

January 27, 2009

EA-07-092
EA-07-212
EA-08-006

Mr. Joseph E. Pollock
Site Vice President
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
450 Broadway, GSB
Buchanan, NY 10511-0249

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNITS 2 AND 3 – ENFORCEMENT
FOLLOWUP INSPECTION – INSPECTION REPORT NOS. 05000247/2008503
AND 05000286/2008503

Dear Mr. Pollock:

On December 16, 2008, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection of your organization's actions taken in response to NRC enforcement actions regarding the new Indian Point Energy Center (IPEC) Alert and Notification System (ANS). The enclosed inspection report documents the inspection results, which were discussed on December 16, 2008 with Mr. Fred Dacimo, Vice President – License Renewal, and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel.

Based on the results of this inspection, no findings of significance were identified. The inspectors concluded that, as of the date of this inspection, Entergy had complied with all the requirements of the NRC's January 31, 2006, Confirmatory Order and the July 30, 2007, Order, regarding the design, installation, and testing of a new IPEC ANS. Further, all the commitments documented in the August 22, 2008, NRC Confirmatory Action Letter, regarding deployment of tone alert radios to supplement the siren system, had been satisfied.

In addition to compliance with the NRC enforcement actions, this inspection also included a performance assessment review to determine whether your staff had identified root causes and corrective actions related to Entergy's non-compliance with the Orders. We determined that Entergy had evaluated and identified in sufficient detail the causes related to Order non-compliance, and that Entergy had identified corrective actions to address the issues. However, since these corrective actions have yet to be applied to a large project that involves significant stakeholder interface, continued station focus on project management and organizational interface improvements is warranted.

Mr. J. Pollock

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Sincerely,

/RA/

James A. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

Docket Nos. 50-247, 50-286
License No. DPR-26, DPR-64

Enclosure: NRC Inspection Reports 05000247/2008503 and 05000286/208503

Mr. J. Pollock

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Mr. J. Pollock

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket Nos.: 50-247, 50-286

License Nos.: DPR-26, DPR-64

Report Nos.: 05000247/2008503, 05000286/2008503

Licensee: Entergy Nuclear Northeast (Entergy)

Facility: Indian Point Nuclear Generating Units 2 and 3

Location: 450 Broadway, GSB
Buchanan, NY 10511-0249

Dates: November 17 - December 16, 2008

Inspectors: S. Barr, Sr. Emergency Preparedness Inspector, DRS, Region I (Lead)
B. Bickett, Senior Project Engineer, DRP, Region I
D. Johnson, Reactor Engineer, DRS, Region I

Approved By: James A. Trapp, Chief
Plant Support Branch 1
Division of Reactor Safety

SUMMARY OF FINDINGS

IR 05000247/2008503 and 05000286/2008503; 11/17/2008-12/16/2008; Indian Point Units 2 and 3; Followup on Traditional Enforcement Actions.

This was an announced inspection conducted by three region-based inspectors. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

Cornerstone: Emergency Preparedness

A. NRC-Identified and Self-Revealing Findings and Observations

No findings of significance were identified.

The inspectors concluded that Entergy had satisfactorily complied with the requirements of the January 31, 2006, Confirmatory Order and the July 30, 2007, Order, and that the August 22, 2008, Confirmatory Action Letter commitments had been satisfied. Although Entergy had opportunities during the development and installation of the new siren system to have satisfied those requirements in a timelier manner, at the time of this inspection the new ANS met all regulatory requirements.

The inspectors also concluded that Entergy had evaluated and identified in sufficient detail the causes related to their non-compliance with the NRC Orders. Entergy identified corrective actions that reasonably addressed the causal factors and the extent of the performance issues. However, since these corrective actions have yet to be applied to a large project that involves significant stakeholder interface, the inspectors noted that continued station focus on project management and organizational interface improvements is warranted.

B. Licensee-Identified Findings

None.

REPORT DETAILS

4. OTHER ACTIVITIES

Cornerstone: Emergency Preparedness (EP)

4OA5 Other Activities (IP92702)

Background

The Energy Policy Act of 2005 was enacted on August 8, 2005. Section 651(b) of the Act required, in part, that for any nuclear power plant located where there is a permanent population in excess of 15,000,000 within a 50-mile radius of the power plant, the NRC shall require that backup power be available for the emergency notification system of the power plant. Indian Point Nuclear Generating Units 2 and 3 met this requirement of the Act. The Act required the NRC to impose that requirement on the applicable power plants no later than 18 months from the date of the Act.

The NRC imposed this requirement of the Act by modifying the operating licenses for Indian Point Units 2 and 3. These license modifications were issued and made effective immediately by a Confirmatory Order dated January 31, 2006. The Confirmatory Order included all the requirements of the Energy Policy Act, and required that the backup power system for the Indian Point Energy Center (IPEC) Alert and Notification System (ANS) be declared operable by January 30, 2007. Entergy determined that installing a new ANS was a more efficient and economical way to comply with the requirements of the Act, rather than modifying their existing ANS, and considered four different vendors for the project. In late 2005, Entergy selected Acoustic Technology, Inc. (ATI), and after obtaining local county government concurrence, awarded ATI the project in February 2006.

ATI finalized the system design, ordered materials, and the first pole for the new siren system was installed on May 8, 2006. The design required the installation of sirens at new locations, and Entergy encountered difficulty in finalizing some of these locations. Also, Entergy had determined that one of the important radio towers for the four-tower system would be located at Westchester County's Grassland facility. Towards the end of 2006, Entergy learned that the Grasslands tower had pre-existing structural deficiencies that prevented the installation of the equipment required for the new ANS. In a January 11, 2007, letter Entergy requested that the NRC relax the required implementation date of the new ANS from January 30 to April 15, 2007. The NRC evaluated the factors presented in the extension request and Entergy's ability to have reasonably foreseen difficulties that could impact the required implementation date. The NRC further evaluated Entergy's level of control to rectify each problem. The NRC determined that Entergy had provided sufficient evidence to support that the pole location and Grasslands tower problems encountered in the installation of the new ANS could not have been reasonably foreseen any earlier. By letter dated January 23, 2007, the NRC granted Entergy's request to revise the implementation date of the Confirmatory Order to April 15, 2007.

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Entergy completed the Grasslands tower work on March 21, 2007, and the Federal Emergency Management Agency (FEMA) provided initial design report approval for the new ANS to the State of New York on March 22, 2007. Entergy conducted acoustic testing on the system in March 2007 and planned for an April 12, 2007, pre-operational test to demonstrate operability of the new ANS. Due to equipment problems at the Tinker Hill tower, that test failed to meet the system acceptance criteria. Entergy submitted an additional extension request on April 13, 2007, but that request was denied by the NRC.

On April 23, 2007, the NRC issued a Notice of Violation (NOV) and a proposed Civil Penalty to Entergy for the failure to meet the implementation date of April 15, 2007, for the new ANS. The May 23, 2007, Entergy response to the NOV admitted to the violation of the Confirmatory Order and committed to implementing the new ANS by August 24, 2007. The NRC evaluated Entergy's response to the NOV and additional information Entergy provided during a July 9, 2007, public meeting. On July 30, 2007, the NRC issued to Entergy an Order which again modified the operating license of Indian Point Units 2 and 3. This Order required Entergy to: complete the outstanding requirements of the January 31, 2006, Confirmatory Order, as modified by the new Order; implement those measures necessary for FEMA to accept the new ANS as the primary ANS for alerting the public by August 24, 2007; and, complete the necessary software and procedure upgrades and training of county personnel who would be responsible for the actuation of the system.

In an August 17, 2007, letter Entergy informed the NRC that the outstanding requirements of the January 31, 2006, Confirmatory Order and the necessary software and procedure upgrades and training of county personnel had been completed or would be completed by August 24, 2007. The letter also indicated that Entergy was uncertain about the date it would obtain FEMA approval of the new ANS as the primary system for alerting the public. In an August 23 letter, Entergy requested that the NRC consider modifying the terms of the July 30, 2007, Order to accommodate ongoing FEMA review of the new ANS. The NRC subsequently concluded that Entergy had not demonstrated good cause and, in an August 30, 2007, letter denied Entergy's request and issued a NOV.

As part of their review of the system during the remainder of 2007, FEMA identified several issues related to the new ANS, including: sound interference caused by existing ANS sirens at locations where new ANS sirens were co-located; sound interference caused by vegetation in the area of new siren locations; new siren signals were not steady, repeatable and reproducible; and, the need for a failure modes and effects analysis for the new ANS. During the fall and winter of 2007, Entergy addressed these issues through additional acoustic testing of the new sirens, clearing vegetation in the area of the sirens, performing the failure modes and effects analysis, and by adding additional sirens to the system to provide for wider coverage in the Indian Point EPZ.

On January 24, 2008, the NRC issued another NOV and imposed a civil penalty to Entergy for their continued failure to satisfy the NRC Orders issued on January 31, 2006, and July 30, 2007. On February 8, 2008, Entergy submitted a siren project milestone

schedule for the new ANS, which included obtaining FEMA approval by August 6, 2008, and placing the system in service by August 14, 2008.

By the spring of 2008, all technical concerns had been resolved with the exception of FEMA's conclusion that the configuration of 167 sirens did not provide essentially 100% area-wide coverage as required by FEMA guidance. Entergy added an additional five sirens to the system, but in a July 22, 2008, technical meeting FEMA restated that the system did not meet the essentially 100% coverage requirement. At that meeting, Entergy agreed to deploy tone alert radios (TARs) as an enhancement in those areas that might have low sound coverage. On August 22, 2008, the NRC issued a Confirmatory Action Letter (CAL) which documented that Entergy would complete a number of actions regarding the TAR program. In a letter dated August 22, 2008, FEMA concluded that the new ANS at Indian Point met FEMA regulations and guidance, and was therefore acceptable on a provisional basis pending certain follow-up actions to be taken by Entergy and a one-year review and test period. On August 27, 2008, Entergy placed the new ANS into service.

The NRC conducted this performance assessment review in accordance with Inspection Procedure (IP) 92702, "Follow-up on Traditional Enforcement Actions Including Violations, Deviations, Confirmatory Action Letters, Confirmatory Orders, and Alternate Dispute Resolution Confirmatory Orders," to assess Entergy's actions associated with: NRC Notices of Violations; with the NRC Confirmatory Order issued on January 31, 2006 (EA-05-190); the NRC Order of July 30, 2007 (EA-07-189); and, the Confirmatory Action Letter of August 22, 2008 (No. 1-08-005). The inspection had two primary objectives:

- to determine that adequate corrective actions have been implemented for traditional enforcement actions, including Violations, Confirmatory Action Letters, and Confirmatory Orders; and
- to verify that the root causes of these enforcement actions have been identified, that their generic implications have been addressed, and that the licensee's programs and practices have been appropriately enhanced to prevent recurrence.

A. Confirmatory Order and Order Compliance

1. Inspection Scope

The inspectors identified the requirements of the January 31, 2006, Confirmatory Order and the July 30, 2007, Order. The NRC staff had previously inspected a number of these requirements: since the issuance of the Confirmatory Order, regional specialist inspectors had performed quarterly inspections of the design, installation, and testing of the new ANS. These inspections were in addition to the NRC's Reactor Oversight Program baseline inspections and had been authorized by the NRC Executive Director of Operation in a memorandum dated October 31, 2005. This baseline inspection program deviation was renewed by additional memoranda dated December 11, 2006, and December 19, 2007. The previous NRC inspections were documented in the Indian

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Point NRC quarterly resident inspector inspection reports, from the first quarter of 2006 through the third quarter of 2008.

The inspectors interviewed licensee management and staff, and reviewed licensee design commitments, installation records, and testing documentation, to verify compliance with Confirmatory Order and Order requirements; on a sampling basis for previously inspected items and on a more complete basis for those items that had not yet been inspected. The inspectors also reviewed the Condition Report history associated with the new ANS in order to verify that previously identified deficiencies of the new ANS had been properly addressed and corrected. The inspector observed the third ANS reliability test, as required by Confirmatory Order Section II.C.4 and .5, which was conducted during the onsite portion of this inspection. The inspectors completed an in-office review of the December 12, 2008, Entergy letter which documented the final satisfaction of all NRC enforcement action requirements.

With respect to the January 31, 2006, Confirmatory Order, the inspectors verified that:

- The new ANS design included a backup power supply which provided power to each component to perform their design function;
- The backup power supply for each siren was designed for operation in the standby mode for a minimum of 24 hours, and that the siren was capable of performing its design function for at least 15 minutes;
- The batteries were designed to recharge to at least 80 percent of their maximum rated capacity within 24 hours of being fully discharged;
- There is a feedback system that provides immediate indication of a loss of power;
- Entergy had implemented a preventive maintenance and testing program for the system, and had complied with vendor-recommended battery design life and replacement frequencies;
- Entergy had complied with any new Department of Homeland Security requirements for the ANS and had evaluated and addressed lessons learned from their previous ANS;
- Entergy had submitted a response to the Confirmatory Order and a proposed revision to the IPEC Emergency Plan;
- Entergy had demonstrated satisfactory performance of all ANS components, including the ability of the backup power supply to meet its design requirements;
- After declaring the ANS operable, Entergy conducted periodic testing in accordance with Confirmatory Order Section II.C.4 and .5; and,
- Entergy had notified the NRC of: reliability testing results; when the system was declared operable; and when full compliance with the Confirmatory Order had been achieved.

With respect to the July 30, 2007, Order, the inspectors verified that Entergy had:

- Maintained compliance with the Confirmatory Order;
- Submitted a report describing steps to be taken and a schedule to the NRC;

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- Obtained FEMA approval that the installed ANS was in compliance with all applicable FEMA regulations and guidance;
- Completed all necessary software and procedure upgrades and training of all four local county response organizations; and,
- Maintained the former ANS fully available and established the actions to use the former ANS as a backup to the new ANS.

2. Findings and Observations

No findings of significance were identified.

The inspectors concluded that Entergy had satisfactorily complied with the requirements of the January 2006 Confirmatory Order and the July 2007 Order. Entergy's design, installation, and testing documentation, along with the correspondence record associated with the new ANS, provided adequate indication that the new ANS met all applicable NRC and FEMA requirements. The inspectors further concluded that Entergy had opportunities during the development and installation of the new ANS to have satisfied those regulatory requirements in a timelier manner. Performance deficiencies in project management and offsite stakeholder interactions had resulted in the delay of system implementation, which had resulted in the issuance of two NRC Notices of Violation.

B. Confirmatory Action Letter Satisfaction

1. Inspection Scope

The inspectors identified the commitments of the August 22, 2008, Confirmatory Action Letter (CAL), related to Entergy's commitments to develop and implement a tone alert radio (TAR) program. As with the Confirmatory Order and Order, previous NRC inspections, conducted per baseline inspection program deviation authorization, had verified Entergy's earlier satisfaction of a portion of these commitments. The inspectors interviewed licensee management and staff, and reviewed licensee design commitments, installation records, and testing documentation, to verify satisfaction of CAL commitments; on a sampling basis for previously inspected items and on a more complete basis for those items that had not yet been inspected.

With respect to the CAL, the inspectors verified that Entergy had implemented a TAR Control Program that utilized a prescribed analytical method for identifying the locations that will be offered TARs, and that documented the effort to place TARs at those locations. The inspectors also ensured that the TAR program: maintained a record system of the addresses where TARs are placed, and maintained a program for updating TAR locations as a result of new addresses or occupant changes; provided annual replacement batteries and instructions to TAR users; and, had a means of periodic operational verification and reliability testing of the TARs, and a feedback mechanism for TAR users to ask questions. The inspectors further verified, through reviewing the acoustic analysis mapping and the licensee's distribution records, that Entergy had distributed TARs to required locations in the 0-5 mile region of the Emergency Planning Zone (EPZ) prior to placing the new siren system in service and

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had distributed TARs to required locations in the region of the EPZ beyond 5 miles on or before November 1, 2008.

2. Findings and Observations

No findings of significance were identified.

The inspectors concluded that Entergy had satisfied all commitments of the August 2008 CAL. The inspectors further determined that Entergy had, following their discussions with FEMA and the NRC in the summer of 2008, acted in a timely and satisfactory manner to develop and implement the required TAR program.

C. Corrective Action Review

1. Inspection Scope

Entergy performed a root cause analysis (RCA) in May 2007 to identify the causes that existed in their performance related to not achieving compliance with the NRC January 2006 Confirmatory Order, specific to the installation of an ANS with backup power supply capability by April 15, 2007. Entergy described the results of this RCA in their response letter to the Notice of Violation (NOV) dated May 23, 2007. Entergy performed an additional RCA in February 2008, in light of their continuing non-compliance with the NRC January 2006 Confirmatory Order and the July 2007 Order, to identify the causes that continued to exist in their performance related to not achieving compliance, specific to installation of an ANS with backup power capability by August 24, 2007. Entergy described the results of their RCA in their response letter to a second NOV for this issue dated February 22, 2008. The inspectors also noted that Entergy performed a self-assessment in November 2008 to assess the effectiveness of their corrective actions identified in these RCAs.

The inspectors reviewed these root cause evaluations and additional evaluations conducted by Entergy as a result of Entergy's non-compliance with the Orders, to determine whether Entergy performed adequate evaluations to sufficiently identify the root causes associated with their non-compliance with the Orders. The inspectors determined whether the corrective actions taken or planned were sufficient to address the causes of Entergy's non-compliance with the Orders; and whether the actions were appropriate to address the extent of the problems and prevent recurrence of the performance issues. The inspectors also reviewed the status of Entergy's implementation of their corrective actions.

The inspectors held discussions with Entergy personnel to verify that the root and contributing causes were understood by station personnel involved. The inspectors' review also considered Entergy's corrective actions to address the contribution of safety culture components that were related to Entergy's performance in meeting the required Orders. Specifically, the inspectors reviewed Entergy's corrective actions that resulted from a Safety Culture Assessment at Indian Point Energy Center that was completed in

August 2008 and was applicable to Entergy's performance related to the installation of the new siren system. The documents reviewed are listed in the Attachment.

2. Findings and Observations

No findings of significance were identified.

The inspectors concluded that, in general, Entergy evaluated and identified in sufficient detail the causes related to their non-compliance with NRC Orders (EA-05-190 and EA-07-189). Entergy identified corrective actions that reasonably addressed the causal factors and the extent of those performance issues. Furthermore, the inspectors determined that Entergy entered the corrective actions into their corrective action process.

a. Determination if Entergy's evaluation had identified the appropriate root causal factors associated with their non-compliance with the Orders (to install an ANS with backup battery supply).

Entergy's RCA in May 2007 identified causal factors associated with an insufficient project plan that did not ensure siren project activities, necessary to meet the NRC Order, were understood and implemented. For example, Entergy did not initially establish minimum performance criteria needed for declaring the new ANS system operable nor allow sufficient time to troubleshoot and repair potential siren performance issues with margin to meet the Order date requirements. Additionally, Entergy identified that their siren project team, at that time, did not sufficiently understand the technology associated with aspects of the new sirens specific to the radio simulcast technology for the new ANS system.

Entergy's RCA in February 2008 identified inadequate interaction and communication between Entergy and FEMA as the primary causal factor of Entergy's continued non-compliance with the NRC Orders. Specifically, Entergy had not sufficiently engaged and interacted with FEMA to develop and schedule siren project deliverables that assured Entergy would obtain FEMA design approval of the new ANS system in time to meet the NRC Order deadline of August 24, 2007. Additionally, Entergy's RCA identified that their project team did not allow sufficient time in the project plan to address FEMA technical concerns or comments.

The inspectors determined that Entergy's evaluations identified the root causal factors that delayed Entergy's ability to implement the NRC Orders related to installation of an ANS with backup power supply capability. The inspectors' review, consistent with Entergy's evaluations, concluded that inadequate project management implementation and organizational interface were the primary causal factors that delayed Entergy from meeting the NRC Order deadlines. Specifically, the inspectors determined that sound project management principles associated with scoping, planning, and scheduling were not implemented by Entergy in 2006 and 2007. Entergy's project management team did not implement necessary project management principles to establish project completion deadlines that considered technical and performance issues that would reasonably be expected to develop with a large scale technical project. Additionally, in 2006 and 2007,

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Entergy did not have appropriate project planning consideration and internalize the need for increased technical and focused communication with stakeholder interface, specifically FEMA and the local counties. For example, Entergy did not obtain FEMA's agreement on siren acceptance criteria and testing methodology until late in the siren project.

Even though Entergy identified the causal factors for their performance issues, the inspectors determined that Entergy's February 2008 RCA did not thoroughly evaluate nor fully consider April 2007 RCA corrective actions intended to ensure Entergy satisfied the revised Order deadline of August 24, 2007. Specifically, the February 2008 RCA did not sufficiently address or develop the reasons why Entergy's corrective actions from the first RCA, completed in May 2007, did not ensure that Entergy was successful in meeting the revised Order compliance deadline of August 24, 2007. However, the inspectors determined that this issue was included in Entergy's corrective action program, since Entergy had existing corrective actions to evaluate their root cause effectiveness. Additionally, the inspectors noted that, prior to this inspection, Entergy had initiated corrective actions (CR LO-IP3LO-2008-00151) associated with the post-project analysis of the ANS system that, in part, would assess past RCA effectiveness associated with the siren project, and that effort began in December 2008.

b. Determination if Entergy had implemented adequate corrective actions for the Notice of Violations associated with non-compliance of the Orders (to install an ANS with backup battery supply), including generic implications, and whether actions were sufficient to prevent recurrence of the causes.

Entergy documented the May 2007 RCA and resultant corrective actions in their corrective action program (CAP) under condition report CR-IP2-2007-01599. Entergy's corrective actions, at the time, primarily focused on resolving siren technical issues and project management training and expectation improvements. After the second Notice of Violation for non-compliance with NRC Orders, Entergy documented a February 2008 RCA and resultant corrective actions under CR-IP2-2008-00389. In the short term, Entergy focused on corrective actions to specifically address siren project management issues/milestones and FEMA interface challenges. Entergy also identified long-term actions to address project management improvements and stakeholder interface. In addition, in November 2008, Entergy performed a self-assessment (CR-IP3LO-2008-00173), focused on the May 2007 and February 2008 RCA corrective action completion. The self-assessment identified several areas for improvement in relation to corrective action implementation effectiveness and Entergy issued condition reports to address those self-assessment observations.

The inspectors determined that Entergy had implemented or had planned adequate corrective actions to address the performance issues that impeded Entergy's ability to comply with NRC Orders in April 2007 and August 2007. The inspectors also determined that Entergy had addressed generic implications of those performance issues. Specifically, the inspectors determined that Entergy had implemented corrective actions to address project management and organizational interface shortcomings evidenced during the siren project. Entergy had developed standardized project notebooks and revised project management procedures to ensure that sound project

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management principles will be consistently applied for large scale projects at Indian Point. This included actions, but is not limited to, addressing interface, protocol and communication challenges that would reasonably be expected to exist based on the nature of the project and stakeholder involvement. The inspectors also determined that Entergy had improved management ownership of projects by clarification of roles, responsibility, and accountability of station managers assigned to projects. The inspectors observed that projects at Indian Point now have an assigned on-site manager, to ensure accountability for the project. Lastly, the inspectors observed that project managers at the station had completed or were scheduled to complete project manager certification training.

Based on the revised project management process, procedures and accountability measures implemented, including planned project management actions going forward to address stakeholder interface challenges, Entergy's corrective actions appear to be sufficient to ensure their programs and procedures should reasonably prevent recurrence of the root causes. However, due to the recent implementation of the revised project management corrective actions, the inspectors determined that Entergy's effectiveness to prevent recurrence of siren project performance issues will be demonstrated by Entergy's performance during future large scale projects.

While the inspectors determined that, overall, corrective actions were appropriate to correct performance issues, the inspectors determined that previous corrective actions, as a result of the May 2007 RCA, were not properly focused and prioritized to ensure that Entergy was able to meet the revised Order deadline of August 24, 2007. Specifically, initial project management corrective actions developed in May 2007 were not sufficient to address needed process improvements. However, the inspectors determined this corrective action issue was addressed since Entergy's corrective actions specified in the February 2008 root cause report and November 2008 self-assessment were appropriate to encompass corrective action shortcomings from the May 2007 RCA and to address the broader project management and stakeholder interface issues. In particular, the inspectors observed that the revised project management process was being implemented to provide for improved implementation of projects at Indian Point.

The inspectors determined that, in addition to corrective actions that resulted from the RCAs, Entergy's actions resulting from their Safety Culture Assessment completed in August 2008 reinforced actions to address safety culture component challenges relevant to the siren project. Specifically, Entergy issued corrective actions in the area of management accountability and site decision-making related to project management.

Further, the inspectors determined that Entergy initiated corrective actions in early 2008 that addressed the interface issues with FEMA and the local counties. However, the inspectors noted, based on staff and management interviews, that Entergy was still establishing expectations, procedures, and processes to fully incorporate lessons learned from the ANS project with respect to interactions and communications with external stakeholders. The inspectors noted that a planned December 2008 siren post-project analysis included an evaluation of Entergy's interaction with the NRC and FEMA.

4OA6 Meetings, Including Exit

On November 20, 2008, the inspectors presented the preliminary results of this inspection to Mr. J. Pollock, the Site Vice President, and other members of the Entergy staff. After the on-site portion of the inspection, NRC management reviewed the inspection's preliminary conclusions, and discussed those results with local, state, and federal government stakeholders. On December 16, 2008, the NRC conducted an exit meeting via teleconference with Mr. Fred Dacimo, Vice President – License Renewal, and other members of the Entergy staff. No proprietary information was provided to the inspectors during this inspection.

ATTACHMENT: Supplemental Information

ATTACHMENT 1
SUPPLEMENTAL INFORMATION
KEY POINTS OF CONTACT

Licensee Personnel

J. Pollock, Site Vice President
F. Dacimo, Vice President – License Renewal
B. Sullivan, Indian Point Emergency Planning Manager

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Closed

EA-07-092	VIO	Failure to meet Confirmatory Order (EA-05-190)
EA-07-092/08-006	VIO	Failure to meet Order (EA-07-189)

LIST OF DOCUMENTS REVIEWED

Condition Reports Reviewed

IP2-2007-01599	IP2-2007-01636	IP2-2007-01629	IP2-2007-01710
IP2-2007-01784	IP2-2007-01971	IP2-2007-02315	IP2-2007-02733
IP2-2007-03210	IP2-2007-03548	IP2-2008-00389	IP2-2008-03987
IP2-2008-03988	IP2-2008-04009	IP2-2008-04441	IP2-2008-04477
IP2-2008-04511	IP2-2008-04512	IP2-2008-04548	IP2-2008-04549
IP2-2008-04556	IP2-2008-04826	IP2-2008-04924	IP2-2008-04927
IP2-2008-04960	IP2-2008-05084	IP3-2007-03272	IP3-2008-00085
IP3-2008-00291	IP3-2008-02634	IP3-2008-02598	IP3-2008-02908
IP3-LO-2007-00040	IP3-LO-2007-00271	IP3-LO-2007-00302	IP3-LO-2007-00326
IP3-LO-2008-00151	IP3-LO-2008-00173		

Procedures

IP-EP-AD12, Tone Alert Radio Program, Rev. 2
IP-EP-AD30, IPEC ATI Siren System Administration, Rev. 0
IP-EP-AD31, IPEC ATI Siren System Maintenance Administration, Rev. 0
IP-EP-AD32, IPEC ATI Siren System Routine Polling and Testing, Rev. 1
IP-EP-AD33, IPEC ATI Siren System Quarterly Preventative Maintenance, Rev. 1
IP-EP-AD34, IPEC ATI Control Station Semi-Annual Preventive Maintenance, Rev. 0
IP-EP-AD35, IPEC ATI Siren Site Annual Preventative Maintenance, Rev. 0
IP-EP-AD36, IPEC ATI Repeater Tower Semi-Annual Preventative Maintenance,
Rev. 0
IP-EP-AD37, IPEC ATI Solar Powered Siren Semi-Annual Preventative Maintenance,
Rev. 0
IP-EP-AD38, IPEC ATI Repeater Site Annual Preventative Maintenance, Rev. 0
IP-EP-AD39, IPEC ATI Control Station Annual Preventative Maintenance, Rev. 0

Other Documents

IP3-RPT-08-0065, Review of Compliance with NRC Confirmatory Order EA-05-190,
Rev. 0
Independent Safety Culture Assessment – Indian Point Energy Center, August 2008

Correspondence Record

<u>Document (Date)</u>	<u>Title</u>
NL-05-124 (10/25/05)	Energy Policy Act of 2005
RA-06-005 (1/31/06)	Confirmatory Order Modifying License to Require Backup Power for the Emergency Notification System for Indian Point Nuclear Generating Unit Nos. 2 and 3 [EA-05-190] [ADAMS Accession No. ML060410151]
NL-06-041 (3/30/06)	Schedule of Planned Activities for NRC Confirmatory Order EA-05-190 Regarding Indian Point Emergency Notification System
NL-06-054 (4/27/06)	Indian Point Energy Center Prompt Alert and Notification System Design Report
NL-06-058 (5/31/06)	Proposed Revision to Emergency Response Plan for Implementation of Indian Point Emergency Notification System
NL-06-076 (7/5/06)	Test Plan for Indian Point Emergency Notification System in accordance with NRC Order EA-05-190 [IV.II.C.3]
RA-06-065 (9/26/06)	Indian Point Nuclear Generating Unit Nos. 2 & 3 - Acceptance of Test Plan for Indian Point Emergency Notification System in Accordance with NRC Order EA-05-190
NL-06-124 (12/18/06)	Indian Point Energy Center Prompt Alert and Notification System Design Report [Transmittal of update to Siren Design Report]
NL-06-126 (12/20/06)	Revised Test Plan for Indian Point Emergency Notification System in accordance with NRC Order EA-05-190
NL-07-009 (1/5/07)	Indian Point Energy Center Prompt Alert and Notification System Design Report
NL-07-014 (1/11/07)	NRC Order EA-05-190 Relaxation Request: Implementation Date for Emergency Notification system Backup Power
RA-07-005 (1/23/07)	Relaxation of Implementation Date for NRC Confirmatory Order (EA-05-190) – Emergency Notification System Backup Power for Indian Point Nuclear Generating Units 2 and 3
RA-07-064 (4/23/07)	Notice of Violation and Proposed Imposition of Civil Penalty - \$130,000 and Additional Requirement to Provide Information – (Indian Point Nuclear Generating Station, Units 2 and 3) (Failure to meet NRC Confirmatory Order (EA-05-190) – Emergency Notification System Backup Power) [EA-07-092]

NL-07-070 (5/23/07)	Reply to Notice Of Violation EA-07-092 regarding Failure to Meet Implementation Deadline NRC Order EA-05-190
RA-07-107 (7/30/07)	Order (Effective Immediately) Modifying License for Indian Point Nuclear Generating Unit Nos. 2 and 3 [EA-07-189] [ML071430427]
NL-07-096 (8/17/07)	Licensee Answer to Order Modifying License Regarding Backup Power Requirement for ANS [20-Day Answer to EA-07-189]
RA-07-119 (8/30/07)	Notice of Violation regarding 2 nd NRC Order and 8/24/07 missed deadline [EA-08-006]
N/A (01/24/08)	Notice of Violation and Proposed Imposition of Civil Penalty - \$650,000, Indian Point Nuclear Generating Unit Nos. 2 and 3 [EA-08-006]
NL-08-024 (1/31/08)	Indian Point Energy Center Alert and Notification System Design Report [Submittal of Final Section 14.1 - Siren signal steadiness, repeatability, reproducibility]
NL-08-026 (2/7/08)	Indian Point Energy Center Alert and Notification System Far Field Measurements Methodology
NL-08-039 (2/22/08)	Reply to Notice of Violation EA-08-006
NL-08-040 (3/7/08)	Submittal of Final Alert and Notification System Design Report [Siren signal steadiness, repeatability, reproducibility]
NL-08-050 (3/14/08)	Failure Mode and Effects Analysis Indian Point Energy Center Acoustic Technology, Inc., Siren System [submittal to FEMA]
NL-08-062 (4/7/08)	Georgia Tech Research Institute Acoustic Testing of Prompt Alert Notification System Sirens from Indian Point Energy Center Volume III [Submittal to FEMA]
NL-08-059 (4/28/08)	Indian Point Energy Center Alert and Notification System Final Design Report [Submittal to FEMA]
NL-08-071 (4/28/08)	Response to FEMA Request for Additional Information on the Failure Modes and Effects Analysis of the Indian Point Energy Center Siren System [submitted per NL-08-050]
NL-08-085 (5/21/08)	Indian Point Energy Center Siren System Far Field Acoustic Testing Report [submittal to NYSEMO, FEMA open issues, and revised Design Report Data]

NL-08-111 (7/10/08)	Indian Point Energy Center Alert and Notification System Final Design Report [revised and additional sections]
NL-08-120 (7/30/08)	Indian Point Energy Center Alert and Notification System Final Design Report [revised and additional sections]
NL-08-122 (7/31/08)	Entergy Commitments Regarding Tone Alert Radios
RA-08-123 (8/22/08)	Confirmatory Action Letter (1-08-005) [ML082350676]
NL-08-134 (8/26/08)	NRC Order EA-05-190; Indian Point Emergency Notification System Notification of In-Service Date
NL-08-167 (11/4/08)	NRC Confirmatory Action Letter 1-08-005; Indian Point Emergency Notification System Tone Alert Radios
NL-08-174 (12/12/08)	Indian Point Emergency Notification System; Notification of Compliance with NRC Orders EA-05-190, EA-07-189, and Report of Test Results

LIST OF ACRONYMS

ANS	Alert Notification System
ATI	AcousticTechnology, Inc.
CAL	Confirmatory Action Letter
CAP	Corrective Action Program
CR	Condition Report
EP	Emergency Preparedness
EPZ	Emergency Planning Zone
FEMA	Federal Emergency Management Agency
IP	Inspection Procedure
IPEC	Indian Point Energy Center
NOV	Notice of Violation
NRC	Nuclear Regulatory Commission
RCA	Root Cause Analysis
TAR	Tone Alert Radio