



April 19, 1993

L-93-102
10 CFR 50.36

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, D. C. 20555

Re: St. Lucie Units 1 and 2
Docket Nos. 50-335 and 50-389
Special Report
Date of Event: March 10, 1993
Seismic Monitoring Channel Out of Service

The attached Special Report is being submitted pursuant to the requirements of St. Lucie Technical Specification 3.3.3.3. This report provides notification that a Seismic Monitoring Channel has been out of service for greater than thirty days and describes the cause of the malfunction and the plans for restoring the channel to service.

Very truly yours,

D. A. Sager
Vice President
St. Lucie Plant

DAS/JWH/kw

Attachment

cc: Stewart D. Ebnetter, Regional Administrator, USNRC Region II
Senior Resident Inspector, USNRC, St. Lucie Plant

DAS/PSL #900-93

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NRC SPECIAL REPORT

SEISMIC MONITOR OUT OF SERVICE FOR LONGER THAN ALLOWED BY TECHNICAL SPECIFICATIONS

On March 10, 1993 the longitudinal channel of the St. Lucie Plant common seismic monitor recorder (SMR-42-1) and seismic monitor indicator (SMI-42-11) were declared out of service. As required by Technical Specification 3.3.3.3, this Special Report is being submitted to notify the NRC that these instruments have been out of service greater than 30 days.

There are 2 seismic monitor recorders (SMRs) located in Unit 1 containment area which are tied to a master SMR-42-1 that also functions as an additional containment seismic recorder. The master SMR-42-1 provides a output signal on the different motion ranges (transverse, longitudinal, and vertical) from these three triaxial accelerators to the seismic monitoring indicator (SMI) SMI-42-11 located in the Unit 1 control room. The SMI serves to provide peak acceleration data to control room operators so that they may determine if a Operational Basis Earthquake (OBE) has occurred. On a monthly channel check, the SMI is tested by inserting a test signal to each of the motion channels on the master controller to excite the respective recorder. During a surveillance of the SMI the test signal was inserted but the indicator for the longitudinal channel showed no deflection.

Troubleshooting of the system indicated that the problem was in the master controller SMR-42-1. On March 18, SMR-42-1 was sent to the vendor (Kinometrics) for repair. This model of seismic monitor is no longer manufactured so repairs were expedited on the existing SMR-42-1. The unit arrived back at St. Lucie on April 7. Instrument and Controls (I&C) department made a containment entry and installed SMI-42-1 on the same day. When the unit was tested to verify operability it was discovered that the same symptoms of the problem were still present. The I&C department tried to determine the cause and make repairs to the instrument at St. Lucie Plant. However, on April 10, the SMR-42-1 was returned to the vendor for further repair. Currently St. Lucie Plant is awaiting repair of the instrument by Kinometrics to determine the exact root cause and to place the unit back in service.

The triaxial accelerator SMR-42-1, and control room indicator SMI-42-11, are expected to be placed back in service by May 10, 1993. In the interim, sufficient capability is still available to promptly determine the magnitude of a seismic event and evaluate the response of those features important to safety. The plant seismic switch SMS-42-12, and peak shock recorders SMR-42-9 and SMR-42-10, are independent from the affected equipment described in this special report. SMS-42-12 will continue to provide annunciation in both control rooms if a seismic event equal to or greater than 90% of the OBE occurs. After an OBE alarm, plant personnel will have the ability to review peak shock recorder readings on SMR-42-9 and SMR-42-10. Additionally, seismic recorders SMR-42-2 through SMR-42-5 will record information from a OBE or Design Basis Event on magnetic tape for later review and analysis.