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

AUG 15 2007

FEMA

Mr. Michael Kansler
President, Entergy Nuclear Operations, Inc.
Entergy Nuclear Northeast
440 Hamilton Avenue
White Plains, NY 10601

Dear Mr. Kansler:

As you are aware, the Federal Emergency Management Agency (FEMA) has been working closely with Entergy to facilitate implementation of your new siren system at the Indian Point Energy Center (IPEC). This letter serves to inform you of the documents and data that we must receive and review prior to any formal approval of this siren system.

Before FEMA can make a finding of reasonable assurance that the proposed new siren system at IPEC is adequate for reliable and audible notification and alerting of the public, three questions must be answered:

1) Is there adequate audibility of the sirens individually, and is there adequate sound coverage for the 10-mile EPZ (per established FEMA guidance)?

2) Is there adequate reliability of the activation and feedback system when operating on the microwave radio system alone (as per the Energy Policy Act of 2005)?

3) Is there adequate proof of reliability of the backup batteries, including indicators for loss of AC power at a siren or sirens?

In answering these questions, FEMA requires that the following specific core areas be adequately addressed:

Audibility/Acoustics. In order to receive approval from FEMA of the proposed new system, Entergy must demonstrate that the sirens have the capability to produce sound output that is 10dB over background noise. This is a clear requirement contained within NRC/FEMA guidance (NUREG-0654 and FEMA-REP-10) and acknowledged as such in Entergy's own Design Report, which states that the sirens would operate at or above this level. Moreover, the 10dB above background sound output requirement was one of the key considerations in FEMA's earlier acceptance of Entergy's design report. In addition, Entergy must provide evidence that there is sufficient siren sound coverage, including an updated siren sound coverage map and documentation that the sound is "a 3 to 5 minute steady signal and capable of repetition" (as referenced in NUREG-0654/FEMA-REP-1, Rev.1, Appendix 3, page 3-8).

As was agreed to at the July 25, 2007 meeting between our staff, a standard, statistically valid methodology for demonstrating an acceptable decibel level above background must be used to analyze test results when the system is activated by the radio microwave alone. Due to time constraints, this testing should be performed over three consecutive days, from 7:00 a.m. to 10:00 p.m. in order to provide a sufficient data set. The results must establish that, even though the sirens test lower than the 122dB indicated in the Entergy Design Report that FEMA approved, the sound coverage nevertheless meets the requirements delineated in FEMA guidance.

Reliability. The data FEMA has recently received reflecting results from various silent tests indicate a high degree of reliability in meeting FEMA's requirement of 90% as measured by an acceptable statistical method for activation using the microwave system alone. However, there are still significant concerns about total system failures of all sirens in a given county (as has occurred recently in both Putnam and Orange counties). While it is statistically possible for all of the sirens to fail in an entire county and still meet the overall 90% threshold, this is clearly an unacceptable result from FEMA's perspective and this situation needs to be addressed by Entergy as soon as possible. A second concern in this area involves inconsistency of the mechanism for feedback information. The report results from various siren activation panels show different results in the same test, even within the same county (Putnam most recently). This situation also needs to be addressed immediately and the resolution and test data indicating improved results must be provided to FEMA for review.

Backup Batteries and the Loss of AC Power. FEMA will accept the NRC's decision on the adequacy of the backup battery testing (based on the battery testing plan that Entergy submitted to the NRC) and the adequacy of the results. FEMA understands that NRC inspectors have been observing the tests of the batteries and a report on the results is currently being prepared. It is also my understanding that the NRC will provide that report, along with copies of all battery test information submitted to the NRC prior to approving the system for primary use. The NRC's final decision on the battery testing must be officially conveyed to FEMA in the form of a letter prior to acceptance of the system by FEMA.

In summary, the following information must be submitted to FEMA's REP Program for review and approval prior to declaring the new system operational:

1. An updated sound coverage map using actual test data as inputs, including the impact of the five new sirens recently installed. The map must provide evidence of adequate sound coverage including 10dB above background where required, based on demographics and topography. Information about the modeling that was used to produce the sound propagation study should also be provided, along with the specific data that was entered into the model. The model run must include the five new sirens that were recently added to the system in order to be deemed a credible data source.
2. Proof that the siren signal is steady for 3 to 5 minutes and is capable of repetition.
3. The graphical trace of the sounding for all 150 sirens that was conducted.
4. Technical specifications, including acoustical information on the five new sirens.

5. A strategy for how a failure of all sirens in a county will be addressed since, even if the 90% threshold required by guidance is met, failure of an entire counties' sirens is deemed unacceptable performance by this Agency.
6. The NRC report on backup power, along with copies of all battery test information submitted to the NRC must be received and reviewed by FEMA prior to approving the system for primary use.

As always, we are committed to conduct expedited reviews of all of the information you submit to us and I look forward to our respective offices working together in an open and collaborative manner. Thank you for your continued support and commitment to further enhancing our Nation's level of emergency preparedness and for providing maximum protection to the citizens living within the vicinity of the Indian Point Energy Center. Your efforts are very much appreciated.

Sincerely,

R. David Paulison,
Administrator

Cc: Chairman Dale Klein, NRC
Dennis Schrader, Deputy Administrator, National Preparedness Directorate