Entergy

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Fred Dacimo
Vice President License Renewal

July 31, 2008

Re: Indian Point Units 2 and 3
Dockets 50-247 and 50-286
NL-08-122

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

SUBJECT: **Entergy Commitments Regarding Tone Alert Radios**

References:
1. Entergy letter NL-08-120 to NYSEMO / FEMA, Revision 3 Supplement to the Indian Point ANS Design Report, dated July 30, 2008
2. Entergy letter NL-08-121 to NRC, "Siren Project Milestone Schedule – Status Update," dated July 25, 2008.

Dear Sir or Madam;

During a joint management meeting held July 22, 2008, FEMA, NRC, and Entergy representatives discussed the use of Tone Alert Radios (TARs) as an enhancement to the new siren system that will be the new primary Alert and Notification System (ANS) for the Indian Point Energy Center. This letter provides information about the TARs and documents commitments being made by Entergy related to the TAR Control Program.

The new primary ANS, consisting of 172 electronic sirens and associated control and communication systems and backup power supplies, provides acoustic coverage for the population within the Emergency Planning Zone (EPZ) as follows:

- 0 to 5 miles: > 99.9%
- 5 miles to EPZ boundary 96.7%
- Total EPZ 97.5%

Population coverage values were calculated using state-of-the-art satellite imaging and geographical information system technologies to establish physical locations of residences

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combined with the acoustic coverage maps for the sirens and block-level population data from the 2000 decennial census. These calculations show that the acoustic coverage values for the new siren system exceed previously adjudicated standards for coverage for a primary ANS. The population coverage for the new siren system exceeds that achieved by the existing system, which uses 156 electro-mechanical sirens, even without the use of TARs.

During the meeting of July 22, FEMA, NRC, and Entergy discussed means of providing even greater population coverage beyond the values described above for the primary ANS. Entergy's proposed approach is to use TARs as an enhancement and to generally apply the FEMA guidance for TARs described in Section E.6.2.3 of FEMA-REP-10.

A cost evaluation for the Indian Point EPZ shows that an area with a population of at least 2250 people is required for siren installation to be cost effective compared to using TARs. The evaluation also shows that the most populated area that could be covered by adding one more siren has approximately 250 households, which would equate to approximately 750 people. Therefore, since the coverage provided by the 172 sirens already installed exceeds that needed for the primary ANS, and it is not cost effective to use sirens to provide additional enhanced coverage, Entergy is proceeding with the use of TARs as an enhancement.
Entergy has prepared a supplement (Reference 1) to the ANS Design Report for FEMA review and approval, which includes additional information about TARs. Entergy is submitting this letter to document new regulatory commitments to the NRC for updating and expanding the existing TAR Control Program.

The current emergency plan in effect for Indian Point already includes provisions for use of TARs in addition to the primary alert and notification function accomplished by the existing 156 sirens. Entergy has revised the TAR Control Program to provide for enhanced administrative controls to be implemented when the new ANS is put into service. These enhancements also address industry lessons-learned as reported in NRC Information Notice 2005-06. The expanded TAR Control Program provides for the following administrative controls:

- Use of a prescribed analytical methodology for initially identifying the residential locations that will be offered TARs based on the acoustic coverage maps for the new siren system and data from the 2000 decennial census.

- Documentation of best effort attempts to place TARs at the locations identified using the prescribed analytical methodology.

- A record system for maintaining the addresses of where TARs are placed and notation of locations, if any, where TARs were declined.

- An ongoing program for updating TAR locations as a result of new addresses or occupant changes at existing addresses.

- Annual replacement batteries provided by Entergy, including a spare set which can be installed by the user, if needed.

- Instructions to users regarding purpose and operation of the TAR, including instructions for manual testing of the batteries.

- Means for periodic operational verification and reliability testing. TAR testing is further described in Attachment I.

- A feedback mechanism for TAR users to ask questions about their TARs and to provide information to counties and /or Entergy.

In addition to revising the TAR Control Program, Entergy conducted testing and an evaluation which determined that the TARs meet the intent of the backup power capability objective stated in Section 651 in the Energy Policy Act of 2005. That evaluation is described in Attachment I.

Entergy is in the process of distributing TARs to the locations identified using the methodology established for the TAR Control Program. The schedule for this activity is as stated in the Reference 2 milestone status update. TAR distribution in the 0-to-5 mile region of the EPZ will be complete prior to placing the new ANS in service (targeted for August 14, 2008) and TAR distribution in the balance of the EPZ will be completed on or before November 1, 2008. The new ANS provides greater acoustic coverage compared to the existing system and should be placed in service even if the TAR distribution to the balance of the EPZ is in progress. Further, the new ANS has design improvements compared to the existing system which provide for backup power in the event of a loss of AC power and redundancy in siren activation communication systems.

Entergy is continuing to coordinate with state and county stakeholders to make this important transition to the new ANS. The new operating and maintenance procedures are in place and initial training activities have been completed. Refresher training is in progress and will be completed in a timely manner to support system operation. The commitments being made by Entergy, regarding tone alert radios, are stated in Attachment II. If you have any questions or require additional information, please contact Mr. John McCann, Director Nuclear Safety and Licensing at 914-272-3370.

Sincerely,

Fred R. Dacimo
Vice President License Renewal
Indian Point Energy Center

cc: Mr. John P. Boska, Senior Project Manager, NRC NRR DORL
Mr. Samuel J. Collins, Regional Administrator, NRC Region I
NRC Resident Inspector's Office, Indian Point 2
NRC Resident Inspector's Office, Indian Point 3
Mr. Paul Eddy, NYS Department of Public Service
Mr. Andrew X. Feeney, NY State Emergency Management Office
Ms. Rebecca Thomson, FEMA

ATTACHMENT I TO NL-08-122
ADDITIONAL INFORMATION REGARDING TONE ALERT RADIOS
AS AN ENHANCEMENT TO THE PRIMARY ALERT NOTIFICATION SYSTEM

OVERVIEW:

Tone Alert Radios (TARs) are commercially available radio receivers that are used in conjunction with the Emergency Alert System (EAS). The EAS is a national public warning system that can be used at the national, state, and local levels to deliver important emergency information at a national level or to specific geographic areas depending on the nature of the emergency. Rules and regulations for the EAS are set by the Federal Communications Commission in 47 CFR Part 11.

For the purpose of the Indian Point Emergency Plan, Westchester County performs EAS alerting from its primary Emergency Operations Center (EOC) with Rockland County serving as a designated backup. The EAS message is transmitted from the county EOC to the designated participating EAS broadcaster, which is the commercial radio station WHUD. The residential TARs placed for the Indian Point emergency plan are preset to the WHUD FM frequency. The TARs receive weekly and monthly test tones required by FCC regulations for the EAS and, in the event of an actual emergency notification; they receive the emergency communication message initiated from the county EOC.

BACKUP POWER CAPABILITY:

Section 651 of the Energy Policy Act of 2005 mandates that "for any licensed nuclear power plants located where there is a permanent population, as determined by the 2000 decennial census, in excess of 15,000,000 within a 50-mile radius of the power plant, not later than 18 months after enactment of this Act, the Commission shall require that backup power to be available for the emergency notification system of the power plant, including the emergency siren warning system, if the alternating current supply within the 10-mile emergency planning zone of the power plant is lost."

Entergy has performed testing and evaluation of the backup power capabilities of the TAR model to be used as an enhancement to the siren-based primary ANS, and determined that the intent of the backup power objective in Section 651 of the Energy Policy Act of 2005 is met.

The design function of the TAR is to operate in a standby mode 24 hours/day and emit the test or alert tones and emergency broadcast messages when transmitted via the EAS. The TAR is a 9 VDC device, normally powered from a transformer plugged into a standard 120 VAC outlet. A 9 VDC backup power supply is also provided by the 6 installed AA batteries. The backup power capability is sufficient for the TAR to perform its design function for approximately 48 hours following a loss of AC power, as stated in the manufacturer's technical literature.

Entergy performed evaluations and tests of backup power capability, including assumptions reflecting battery conditions aged for two years, and concluded that the TAR would perform its design functions including operation in standby mode with battery power for 48 hours and ability to sound a broadcast radio signal for at least 15 minutes. TARs are intended for interior household use so the evaluation of battery performance assumes a residential environment. The evaluation allows for a reduced temperature condition such as that which might be experienced in an occupied household during a power outage in the winter.

The TARs have an LED display when powered by either AC or battery. When this LED is extinguished, the user knows that the device is not powered. The TARs do not have an automatic indication of a loss of the AC power supply or a low battery condition. The TAR instructions to be provided by Entergy to users, under the TAR Control Program will include the manufacturer's instructions on how to manually perform a periodic battery test. The TAR manufacturer does not specify a battery replacement frequency but does recommend that all 6 batteries be replaced at the same time. Under the TAR Control Program Entergy will provide replacement batteries annually, along with a spare set that can be used, if needed, such as in the event of an extended disruption of AC power. The replacement batteries and spare set of batteries will normally be provided with the annual user survey which also is a part of the Program.

The TAR Control Program also provides a mechanism for TAR users to provide feedback to Entergy and/or the county emergency office regarding use and operation of their TAR. Feedback mechanisms include the annual user survey and toll-free phone numbers to a point-of-contact.

The Westchester County EOC and WHUD which are involved in the initiation and broadcast of the EAS signal, also have backup power capability. Backup power for the EOC is provided by a 2000 kW diesel generator. Backup power for the WHUD broadcast transmitter is provided by a 130 kW diesel generator and the broadcast studio is backed up by a 45 kW propane generator.

TESTING:

Routine testing of the TARs is conducted via the weekly and monthly EAS tests required by FCC regulations (47 CFR 11). The weekly tests are conducted on random days and at random times. Successful receipt of the weekly test signal is indicated on the TAR by a solid yellow light. The weekly test signal does not result in an audible response of the TAR. A manual reset allows the user to clear this yellow indicator so that subsequent weekly test signals can be verified. Resetting this indication is not necessary for the unit to receive an actual alert tone or emergency broadcast message. Instructions to TAR users will explain the weekly test protocol, the method of resetting the indication, and means of contacting Entergy if they observe that the weekly signal is not being received as expected.

The routine monthly tests are also performed at random times. An EAS weekly test is not required during weeks when a monthly test is conducted. Successful receipt of the monthly test signal is indicated on the TAR by a flashing red light. The monthly test signal also energizes the TAR speaker so that the test tone and test message are sounded. The speaker automatically turns off after the test, but the flashing red light remains on until reset by the user. Resetting this indication is not necessary for the unit to receive an actual alert tone or emergency broadcast message. Instructions to TAR users will explain the monthly test protocol, the method of resetting the indication, and means of contacting Entergy if they observe that the monthly signal is not being received as expected.

Monitoring of residential TARs covered by the TAR control program is accomplished by an annual survey which is sent to the locations identified in the TAR database. Voluntary responses to this survey provide a means for Entergy to assess general TAR performance and reliability. In addition, Entergy will use a phone survey approach to sample approximately 10% of residential TAR users during a one-year period with respect to verifying receipt of a specific EAS signal. This will typically be performed in conjunction with the EAS message issued with a full-volume sounding of the siren system, but may also be performed in conjunction with the routine weekly and monthly EAS tests.

ATTACHMENT II TO NL-08-122
ENTERGY COMMITMENT REGARDING USE OF TONE ALERT RADIOS
TO SUPPLEMENT THE PRIMARY ALERT AND NOTIFICATION SYSTEM

ID	DESCRIPTION	TYPE / DATE
IP2: NL-08-122-A IP3: NL-08-122-01	Entergy will implement a TAR Control Program which contains the following provisions: • Use of a prescribed analytical methodology for identifying the residential and special facility locations that will be offered TARs based on the acoustic coverage maps for the new siren system and data from the 2000 decennial census. • Documentation of best effort attempts to place TARs at the locations identified using the prescribed analytical methodology. • A record system for maintaining the addresses of where TARs are placed and notation of locations, if any, where TARs were declined. • An ongoing program for updating TAR locations as a result of new addresses or occupant changes at existing addresses. • Annual replacement batteries provided by Entergy, including a spare set which can be installed by the user, if needed. • Instructions to users regarding purpose and operation of the TAR, including instructions for manual testing of the batteries. • Means for periodic operational verification and reliability testing. • A feedback mechanism for TAR users to ask questions about their TARs and to provide information to counties and /or Entergy.	Ongoing / Prior to placing the new primary ANS in service
IP2: NL-08-122-B IP3: NL-08-122-02	Entergy will distribute TARs to required locations in the 0 – 5 mile region of the Emergency Planning Zone	One-time / Prior to placing the new primary ANS in service
IP2: NL-08-122-C IP3: NL-08-122-03	Entergy will distribute TARs to required locations in the region of the Emergency Planning Zone beyond 5 miles.	One-time / November 1, 2008