

ATTACHMENT A

APPLICATION FOR AMENDMENT  
TO OPERATING LICENSE

Technical Specification  
Page Revisions

Consolidated Edison Company of New York, Inc.

Indian Point Unit No. 2  
Docket No. 50-247  
Facility Operating License No. DPR-26

March, 1978

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#### 4.15 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 chemistry control.

##### Specification

- A. Secondary water chemistry shall be analyzed in accordance with the requirements given below:
1. The secondary water chemistry parameters listed in Specification 4.15.A.2 below shall be measured 5 days per week with no more than 3 days between measurements.
  2. The secondary side steam generator blowdown shall be sampled for each steam generator at the frequency of 4.15.A.1 above to determine the pH, Conductivity and the Chloride content. The main feedwater shall also be analyzed for dissolved oxygen content at the same frequency.
  3. Within 24 hours of performing the required measurements of Specification 4.15.A.2:
    - (a) Parameters exceeding operational criteria shall be identified, and
    - (b) Preplanned corrective actions shall have been initiated.

4. Corrective actions shall be clearly established in the plant operating procedures.
5. Laboratory analyses shall be performed utilizing calibrated standards where available. In the event that on-line monitors are used to meet the requirements of Specification 4.15.A.2, the monitors shall be checked against a calibrated laboratory monitor once per week.

#### Basis

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 for 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, as applicable.
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. Specifications 4.15.A.1 and 4.15.A.2 require measurement of those parameters which provide earliest indication of chemistry conditions affecting tube degradation. Specification 4.15.A.3 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 B

APPLICATION FOR AMENDMENT  
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Safety Evaluation

Consolidated Edison Company of New York, Inc.

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## SAFETY EVALUATION

By letter dated August 23, 1976 from Mr. Robert W. Reid to Mr. William J. Cahill, Jr., the NRC Regulatory Staff requested technical specification changes that would establish secondary water chemistry limiting conditions for operation (LCOs) and surveillance requirements. This generic matter was the subject of a September 10, 1976 meeting among representatives of various utility companies, Westinghouse Electric Corporation and the Regulatory Staff. The consensus of attendees was that the format of the NRC model technical specifications, establishing LCOs for secondary water chemistry, was not appropriate and that specifications establishing a long-term reliability surveillance program with record keeping and review requirements would be appropriate.

Accordingly, we and our NSSS vendor (Westinghouse) have developed such a surveillance program for Indian Point Unit No. 2. The proposed changes, contained in Attachment A to this Application, would establish requirements in the technical specifications to implement a secondary water chemistry monitoring program. This program is consistent with AVT secondary water chemistry control utilized at Indian Point Unit No. 2 and will effectively monitor impurities in the secondary water system thereby assuring the long-term integrity of steam generator tubing.

The proposed changes do not in any way alter the safety analyses performed for Indian point Unit No. 2. The proposed changes have been reviewed by the Station Nuclear Safety Committee and the Nuclear Facilities Safety Committee. Both committees concur that these changes do not represent a significant hazards consideration and will not cause any change in the types or increase in the amounts of effluents or any change in the authorized power level of the facility.