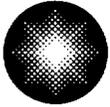


**Peter E. Katz**  
Plant General Manager

1650 Calvert Cliffs Parkway  
Lusby, Maryland 20657  
410 495-4101



**Constellation  
Nuclear**

**Calvert Cliffs  
Nuclear Power Plant**

*A Member of the  
Constellation Energy Group*

November 13, 2001

U. S. Nuclear Regulatory Commission  
Washington, DC 20555

**ATTENTION:** Document Control Desk

**SUBJECT:** Calvert Cliffs Nuclear Power Plant  
Unit Nos. 1 & 2; Docket Nos. 50-317 & 50-318  
Special Report – Seismic Monitoring System

The attached special report is submitted in accordance with Calvert Cliffs Technical Requirements Manual Section 15.3.4, Contingency Measure B.1. This report is required due to the inoperability of the seismic monitoring system for a period in excess of thirty days.

Should you have questions regarding this matter, we will be pleased to discuss them with you.

Very truly yours,

PEK/TWG/bjd

Attachment

cc: R. S. Fleishman, Esquire  
J. E. Silberg, Esquire  
Director, Project Directorate I-1, NRC  
D. M. Skay, NRC

H. J. Miller, NRC  
Resident Inspector, NRC  
R. I. McLean, DNR

JE 22

**ATTACHMENT (1)**

---

**SEISMIC MONITORING SYSTEM --  
SPECIAL REPORT**

---

## ATTACHMENT (1)

### SEISMIC MONITORING SYSTEM -- SPECIAL REPORT

---

---

Calvert Cliffs Nuclear Power Plant, Inc. submits this Special Report concerning an inoperable seismic monitoring system as required by the Calvert Cliffs Technical Requirements Manual Section 15.3.4, Contingency Measure B.1. The seismic monitoring system is common to Calvert Cliffs Units 1 and 2.

#### ACTION TAKEN

The system was removed from operable status on October 4, 2001 at approximately 10:40 a.m. for surveillance testing. While testing, we discovered that one of the five channels did not produce the expected output from a simulated input, failing the Surveillance Test Procedure M-260-0, "Seismic Instrumentation Channel Check." The amplitude of the output from the transverse channel of accelerometer 0YE002 was approximately one-half of its expected value. The horizontal and vertical channels of accelerometer 0YE002 passed their portion of the surveillance test. The accelerometer 0YE002 is located in the Unit 1 Containment.

The half-amplitude output is an intermittent problem that appears to be time dependent. There is a high probability that if a retest is conducted shortly after the detection of the half-amplitude output the results of the retest will meet the acceptance criteria, even though no corrective actions were taken.

Additional troubleshooting of this channel's equipment, located outside the Unit 1 Containment, could not identify the cause of the low output. An examination of the accelerometer signal cable was performed using a time domain reflectometer. Based on the results of the time domain reflectometer examination, we have concluded that the malfunction is associated with the electrical connection at the electrical penetration located in the Unit 1 Containment.

#### EFFECT ON OPERATION

The ability to automatically detect and record seismic events at Calvert Cliffs Units 1 and 2 is available on the other four channels of the seismic monitor. If on-site personnel detect a seismic event, the operations shift manager would have adequate immediate data available to determine if the implementation of the Emergency Response Plan Implementation Procedures is appropriate. In addition, information is obtained on the extent of the earthquake by calling the National Earthquake Information Center or the University of Delaware.

No other systems are adversely affected by the inoperable seismic monitoring system.

#### CAUSES OF INOPERABILITY

The seismic monitoring system is inoperable due to a degraded connection inside Unit 1 Containment, at the electrical penetration. Due to personal radiological dose concerns, repair of the connection at the electrical penetration can not be completed with Unit 1 on-line.

#### PLANS AND SCHEDULES FOR RESTORING THE SYSTEM TO OPERABLE STATUS

The affected equipment will be inspected and repaired during the next Unit 1 outage of sufficient length to permit entry into Containment. The next Unit 1 refueling outage is scheduled for the first quarter 2002.