



CONNECTICUT YANKEE ATOMIC POWER COMPANY

HADDAM NECK PLANT

362 INJUN HOLLOW ROAD • EAST HAMPTON, CT 06424-3099

January 14, 1994
Re: Technical Specification 6.9.2
Docket 50-213

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington DC 20555

Dear Sir:

Attached is a Special Report, submitted in accordance with the Haddam Neck Plant Technical Specification 3.3.3.3.a, and Specification 6.9.2.

On December 15, 1993, routine Surveillance testing of the Seismic Monitoring System Instrumentation revealed a deficiency in the playback feature of the instrument. Subsequent cascading hardware failures rendered the entire playback system inoperable, as well as the seismic triggers, OBE/SSE triggering logic, and remote alarm capability. Due to these multiple failures, the operability of the Seismic Monitoring System could not be demonstrated prior to the end of the thirty day period following the Surveillance testing. Pursuant to Technical Specifications 3.3.3.3.a and 6.9.2, this report is required to be filed within ten days of the end of the thirty day action statement.

Very truly yours,

John P. Stetz
Vice President
Haddam Neck Plant

cc: Mr. Thomas T. Martin
Regional Administrator, Region I
475 Allendale Road
King of Prussia, PA 19406

Mr. William J. Raymond
Sr. Resident Inspector
Haddam Neck

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Special Report Seismic Monitor Inoperable

Introduction

The Seismic Monitoring System monitors and records seismic events at the Haddam Neck Plant. The data acquired by this system is essential to the assessment of damage in the event of an earthquake. The Seismic Monitoring System also features a playback system and a remote alarm which alerts the plant operators that a seismic event has occurred.

The Seismic Monitoring System is calibrated semiannually using Station Procedure SUR 5.2-67, "Strong Motion Seismic Instrumentation Channel Calibration", and functionally checked monthly using Station Procedure SUR 5.2-66, "Strong Motion Seismic Instrumentation Test".

Discussion

On November 29, 1993 at 0858, with the plant in Mode 1, work commenced on Plant Design Change 1023, which was to install a noise filter on the Seismic Monitor input for the elimination of spurious noise spikes that had caused several false alarms. On December 9, 1993 at 1655, the installation was complete and Station Procedure SUR 5.2-67, "Strong Motion Seismic Instrumentation Channel Calibration" was completed satisfactorily. On December 15, 1993 at 0750, routine Surveillance testing was in progress using Station Procedure SUR 5.2-66, "Strong Motion Seismic Instrumentation Test". The results of the Surveillance were unsatisfactory in that data was not being fully reproduced by the playback system, as required by the Surveillance. Subsequent troubleshooting efforts revealed cascading hardware failures rendering the playback system, seismic triggers, OBE/SSE triggering logic, and remote alarm capabilities of the system inoperable.

With concurrence of the vendor, Terra Technology, the faulty circuit cards and all Station spares were shipped back to the vendor for evaluation and repair. Upon receipt of the repaired components, the Seismic Monitoring System will be returned to service and calibrated, as appropriate.

During the time that the Seismic Monitoring System is out of service, backup monitoring is available from Millstone Station monitoring equipment and from the Weston Observatory equipment located in Massachusetts. Additionally, Station Procedures are in place to address natural disasters such as earthquakes. These procedures direct Station personnel as to the assessment of a seismic event if the Seismic Monitoring System should be inoperable.

On the basis that adequate alternate capabilities for monitoring seismic events are available, the relatively low frequency of occurrence of such events, and that Station procedures are in place to address earthquakes, the inoperability of the Seismic monitoring System imposed a low safety significance on our ability to detect and assess a seismic event.