



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TEXAS 76011-4005**

December 1, 2003

EA-03-160

Jeffrey S. Forbes, Site Vice President
Arkansas Nuclear One
Entergy Operations, Inc.
1448 S.R. 333
Russellville, AR 72801-0967

SUBJECT: FINAL SIGNIFICANCE DETERMINATION FOR A PRELIMINARY WHITE FINDING (NRC INSPECTION REPORT NO. 05000313,05000368/2003011; ARKANSAS NUCLEAR ONE)

Dear Mr. Forbes:

The purpose of this letter is to provide you the final results of our significance determination of the preliminary White finding identified in the subject inspection report (ADAMS accession number ML#032530552) issued September 4, 2003. The inspection finding was assessed using the Emergency Preparedness Significance Determination Process, as described in Appendix B to Inspection Manual Chapter 0609, "Significance Determination Process," and was preliminarily characterized as White, a finding with low to moderate increased importance to safety. This preliminary White finding involved a failure to establish the means to notify certain members of the public in your emergency planning zone (EPZ) in the event of an emergency at your Arkansas Nuclear One facility. The finding was based on the conclusions that from September 1999 through April 2003: (1) your method of identifying new residents that required tone alert radios was inadequate to ensure a "best effort" was made to identify residences and place radios, (2) the failure to identify affected residences resulted in the failure to distribute tone alert radios to members of the public that required tone alert radios for emergency alerting, and (3) your program was not capable of identifying the errors in a timely manner such that compensatory measures could be taken to alert affected members of the public.

In a telephone conversation with Mr. Troy Pruett of my staff on or about September 12, 2003, Mr. Robert Holleyfield of your staff indicated that Entergy, Inc. did not agree with the characterization of the risk significance of this finding, but declined the opportunity to discuss this issue in a Regulatory Conference. He stated that you would provide a written response to the subject inspection report.

The NRC received your response letter dated October 6, 2003 (ADAMS accession number ML#032810465). On October 28 and November 4, 2003, we requested additional information concerning the four risk counties' supplemental notification procedures referred to on page 3 of your letter. We received that information on November 12 and 21, 2003 (ADAMS accession number ML#033290290), and completed our review of the additional information you provided.

After considering the information developed during the inspection, the information you provided in your letter dated October 6, 2003, and the additional information you provided on November 12 and 21, 2003, the NRC has concluded that the inspection finding is appropriately characterized as Green (i.e., an issue with very low importance to safety.) The failure to follow your FEMA-approved Alert and Notification System (ANS) design report by not identifying residences outside siren coverage areas affected the risk significant planning standard 10 CFR 50.47(b)(5). However, automatic supplemental notification compensatory measures provided reasonable assurance that the planning standard function was not degraded, as described in the Emergency Preparedness Significance Determination Process. The basis for that conclusion is described below:

In your October 6, 2003, response letter you agreed that new resident contact lists were not maintained up to date since September 1999 as required by the ANS design. Your corrective actions for the identified failure were comprehensive and identified that a minimum of 109 addresses had not been previously identified as requiring a tone alert radio. This was accomplished by conducting a mass mailing in May 2003 to 12,520 residents which represented the new electric hookups in the 10-mile EPZ since approximately February 1999. Approximately 9,400 addressees did not respond to the mailing. FEMA concluded, and NRC agreed, that as of August 1, 2003, you had completed a best effort to identify and contact all new residents in the 10-mile EPZ who might require a tone alert radio for alert notification.

In your October 6, 2003, letter, you stated that additional information that had not been provided to the inspector concerning the four risk counties' supplemental notification procedures should be considered for its role in meeting the risk significant planning standard 10 CFR 50.47(b)(5). You provided that additional information to the NRC on November 12 and 21, 2003. We determined that the county procedures described the capability to provide a supplemental route alerting notification. The supplemental notification methods, which included "truck sirens, PA systems, and runners to knock on doors," would be utilized in all areas of the EPZ. The information also indicated that at least a minimally sufficient amount of equipment was available to the firemen when conducting the supplemental notifications, and that the county officials believed those notifications could be completed within 45 minutes.

On November 14, 2003, Mr. Ryan Lantz of this office, and Ms. Lisa Hammond and Mr. Russell Bookser of FEMA Region VI, discussed the adequacy of your county supplemental notification process. The FEMA representatives stated that the supplemental notification process had not been specifically demonstrated nor evaluated during past emergency preparedness exercises since it was not defined as part of the primary notification process in the approved ANS design. The FEMA representatives also stated that based on past evaluations of the backup notification procedures and methods, and on county methods of implementation of the supplemental notification procedures, that FEMA had reasonable assurance that the supplemental notification process could perform the alerting and notification function in the entire EPZ in approximately 45 minutes. Based on that conclusion, the NRC determined that the inspection finding did not represent a degradation of your ability to meet risk-significant planning standard 10 CFR 50.47(b)(5). Thus, the finding is more appropriately characterized as Green, a finding with very low importance to safety.

Your response letter also stated that you believe the finding is more appropriately characterized as a violation of 10 CFR 50.54(q) associated with Emergency Planning Standard 10 CFR 50.47(b)(16). Emergency Planning Standard 16 requires that the responsibility for plan development and review is established. We agree that your periodic emergency plan reviews could have determined that you were not following your approved ANS design and that you should have obtained FEMA approval for a change to your ANS. However, the performance deficiency of not following the approved ANS design affected your ability to notify the public of an emergency, which is a deficiency related to Emergency Planning Standard 5. Therefore, the NRC has determined that the failure is appropriately characterized as a violation of 10 CFR 50.54(q), associated with 10 CFR 50.47(b)(5).

This violation is being treated as a noncited violation (NCV), consistent with Section VI.A of the Enforcement Policy. The apparent violation, 05000313,368/0311-01, described in the subject inspection report in section 1EP2, is therefore closed. If you contest the violation or significance of this NCV, you should provide a response within 30 days of the date of this letter, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with copies to the Regional Administrator, U.S. Nuclear Regulatory Commission, Region IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011; the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Resident Inspector at the Arkansas Nuclear One Generating Station, Units 1 and 2, facility.

In addition, we reviewed your analysis of the degradation caused to your tone alert radio program, as described in your October 6, 2003 letter, and disagreed with some of your conclusions. You stated that over the past 3 years, an average of 107 radios have been mailed each year. A total of 242 radios were mailed for the first 10 months of 2003; 37 before the mass mailing, and 205 after the mass mailing, of which 109 were issued to new residents that were outside of siren coverage. You concluded that the 109 radios represent the number of EPZ addresses that had potentially been overlooked since discontinuation of the new-connect report in September 1999. We concluded that the 109 radios represent an absolute minimum number of residents that were overlooked since September 1999 and that the actual number is likely higher. First, the 2003 total would need to be assumed as incomplete and expected to increase by year end. Second, the 107 radios issued on average each year prior to 2003 were to both new residents that were within and outside of siren coverage. Third, your letter does not address the approximately 9,400 addressees that did not respond to the mass mailout, which potentially represents a large number of residents who had lived in the EPZ and should have been identified as requiring a radio, but have subsequently moved out of the EPZ or to another residence.

Your October 6, 2003 letter quoted a statement from Appendix 3, "Means for Providing Prompt Alerting and Notification of Response Organizations and the Population," of NUREG-0654/FEMA-REP-1, "Means for Providing Prompt Alerting and Notification of Response Organizations and the Population," that acknowledges that actual implementation of the ANS, even if the system as designed and implemented meets the design objectives, does not constitute a guarantee that 100 percent of the population will be notified. This statement does not imply that a system can be designed without the capability to provide a best effort to identify and place tone alert radios as needed with residences within the EPZ. FEMA-REP-10, "Guide for the Evaluation of Alert and Notification Systems for Nuclear Power Plants,"

Section E.6.2.3, "Tone Alert Radios," also acknowledges that absolute control of tone alert radios is forfeited once they are given to the public. However, it also provides guidance for criteria that should be used at a minimum to ensure that the affected public is offered a tone alert radio. The first criteria, on page E-14, states, "Tone alert radios should be offered to the public in geographical areas (where needed) and a "best-effort" attempt must be made to place the radios. A record system (register) containing an accurate list of addresses (names are optional) must be maintained for those geographical areas using the tone alert radios. The addresses of residents refusing tone alert radios should also be noted." When the tone alert radio program was changed in September 1999, the facility lost the ability to make a "best effort" attempt to place radios at affected residents because affected residents were no longer being identified by the state or the licensee. FEMA Region VI agreed with the NRC in its June 17, 2003, letter to NRC Region IV (ADAMS accession number ML#032120108), in which FEMA stated that the change to the tone alert radio program in September 1999 represented a significant change, defined as a "loss of administrative control of special alerting devices that brings into question whether affected population(s) can be notified in a timely manner." FEMA also stated that the change would not likely have been approved since the administrative controls as changed were less than that described in FEMA-REP-10.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and any response will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/ Gail M. Good for

Dwight D. Chamberlain, Director
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