Con Edison
Consolidated Edison Company of New York, Inc.
4 Irving Place, New York, N Y 10003

September 6, 1974

Regulatory Docket File

Re: Indian Point Unit No. 2
AEC Docket No. 50-247
A.O. 4-2-28

Mr. Edson G. Case, Acting Director
Directorate of Licensing
Office of Regulation
U. S. Atomic Energy Commission
Washington, D. C. 20545

Dear Mr. Case:

In accordance with the requirements of the Technical Specifications to Facility Operating License DPR-26, the attached report of an Abnormal Occurrence is submitted.

Walter Stein

Walter Stein, Manager
Nuclear Power Generation

Copy to: Mr. James P. O'Reilly
Regulatory Operations

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1. Report Number: 50-247/4-2-28

2a. Report Date: September 6, 1974

2b. Occurrence Date: August 29, 1974

3. Facility: Indian Point Unit No. 2

4. Identification of Occurrence:

This abnormal occurrence was the type defined by Technical Specification 1.8.a where protective instrumentation settings were found in excess of a limiting safety system setting established in the Technical Specifications.

5. Conditions Prior to Occurrence:

At the time of the occurrence, the unit was operating at approximately 71% of rated power.

6. Description of Occurrence:

On August 29, 1974, during the course of conducting periodic surveillance test, PT-M12, "1st Stage Turbine Pressure Analog Test", the setting of bistables FC-419A, FC-429A, FC-439A and FC-449A were found in excess of the limiting safety system settings established by Table 3.1, Item No. 5.

These "as found" deviations corresponded to a maximum steam flow deviation of approximately 4.0% at the zero load setting and 1.0% at the full load setting. All other bistables of this logic were found to be set correctly.

7. Designation of Apparent Cause of Occurrence:

Our investigation into the occurrence led to the determination that the above bistable settings were affected by pressure controller PM-412C. This controller, which converts the turbine 1st stage pressure signal to a current signal indicative of turbine load, was found to be set slightly in excess of requirements.

Output from this controller is utilized in the above four bistables.

8. Analysis of Occurrence:

The flow bistables which exceeded the limiting safety system settings are a part of the High Steam Line Flow Protection Logic. These bistable units are intended to provide an initiating signal to the Safety Injection System actuation logic in the event that main steam line flow exceeds the value which would normally exist for any

given turbine first stage pressure. Since a significant discrepancy between actual steam flow rate and the normal is indicative of a steam pipe line break, the Technical Specifications require that safety injection be initiated whenever the excess steam flow is measured to be 20% of full load steam flow. Data obtained while performing the aforementioned test indicate that the effective setting of each of the subject bistable units was slightly higher than 20%; the worst case being approximately 24%. All of the affected bistables were in the same logic.

The bistable devices sensing steam line flow in the redundant logic were also checked during the surveillance test and they were found to be properly set. This being the case, the SIS would have received an actuation signal within the Technical Specification limit had the postulated accident occurred. In addition, as discussed in our Mr. Cahill's November 7, 1973 letter to the Directorate of Licensing, we had previously conducted an analysis which indicates that the subject set point is unduly conservative and that it can safely be changed from 20% to 40%, at turbine loads not in excess of 20% of full load. The referenced letter contained a specific request that the Technical Specifications be amended accordingly.

In light of the above, the safety implications of this occurrence are considered to be slight.

9. Corrective Action:

All of the bistables identified above were immediately reset below the required limits and retested satisfactorily. Following the identification of PM-412C as the cause of the occurrence, it also was reset and all of the bistables rechecked and retested.

It is our usual practice with controllers that have fixed dial settings, such as PM-412C, to place a single piece of tape across the dial to reduce the possibility of dial movement. In the case of this controller, this tape was found to be missing. In addition, it was also noted that when the tape is removed, the dial setting can be changed slightly unless proper care is exercised.

To prevent recurrence, the adjusting dials of PM-412C and the comparable controller in the redundant logic, have been positively fixed in their proper positions.

10. Failure Data:

Not Applicable.

11. Notification:

An initial report of this occurrence was provided the Region 1 Regulatory Operations Office on August 29, 1974, followed by facsimile letter on August 30, 1974.