

January 22, 2003

Vanessa E. Quinn, Chief  
Radiological Emergency Preparedness Branch  
Technological Services Division  
Federal Emergency Management Agency  
500 C Street, S.W.  
Washington, D.C. 20472

**SUBJECT: REQUEST FOR ASSISTANCE TO ADDRESS A CONCERN REGARDING THE  
CALVERT CLIFFS NUCLEAR POWER PLANT (CCNPP) ALERT AND  
NOTIFICATION SYSTEM (ANS) TESTING METHODOLOGY**

Dear Ms. Quinn:

We request the assistance of the Federal Emergency Management Agency (FEMA) in addressing a concern identified by the NRC regarding a change in the testing methodology of the Calvert Cliffs Nuclear Power Plant (CCNPP) Alert and Notification System (ANS).

Due to the age of the ANS, CCNPP sirens have significantly degraded in the past five years. Beginning in June 2001, in order to have confidence in the operability of the system, the licensee tripled their weekly siren tests, immediately verified the activation results, conducted quarterly growl tests and routinely reviewed the test data for any identifiable trends. They have committed to a new siren system by the end of 2003. While reviewing the ANS PI data, the inspector noted that the increased testing consisted of performing three successive complete silent tests during the same time period (within one minute). CCNPP found that because of intermittent failures, there were times that not all three individual tests were successful. However, they determined at least one of the three tests, most times, was successful unless there was a complete system failure. Troubleshooting efforts have not determined the exact reasons for the intermittent failures.

When reporting the PI data, the licensee considered the three individual silent tests as one test but was reporting an overall success based upon any one of the three individual tests being successful. For example, if one test was successful and two were failures, the licensee discounted the two failures and considered the silent "test" as a success. The only time they counted a failure was if all three tests were unsuccessful. The inspector determined that by not counting all the tests, the licensee could be unintentionally masking failures and a degrading trend and thus provide a false impression that the system was operating at a high performance level with no degradation. The licensee recalculated their data by counting "all" the tests conducted since June 2001 as single tests and counted "all" the failures. In the third and fourth quarters of 2001, the PI data went into the White response band which was consistent with the number of siren problems the licensee had in those quarters.

Concurrent with the change in testing methodology, (June 2001), CCNPP changed how they would activate the sirens during an actual event (three consecutive pushes). However, the change in testing methodology was not submitted to FEMA for approval prior to use, and it is not meeting the intent of the PI for providing the NRC a true indicator of the reliability of the system and for identifying and trending performance problems. CCNPP entered the issue in their corrective action system (No. IR3-021-087). This issue is being treated as an Unresolved Item (**URI 50-317/02-010-02, 50-318/02-010-02**) and the NRC will disposition the final significance of this issue following your response.

Please review this issue regarding the change in the testing methodology of the Calvert Cliffs Nuclear Power Plant (CCNPP) Alert and Notification System (ANS), and provide us a report of the results of your review.

This matter has been discussed between our respective staff members, and a date of February 19, 2003, has been selected as a proposed goal for FEMA's response to this request for assistance. Please let us know if this date is not acceptable. Should you need any assistance with this matter, please contact Mr. Robert E. Kahler of my staff at 301-415-2992.

Sincerely,

**/RA/**

Kathy Halvey Gibson, Chief  
Emergency Preparedness and  
Health Physics Section  
Equipment and Human Performance Branch  
Division of Inspection Program Management  
Office of Nuclear Reactor Regulation

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Kathy Halvey Gibson, Chief  
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