



Entergy Nuclear Northeast  
Indian Point Energy Center  
450 Broadway, GSB  
P.O. Box 249  
Buchanan, NY 10511-0249  
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**Fred Dacimo**  
Site Vice President  
Administration

October 18, 2006

Re: Indian Point Units 2 and 3  
Dockets 50-247 and 50-286  
NL-06-108

Mr. Samuel J. Collins  
Regional Administrator – Region 1  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406-1415

SUBJECT: Corrective Actions for Indian Point Public Alert Notification System

REFERENCE: NRC Region 1 Meeting Notice MN 06-029 dated September 26, 2006  
(ML062690153)

Dear Sir:

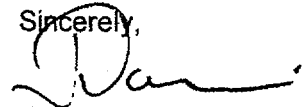
Entergy Nuclear Operations, Inc (Entergy) is providing a description of recent corrective actions being implemented for the Indian Point Public Alert Notification System (ANS) as discussed at the October 6, 2006 public meeting identified in the referenced meeting notice.

Entergy recognizes the importance of the performance of the ANS which consists of control and monitoring computers, the communication activation devices, and the 156 sirens located throughout the emergency planning zone. As outlined at the October 6 meeting, Entergy is taking corrective actions which address recently identified conditions including those that have resulted in the need for reporting per 10 CFR 50.72 in the past several months. These conditions primarily involve the control and monitoring computers, also referred to as the siren servers. Corrective actions in the areas of software improvements, procedures and administrative controls, and alternate actuation methods are described in further detail in Attachment One.

These corrective actions are being implemented in parallel with the project that is well underway and on schedule to install a new replacement ANS by January 30, 2007. Entergy is assuring that lessons-learned with the existing system are being properly factored into the design of the new ANS system resulting in the high degree of reliability expected by us and our stakeholders.

There are no new commitments identified in this submittal. If you have any questions or require additional information, please contact Mr. Patric W. Conroy, IPEC Licensing Manager at (914) 734-6668.

Sincerely,



Fred R. Dacimo  
Site Vice President  
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. Peter R. Smith, NYSERDA  
Mr. Paul Eddy, NYS Department of Public Service

ATTACHMENT ONE TO NL-06-108

DESCRIPTION OF RECENT CORRECTIVE ACTIONS  
FOR  
INDIAN POINT ALERT NOTIFICATION SYSTEM

ENTERGY NUCLEAR OPERATIONS, INC  
INDIAN POINT NUCLEAR GENERATING UNITS NO. 2 and 3  
DOCKETS 50-247 and 50-286

The following is an overview of the corrective actions that are in progress or have been completed to improve performance of the Indian Point Public Alert Notification System, as discussed at the October 6, 2006 public meeting.

**A. Corrective Actions Addressing Siren Server Software Operation**

- Compressed database to improve efficiency

The Oracle database tables which contain the siren activation data were reduced in size by relocating certain historical information that is not needed for the actual siren activation function to a separate database file. This reduces the computer processing time needed for reading the database and reduces the possibility of software interrupts occurring when the database is being read. This enhancement allows for increased availability of the Oracle database when needed for periodic communications between the computer control systems and the sirens.

- Reconfigured system to expand data storage capacity

The compressed Oracle database and the separate file with historical information were subsequently moved from the siren server C-drive to an alternate, larger capacity drive (D-drive), which is also part of the siren server. The C-drive is used for the siren server operating system and using a separate drive for the Oracle database improves the reliability of database operation and also provides for the ability to troubleshoot software execution errors if needed in the future.

- Shutdown and restart of computers every other week

Entergy has implemented a new practice of performing a complete shutdown and restart of the siren server system in response to recommendations from affected software vendors based on troubleshooting information provided by Entergy. This practice is conducted by trained personnel at scheduled periods every other week.

- Prompt Manual Restart

Entergy has identified a restoration action to be taken in the event that the Oracle database does not function as intended during a normal startup sequence. This action, referred to as 'prompt manual restart' is a manually entered software command which can quickly compensate for a startup error which was previously observed during a routine siren server startup.

**B. Procedures and Administrative Controls**

- Procedure enhancements

A new work instruction has been developed to provide specific instructions when performing scheduled siren server maintenance and for responding to siren server failures, including the shutdown / restart and prompt manual restart activities described above.

- **Enhanced administrative controls during system maintenance**

The new work instruction specifies administrative controls during siren server maintenance including a requirement to obtain authorization from the information technology manager and emergency planning manager prior to working on the siren server. The use of human performance tools, including pre-job briefs and post-job critiques are also applied when using this work instruction. In addition, the station work control process is now used to schedule siren server maintenance, including the periodic shutdown / restart.

- **Senior Management Approval**

Senior management is now notified prior to commencing a scheduled work activity on the siren servers. This Management notification prerequisite is documented in the new work instruction.

- **24 hours, 7 days a week, 365 days on site support**

Entergy has contracted with a technical support services company, Science Applications International Corporation (SAIC), to provide a continuous on-site presence for the monitoring and support of siren server operation. Activities include an hourly check of siren server status.

- **Additional Training**

Training was conducted on October 3, 2006 for the various designated siren server responders regarding the new work instruction and administrative controls established for performing periodic server maintenance and for implementing restoration actions in the event a siren server off-normal condition is detected. Affected personnel participating in this training included those from SAIC providing the support discussed above, emergency planning personnel, and assigned individuals in the information technology group.

### **C. Alternate Siren Actuation Methods**

- **Standby system**

A standby siren server system has been developed which can be rapidly connected to replace the normal on-line server in the event that hardware or software errors are detected which cannot otherwise be readily corrected. This standby system performs the same functions as the on-line system, including system monitoring and siren feedback capabilities, as well as the actual siren activation function. The work instruction and personnel training previously discussed are in place for using this alternative.

- Direct activation system

Entergy is also developing and testing a separate stand-alone siren activation server which can be used as a direct means of siren activation if needed as an additional alternative to ensuring the public notification capability. This approach would not include the siren monitoring and feedback capability in an effort to minimize the potential for system errors occurring when using this alternative. An action item in the corrective action program is in place to track development of this direct activation server. This alternative, including work instructions and personnel training, is expected to be available by November 8, 2006.



ENCLOSURE 2

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Tel 914 734 6700

Fred Dacimo  
Site Vice President  
Administration

October 20, 2006

Re: Indian Point Units 2 and 3  
Dockets 50-247 and 50-286  
NL-06-110

Mr. Samuel J. Collins  
Regional Administrator – Region 1  
U.S. Nuclear Regulatory Commission  
475 Allendale Road  
King of Prussia, PA 19406-1415

SUBJECT: Corrective Actions for Indian Point Public Alert Notification System

REFERENCE: Entergy letter NL-06-108 to NRC, regarding same subject, dated October 18, 2006

Dear Sir:

Entergy Nuclear Operations, Inc (Entergy) is providing this supplement to the referenced letter in response to a telephone discussion with the NRC on October 19, 2006. This letter changes the characterization of the corrective actions described in the referenced letter to new regulatory commitments.

Although the referenced letter stated that there were 'no new commitments', this did not in any way diminish Entergy's plans and intent to fully implement the corrective actions described in that letter. Entergy's Corrective Action Program is the method that would typically be used for tracking and completing these types of action items. The corrective actions were not characterized as new regulatory commitments based on our understanding of the guidance in NEI 99-04, "Guidelines for Managing NRC Commitment Changes" as implemented in our administrative procedures.

However, in response to the telephone discussion of October 19 and NRC's preference that a formal commitment be made, Entergy is agreeing to incorporate the subject corrective actions into our Commitment Tracking System. The new commitment being made in this letter is identified in the attached Table One. If you have any questions or require additional information, please contact Mr. Patric W. Conroy, IPEC Licensing Manager at (914) 734-6668.

Sincerely,



Fred R. Dacimo  
Site Vice President  
Indian Point Energy Center

cc:

NRC Document Control Desk  
Mr. John P. Boska, Senior Project Manager, NRC NRR DORL  
NRC Resident Inspector's Office, Indian Point 2  
NRC Resident Inspector's Office, Indian Point 3  
Mr. Peter R. Smith, NYSERDA  
Mr. Paul Eddy, NYS Department of Public Service



**Commitment Regarding Corrective Actions for the  
Indian Point Public Alert Notification System**

Commitment ID	Commitment Description	Due Date
IP2: NL-06-110- C01 IP3: NL-06-110-01	Entergy will implement the corrective actions for the current Indian Point Public Alert Notification System as described in Attachment One of Entergy letter NL-06-108 dated October 18, 2006.	Action status and due dates as described in NL-06-108.