

Regulatory

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Consolidated Edison Company of New York, Inc.  
4 Irving Place, New York, NY 10003



April 16, 1974

Re: Indian Point Unit No. 2  
AEC Docket No. 50-247  
A.O. 4-2-12

Mr. John F. O'Leary, Director  
Directorate of Licensing  
Office of Regulations  
U. S. Atomic Energy Commission  
Washington, D. C. 20545

Dear Mr. O'Leary:

In accordance with the Technical Specifications of Facility  
Operating License No. DPR-26, the attached report of an  
Abnormal Occurrence is submitted.

*Walter Stein*

Walter Stein  
Manager - Nuclear Power  
Generation Department

cc/ James P. O'Reilly



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1. Report Number: 50-247/4-2-12
- 2a. Report Date: April 16, 1974
- 2b. Occurrence Date: April 2, 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 a protective instrumentation setting was 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 75% of rated power.

6. Description of Occurrence:

On April 2, 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-439B were found in excess of the limiting safety system setting established by Table 3.1, Item No. 5. In addition, bistable PC-412B was found in excess of the limit established by Specification 2.3.2.A.2.

PC-412B, FC-419A, FC-429A, FC-439A and FC-439B were found to be set .2, .02, .17, .04 and .12 milliamps above the limiting settings, respectively. These "as found" deviations correspond to .5% power in the case of PC-412B, and a maximum steam flow deviation of 1.87% in the case of the flow bistables. All other bistables of this logic were found to be set correctly.

7. Designation of Apparent Cause of Occurrence:

For pressure bistable PC-412B, the apparent cause has been determined to be excessive drift.

In the case of the four flow bistables, the apparent cause has been determined to be due to the fact that the test procedure as originally written did not take into account that one of the inputs was non-linear over its range. Consequently the bistables, which trip at a specified deviation throughout all ranges of steam flow, were not set for the same deviation at zero power and full power. A revision to the procedure has corrected this inadequacy. It is believed that bistable drift prevented identification of this condition during analysis of the results of the previous test.

8. Analysis of Occurrence:

The flow bistables (FC) which exceeded the limiting safety system settings are a part of the High Steam Line Flow Protection Logic. The logic actuates when high steam flow as compared to 1st stage turbine pressure is sensed in any two of the four steam lines. High steam flow in a steam line is signaled by a one out of two logic. Even though the above bistables were found to be set slightly above the limit, the protection logic would still have actuated as required, since one of the two redundant logics involved only 1 bistable out of 4 being set slightly high.

The pressure (PC) bistable which was found in excess of the limiting safety system setting is part of a two out of two logic circuit which blocks reactor trip below 10% power. Since only one channel out of the two was found set high, the permissive signal would still have been initiated at the proper power level.

Because the logic circuits involved would have actuated as required, 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.

The pressure bistable is one of the bistables which will be modified as a part of the capacitor replacement program discussed in our letter to you of January 25, 1974. It is anticipated that work on this particular bistable will be accomplished during the next unit outage.

Following identification of the inadequate test procedure, all test procedures were reviewed to determine if a similar condition existed. Only one other test procedure was identified to be similar. However, since the same test technique is not used in this particular procedure, it did not require revision.

The Station Nuclear Safety Committee reviewed this occurrence and concurs in the remedial measures taken and planned.

10. Notification:

Mr. James P. O'Reilly of Region I, Regulatory Operations, was notified of this occurrence by letter dated April 3, 1974.