



UNITED STATES  
ATOMIC ENERGY COMMISSION  
WASHINGTON, D.C. 20545

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SAFETY EVALUATION BY THE DIRECTORATE OF LICENSING

SUPPORTING AMENDMENT NO. 8 TO FACILITY OPERATING LICENSE NO. DPR-26

(CHANGE NO. 5 TO THE TECHNICAL SPECIFICATIONS)

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

INDIAN POINT NUCLEAR GENERATING STATION, UNIT NO. 2

DOCKET NO. 50-247

INTRODUCTION

By letter dated November 7, 1973 Consolidated Edison Company of New York, Inc. proposed changes in the Technical Specifications of Facility Operating License No. DPR-26 to change the setpoints for the high steam line flow limit, to redefine "cold shutdown conditions", and to modify several parts of the "Administrative Controls" section.

EVALUATION

A. High Steam Line Flow Limit

Consolidated Edison Company has proposed that the high steam line flow limit be set at 40% of full steam flow at power levels below 20%, and ramped linearly from 40% to 110% of full steam flow for power levels from 20% to 100%. At present the high steam line flow limit is ramped linearly from 20% to 120% for power levels from 0 to 100%; therefore, the proposed set points are less conservative than those presently in use for power levels below 20% and slightly more conservative for power levels above 20%. The new limit for high steam line flow will reduce the probability of spurious safety injection during operation at low power levels.

We have reviewed the proposed change and the submitted safety analysis and agree with the licensee that it does not alter the steam line break analysis of the Final Safety Analysis Report (FSAR) for Indian Point-2.

As indicated in Section 14.2.5 of the FSAR, the consequences of steam line break accident are most significant when the reactor is hot and near zero load. Under these conditions, there is a possibility that the core will become critical following a steam line break accident assuming the most reactive control rod is stuck in its fully withdrawn position. Following a steam line break, safety injection and steam line isolation limit any power transient that may result. Safety injection and steam line isolation

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are initiated by high steam line flow. Figures 14.2.5-3 through 14.2.5-6 in the FSAR show that steam flow following a steam line break at zero power is sufficient to initiate isolation and that the rise time to the proposed initiation point is insignificant when compared to the elapsed time from steam line break to safety injection. Therefore, increasing the high steam flow setpoint at zero load from 20% to 40% flow has no significant effect on the initiation of safety injection or steam line isolation.

#### B. Definition of Cold Shutdown Condition

The licensee has requested that the "cold shutdown condition" be redefined as a condition with T average of 200°F or less, a change from the presently specified 140°F. The cold shutdown temperature of 200°F or less has been approved on other similar Westinghouse PWR's. Since 200°F is below the steam formation point at atmospheric pressure there will be no pressure buildup in the primary system due to steam during cold shutdown conditions. Requirements for refueling (Technical Specification 3.8.A.5) continue to specify a maximum of 140°F T average during refueling. Therefore, the proposed change in the definition of cold shutdown is acceptable.

#### C. Changes in Section on Administrative Controls

Our review of proposed changes to the Administrative Controls section of the Technical Specifications has been deferred because the licensee has informed us that those proposed specifications will be revised and resubmitted.

#### CONCLUSION

We have concluded, based on the reasons discussed above, that the authorization of this change does not involve a significant hazards consideration. We also conclude that there is reasonable assurance (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission's regulations and the issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public.

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