. The surveillance intervals and corrective action have been determined to be appropriate based on operational experience with AVT chemistry.

ATTACHMENT II  
APPLICATION FOR AMENDMENT  
TO OPERATING LICENSE

SAFETY EVALUATION

Power Authority of the State of New York  
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Safety Evaluation  
Technical Specification Change  
Secondary Water Chemistry

Section I - Description of the Proposed Modification

The Power Authority plans to institute a long-term reliability surveillance program with records keeping and review requirements for secondary water chemistry at IP3.

Section II - Purpose of the Modification

The modification is proposed to effectively monitor impurities in the secondary water system thereby assuring the long-term integrity of steam generator tubing.

Section III - Impact of Change on FSAR

A review of the FSAR and SER accident analyses indicates that there are no changes to the parameters and assumptions used, and that the conclusions reached are unchanged, as a result of this modification.

Section IV - Implementation of Modification

The modification as proposed will not impact the ALARA and Fire Protection Programs.

Section V - Conclusions

(a) The probability of occurrence or the consequences of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report has not been increased; (b) a possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis reports has not been created; and (c) the margin of safety as defined in the basis for any technical specifications is not reduced.

Section VI- References

- (a) IP3 FSAR
- (b) IP3 Safety Evaluation Reports.