



CONNECTICUT YANKEE ATOMIC POWER COMPANY

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May 28, 1985

Docket No. 50-213
A04905

Dr. Thomas E. Murley
Regional Administrator
Region 1
U. S. Nuclear Regulatory Commission
631 Park Avenue
King of Prussia, PA 19406

Reference: (1) T. E. Murley letter to W. G. Counsil, dated April 25, 1985.

Gentlemen:

Haddam Neck Plant
Response to Inspection No. 50-213/85-03

Pursuant to the provisions of Section 2.201 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, this letter is being submitted in response to Reference (1), which informed the Connecticut Yankee Atomic Power Company (CYAPCO) of two violations noted during a special safety inspection conducted on February 12-15, 1985.

Item A

Technical Specification 3.9 requires four Reactor Protection System loss of flow (LOF) trip channels to be operable whenever the plant is operated above 84 percent power.

Contrary to the above, on February 12, 1985, the plant operated at 100% power with two of four LOF channels inoperable in that the LOF trip setpoints for those two channels were set between 2 percent and 4 percent below the limiting safety system setting of 90 percent of normal loop flow established in Technical Specification 2.4.

Item B

10 CFR Part 50, Appendix B, Criterion V and the Northeast Utilities Quality Assurance Program (NUQAP) requires activities affecting quality to be accomplished in accordance with appropriate written instructions which include appropriate quantitative or qualitative acceptance criteria. Plant procedures SUR 5.2-23 and SUR 5.2-3 specify instructions for setting the Reactor Protection System loss of flow trip channels.

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Contrary to the above, as of February 12, 1985, procedures 5.2-23 and 5.2-3 were not appropriate instructions in that the procedures' acceptance criteria did not ensure proper setting of the Reactor Protection System loss of flow trip channels. In this case, for reactor coolant loops 2 and 3, the outdated and low full flow reference value used to calculate the LOF trip setpoint resulted in a 2 percent to 4 percent error in this limiting safety setting.

Response Items A and B

The setpoint versus process scheme in this case is unique because in most cases, a setpoint is set at some percentage of instrument span which is fixed. In the case of the low flow setpoint we establish a setpoint based on a percentage of normal flow, which is variable. This means that if, for some reason, the steam generator (SG) differential pressure (ΔP) which is used to measure reactor coolant flow varies while operating, we must insure that the setpoint remains conservative.

There are two surveillance procedures by which the low flow trip setpoint are adjusted and checked. They are SUR 5.2-23, Reactor Coolant Flow Channel Calibration, which is done on a refueling interval, and SUR 5.2-3, Reactor Coolant Flow Trip Test, which is performed semi-annually.

Both of these procedures originally required adjusting the low flow setpoints to 81 percent of normal loop ΔP (which equates to 90 percent of flow).

Since the plant is shutdown while performing both of these procedures, the I&C Specialist did not know the normal loop ΔP . Because the procedure gave no guidance as to how to determine normal loop ΔP , it became practice to look at previous operating data and establish a single value of loop ΔP and a single corresponding setpoint for all four loops. Consequently, the value selected for loop ΔP and the corresponding setpoint were not always conservative.

The following steps have been taken to avoid further violation:

- a. The two calibration procedures have been revised to clearly state that the normal loop ΔP will be measured when the plant is at hot zero power with four pumps operating. This measured ΔP (in loop milliamps) will be used to calculate the trip setpoint. The approved revisions to these procedures were effective on March 22, 1985.
- b. An I&C Department procedure (IC-P-2) entitled, "Surveillance Compliance Verification", was recently implemented which requires the Assistant I&C Supervisors to periodically observe the performance of surveillances and document a detailed review of that procedure by way of a checkoff.

This procedure was effective January 8, 1985 prior to February 12, 1985 but had not yet been fully implemented and used to review SUR 5.2-3 and 23.

- c. A second I&C Department procedure (IC-P-13), "Biannual Procedure Review", is a checklist type procedure to be used during biannual procedure review. This procedure specifically addresses the requirement for acceptance criteria in procedures.

This procedure was effective April 22, 1985.

- d. All I&C surveillances have been reviewed and revised as necessary to insure that there are no other acceptance criteria that are unclear.

This review was completed on March 15, 1985.

In addition, surveillances in all other departments were reviewed for any unclear acceptance criteria. This review was completed on April 3, 1985.

- e. A plot has been developed that indicates loop delta P since the last post refueling startup or the past six month period, whichever is the shorter time. This plot indicates the trend of delta P for each loop and indicates the trip setpoint as well as the value of loop delta P that would cause the respective setpoint to be non-conservative. This plot is reviewed weekly by the Instrumentation Supervisor and the Operations Supervisor. This review is scheduled and documented in the computerized Production Maintenance Management System.

This weekly review has been in effect since March 18, 1985.

No further corrective action is required as full compliance has been achieved.

Very truly yours,

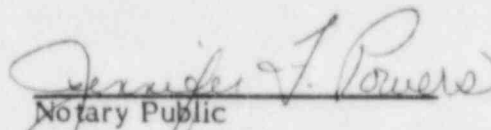
CONNECTICUT YANKEE ATOMIC POWER COMPANY

J. F. Opeka
J. F. Opeka
Senior Vice President

C. F. Sears
By: C. F. Sears
Vice President

STATE OF CONNECTICUT)
) ss. Berlin
COUNTY OF HARTFORD)

Then personally appeared before me C. F. Sears, who being duly sworn, did state that he is Vice President of Connecticut Yankee Atomic Power Company, Licensee herein, that he is authorized to execute and file the foregoing information in the name and on behalf of the Licensees herein and that the statements contained in said information are true and correct to the best of his knowledge and belief.


Notary Public
My Commission Expires March 31, 1989