U.S. Department of Homeland Security 500 C Street, SW Washington, DC 20472



JAN 14 2004

Eric W. Weiss, Chief Emergency Preparedness and Health Physics Section Emergency Preparedness and Plant Support Branch Division of Inspection Program Management Office of Nuclear Reactor Regulation U.S. Nuclear Regulatory Commission Washington, DC 20555-0001

Dear Mr. Weiss:

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This is in response to your letter to me dated, December 1, 2003, regarding the Nuclear Regulatory Commission's request to FEMA for assistance in addressing a concern involving the evaluation of significant changes to the alert and notification (A&N) system methodology.

Based on a thorough review of FEMA's current alert and notification system guidance, located in NUREG-0654, Appendix 3 and FEMA-REP-10, "Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants", we have determined that any proposed changes to the operational testing and activation procedures of an already existing, FEMA-approved A&N system, should in fact, be classified as a "significant change", and therefore, need to be submitted to FEMA for review and approval prior to implementing any modifications.

As you know, FEMA is currently in the process of revising and updating FEMA-REP-10. The revision is currently in Draft and undergoing an extensive internal review within FEMA. We intend on publishing this revision for public comment in the near future. The revised FEMA-REP-10 will more clearly define the concept of "significant change" and will thoroughly address FEMA's expectations with regards to modifications in operational testing and activation procedures of alert and notification systems around commercial nuclear power plants.

Please contact me if you have any questions and I look forward to receiving the NRC's comments on the revised FEMA-REP-10 document.

Sincerely, Xune Vanessa E. Quinn

Chief Radiological Emergency Preparedness Section



## UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

December 1, 2003

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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 EVALUATION OF SIGNIFICANT CHANGES TO THE ALERT AND NOTIFICATION SYSTEM TESTING METHODOLOGY

Dear Ms. Quinn:

We request the assistance of the Federal Emergency Management Agency (FEMA) in addressing a concern by the NRC regarding the evaluation of changes to the Alert and Notification System (ANS) testing methodology.

When making a change to ANS testing methodology that affects the calculation of the siren operability percentages, is a licensee required to submit this change to FEMA for approval prior to its implementation in accordance with 44CFR350.14?

For example, a change could be proposed and made to the method used to calculate siren operability percentages. A licensee could change the testing procedure from sending a single activation pulse to sending three activation pulses over a 1-minute time period. A success would result if any of the three individual activation pulses was received, rather than counting each activation pulse as a data point. The only time an activation failure would be declared is when all three activation pulses are unsuccessful. This change in testing methodology could potentially mask failures and a degrading trend in system performance, which may have been identified by the previous testing methodology.

On page E-9 of FEMA-REP-10, *Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants*, it states: "Once the siren system is installed and operational, the licensee should develop and implement a routine siren testing and operability program (see Appendix 4: A Summary of Design Report Routine Siren Testing Procedures and Operability Requirements)." Appendix 4 of FEMA-REP-10 states that as part of the ANS approval process, FEMA will review and accept a routine siren testing program, and verify the siren operability average estimated from the results of the siren testing program, as it was implemented for the 12 months preceding submission of the design report. Appendix 4 goes on to state:

"Acceptability of the routine siren testing procedures is an important part of the overall alert and notification system review since the operability percentage will be derived from implementation of these procedures." Appendix 4 also includes a generic checklist that is recommended to be used when submitting the routine siren testing program and computation of the operability percentage. This checklist includes a "description of the method used to calculate the siren operability percentage". V. Quinn

Please review this issue concerning significant changes to the Alert and Notification System (ANS) testing methodology 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 December 31, 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 Ms. Debra A. Schneck of my staff at 301-415-3079.

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Sincerely,

Eric W. Weiss, Chief Emergency Preparedness and Health Physics Section Emergency Preparedness and Plant Support Branch Division of Inspection Program Management Office of Nuclear Reactor Regulation