February 8, 2006

Mr. Fred R. Dacimo
Site Vice President
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
295 Broadway, Suite 1
P.O. Box 249
Buchanan, NY 10511-0249

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT 3 - NRC INTEGRATED INSPECTION REPORT 05000286/2005005

Dear Mr. Dacimo:

On December 31, 2005, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Indian Point Nuclear Generating Unit 3 (IP3). The enclosed integrated inspection report documents the inspection findings, which were discussed on January 11, 2006, with Mr. Paul Rubin 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 the inspection, four findings were identified. Three of these findings were determined to be violations of NRC requirements, including one finding that was determined to be a Severity Level IV violation. However, because of the very low safety significance, and because they were entered into your corrective action program, the NRC is treating these findings as non-cited violations (NCVs) consistent with Section VI.A of the NRC Enforcement Policy. If you contest the NCVs in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, D.C. 20555-0001; with copies to the Regional Administrator, Region I; the Director, Office of Enforcement; and the NRC Senior Resident Inspector at Indian Point 3.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the

NRC Public Document Room or from the Publicly Available Records (PARS) component of the 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/

Brian J. McDermott, Chief
Projects Branch 2
Division of Reactor Projects

Docket No. 50-286
License No. DPR-64

Enclosure: Inspection Report No. 05000286/2005005
w/Attachment: Supplemental Information

cc w/encl:
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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.	50-286
License No.	DPR-64
Report No.	05000286/2005005
Licensee:	Entergy Nuclear Northeast
Facility:	Indian Point Nuclear Generating Unit 3
Location:	295 Broadway, Suite 3 Buchanan, NY 10511-0308
Dates:	October 1, 2005 - December 31, 2005
Inspectors:	T. Hipschman, Senior Resident Inspector, IP3 B. Wittick, Resident Inspector, IP3 D. Jackson, Senior Project Engineer R. Fuhrmeister, Senior Project Engineer D. Silk, Senior Emergency Preparedness Inspector S. Barr, Senior Operations Engineer R. Kahler, Senior Emergency Preparedness Specialist, NSIR C. Long, Acting Resident Inspector, IP2 D. Johnson, Reactor Inspector T. Sicola, Reactor Inspector
Approved by:	Brian J. McDermott, Chief Projects Branch 2 Division of Reactor Projects

CONTENTS

SUMMARY OF FINDINGS

IR 05000286/2005005; 10/01/2005 - 12/31/2005, Indian Point Nuclear Generating Unit 3; Maintenance Effectiveness, Emergency Preparedness, Identification and Resolution of Problems.

The report covers a 3-month period of inspection by resident inspectors, regional inspectors and a senior emergency preparedness specialist from NSIR. Four findings were identified, three of which were non-cited violations (NCVs). Of these three NCVs, one was determined to be a Severity Level IV violation of NRC requirements. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. NRC Identified and Self-Revealing Findings

Cornerstone: Mitigating Systems

- Green. A Green non-cited violation of 10CFR50 Appendix B, Criterion XVI, "Corrective Action" was identified by the inspectors involving Entergy's failure to take effective corrective action for a deficiency that resulted in repetitive failures of safety-related Control Building Exhaust Fan 33. The inspectors identified that the fan had eight functional failures between February 2002 and November 2005 due to building roof leaks and other causes under evaluation. Entergy has taken action to address the cause of the roof leaks and in response to this finding evaluated the potential causes for the failures, assigned corrective actions, and assessed the previous treatment of these failures under the corrective action program. This finding is related to the cross-cutting element of Problem Identification and Resolution.

  This finding is greater than minor because it affected the equipment performance attribute of the Mitigating Systems cornerstone objective to ensure availability, reliability and capability of systems that respond to initiating events to prevent undesirable consequences. This finding is of very low safety significance, because it did not result in the loss of a safety function or the loss of a single train of a safety system for greater than the Technical Specification allowed outage time and it is not potentially risk-significant due to external events. Because this finding is of very low safety significance and has been entered into the licensee's corrective action program (CR-IP3-2005-05548), this violation is being treated as a non-cited violation. (Section 1R12)

Cornerstone: Emergency Preparedness (EP)

- **Green. A Green NCV associated with emergency planning standard 10 CFR 50.47(b)(4) was identified by the inspectors, because no established means of indication or procedures were readily available for operators to determine if the service water bay level met the threshold declaration of an Unusual Event (UE) as described in EAL 8.4.3. Entergy installed temporary level indication and entered this issue into its corrective action program for further evaluation and implementation of long term corrective actions**

  This finding is greater than minor because it is associated with the Emergency Preparedness cornerstone attribute of Facilities and Equipment, and affected the cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. The deficiency is not greater than Green because it did not result in the Risk-Significant Planning Standard Function being lost or degraded. Section 4.4 of Manual Chapter 0609, Appendix B, provides examples for use in assessing emergency preparedness related findings. One example of a Green finding states, "The EAL classification process would not declare any Alert or Notification of Unusual Event that should be declared." Since the declaration of an UE based on low service water bay level could have been missed or delayed, this finding was considered consistent with the example provided and was therefore determined to be of very low safety significance (Green). Because this issue is of very low safety significance and has been entered into Entergy's corrective action program, it is being treated as an NCV. (Section 1EP4)

- Green. The inspectors identified a Green finding for a failure to implement timely corrective actions for multiple frame relay system problems dating back to 2003. Specifically, for issues related to the reliability of the frame relay system, adequate actions to prevent recurrence were not implemented in a timely manner. Entergy's corrective actions in response to the August 2005 frame relay failures resulted in a more thorough assessment of this issue and reasonable actions to prevent recurrence. **This finding was associated with the Problem Identification and Resolution cross-cutting area because it was related to Entergy's failure to implement timely corrective actions for reliability issues with the frame relay system.**

  This finding was determined to be more than minor because the finding is associated with the EP cornerstone attribute of Facilities and Equipment (alarm notification system availability). It affects the cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. This finding is not suitable for Significance Determination Process evaluation, but has been reviewed by NRC management and is determined to be a finding of very low safety significance. This issue is not greater than Green because of the short periods that the frame relay system was unavailable and because the alert

and notification system design included a secondary method (i.e., back-up radio system) to actuate the sirens. (Section 4OA2)

- Severity Level IV. A non-cited violation (NCV) of 10 CFR 50.72(b)(3)(xiii) was identified for not formally reporting a siren system problem that occurred on August 5, 2005. The inspectors noted the short duration of the siren system problem, the fact that the NRC was informally notified, that back-up route alerting was available, and also that the capability to actuate the sirens via a manual siren initiation method was not lost. Subsequent to this event, the licensee implemented corrective actions to formalize the manual siren system actuation method. Notwithstanding these circumstances, a formal notification to the NRC was required, because the normal processes for actuation of the sirens were not available, and the licensee did not have formal procedures for, and had limited experience with, a potential alternate siren actuation method.

  This deficiency was evaluated using the traditional enforcement process since the failure to make a required report could adversely impact the NRC's ability to carry out its regulatory mission. The inspectors evaluated the severity of this violation using the criteria contained in Supplement I - Reactor Operations and Section VI.A.1 of the NRC's Enforcement Policy and determined that this finding met the criteria for disposition as a non-cited violation. (Section 4OA2)

B. Licensee-Identified Violations.

A violation of very low safety significance, which was identified by the licensee has been reviewed by the inspectors. Corrective actions taken or planned by the licensee have been entered into the licensee's corrective action program. This violation and corrective actions are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

Unit 3 was in a forced outage at the beginning of the inspection period. On October 7, 2005, Unit 3 reached full power and operated at or near full power for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection

a. Inspection Scope (71111.01 - 2 samples of system-related weather preparations)

The inspectors reviewed Entergy's administrative controls and implementation of a maintenance program to ensure adequate protection of safety-related water sources from freezing conditions. These systems were selected because their safety-related functions could be affected by adverse weather. Specifically, the inspectors reviewed the licensee's strategy for coping with cold weather effects on the condensate storage tank (CST), the primary water storage tank (PWST), the refueling water storage tank (RWST), and the fire water storage tank (FWST). The inspectors also reviewed work orders and condition reports associated with these external tanks which had the potential to impact cold weather performance. In addition, the inspectors walked down the accessible areas of piping and instrumentation to evaluate the insulation and heat tracing material condition. The specific information reviewed is listed in the Supplemental Information attachment to this report. This inspection satisfied two samples for the onset of adverse weather. Inspection of the CST, PWST, and RWST tank conditions, piping, and instrumentation constituted the first sample, while inspection of the FWST tank conditions, piping, and instrumentation constituted the second sample.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

Partial System Walkdowns

a. Inspection Scope (71111.04Q - 3 samples)

The inspectors performed system walkdowns during periods of system train unavailability in order to verify that the alignment of the available train was proper to support the availability of safety functions, and to assure that Entergy had identified and properly addressed equipment discrepancies that could potentially impair the functional capability of the available train. The specific information reviewed to verify correct

system alignment is referenced in the Supplemental Information attachment at the end of this report. The following system walkdowns were counted as samples:

- Residual heat removal (RHR) system suction piping to verify proper alignment following system restoration from the forced cooldown mode of operation and to inspect the material condition of the piping and valves
- Component Cooling Water system to verify proper alignment during system heat exchanger maintenance
- Service Water System and Intake Structure due to trash bar fouling

b. Findings

No findings of significance were identified.

1R05 Fire Protection

Fire Protection Tours

a. Inspection Scope (71111.05Q - 8 samples)

The inspectors toured areas that were identified as important to plant safety and risk significant. The inspectors consulted Section 4.0, “Fire,” and the top risk significant fire zones in Table 4.4.4.2, “Core Damage Frequency for Fire Zones,” within the Indian Point 3 Individual Plant Examination of External Events (IPEEE). The objective of this inspection was to determine if Entergy had adequately controlled combustibles and ignition sources within the plant, effectively maintained fire detection and suppression capability, and had adequately established compensatory measures for degraded fire protection equipment. The inspectors evaluated conditions related to: 1) control of transient combustibles and ignition sources; 2) the material condition, operational status, and operational lineup of fire protection systems, equipment and features; and 3) the fire barriers used to prevent fire damage or fire propagation. Reference material used by the inspectors to determine the acceptability of the observed conditions in the fire zones are referenced in the Supplemental Information section of this report. The areas counted as samples were:

- Fire Zones 70 and 78A
- Fire Zone 14
- Fire Zones 58A, 59A, 62A
- Fire Zones 3 and 4
- Fire Zones 49A, 50A and 51A
- Fire Zones 7A, 60A, 73A, 74A
- Fire Zones 22 and 55A
- Fire Zones 10, 36A, 101A, 102A

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measures

Internal Flooding

f. Inspection Scope (71111.06 - 1 sample)

The inspector reviewed Entergy's internal flood analysis, flood mitigation procedures and design features of the Control Building flood zone CTL 33 and CTL 15-1, Instrument Air Closed Cooling Water System to verify whether they were consistent with IP3's design requirements. The inspector walked down several internal and external plant areas that contained equipment important to safety. The inspector evaluated the condition and adequacy of mitigation equipment to assess whether flood protection design features were adequate. The inspection of flood zone CTL 33 and CTL 15-1 constituted one inspection sample.

The inspector reviewed Entergy's selected preventative maintenance and surveillance procedures on flood mitigation equipment. In addition, the inspector reviewed the Corrective Action Program (CAP) to verify whether previous flood related issues had been appropriately evaluated and resolved. The specific information reviewed is referenced in the Supplemental Information attachment at the end of this report.

a. Findings

No findings of significance were identified.

1R07 Heat Sink Performance

a. Inspection Scope (71111.07A - 1 sample)

On November 8, 2005, the inspector observed the condition of the 32 Component Cooling Water (CCW) heat exchanger after it was opened for periodic inspection and cleaning (Work Order IP3-04-10571). The inspectors observed and reviewed maintenance activities of a safety-related heat exchanger inspection and cleaning to assess the adequacy of the licensee's preventive maintenance to minimize the effects of biofouling on heat exchanger performance. The inspectors visually examined the heat exchanger when it was first opened to assess the adequacy of Entergy's periodic cleaning to avoid excessive fouling. The inspectors also reviewed the as-found eddy current testing results and compared it to previous testing data. The inspection of 32 CCW Heat Exchanger constituted one inspection sample.

b. Findings

No findings of significance were identified.

1R11 Operator Requalification Inspection

.1 Resident Inspector Quarterly Review

a. Inspection Scope (71111.11Q - 1 sample)

On November 22, 2005, the inspectors observed training for Operations Staff licensed operators. The inspectors reviewed an "as found" simulator scenario to determine if the scenario contained: 1) clear event descriptions with realistic initial conditions; 2) clear start and end points; 3) clear descriptions of visible plant symptoms for the crew to recognize; and 4) clear expectations of operator actions in response to abnormal conditions.

During the simulator exercise, the inspector evaluated the team's performance for: 1) clarity and formality of communications; 2) correct use and implementation of emergency operating procedures (EOPs) and abnormal operating procedures (AOPs); 3) operators' ability to properly interpret and verify alarms; and 4) operators' ability to take timely actions in a safe direction based on transient conditions. In addition, the inspectors evaluated the Control Room Supervisor's ability to exercise effective oversight and control of the crew's actions during the exercise. The inspectors verified that the feedback from the instructors was thorough and that they identified specific areas for improvement, and that they reinforced management expectations regarding crew competencies in the areas of procedure use, communications, and peer checking. The inspectors also evaluated Entergy's post-scenario critique. The observation of requalification training on November 22, 2005 constituted one inspection sample. The documents reviewed are listed in the attachment.

b. Findings

No findings of significance were identified.

.2 Annual Review of Operating Test and Comprehensive Written Exam Results

a. Inspection Scope (71111.11B - 1 sample)

On December 8, 2005, the inspector conducted an in-office review of licensee annual operating test results and comprehensive written exam results for 2005, constituting one inspection sample. The inspection assessed whether pass rates were consistent with the guidance of NRC Manual Chapter 0609, Appendix I, "Operator Requalification Human Performance Significance Determination Process (SDP)." The inspector verified that:

- Crew failure rate was less than 20%. (Crew failure rate was 0%.)
- Individual failure rate on the dynamic simulator test was less than or equal to 20%. (Individual failure rate was 0%.)
- Individual failure rate on the walk-through test was less than or equal to 20%. (Individual failure rate was 0%.)
- Individual failure rate on the comprehensive written exam was less than or equal to 20%. (Individual failure rate was 0%.)
- Overall pass rate among individuals for all portions of the exam was greater than or equal to 75%. (Overall pass rate was 100%.)

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness

.1 Maintenance Rule Implementation- Quarterly

a. Inspection Scope (71111.12Q - 2 samples)

The inspectors evaluated Entergy's work practices and follow-up corrective actions for selected systems, structures, and components (SSC) issues to assess the effectiveness of maintenance activities. The inspectors reviewed the performance history of those SSCs and assessed extent of condition determinations performed by Entergy personnel for those issues with potential common cause or generic implications to evaluate the adequacy of corrective actions. The inspectors reviewed problem identification and resolution actions for these issues identified by Entergy personnel to evaluate whether they had appropriately monitored, evaluated, and dispositioned the issues in accordance with Entergy's procedures and the requirements of 10 CFR 50.65, "Requirements for Monitoring the Effectiveness of Maintenance." In addition, the inspectors reviewed selected SSC classification, performance criteria and goals, and Entergy's corrective actions that were taken or planned, to verify whether the actions were reasonable and appropriate. The inspectors specifically reviewed the following two samples within the scope of this inspection:

- Control Rod Drive Mechanism Fans
- Control Building Exhaust Fan 33

b. Findings

Introduction: The inspector identified a Green non-cited violation due to Entergy's failure to properly identify, evaluate and take effective corrective action to prevent repetitive failures of the Control Building Exhaust Fan 33. This was determined to be a violation of 10CFR50 Appendix B, Part XVI, Corrective Action.

Description: Control Building Exhaust Fan 33 has experienced eight functional failures between February 2002 and November 2005. The failures were identified by either "Hi Room Temp. Control Bldg Elev 15 Ft" alarms in the 480VAC switchgear room, or by failure to start during quarterly surveillance testing. Failures normally resulted in blown main line fuses, rendering the fan inoperable. The function of Exhaust Fan 33 is to maintain an acceptable environment in the 480VAC Switchgear Room during normal, abnormal and incident conditions. Additionally, Exhaust Fan 33 is credited in the Appendix R safe shutdown analysis to maintain an acceptable environment in the 480VAC switchgear room.

Exhaust Fan 33 experienced two failures in 2002, and 2003, that resulted in maintenance technicians replacing fuses and restoring the fan to service. From February 2004 through January 2005, Entergy identified roof leaks as the potential cause of blown fuses and fan failure for four subsequent failures. A series of work orders were generated in conjunction with these failures to effect roof repairs and provide temporary shielding for the fan, but efforts were delayed and were ineffective in preventing subsequent fan failures. Exhaust Fan 33 failed again in April 2005 and the cause was attributed to previous roof leakage, although several roof repairs had been completed as of January 2005, and no roof leakage was noted in March 2005. After Exhaust Fan 33 failed again in November 2005, maintenance troubleshooting was performed on the fan motor and the Condition Report (IP3-2005-05245) was closed without finding a cause.

In each of the above-noted repetitive failures the Condition Reports were administratively closed as Category C and D level actions without required causal analysis to determine the reason for failure. The Entergy Corrective Action Procedure, EN-LI-102, requires adverse conditions (such as recurring failure of safety related components) classified "non-significant" to be screened to Category B, thus ensuring:
1) determination and documentation of the apparent cause of the deficiency; and
2) determination and documentation of an action plan to eliminate the identified causes, thereby reducing the likelihood of condition repetition.

Analysis: The inspector determined that the finding is a performance deficiency since the licensee failed to identify the repetitive nature of the functional failure of a risk significant, safety-related system to an appropriate threshold in their corrective action process, and failed to take timely and effective corrective action to preclude repetition of the failure as required. It is also reasonable that Entergy should have been able to foresee and correct the repetitive nature of the problems with Exhaust Fan 33. Traditional enforcement does not apply since there were no actual safety consequences or potential for impacting the NRC's regulatory function, and the finding was not the result of any willful violation of NRC requirements or Entergy's procedures. The deficiency was greater than minor because it affected the equipment performance attribute of the Mitigating Systems cornerstone objective to ensure availability, reliability and capability of systems that respond to initiating events and prevent undesirable consequences. The inspectors assessed the finding using the SDP Phase 1 Screening and determined the finding to be of very low safety significance. The finding was of very

low safety significance because it was not a design or qualification deficiency confirmed not to result in a loss of operability, did not result in a loss of system safety function, did not represent actual loss of safety function of a single train for greater than its Technical Specification allowed outage time, did not represent an actual loss of safety function of one or more non-Technical Specification trains of equipment designated as risk significant per 10CFR50.65 for greater than 24 hours, and was not risk significant due to seismic, flooding or severe weather initiating events.

This finding is associated with the cross-cutting area of problem identification and resolution, in that the failure to adequately evaluate and correct a deficiency that impacted the reliability and availability of a mitigating system (see Section 4OA2).

Enforcement: 10CFR50, Appendix B, Section XVI, Corrective Action, states, in part, that measures shall be established to assure that conditions adverse to quality, such as failures and deficiencies, are promptly identified and corrected. Contrary to the above, the inspectors identified that between February 2002 and November 2005, Control Building Exhaust Fan 33 experienced eight functional failures due to building roof leaks and other causes under evaluation. Because this finding is of very low safety significance and has been entered into the CAP (CR-IP3-2005-05548), this violation is being treated as an NCV, consistent with Section V1.A of the Enforcement Policy: **NCV 05000286/2005005-01, Inadequate Corrective Action to Preclude Repetitive Failure of Control Building Exhaust Fan 33.**

.2 Maintenance Rule Implementation- Biennial

a. Inspection Scope (71111.12B - 4 samples)

The inspector conducted a review of the periodic evaluation of implementation of the Maintenance Rule as required by 10 CFR 50.65(a)(3) for Indian Point Unit 3. The evaluation covered a period from April 2003 to April 2005. The purpose of this review was to ensure that Indian Point Unit 3 established appropriate goals, and effectively assessed system performance and preventive maintenance activities. The inspector verified that the assessment was completed within the required time period and that industry operating experience was utilized, where applicable. Additionally, the inspector verified that Indian Point appropriately balanced equipment reliability and availability and made adjustments when appropriate.

The inspector selected four risk-significant systems constituting four inspection samples to verify that: 1) the structures, systems, and components were properly characterized; 2) goals and performance criteria were appropriate; 3) corrective action plans were adequate; and 4) performance was being effectively monitored in accordance with station procedure ENN-DC-121, "Maintenance Rule." The following systems were selected for this detailed review:

- 345 kV Electrical System
- Emergency Lighting

- Nuclear Instrumentation System (NI)
- Gas Turbines

These systems were either in (a)(1) status, had been in (a)(1) status at some time during the assessment period, or experienced degraded performance. The inspector reviewed corrective action documents for malfunctions and failures of these systems to determine if: 1) system failures had been correctly categorized as functional failures; and 2) system performance was adequately monitored to determine if classifying a system as (a)(1) was appropriate.

The inspector interviewed the maintenance rule coordinator and system engineers, reviewed documentation for applicable systems, and reviewed a sample of condition reports. The documents that were reviewed are listed in the attachment to this report.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessment and Emergent Work Control

a. Inspection Scope (71111.13 - 4 samples)

The inspector observed selected portions of emergent and planned maintenance work activities to assess Entergy's risk management in accordance with 10 CFR 50.65(a)(4). The inspector verified that Entergy took the necessary steps to plan and control emergent work activities, to minimize the probability of initiating events, and to maintain the functional capability of mitigating systems. The inspector observed and/or discussed risk management with maintenance and operations personnel. The specific information reviewed is referenced in the Supplemental Information attachment at the end of this report. The following three emergent activities and one planned activity were observed and treated as inspection samples:

- WO IP3-05-20528: Maintenance inspection on 345KV bus tie circuit breaker
- WO IP3-05-24622: Phase B Breaker #1 low gas pressure
- WO IP3-04-19705: Reactor Protection System Train "A"
- WO IP3-05-00115: 31 Battery Charger voltage and amperage oscillations

b. Findings

No findings of significance were identified.

1R14 Personnel Performance During Non-routine Plant Evolutions and Events

a. Inspection Scope (71111.14 - 1 sample)

For the non-routine evolution described below, the inspectors reviewed operator logs, plant computer data, and strip charts to determine what occurred and how the operators responded, and to determine if the response was in accordance with plant procedures. The observed evolution constitutes one inspection sample. The documents reviewed are listed in the attachment.

- On October 5, 2005, inspectors observed reactor and plant startup following shutdown for control rod drive mechanism (CRDM) cable splice inspection and repair due to the dropped H-12 control rod. The inspectors observed that control room and plant operator activities were conducted per plant procedures and technical specifications.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope (71111.15 - 5 samples)

The inspectors selected a sample of Entergy's operability evaluations for review on the basis of potential risk significance. The operability evaluations selected as samples are associated with the condition reports (CRs) listed below. The inspectors assessed the accuracy of the evaluations, the use and control of compensatory measures, if needed, and compliance with the Technical Specifications (TSs). The inspectors' review included a verification that the operability evaluations were made as specified by procedure ENN-OP-104, "Operability Determinations." The inspectors reviewed the technical adequacy of the evaluations. References used during these reviews included the Technical Specifications, the Technical Requirements Manual, the Final Safety Analysis Report (FSAR), and associated design basis documents. The specific information reviewed is referenced in the Supplemental Information attachment at the end of this report. The following five operability evaluation reviews were considered inspection samples:

- CR-IP3-2005-05015: Failed 52/SI1 cell switch for 31 Safety Injection pump breaker
- CR-IP3-2005-04369: RHR HX cross tie header found voided during monthly surveillance
- CR IP3-2005-2269 Part 21 Null Voltage Drift
- CR IP3-2005-05310 31 Battery Voltage and Amperage Oscillations
- CR IP3-2003–04048 EDG Fuel Oil Supply Line Degradation

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds

a. Inspection Scope (71111.16 - 3 samples)

The inspectors performed a cumulative review of operator workarounds to identify any potential effects on the functionality of mitigating systems and impacts on the operators. The inspectors reviewed workarounds and burdens identified by Entergy and performed an evaluation of selected work orders and deficiencies to ensure Entergy was appropriately classifying these issues. The inspectors evaluated deficiencies for effects on reliability, availability, and the potential for mis-operation of a mitigating system. The inspector also reviewed the cumulative impact of deficiencies on the operators' ability to respond in a correct and timely manner to plant transients. The inspectors toured affected areas of the plant to evaluate deficient conditions, and the potential impact on operators during emergency operating procedure, abnormal operating procedure, and off-normal operating procedure usage. In addition, the inspectors reviewed the work control and condition reporting programs to assess the open work requests and CRs for the respective systems. This cumulative review constituted one inspection sample.

Additionally, the inspectors reviewed the following "operator burdens" to determine if they should have been classified as "operator workarounds", and to identify any potential effects on the functionality of mitigating systems and impacts on the operators. The documents reviewed are listed in the attachment. The review of these two "operator burdens" constituted two inspection samples:

- Letdown pressure controller, PCV -135 in manual
- Heat balance calculations from LEFM data printouts to assess the effects on system reliability, availability, and the potential for mis-operation of a system due to manual operation

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing

a. Inspection Scope (71111.19 - 3 samples)

The inspectors reviewed post maintenance testing (PMT) procedures and associated testing activities to assess whether: 1) the effect of testing on the plant was adequately addressed by control room personnel; 2) testing was adequate for the maintenance performed; 3) the acceptance criteria was clear and adequately demonstrated operational readiness consistent with design and licensing documents; 4) test

instrumentation had current calibrations, range, and accuracy for the application; and, 5) test equipment was removed following testing.

The selected testing activities involved components that were risk significant as identified in the IP3 Individual Plant Examination. The regulatory references for the inspection included TS 6.8.1.a and 10 CFR 50, Appendix B, Criteria XIV, "Inspection, Test, and Operating Status." The specific information reviewed is referenced in the Supplemental Information attachment at the end of this report. The following testing activities were evaluated, and constituted three inspection samples:

- WO IP3-04-20231: Reactor Protection Logic testing
- WO IP3-05-20764: PWT for 31 Safety Injection Pump maintenance
- WO IP3-05-1779: NI 36 Calibration

b. Findings

No findings of significance were identified.

1R20 Refueling and Outage Activities

a. Inspection Scope (71111.20 - 1 sample)

Outage Risk Control Plan

The inspectors reviewed Entergy's CRDM cable splice repair forced outage risk assessment activities to ensure that appropriate consideration was given to minimize the unavailability or to mitigate reduced reactivity control, core cooling, power availability, containment integrity, spent fuel cooling, and inventory control attributes. The inspectors observed that Entergy conducted a qualitative evaluation of the daily risk associated with planned outages of both safety and non-safety related systems which contribute to these six attributes. In addition, Entergy assigned an overall risk characterization based on the collective risk of all those systems that were out-of-service. The inspectors reviewed Entergy's daily outage risk assessments to verify that Entergy made some changes to the outage schedule and "Defense in Depth Contingency Plans" for those outage configurations which could not be otherwise modified to minimize the overall risk.

Control of Outage Activities

The inspectors performed walkdowns of various areas and systems during the forced outage. Areas specifically evaluated during the outage were:

- Reactor vessel head/cable splice area
- RHR Heat Exchanger enclosure
- 480 VAC switchgear
- 46' vapor containment general area inspection
- Containment sumps

During the outage the inspectors periodically verified adequate shutdown margin in accordance with technical specifications. The inspectors independently verified the adequacy of system tagout isolation and configuration controls.

Plant Heatup and Startup Activities

The inspectors observed a number of plant restart activities within the control room, and conducted walkdowns of the containment, primary auxiliary building (PAB), and the Auxiliary Feedwater (AFW) pump building. The specific activities, in part, included a review of containment cleanliness, reactor coolant system leakage calculations, containment integrity, plant heat-up, start-up, and selected safety system alignment verifications. This inspection activity constituted one inspection sample.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope (71111.22 - 7 samples)

The inspectors observed portions of the surveillance tests listed below and reviewed the test procedures to assess whether: 1) the test preconditioned any of the components; 2) the effect of the testing was adequately addressed in the control room; 3) the scheduling and conduct of the tests were consistent with plant conditions; 4) the acceptance criteria demonstrated system operability consistent with design requirements and the licensing basis; 5) the test equipment range and accuracy were adequate for the application, and the test equipment was properly calibrated; 6) the test was performed in the proper sequence in accordance with the test procedure; and 7) the affected system was properly restored to the correct configuration following the test. The specific information reviewed is referenced in the Supplemental Information attachment at the end of this report. The inspection of the following tests represented seven inspection samples:

- 3-PT-OL-91, Rev 1, Reactor Trip and Bypass Breaker Response Time Testing
- 3-PT-M079C, Rev 33, 33 EDG Functional Test
- 3-PT-M13B1, Rev 11, RPS ‘A’ Functional Test
- 3PT-Q01A, Rev 5, 31 Station Battery Surveillance
- 3-PT-OL3B15, Rev 0, RHR Pump #31 Load Sequencer Calibration
- 3-PT-M079B, Rev 34, 32 EDG Functional Test
- SR 3.4.13.1, RCS Leakage determination

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP2 Alert and Notification System (ANS) Testing

a. Inspection Scope (71114.02 - 1 Sample)

An onsite review of the licensee's ANS was conducted to ensure prompt notification of the public for taking protective actions. During the inspection at Indian Point Energy Center (IPEC), the inspectors reviewed the test and maintenance documentation for the siren system. The documents reviewed are listed in the attachment. Distribution records were sampled pertaining to the tone alert radio portion of the ANS. CRs generated as a result of siren testing were reviewed for causes, trends and corrective actions. The inspectors interviewed personnel responsible for the ANS program. The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 02. Planning standard, 10 CFR 50.47(b)(5) and the related requirements of 10 CFR 50 Appendix E were used as reference criteria.

b. Findings

No findings of significance were identified.

1EP3 Emergency Response Organization (ERO) Augmentation Testing

a. Inspection Scope (71114.03 - 1 Sample)

A review of IPEC's ERO augmentation staffing requirements and the process for notifying the ERO was conducted to ensure the readiness of key staff for responding to an event and to ensure timely facility activation. The inspectors reviewed procedures and CRs associated with the ERO notification system and process. The documents reviewed are listed in the attachment. The inspectors interviewed personnel responsible for the ERO augmentation process. The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 03. Planning standard, 10 CFR 50.47(b)(2) and related requirements of 10 CFR 50 Appendix E were used as reference criteria.

b. Findings

No findings of significance were identified.

1EP4 Emergency Action Level (EAL) and Emergency Plan Changes

.1 EAL Review (71114.04 - 1 Sample)

a. Inspection Scope

The inspectors reviewed changes to Entergy's EALs to ensure that the changes did not decrease the effectiveness of the Emergency Plan. The inspectors reviewed Entergy

procedures to determine if an EAL scheme had been changed in a manner that decreased its effectiveness such that the EALs may not produce the appropriate emergency classification. The inspectors verified that the EAL scheme continued to meet the planning standard.

b. Findings

Introduction: The inspectors identified a Green NCV associated with emergency planning standard 10 CFR 50.47(b)(4). The inspectors determined that a performance deficiency existed in that inadequate indications were available for operators to determine if a threshold for an unusual event (UE), based on service water bay level, had been met. This issue did not result in the loss or degradation of a risk significant planning standard based on the inspectors assessment of the criteria in NRC Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process."

Description: A combination of low tides and debris on the intake structure trash bars resulted in a low service water bay level at the Indian Point Unit 3 (IP3) intake structure between November 23 to November 25, 2005. Operators were alerted to this condition due to the occasional trips of the non-safety related screen wash pumps. EAL 8.4.3 requires the declaration of a UE if service water bay level drops to 4 feet 5 inches below mean sea level. In response to the low water conditions, the operators improvised a means to measure the service water bay level and determined that the UE criteria had not been met. The inspectors discussed the availability of instrumentation for assessment of the UE entry criteria with IP operations and emergency planning staff, reviewed relevant plant procedures, and performed a walkdown of the intake structure. The inspectors determined that Entergy had no established means of indication or instrumentation for operators to assess the service water bay level and evaluate the associated entry criteria of EAL 8.4.3. **Entergy installed temporary level indication and entered this issue into its corrective action program for further evaluation and implementation of long term corrective actions (CR-IP3-2005-5380).**

Analysis: The performance deficiency is that no established means of indication or procedures were readily available for operators to determine if the service water bay level met the threshold declaration of an UE described in EAL 8.4.3. The failure to provide adequate indication for assessment of EAL entry criteria could impact the timely declaration of an emergency and is contrary to 10 CFR 50.54(q) and 50.47(b)(4). This finding is greater than minor because it was associated with the Emergency Preparedness (EP) cornerstone attribute of Facilities and Equipment, and affected the cornerstone objective of ensuring that a licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. This finding was evaluated using Inspection Manual Chapter 0609, Appendix B, "Emergency Preparedness Significance Determination Process," Sheet 1, "Failure to Comply." This finding is associated with a failure to meet or implement a regulatory requirement. The deficiency is not greater than Green because it did not result in the Risk-Significant Planning Standard Function being lost or degraded. Section 4.4 of Manual Chapter 0609, Appendix B, provides examples for use in assessing emergency preparedness related findings. One example of a Green finding states,

"The EAL classification process would not declare any Alert or Notification of Unusual Event that should be declared." Since the declaration of an UE based on low service water bay level could have been missed or delayed, this finding was considered consistent with the example provided and was therefore determined to be of very low safety significance (Green).

Enforcement: 10 CFR 50.54(q) requires that the facility licensee follow and maintain in effect emergency plans which meet the standards in 10 CFR 50.47(b). 10 CFR 50.47(b)(4) requires, in part, that emergency response plans include a standard emergency classification and action level scheme, the bases of which include facility system and effluent parameters. The emergency classification and action level scheme is required to be used by the nuclear facility licensee, and State and local response plans rely on information provided by facility licensees for determinations of minimum initial offsite response measures. Contrary to the above, prior to November 2005, Entergy did not have adequate means of indication or procedures to support an EAL classification based on service water bay intake level. Entergy entered this issue into its CAP as CR-IP3-2005-5380 and installed temporary level indication pending the development of permanent corrective actions. Because this issue is of very low safety significance and has been entered into Entergy's CAP, it is being treated as an NCV consistent with Section VI.A.1 of the NRC Enforcement Policy: **NCV 05000286/2005005-02, Inadequate Equipment to Assess Threshold for Emergency Action Level 8.4.3.**

.2 Emergency Plan Change Review

a. Inspection Scope (71114.04 - 1 Sample)

Prior to this inspection, the NRC had received and acknowledged the changes made to the Indian Point Emergency Plan and implementing procedures. These changes were made in accordance with 10 CFR 50.54(q), which Entergy had determined did not result in a decrease in effectiveness to the Plan and concluded that the changes continued to meet the requirements of 10 CFR 50.47(b) and Appendix E of 10 CFR 50. During this inspection, the inspectors conducted a sampling review of the changes which could potentially result in a decrease in effectiveness. This review does not constitute an approval of the changes and, as such, the changes are subject to future NRC inspection. The inspection was conducted in accordance with NRC Inspection Procedure 71114, Attachment 4. The requirements in 10 CFR 50.54(q) were used as reference criteria.

b. Findings

No findings of significance were identified.

1EP5 Correction of Emergency Preparedness Weaknesses and Deficiencies

a. Inspection Scope (71114.05 - 1 Sample)

The inspectors reviewed CRs initiated by IPEC from drills, self-assessments, and audits and the associated corrective actions to determine the significance of the issues and to determine if repeat problems were occurring. A list of the CRs reviewed are contained in the attachment to this report. Also, the 2004 and 2005 audit reports were reviewed to assess IPEC's ability to identify issues, assess repetitive issues and the effectiveness of corrective actions through their independent audit process. This inspection was conducted according to NRC Inspection Procedure 71114, Attachment 05. Planning standard, 10 CFR 50.47(b)(14) and the related requirements of 10 CFR 50 Appendix E were used as reference criteria.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation

a. Inspection Scope **(71114.06 - 1 sample)**

The inspectors observed an Emergency Preparedness (EP) drill conducted on November 30. The inspectors used NRC Inspection Procedure 71114.06, "Drill Evaluation" as guidance and criteria for evaluation of the drill. The drill(s) consisted of an Emergency Notification Siren test and Emergency Response Organization Drill. The inspectors observed the drill and conducted reviews from the IPEC Emergency Operations Facility (EOF). The inspectors focused the reviews on the identification of weaknesses and deficiencies in the classification and notification timeliness and quality and accountability of essential personnel during the drill. The inspectors were briefed on Entergy's critique results and compared the NRC-identified weaknesses and deficiencies to those identified by Entergy to ensure that problem areas were properly identified. Inspection of this EP Drill constituted one inspection sample. The documents reviewed are listed in the attachment.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification

.1 Occupational Exposure Control Effectiveness

a. Inspection Scope (71151 - 1 sample)

The inspector reviewed implementation of the licensee's Occupational Exposure Control Effectiveness Performance Indicator (PI) Program. Specifically, the inspector reviewed CR's, and radiological controlled area dosimeter exit logs for the past four calendar quarters. These records were reviewed for occurrences involving locked high radiation areas, very high radiation areas, and unplanned exposures against the criteria specified in Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 2, to verify that all occurrences that met the NEI criteria were identified and reported as performance indicators. This inspection activity represents the completion of one sample relative to this inspection area, completing the annual inspection requirement.

b. Findings

No findings of significance were identified.

.2 RETS/ODCM Radiological Effluent Occurrences

a. Inspection Scope (71122.01 - 1 Sample)

The inspector reviewed a listing of relevant effluent release reports for the past four calendar quarters, for issues related to the public radiation safety PI, which measures radiological effluent release occurrences per site that exceed 1.5 mrem/quarter whole body or 5.0 mrem/quarter organ dose for liquid effluents, 5 mrad/quarter gamma air dose, 10 mrad/quarter beta air dose, and 7.5 mrads/quarter for organ dose for gaseous effluents. This inspection activity represents the completion of one sample relative to this inspection area, completing the annual inspection requirement.

The inspector reviewed the following documents to ensure the licensee met all requirements of the performance indicator:

- monthly projected dose assessment results due to radioactive liquid and gaseous effluent releases;
- quarterly projected dose assessment results due to radioactive liquid and gaseous effluent releases; and
- dose assessment procedures.

b. Findings

No findings of significance were identified.

.3 Emergency Preparedness

a. Inspection Scope (71151 - 3 Samples)

The inspectors reviewed the licensee's procedure for developing the data for the EP PIs which are: 1) Drill and Exercise Performance (DEP); 2) Emergency Response Organization (ERO) Drill Participation; and 3) ANS Reliability. The inspectors also reviewed the licensee's drill/exercise reports, training records and ANS testing data to verify the accuracy of the reported data. The documents reviewed are listed in the attachment. Data generated since the June 2004 EP PI verification was reviewed during this inspection. Therefore, data submitted from the second quarter of 2004 through the end of the third quarter of 2005 were reviewed. The review was conducted in accordance with NRC Inspection Procedure 71151. The acceptance criteria used for the review were 10 CFR 50.9 and NEI 99-02, Revision 3, "Regulation Assessment Performance Indicator Guideline."

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems

.1 Daily Review

a. Inspection Scope (71152)

As required by Inspection Procedure 71152, "Identification and Resolution of Problems," and in order to help identify repetitive failures or specific human performance issues for follow-up, the inspectors screened all items entered into Entergy's corrective action program. This review was accomplished by reviewing each CR.

b. Findings

No findings of significance were identified.

.2 Semi-annual Trend Review

a. Inspection Scope (71152 - 1 sample)

The inspectors performed a semi-annual review to identify trends that might indicate the existence of a more significant safety issue. The inspectors included in this review repetitive or closely related issues that may have been documented by Entergy outside of the normal CAP, such as trend reports, PIs, major equipment problem lists, maintenance

rework lists, departmental challenges, system health reports, maintenance rule assessments and maintenance and CAP backlogs.

The inspectors reviewed Entergy's CAP database during 2005 in order to assess the total number and significance of CRs written in various subject areas such as equipment or processes, and to discern any notable trends in these areas. The CRs entered into the CAP in all quarters included those written as a result of NRC findings.

This semi-annual review represented one inspection sample.

b. Findings

No findings of significance were identified.

.3 Identification and Resolution of Problems - Emergency Preparedness

a. Inspection Scope (71152 - 2 samples)

The inspectors reviewed the licensee's corrective actions for recent problems associated with components used to actuate the siren system. These problems included malfunctions of the frame relay telephone network that connects the county actuation points with the siren system (primary actuation method) and problems associated with the radio system (back-up actuation method). The inspectors reviewed CR evaluations and associated root or apparent cause reports, and interviewed licensee and contractor personnel responsible for maintenance of the siren system and the corrective action program. The inspection was conducted per NRC Inspection Procedure 71152. The applicable emergency preparedness planning standards, 10 CFR 50.47(b) and the requirements of 10 CFR 50 Appendix E were used as reference criteria.

b. Findings

No findings of significance were identified.

Corrective Actions For Frame Relay System Problems

b.1 Introduction: The inspectors identified a Green finding for a failure to implement timely corrective actions for multiple frame relay system problems.

Description: While reviewing documentation pertaining to an August 5, 2005, frame relay problem, the inspectors noted nine condition reports referenced in the licensee's higher tier apparent cause (CR-IP2-2005-03345) for various frame relay problems dating back to September 23, 2003. Following the inspection, the licensee identified an additional 13 CRs pertaining to frame relay issues, the oldest going back to March 21, 2003. The inspectors found that the evaluation and corrective actions described in CR IP2-2005-03345 following the August 5, 2005, frame relay system failure to be appropriate.

Entergy's corrective action program as described in procedure, EN-LI-102, Revision 3, "Corrective Action Process," groups CRs into significance categories. Category C and D

issues can be closed by fixing the immediate problem or by confirming that the condition has been corrected. Category B CRs require an apparent cause evaluation be conducted to address the apparent causes for the failures. The inspectors noted that the nine frame relays system CRs, referenced in CR-IP2-2005-03345, had been characterized as Category C or D. The inspectors also noted that the licensee had not performed any type of apparent cause evaluation to identify the underlying causes and to prevent recurrence of these repeat unplanned frame relay system outages.

The licensee disagreed with the characterization of this finding and stated that the frame relay system availability had improved during the period and also that there was no identified connection between the frame relay problems dating back to 2003 and the corrective actions identified in the recent apparent cause evaluation (CR IP2-2005-03345). The inspectors considered this information and concluded that the licensee should have acted in a more timely manner to identify and correct the underlying causal factors that led to the earlier frame relay system outages. The failure to implement a timely and thorough evaluation of these failures adversely impacted the reliability of the frame relay system.

Analysis: The performance deficiency involved the failure to implement timely corrective actions to prevent repeat unplanned failures of the frame relay system. This finding was determined to be more than minor because the finding is associated with the EP cornerstone attribute of Facilities and Equipment (alarm notification system availability). It affects the cornerstone objective of ensuring that the licensee is capable of implementing adequate measures to protect the health and safety of the public in the event of a radiological emergency. This finding is not suitable for Significance Determination Process evaluation but has been reviewed by NRC management and is determined to be a finding of very low safety significance. This issue is not greater than Green because of the short periods that the frame relay system was unavailable and because the ANS design included a secondary method (i.e., back-up radio system). This finding was determined to involve a cross-cutting issue in the area of problem resolution.

Enforcement: No explicit violation of regulatory requirements occurred. This finding of very low significance was entered into the licensee's corrective action process (CR-IP2-2005-04475). **FIN 05000286/2005005-03; Inadequate Corrective Actions for Frame Relay System Problems**

Siren System Reporting

b.2 Introduction: A non-cited violation (NCV) of 10 CFR 50.72(b)(3)(xiii) was identified for not formally reporting a siren system problem that occurred on August 5, 2005.

Description: At about 0830, on August 5, 2005, the licensee identified a frame relay system problem that prevented use of the primary siren system actuation method from the Putnam County warning point. The licensee contacted the vendor to correct this condition. At about 1200, the licensee noted that the frame relay system, used to provide the primary siren system actuation method for all four counties located in the Indian Point

emergency planning zone, was out of service. The licensee again contacted the vendor to effect repairs and learned that the entire frame relay system had been inoperable since approximately 0901. The licensee checked the back-up radio activation system for each of the four counties at about 1200 and identified that the radio activation system for Westchester County was non-functional. The back-up radio system for the remaining three counties had remained functional. The frame relay system for all four counties was restored at about 1435 and the back-up radio system for Westchester County was restored by 1820. The inspectors determined that the primary and back-up systems relied upon to actuate the sirens in Westchester County had been non-functional from about 0900 to 1435 (approximately five and one-half hours).

The licensee reported that the counties were informed regarding the above actuation system problems and the NRC was also informally notified regarding the above actuation system problems. The inspectors questioned why the licensee did not formally report the problem associated with actuation of the Westchester County sirens per 10 CFR 50.72. The licensee indicated that formal reporting of this problem was not required since manual actuation from the Indian Point emergency operations facility was available to actuate the sirens upon a request by the County. The inspectors reviewed the procedures, protocols, and practices that would have been relied upon to implement this alternate manual siren actuation method at the time of the loss of the normal and back-up siren actuation methods for Westchester County and noted that they were not described in any formal procedure or documentation. The inspectors also questioned how the licensee had practiced or demonstrated the manual notification method and were informed that the manual actuation method was attempted during a practice exercise in 2004. The licensee documented (CR IP2-2005-3245) several problems associated with the manual activation method including the lack of formal guidance and protocol for Indian Point and county emergency response staff. Subsequent to this event, the licensee implemented appropriate corrective actions to address the identified manual actuation system problems.

The inspectors reviewed the process for manual actuation of the sirens and considered that successful actuation would have involved a series of tasks including identification of an actuation problem and effective interaction with county representatives to obtain direction and permission to actuate the sirens. The inspectors reviewed NUREG-1022 which provided guidance for reportabilty under 10 CFR 50.72, and noted that the licensee could refrain from reporting emergency notification system problems based upon, “the existence of procedures or practices to compensate for the lost emergency sirens.” The inspectors determined that the licensee should have reported the Westchester County siren system actuation problem per 10 CFR 50.72 based on the lack of formal procedures for using the manual actuation method and also based on the limited experience and practices where the licensee had demonstrated use of this method. The licensee disagreed with this conclusion and indicated that the manual actuation method should be considered a “practice” as described in NUREG-1022. The inspectors, in coordination with specialists from the Office of Nuclear Reactor Regulation and from the Office of Nuclear Security and Incident Response, reviewed the licensee’s position and concluded that the licensee should have formally reported the siren system problem for the Westchester County sirens per 10 CFR 50.72.

Analysis: The performance deficiency involved the failure to formally notify the NRC regarding a siren system actuation problem as required by 10 CFR 50.72. This deficiency was evaluated using the traditional enforcement process since the failure to make a required report could adversely impact the NRC's ability to carry out its regulatory mission.

While reviewing this finding, the inspectors considered the short duration of the siren system problem, the fact that the NRC was informally notified, that back-up route alerting was available, and also that the capability to actuate the sirens via the manual siren initiation method was not lost. The inspectors also noted that subsequent to this event the licensee implemented corrective actions to formalize the manual siren system actuation method as described in CR IP2-2005-3245. The inspectors considered the above and evaluated the severity of this violation using the criteria contained in Supplement I - Reactor Operations and Section VI.A.1 of the NRC's Enforcement Policy and determined that this finding met the criteria for disposition as a non-cited violation.

Enforcement: Title10 to CFR 50.72(b)(3)(xiii) requires that problems associated with operation of the off-site notification system be reported to the NRC. Contrary to the above, on August 5, 2005, Entergy did not formally report a problem that affected the primary and back-up actuation systems for the sirens located in Westchester County. This is a violation of 10 CFR 50.72(b)(3)(xiii). Because this finding met the criteria contained in Section VI.A.1 of the NRC's Enforcement Policy, it is being dispositioned as a non-cited violation. **NCV 05000286/2005005-04; Failure to Make a 10 CFR 50.72(b)(3)(xiii) Notification**

.4 PI&R Annual Sample - Selected Issue Follow-up Inspection - Emergency Diesel Generator (EDG) Degraded Fuel Oil Piping

a. Inspection Scope (71152 - 1 sample)

Engineering identified a pinhole leak in the fuel oil supply piping to the 31 EDG day tank in 2003. The inspector noted that additional inspections to evaluate the extent of condition on the 32 EDG fuel oil piping were scheduled and not performed in 2004. The inspector questioned the appropriateness of the deferral of the inspection and the integrity of the lines to perform their function. This inspection activity constituted one inspection sample.

b. Assessment and Observations

No findings of significance were identified. The inspector determined that the work management department removed the scope of the work from the schedule without consulting or informing engineering to evaluate the impact of the delay. Subsequently, engineering performed a calculation to determine that based upon the as found condition of the 31 fuel oil piping, if 32 fuel oil piping had similar pinhole leak, there would be sufficient remaining pipe wall thickness to ensure the piping could perform its function, including the effect of seismic events. Inspections to the remaining 32 EDG fuel oil piping were completed in 2005. Engineering determined that the piping on fuel oil line

1057 to the 32 EDG is degraded and will require repair during the next outage. The inspector reviewed the operability determination, calculations, and work orders to evaluate the operability of the 32 EDG and supporting systems.

.5 PI&R Annual Sample - Fire Brigade

a. Inspection Scope (71152 - 1 sample)

The inspector reviewed CRs pertaining to the fire brigade which were generated during calender year 2005. The inspector also reviewed procedures controlling fire brigade activities, reviewed fire brigade drill reports and attendance sheets, and discussed fire brigade performance with the Site Fire Protection Engineer to determine whether Entergy was identifying areas for improvement and entering them into the corrective action program.

b. Findings and Observations

No findings were identified. During calender year 2005, Indian Point generated 65 CRs related to fire brigade activities. Issues included equipment, manning, drill response times, and access through locked doors on-site, among others. Fire brigade response times were noted to be outside the administrative requirements on several drills, from several areas both within and outside the protected area. Fire protection personnel are monitoring response times for each brigade member, and recording both the response time and the area of the plant from which the individual responded. This effort was intended to continue through the end of the year when results were to be evaluated for additional enhancements. Actions taken to date include having operators outside the protected area taking logs remain in direct contact with the control room, providing a company vehicle to operators leaving the protected area on assigned duties, and having the brigade member pre-stage personnel protective equipment near the security access point. Assigned fire brigade members are prohibited from attending training outside the protected area.

Several instances were identified where fire brigade members were unable to enter areas of the facility to respond to alarms due to locked doors. This delayed response to smoke detector alarms on more than one occasion. When problems were identified, actions were taken to provide appropriate keys or keycards to the brigade. In the event of an actual fire, the brigade could use the available forcible entry tools to gain access.

On those occasions where deficiencies were identified with regard to fire brigade equipment, actions were implemented to restore the inventory and condition of equipment to that required.

.6 (Closed) LER 05000286/2005005-00 Technical Specification Prohibited Condition Due to a Mode Change without Performing Required Actions with the 32 Containment Fan Cool Unit Inoperable

On October 5, 2005, the Operations discovered the 32 Containment Fan Cooler Unit (FCU) supply breaker in the test position and declared it inoperable. Technical Specification (TS) 3.6.6 requires three FCU trains to be operable in Modes 1 through 4. On October 4, 2005, during startup from a forced outage, the plant entered Mode 4, with the 32 FCU inoperable violating the TS. The cause of the TS violation was failure to perform the required actions of TS 3.0.4. prior to changing Modes with an inoperable 32 FCU. The failure to identify the inoperable FCU was due to ineffective use of a systematic and rigorous problem resolution process. The inoperable 32 FCU was caused by an improper FCU breaker installation due to human error.

The finding affects the Containment Barrier Integrity Cornerstone and was considered to have very low safety significance (Green) using Appendix A of the Phase 1 at Power SDP because the finding does not represent a degradation of the radiological barrier function provided for the control room, or auxiliary building, or spent fuel pool; the finding does not represent a degradation of the barrier function of the control room against smoke or a toxic atmosphere; the finding does not represent an actual open pathway in the physical integrity of reactor containment, or involve an actual reduction in defense-in-depth for the atmospheric pressure control or hydrogen control functions of the reactor containment. This licensee-identified finding involved a violation of TS 3.6.6, Containment Spray System and Containment Fan Cooler System. The enforcement aspects of the violation are discussed in Section 4OA7. This LER is closed.

.7 Cross-References to PI&R Findings Documented Elsewhere

Inspection findings in previous sections of this report also had implications regarding Entergy's identification, evaluation, and resolution of problems, as follows:

- Inadequate corrective action to prevent repetitive failure of Control Building Exhaust Fan 33. (Section 1R12)
- Inadequate corrective action for Frame Relay System problems (Section 4OA2)

4OA6 Meetings, including Exit

On January 11, 2006, the inspectors presented the inspection results to Mr. P. Rubin and other Entergy staff members, who acknowledged the inspection results presented. Entergy did not identify any material as proprietary.

4OA7 Licensee-Identified Violations

The following violation of very low safety significance (Green) was identified by the licensee and is a violation of NRC requirements which met the criteria of Section VI of the NRC Enforcement Policy, NUREG-1600, for being dispositioned as NCVs.

- TS 3.6.6 requires three fan cooler unit (FCU) trains to be operable in Modes 1 through 4. Contrary to this, from October 4, 2005, to October 6, 2005, 32 FCU

was not operable and the required actions of TS 3.0.4 were not performed. prior to changing modes with an inoperable 32 FCU. This was identified in the licensee's corrective action program as CR IP3-2005-04740. This finding is of very low safety significance because it does not represent an open pathway in the physical integrity of the reactor containment.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

F. Dacimo, Site Vice President
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T. Carson, Manager, Maintenance
P. Conroy, Manager, Licensing
F. Inzirillo, Emergency Planning Manager
T. Orlando, Manager, Systems Engineering
T. Jones, Licensing Supervisor
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J. O'Driscoll, Systems Engineer
D. Shah, Systems Engineer
S. Wilkie, Fire Protection Engineer
T. Beasley, Systems Engineer
K. Finucan, EP Staff
F. Inzirillo, EP Manager
M. Miele, EP Staff
F. Phillips, EP Staff

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000286/2005005-01	NCV	Inadequate Corrective Action to Preclude Repetitive Failure of Control Building Exhaust Fan 33.
05000286/2005005-02	NCV	Inadequate Equipment to Assess Threshold for Emergency Action Level 8.4.3. (Section 1EP4)
05000286/2005005-03	FIN	Inadequate Corrective Actions for Frame Relay System Problems
05000286/2005005-04	NCV	Failure to Make a 10 CFR 50.72(b)(3)(xiii) Notification

Closed

05000286/2005005-00	LER	Technical Specification Prohibited Condition Due to a Mode Change without Performing Required Actions with the 32 Containment Fan Cool Unit Inoperable

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures:
OAP-008, Rev 0: Severe Weather Preparations
OAP-048, Rev 2: Seasonal Weather Preparation

Condition Reports:

IP3-2003-00825	IP3-2003-00985	IP3-2005-00063	IP3-2005-00182
IP3-2005-00585	IP3-2005-00625	IP3-2005-02183	IP3-2005-05368
IP3-2005-05460			

Section 1R04: Equipment Alignment

Procedures:
3-COL-CC-1, Rev 27: Component Cooling System

Drawings
New York Power Authority, 9321-F-27513, Rev 29: Flow Diagram Auxiliary Coolant System
Entergy Nuclear Northeast, 9321-F-27223, Rev 40: Flow Diagram Service Water System

Section 1R05: Fire Protection

Procedures:
SMM-DC-901: IPEC Fire Protection Program Plan
IPEC PFP-351: 480V Switchgear Room - Control Building
FP-3, Rev 6: Pre-Fire Strategy
FP-5, Rev 12: Fire Emergency
ENN-DC-161: Transient Combustible Program
IPEC PFP-355, 356, 357, 358: Upper and Lower Electrical Tunnels
IPEC PFP-354: Diesel Generator Building - Drawings 31, 32 & 33

Calculations:
IP3-CALC-FP-02795: Combustible Loading Calculation for IP3 Fire Hazards Analysis, PAB CCW Pump Room

Condition Reports:

IP3-2005-04974	IP3-2005-04995

Section 1R06: Flood Protection Measures

Procedures:
3-COL-CC-3, Rev 10: Instrument Air Closed Cooling

Drawings:
9321-F-23913: Closed Cooling Water System

Condition Reports:
IP3-2001-02821

Work Orders:
IP3-05-01912: SWN-TCV-1113 packing leak

Miscellaneous:
Indian Point 3 Nuclear Power Plant Individual Plant Examination, Vol 1 & 2

Section 1R11: Licensed Operator Requalification Program

Procedures:
3-AOP-INST-1, Rev 3: Instrument/Controller Failures

Miscellaneous:
IPEC Simulator Guide: LRQ-SAO-13 [I3SG-LORAOP013]

Section 1R12: Maintenance Effectiveness

Procedures:
3-ARP-013, Rev 32, Panel SKF - Bearing Monitor
3PT-Q124, Rev 3, Control Building Exhaust Fan Operational Test, 2/5/04

Condition Reports:

IP3-2005-05548	IP3-2005-05245	IP3-2005-02093	IP3-2005-00004
IP3-2004-02519	IP3-2004-01554	IP3-2004-01443	IP3-2004-00400
IP3-2002-00610			

Work Orders
IP3-05-00155, Found 33 Control Building Fan not running due to blown line fuses
IP3-05-17184, Performed calibration/functional check of fan and thermostat
IP3-05-10012, 33 Control Building Exhaust Fan has blown main line fuses four times since February 2004
IP3-04-17366, Control Building Fan 33 has blown line fuses in the past
IP3-04-14283, Water leaks on 33 Control Building fan
IP3-04-11798, Seal removable covers over Control Building Exhaust fans.
IP3-04-04809, Control Building Fan 33 failed to start during 3PT-Q124
IP3-03-02574, 33 Control Building Exhaust Fan is not operating

Miscellaneous:
Entergy Nuclear Management Manual, ENN-DC-171, Rev 2, Maintenance Rule Monitoring
Indian Point 3, System Description 11.0, Rev 5, Ventilation System
Indian Point 3, System Description 27.4, Rev 1, Electrical Systems Medium Voltage 6.9 KV and 480 VAC
Indian Point 3, Technical Requirements Manual, Rev 3, 3.7 Plant Systems

Section 1R13: Maintenance Risk Assessment and Emergent Work Control

Procedures:
IP-SMM-WM-101: On-Line Risk Assessment

Work Orders:
IP3-05-24622 IP3-05-20528

Section 1R14: Operator Performance During Non-Routine Evolutions

Procedures:
3-POP-1.2, Rev 48: Reactor Startup
3-POP-1.3, Rev 48: Plant Startup from Zero to 45% Power
3-SOP-RPC-003, Rev 17: Estimated Critical Position and Boron Concentration Calculation

Section 1R15: Operability Evaluations

Procedures:
EN-OP-104: Operability Determinations
OAP-026, Rev 0: Determination of Operability

Drawings:
Consolidated Edison Co., 500B971, Sheet 28: Safety Injection Pump 31
Consolidated Edison Co., 500B971, Sheet 29: Safety Injection Pump 32
Consolidated Edison Co., 500B971, Sheet 142: Recirc Switch and Indication Lights
Consolidated Edison Co., 500B971, Sheet 147: Recirc Switch and Indicating Lights

Condition Reports:
IP3-2005-00950 IP3-2005-02280 IP3-2005-03289 IP3-2005-04369

Work Orders:
IP3-05-01104

Section 1R16: Operator Workarounds

Procedures:
OAP-045, Rev 0: Operator Burden Program

Condition Reports:
IP3-2005-05704 IP3-2005-05780 IP3-2005-05817

Work Orders:
IP3-05-25295 IP3-05-25189

Section 1R19: Post-Maintenance Testing

Procedures:
3-BKR-016-CUB, Rev 5: Westinghouse 480V Switchgear Cubicle Clean and Inspect
PFM-116, Rev 0: Motor Monitoring Program
3-PT-M13B1, Rev 11: Reactor Protection Logic Channel Functional Test (Power > P8)

Condition Reports
IP3-2005-05015

Work Orders
IP3-03-25262 IP3-05-19780 IP3-04-20231 IP3-05-20764

Miscellaneous
PdMA Product Support Manual, Rev 2/00

Section 1R22: Surveillance Testing

Procedures:
3-PT-M079C, Rev 33: 33 EDG Functional Test
3-SOP-EL-001, Rev 37: Diesel Generator Operation
3-PT-M13B1, Rev 11: Reactor Protection Logic Channel Functional Test (Power > P8)
SOP-RCS-005, Rev 18: Reactor Coolant Leakage Evaluation
SOP-RCS-004, RCS Leakage

Condition Reports

IP3-2004-00515	IP3-2004-00906	IP3-2004-01725	IP3-2004-02048
IP3-2004-02062	IP3-2004-02382	IP3-2005-02149	IP3-2005-02546
IP3-2005-02974	IP3-2005-03877	IP3-2005-05073	

Work Orders:
IP3-04-12039 IP3-05-10817 IP3-05-21633

Section 1EP2: Alert and Notification System (ANS) Testing

Procedures
IP-EP-AD14, Maintenance of the Indian Point Siren Electro Mechanical System, Rev. 1
IP-EP-AD15, ANS Siren System Administration, Rev. 2
O-RP-NEM-205, Annual Electrical/Electronic Maintenance of the Indian Point Siren System, Rev. 1

Section 1EP3: Emergency Response Organization (ERO) Augmentation Testing

Procedures
IP-EP-130, Emergency Notification and Mobilization, Rev. 3
NRC IR 50-247&286/96-03

1EP4: Emergency Action Level (EAL) and Emergency Plan Changes

Procedures
IPEC-EP-AD-13, IPEC Emergency Plan Administrative Procedures, Rev. 2
3-ARP-012, Panel SJF - Cooling Water and Air, Rev. 44
3-AOP-SW-1, Service Water Malfunction, Rev. 1
3-ARP-049, Panel Local - Intake Structure, Rev. 1
IP-EP-130, Emergency Notification and Mobilization, Rev. 3
IP-EP-210, Central Control Room, Rev. 1
IP-EP-250, Emergency Operations Facility, Rev. 5
IP-EP-120, Emergency Classification, Rev. 29 (EALs 2.3.1and 8.1.4)

Drawings
9321-F-20015 - Screenwash Pump
9321-F-10113-8 - Intake Structure Top Slab Plan
9321-F-10143-7, Intake Structure Miscellaneous Steel Details

Calculations
IP3-CALC-SWS-03622, Service Water Header Pressure

Condition Reports

IP3-2005-05388	IP3-2005-05375	IP3-2005-05380	IP3-2005-05401
IP3-2005-05389	IP3-2005-05375		

Section 1EP5: Correction of Emergency Preparedness Weaknesses and Deficiencies

Condition Reports

IP2-2005-04483	IP2-2005-04482	IP2-2005-04475	IP2-2005-04474
IP2-2005-03345	IP2-2005-03245		

Miscellaneous

Audit No. QA-07-2004-IP-1, IPEC Emergency Planning Program
Audit No. QA-07-2005-IP-1, IPEC Emergency Planning Program
IPEC Snapshot Self-Assessment Report, IP3-LO-2005-00273

Section 1EP6: Emergency Plan Drill

Procedures
IP-EP-410: Protective Action Recommendations

Condition Reports:
IP3-2005-04481 IP3-2005-04482 IP3-2005-04483 IP3-2005-04484

Section 4OA1Performance Indicator (PI) Verification

Procedures
EN-EP-201, Emergency Planning Performance Indicators, Rev. 2
IP-EP-AD5, Emergency Preparedness Performance Indicator Program, Rev. 2

Section 4OA2: Problem Identification and Resolution

Calculations
IP3-CALC-EDG-03849, Structural Evaluation of Oil Leak for Line 1055, Revision 2
IP3-CALC-EDG-03703, Operability Determination of Pipe Line No. 1050, Revision 5

Condition Reports

IP2-2003-01686	IP2-2003-02452	IP2-2003-03540	IP2-2003-04713
IP2-2003-04884	IP2-2003-05924	IP2-2004-00438	IP2-2004-00543
IP2-2005-00429	IP2-2005-00530	IP2-2005-00584	IP2-2005-00808
IP2-2005-01763	IP2-2005-02345	IP2-2005-02555	IP2-2005-02700
IP2-2005-02987	IP2-2005-03245	IP2-2005-03308	IP2-2005-03319
IP2-2005-03345	IP2-2005-03378	IP2-2005-03448	IP2-2005-03999
IP2-2005-04033	IP2-2005-04257	IP2-2005-04282	IP2-2005-04546
IP2-2005-04606	IP2-2005-04760	IP3-2003-04048	IP3-2004-02434
IP3-2004-02725	IP3-2004-03566	IP3-2004-04208	IP3-2005-00461
IP3-2005-00471	IP3-2005-00675	IP3-2005-00744	IP3-2005-02763
IP3-2005-02776	IP3-2005-02912	IP3-2005-03081	IP3-2005-03882
IP3-2005-04138	IP3-2005-05047	IP3-2005-05060	IP3-2005-05231
IP3-2005-05620			

Procedures
IPEC Operations Night Orders, December 6, 2005
IP-SMM-TQ-122, “Fire Protection Training Program,” Revision 1
IP-SMM-DC-901, “IPEC Fire Protection Program Plan,” Revision 2
OAP-001, “Conduct of Operations,” Revision 8
OASL-15.21, “Shift Manning Requirements,” Revision 5
OASL-15.22, “Fire Brigade Requirements,” Revision 7

Work Orders
IP3-03-03324 IP3-03-03323

Miscellaneous
Standing Order 05-02
Temporary Procedure Change 03-0229

LIST OF ACRONYMS

AFW	auxiliary feedwater
ANS	alert notification system
AOP	abnormal operation procedure
CAP	corrective action program
CCW	component cooling water
CFR	Code of Federal Regulations
COL	check-off list
CR	condition report
CRDM	control rod drive mechanism
CST	condensate storage tank
DEP	Drill and Exercise Performance
EAL	emergency action level
EDG	emergency diesel generator
EOF	Emergency Operations Facility
EOP	emergency operating procedure
EP	emergency preparedness
ERO	Emergency Response Organization
FCU	fan cooler unit
FSAR	final safety analysis report
FWST	fire water storage tank
IP3	Indian Point Nuclear Generating Unit 3
IPEC	Indian Point Energy Center
IPEEE	Individual Plant Examination of External Events
NCV	non-cited violation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
PAB	primary auxiliary building
PI	performance indicator
PMT	post maintenance testing
PWST	primary water storage tank
PWT	post-work test
RHR	residual heat removal
RWST	refueling water storage tank
SDP	significance determination process
SOP	system operating procedure
SSC	systems, structures, and components
SW	service water
TS	technical specification
UE	unusual event
WO	work order