

ATTACHMENT A

APPLICATION FOR AMENDMENT  
TO TECHNICAL SPECIFICATIONS

CONSOLIDATED EDISON COMPANY  
OF NEW YORK, INC.

INDIAN POINT UNIT NO. 2  
DOCKET NO. 50-247  
FACILITY OPERATING LICENSE  
No. DPR-26

June 10, 1975

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### 3.3 ENGINEERED SAFETY FEATURES

#### Applicability

Applies to the operating status of the Engineered Safety Features.

#### Objective

To define those limiting conditions for operation that are necessary: (1) to remove decay heat from the core in emergency or normal shutdown situations, (2) to remove heat from containment in normal operating and emergency situations, (3) to remove airborne iodine from the containment atmosphere following a Design Basis Accident, (4) to minimize containment leakage to the environment subsequent to a Design Basis Accident.

#### Specification

The following specifications apply except during low temperature physics tests.

#### A. Safety Injection and Residual Heat Removal Systems

1. The reactor shall not be made critical, except for low temperature physics tests, unless the following conditions are met:
  - a. The refueling water storage tank contains not less than 334,700 gal. of water with a boron concentration of at least 2000 ppm.
  - b. The boron injection tank contains not less than 1000 gal. of a 11 1/2% to 13% by weight (20,000 ppm to 22,500 ppm of boron) boric acid solution at a temperature of at least 145°F. Two channels of heat tracing, shall be available for the flow path. Valves 1821 and 1831 shall be open and valves 1822A and 1822B shall be closed, except during short period of time when they can be cycled to demonstrate their operability.

B. If any of the specified limiting conditions for refueling is not met, refueling shall cease until the specified limits are met, and no operations which may increase the reactivity of the core shall be made.

#### Basis

The equipment and general procedures to be utilized during refueling are discussed in the FSAR. Detailed instructions, the above specified precautions, and the design of the fuel handling equipment incorporating built-in interlocks and safety features, provide assurance that no accident could occur during the refueling operations that would result in a hazard to public health and safety. (1) Whenever changes are not being made in core geometry, one flux monitor is sufficient. This permits maintenance of the instrumentation. Continuous monitoring of radiation levels (2 above) and neutron flux provides immediate indication of an unsafe condition. The residual heat pump is used to maintain a uniform boron concentration.

The shutdown margin indicated in Part 5 will keep the core subcritical, even if all control rods were withdrawn from the core. During refueling, the reactor refueling cavity is filled with approximately 300,000 gallons of water from the refueling water storage tank with a boron concentration of 2000 ppm. The minimum boron concentration of this water at 1615 ppm boron is sufficient to maintain the reactor subcritical by at least 10%  $\Delta k/k$  in the cold condition with all rods inserted, and will also maintain the core subcritical even if no control rods were inserted into the reactor. (2) Periodic checks of refueling water boron concentration insure the proper shutdown margin. Part 6 allows the control room operator to inform the manipulator operator of any impending unsafe condition detected from the main control board indicators during fuel movement.

In addition to the above safeguards, interlocks are utilized during refueling to ensure safe handling. An excess weight interlock is provided on the lifting hoist to prevent movement of more than one fuel assembly at a time. The spent fuel transfer mechanism can accommodate only one fuel assembly at a time.

ATTACHMENT B

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## SAFETY EVALUATION

The proposed changes to Section 3 of the Technical Specifications allow for a reduction in the required minimum water volume for the Refueling Water Storage Tank (RWST) from the present 350,000 gallons to 334,700 gallons. Such an amendment would render the Technical Specifications consistent with the requirements of the Final Facility Description and Safety Analysis Report (FSAR). Additionally, since the present volume of 350,000 gallons is very near the capacity of the tank, lowering the volume to 334,700 gallons would allow more efficient RWST level control and thereby improve plant operability.

The required volume for the RWST is presently based on the amount of borated water necessary to fill the refueling canal for refueling operations. A recalculation of the refueling canal volume, however, has established that less than 300,000 gallons of borated water will fill the canal to the minimum required level of 23 feet above the top of the core as specified in subparagraph 3.8.A.10 of the Technical Specifications.

The contribution of the RWST to safety injection following a postulated loss-of-coolant accident is described in Section 6 of the FSAR. In accordance with Section 6.3.2, the RWST is required to supply a total of 330,000 gallons of borated water during the injection and recirculation phases of safety injection. This volume is a conservative assessment of RWST requirements and provides an additional margin above the amount of water actually needed to meet safety requirements.

Accordingly, 330,00 gallons of the proposed minimum volume will be available for delivery during safety injection. The remaining volume of 4,700 gallons represents that amount of water below the suction piping in the tank and, consequently, is not available for delivery.

Therefore, the proposed minimum RWST water volume of 334,700 gallons is consistent with required functions. In addition, Consolidated Edison has been advised by Westinghouse Electric Corporation that the proposed lowering of the RWST volume will have a negligible effect on the accident analyses in the FSAR and the Indian Point Unit No. 2 FAC Analysis for ECCS. There are no modifications required as a result of the proposed Technical Specification changes other than setpoint adjustments on the level alarms for the tank. Since no accident or safety analyses are affected by the subject changes, no unreviewed safety questions are created by this request. The proposed changes have been reviewed by the Station Nuclear Safety Committee and the Consolidated Edison Nuclear Facilities Safety Committee and 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.

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

In the Matter of )  
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CONSOLIDATED EDISON COMPANY ) Docket No. 50-247  
OF NEW YORK, INC. )  
(Indian Point Station, )  
Unit No. 2) )

CERTIFICATE OF SERVICE

I hereby certify that I have this 11th day of  
June, 1975, served the foregoing Application for  
Amendment to Technical Specifications by mailing a copy  
thereof, first class postage prepaid and properly  
addressed to the following person:

Hon. George V. Begany  
Mayor  
Village of Buchanan  
Buchanan, New York 10511

*Eugene R. Fidell*

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Eugene R. Fidell