UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

October 30, 2009

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 UNIT 3 – NRC INTEGRATED INSPECTION REPORT 05000286/2009004

Dear Mr. Pollock:

On September 30, 2009, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Indian Point Nuclear Generating Unit 3. The enclosed integrated inspection report documents the inspection results, which were discussed on October 8, 2009, with you 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.

In accordance with Title 10 of the Code of Federal Regulations (10 CFR) Part 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 of the Publicly

Available Records System (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/

Blake D. Welling, Acting Chief
Projects Branch 2
Division of Reactor Projects

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

Enclosure: Inspection Report No. 05000286/2009004
w/ Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.:	50-286
License No.:	DPR-64
Report No.:	05000286/2009004
Licensee:	Entergy Nuclear Northeast (Entergy)
Facility:	Indian Point Nuclear Generating Unit 3
Location:	450 Broadway, GSB Buchanan, NY 10511-0249
Dates:	July 1, 2009 through September 30, 2009
Inspectors:	P. Cataldo, Senior Resident Inspector - Indian Point 3 A. Koonce, Resident Inspector - Indian Point 3 G. Newman, Reactor Inspector J. Ayala, Reactor Inspector J. Lilliendahl, Reactor Inspector S. Barr, Senior Emergency Preparedness Inspector
Approved By:	Blake D. Welling, Acting Chief Projects Branch 2 Division of Reactor Projects

TABLE OF CONTENTS

SUMMARY OF FINDINGS

IR 05000286/2009004; 07/01/2009 – 09/30/2009; Indian Point Nuclear Generating (Indian Point) Unit 3; Resident Integrated Inspection Report.

This report covered a three-month period of inspection by resident and region-based inspectors. The NRC's program for overseeing safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

REPORT DETAILS

Summary of Plant Status

Indian Point Unit 3 began the inspection period operating at full reactor power (100%). On August 9, 2009, severe storms in the area caused a lightning strike in the Buchanan switchyard. The lightning strike resulted in protective relays initiating a trip of the main unit generator, and consequently, a turbine and reactor trip. No damage was sustained, testing was performed satisfactorily, and the unit was returned to full power on August 13, 2009.

Additionally, on August 27, 2009, a main turbine and automatic reactor trip occurred that was determined to be caused by a cracked fitting in the main turbine hydraulic oil system. Repairs were performed satisfactorily and the unit was returned to full power on August 29, 2009. The unit remained at full power for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01 – 1 sample)

Hurricane Preparedness

a. Inspection Scope

The inspectors reviewed Entergy staff's preparations for an impending hurricane (Bill) on August 21, 2009. The inspectors review included OAP-008, "Severe Weather Preparations," the Updated Final Safety Analysis Report (UFSAR), and the technical requirements manual (TRM). The inspectors conducted the review to verify that the impending severe weather was evaluated by station personnel against on-going activities to ensure plant risk was assessed. Additionally, the inspectors conducted the review to verify that the station's implementation of OAP-008 appropriately maintained systems required for safe shutdown of the reactor. The inspection satisfied one inspection sample for the onset of adverse weather.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment (71111.04Q - 4 samples)

.1 Partial System Walkdowns

a. Inspection Scope

The inspectors performed partial system walkdowns to inspect Entergy staff's performance in maintaining the proper equipment alignment of redundant or diverse trains and components during periods of system train unavailability, and where

applicable, following return to service after maintenance. The inspectors referenced system procedures, the UFSAR, and system drawings to verify that the alignment of the applicable system or component supported its required safety functions. The inspectors also reviewed applicable condition reports (CRs) or work orders (WOs) to ensure Entergy personnel identified and properly addressed equipment deficiencies that could potentially impair the capability of the available train(s). The documents reviewed during this inspection are listed in the Attachment. The inspectors performed partial walkdowns of the following systems or components, which represented four inspection samples:

- Safety injection (SI) system while the 33 SI pump was out of service for maintenance on July 15, 2009;
- 31 and 32 emergency diesel generators (EDGs) service water and electrical lineups on July 17, 2009, during maintenance on the 33 EDG;
- 31 EDG return-to-service after the loss of Bus 2A on August 10, 2009; and
- 31 and 32 auxiliary feedwater (AFW) pumps during maintenance on 33 AFW pump on September 29, 2009.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05Q - 4 samples)

.1 Quarterly Fire Area Walkdowns

a. Inspection Scope

The inspectors conducted tours of selected Unit 3 fire areas to assess the material condition and operational status of applicable fire protection features. The inspectors verified, consistent with the applicable administrative procedures, that: combustible material and ignition sources were adequately controlled; passive fire barriers, manual fire-fighting equipment, and suppression and detection equipment were appropriately maintained; and compensatory measures for out-of-service, degraded, or inoperable fire protection equipment were implemented in accordance with Entergy's fire protection program. The inspectors also evaluated the fire protection program for conformance with the requirements of License Condition 2.K. The documents reviewed during this inspection are listed in the Attachment.

This inspection represented four inspection samples and was conducted in the areas covered by the following Pre-Fire Plans:

- Pre-Fire Plan 351;
- Pre-Fire Plan 365;
- Pre-Fire Plan 366; and
- Pre-Fire Plan 367.

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance (71111.07A – 1 sample)

a. Inspection Scope

The inspectors evaluated maintenance activities and reviewed inspection data associated with the periodic inspection of the 33 EDG jacket water and lube oil coolers. The inspectors reviewed applicable design basis information and commitments associated with Entergy's Generic Letter 89-13 program to validate that maintenance activities were adequate to ensure the system could perform its required safety function. The inspectors evaluated eddy current testing records and visual inspection records to verify that the number of plugged tubes remained below the limit at which cooler heat removal capability would no longer satisfy design requirements. This inspection represented one sample for heat sink performance.

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program (71111.11Q - 1 sample)

Quarterly Resident Inspector Evaluation

a. Inspection Scope

On September 22, 2009, the inspectors observed annual licensed operator requalification training examinations conducted in the plant-reference simulator, to verify appropriate operator performance, and that evaluators identified and documented crew performance problems, as applicable. The inspectors evaluated the performance of risk significant operator actions, including the use of emergency operation procedures. The inspectors assessed the clarity and the effectiveness of communications, the implementation of appropriate actions in response to alarms, the performance of timely control board operations, and the oversight and direction provided by the control room supervisor. The inspectors reviewed simulator fidelity to verify correlation with the actual plant control room, and to verify that differences in fidelity that could potentially impact training effectiveness were either identified or appropriately dispositioned. Licensed operator training was evaluated for conformance with the requirements of 10 CFR 55, "Operator Licenses." The documents reviewed during this inspection are listed in the Attachment. This observation of operator evaluations represented one inspection sample.

b. Findings

No findings of significance were identified.

1R12 Maintenance Effectiveness (71111.12 – 2 samples)

a. Inspection Scope

The inspectors reviewed performance-based problems that involved selected structures, systems, and components (SSCs), to assess the effectiveness of maintenance activities and to verify activities were conducted in accordance with site procedures and 10 CFR 50.65 (The Maintenance Rule). The reviews focused on:

- Evaluation of Maintenance Rule scoping and performance criteria;
- Verification that reliability issues were appropriately characterized;
- Verification of proper system and/or component unavailability;
- Verification that Maintenance Rule (a)(1) and (a)(2) classifications were appropriate;
- Verification that system performance parameters were appropriately trended; and
- For SSCs classified as Maintenance Rule (a)(1), that goals and associated corrective actions were adequate and appropriate for the circumstances.

The inspectors also reviewed system health reports, maintenance backlogs, and Maintenance Rule basis documents. The documents reviewed during this inspection are listed in the Attachment. The following systems and/or components were reviewed and represented two inspection samples:

- Screenwash pump motor failures; and
- Core exit thermocouples following repetitive failures.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 – 5 samples)

a. Inspection Scope

The inspectors reviewed maintenance activities to verify that the appropriate on-line and shutdown risk assessments were performed prior to removing equipment for work as required by 10 CFR 50.65(a)(4). When planned work scope or schedules were altered to address emergent or unplanned conditions, the inspectors verified that the plant risk was promptly reassessed and managed by station personnel. Additionally, the inspectors utilized inspection manual chapter (IMC) 0609, Appendix G, during various refueling outage periods, to assist in the evaluation of Entergy's shutdown risk assessments. The documents reviewed during this inspection are listed in the Attachment. The following activities represented five inspection samples:

- Elevated risk associated with planned work on the 32 instrument air compressor, 32 primary water pump, and the 31 EDG with the 138kV cross-tie feeder out-of-service on July 16, 2009;
- Elevated risk during 33 EDG testing conducted on July 30, 2009;

- Elevated risk associated with planned Appendix 'R' EDG maintenance with the 138kV cross-tie feeder out-of-service on August 7, 2009;
- Elevated risk during 31 EDG testing conducted on August 27, 2009; and
- Elevated risk associated with planned work on the 32 EDG and 33 atmospheric dump valve with the 138kV cross-tie feeder out-of-service on September 15, 2009.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations (71111.15 – 5 samples)

a. Inspection Scope

The inspectors reviewed operability evaluations to assess the acceptability of the evaluations, the use and control of compensatory measures when applicable, and compliance with Technical Specifications. These reviews were conducted to verify that operability determinations were performed in accordance with procedure ENN-OP-104, "Operability Determinations." The inspectors assessed the technical adequacy of the evaluations to ensure consistency with the UFSAR and associated design and licensing basis documents. The documents reviewed are listed in the Attachment. The following operability evaluations were reviewed and represented five inspection samples:

- CR-IP3-2009-02831: Pressurizer relief tank (PRT) level change during the 32 SI pump quarterly test due to pump discharge relief valve lifting;
- CR-IP3-2009-03103: 33 EDG reverse power trip;
- CR-IP3-2009-03475: 32 service water pump vibration trend and oil analysis indicative of degraded bearing;
- CR-IP3-2009-03074: Low pressurized operated relief valve (PORV) nitrogen supply pressure; and
- CR-IP3-2009-03343: 33 service water pump submerged power cable.

b. Findings

No findings of significance were identified.

1R18 Plant Modifications (71111.18 – 1 sample)

a. Inspection Scope

The inspectors reviewed design documentation associated with the installation of a temporary repair clamp and injection of leak sealant on BFD-29-32, the 33 steam generator main feedwater line drain valve. The inspectors reviewed plant design documents and calculations to ensure the mechanical and chemical effects of sealant injection were appropriately considered. Additionally, the inspectors reviewed whether the work package associated with the clamp installation and injection were coordinated with operations and chemistry to confirm appropriate system response. Post-installation inspection of the repair clamp was also reviewed.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing (71111.19 – 7 samples)

a. Inspection Scope

The inspectors reviewed post-maintenance test procedures and associated testing activities for selected risk-significant mitigating systems, and assessed whether the effect of maintenance on plant systems was adequately addressed by control room and plant personnel. The inspectors verified that: test acceptance criteria were clear; tests demonstrated operational readiness and were consistent with design basis documentation; test instrumentation had current calibrations and appropriate range and accuracy for the application; tests were performed as written; and applicable test prerequisites were satisfied. Upon completion of the tests, the inspectors verified that equipment was returned to the proper alignment necessary to perform its safety function. Post-maintenance testing was evaluated against the requirements of 10 CFR 50, Appendix B, Criterion XI, "Test Control." The following post-maintenance activities were reviewed and represented seven inspection samples:

- Outboard and inboard seal replacement on the 32 component cooling water (CCW) pump on July 10, 2009;
- Calibration of main steam to steam jet air ejector high pressure isolation on July 21, 2009;
- 32 EDG diagnostic and surveillance testing on August 13, 2009;
- 32 charging pump speed controller on September 11, 2009;
- Steam generator level analog functional testing and flow control valve (FCV-427) controller troubleshooting;
- Appendix 'R' diesel generator post-outage testing on August 7, 2009; and
- 33 atmospheric dump valve controller calibration on September 15, 2009.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing (71111.22 – 6 samples)

a. Inspection Scope

The inspectors observed performance of surveillance tests and/or reviewed test data of selected risk-significant structures, systems, and components, to assess whether test results satisfied Technical Specifications, UFSAR, TRM, and Entergy procedure requirements. The inspectors verified that: test acceptance criteria were sufficiently clear; tests demonstrated operational readiness and were consistent with design basis documentation; test instrumentation had accurate calibrations and appropriate range and accuracy for the application; tests were performed as written; and applicable test prerequisites were satisfied. Following the tests, the inspectors verified that the

equipment was capable of performing the required safety functions. The documents reviewed during this inspection are listed in the Attachment. The following surveillance tests were reviewed and represented six inspection samples, which included in-service testing (IST) and containment isolation valve (CIV) surveillances:

- 6-year calibration of 6.9kV relays UT4-51/UT4-A-B-C/N;
- 3-PT-Q092A, 31 Service Water Pump Train Operational Test (IST);
- 3-PT-W019, Electrical Verification of Offsite Power Sources and AC Distribution;
- 3PT-R151, Test of Appendix 'R' Alternate Feed to 31 and 32 Charging Pumps;
- 3PT-Q085, Safety Injection System Valve Operability Test, Stroke testing of SI-MOV-850A/C (CIV); and
- 3-PT-M62C, 480-Volt Undervoltage/Degraded Grid Protection System Bus 6A Functional.

b. Findings

No findings of significance were identified.

1EP2 Alert and Notification System (ANS) Evaluation (71114.02 - 1 Sample)

a. Inspection Scope

The inspectors conducted a review of the station's new ANS to assess the maintenance, testing, and performance of the system. During this inspection, the inspectors accompanied an on-site team from the Federal Emergency Management Agency (FEMA) to assess the new ANS for final acceptance by FEMA. The inspectors interviewed Entergy's staff responsible for implementation of ANS modifications, testing, and maintenance. The inspectors reviewed CRs pertaining to the ANS for causes, trends, and corrective actions. The inspectors further discussed with Entergy personnel the ANS siren system improvements made in response to FEMA concerns and the system performance from August 2008 through July 2009. The inspectors reviewed Entergy's procedures and the latest revision of the ANS design report to ensure compliance with commitments made for system maintenance and testing. The inspectors used planning standard 10 CFR 50.47(b)(5) and the related requirements of 10 CFR 50, Appendix E as reference criteria.

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation (71114.06 – 1 sample)

a. Inspection Scope

The inspectors evaluated an emergency classification conducted on September 22, 2009, during a licensed-operator requalification examination conducted in the plant-reference simulator. The inspectors observed an operating crew respond to simulated initiating events and malfunctions that ultimately resulted in the simulated implementation of the site emergency plan. In particular, the inspectors verified the

adequacy and accuracy of the simulated emergency classification of 'Site Area Emergency.' The inspectors verified this initial classification was appropriately credited as an opportunity toward NRC performance indicator data. The inspectors observed the management evaluator and training critique following termination of the scenarios, and verified that performance deficiencies were appropriately identified and addressed within the critique and the corrective action program. Also, the inspectors reviewed the summary performance report for the evaluation and verified that appropriate attributes of drill performance including deficiencies were captured. This evaluation constituted one inspection sample.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151 – 5 samples)

a. Inspection Scope

Resident Inspector Baseline Inspection

The inspectors reviewed performance indicator data for the cornerstone listed below and used Nuclear Energy Institute 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 5, to verify individual performance indicator accuracy and completeness. The documents reviewed during this inspection are listed in the Attachment.

Mitigating System Cornerstone (Mitigating Systems Performance Indicators)

- Emergency AC Power System: July 2008 – June 2009;
- High Pressure Injection System: July 2008 – June 2009;
- Heat Removal Systems: July 2008 – June 2009;
- Residual Heat Removal System: July 2008 – June 2009; and
- Cooling Water Systems: July 2008 – June 2009.

The inspectors reviewed data and plant records from the above noted periods. The records included performance indicator data summary reports, licensee event reports, operator narrative logs, the corrective action program, and Maintenance Rule records. The inspectors verified the accuracy of the number of critical hours reported, and interviewed the system engineers and operators responsible for data collection and evaluation.

b. Findings

No findings of significance were identified.

4OA2 Identification and Resolution of Problems (71152 – 2 samples)

.1 Routine Problem Identification and Resolution (PI&R) Program Review

a. Inspection Scope

As required by Inspection Procedure 71152, "Identification and Resolution of Problems," and to identify repetitive equipment failures or specific human performance issues for follow-up, the inspectors performed a daily screening of all items entered into Entergy's corrective action program. The review was accomplished by accessing Entergy's computerized database for CRs and attending condition report screening meetings.

In accordance with the baseline inspection modules, the inspectors selected corrective action program items across the Initiating Events, Mitigating Systems, and Barrier Integrity cornerstones for further follow-up and review. The inspectors assessed Entergy personnel's threshold for problem identification, the adequacy of the cause analysis, extent of condition reviews, operability determinations, and the timeliness of the associated corrective actions.

b. Findings

No findings of significance were identified.

.2 Annual Sample: 36 Service Water Pump Degradation

a. Inspection Scope

The inspectors reviewed Entergy's corrective actions to address unexpected degradation identified on the 36 service water (SW) pump, following a shutdown due to abnormal pump noises in October 2007. The inspectors reviewed corrective actions associated with CR-IP3-2007-03939, and assessed the apparent cause evaluation to ensure the identified causes and corrective actions were adequate and appropriate for the circumstances, as well as commensurate with the safety significance applicable to the risk significant components such as SW pumps.

b. Findings and Observations

No findings of significance were identified.

The inspectors noted that material changes to the pump had been performed, which had established an apparent galvanic cell between monel and stainless steel components, and ultimately led to corrosion of the impeller locking bolt heads and washers. While the station's corrective action assessment concluded that adequate thread engagement was still provided, the inspectors determined the corrective action plan did not address the failure of either the vendor or Entergy staff to control the configuration of this safety-related pump. The inspectors considered this a missed opportunity for implementation of appropriate corrective actions to address this issue, such as, training for engineers, or follow-up review of the vendor quality program by Entergy quality assurance personnel. Additionally, the inspectors determined the corrective action documents did not indicate

that submittal of operating experience to heighten awareness of this type of issue among other licensees was considered or completed. The inspectors determined that such consideration was warranted since the vendor has an extensive role in the supply and maintenance of deep-draft pumps throughout the nuclear industry.

The inspectors concluded Entergy personnel had adequate opportunity to ensure the appropriate component material selections occurred on a pump that was overhauled by an outside vendor and accepted on-site as a spare for installation through receipt-inspection activities. However, the inspectors determined that the corrective actions taken by Entergy would ensure the SW pumps would continue to perform the intended safety functions. The inspectors determined the issue was of minor significance in accordance with IMC 0612, Appendix B, "Issue Screening," and, therefore, is not subject to enforcement action in accordance with the NRC's Enforcement Policy. Entergy acknowledged the observations and is evaluating the issue in the corrective action program to determine the appropriate course of action.

.3 Annual Sample: Reactor Protection System Relay Failure

a. Inspection Scope

The inspectors reviewed Entergy's corrective actions to address a relay failure that resulted from contacts that had become dislodged, which was documented in CR-IP3-2009-02849. The inspectors evaluated the adequacy of the evaluation, as well as the corrective actions to ensure they were adequate and appropriate for the circumstances. In addition, the inspectors evaluated the safety function of the relay to ensure appropriate corrective actions were implemented commensurate with the safety significance of relays associated with the reactor protection system.

b. Findings and Observations

No findings of significance were identified. The inspectors concluded that Entergy's evaluation and corrective actions were adequate.

4OA3 Event Follow-up (71153 – 4 samples)

.1 Automatic Reactor Trip on August 10, 2009, Due to Probable Lightning Strike

a. Inspection Scope

The inspectors evaluated the response of control room personnel following the main unit generator-initiated plant trip, which resulted in a main turbine trip and automatic reactor trip, as expected for the initiating condition. The inspectors reviewed plant computer data, including the sequence of events report, evaluated plant parameter traces, and discussed the event with plant personnel, to verify that plant equipment responded as expected, and to ensure that operating procedures were appropriately implemented. The inspectors verified that station personnel took appropriate actions in response to the failure of 6.9kV Bus No. 2 to appropriately auto-transfer to off-site power through the station auxiliary transformer. The inspectors also verified that Entergy's post-trip review group (PTRG) identified the most probable cause of the trip to facilitate corrective

actions prior to restart. Additionally, the inspectors verified that appropriate corrective actions were initiated due to this suspected cause, which included integrity checks of primary and backup protective circuit pilot wire, and thermography of major transformers and appurtenances. This event and the PTRG report were entered into Entergy's corrective action program as CR IP3-2009-03375.

b. Findings

No findings of significance were identified. The inspectors determined that operational response to the reactor trip was appropriate. The inspectors will conduct further review of the root cause evaluation (RCE) and associated corrective actions in conjunction with review of the licensee event report submitted by Entergy personnel.

.2 Automatic Reactor Trip on August 27, 2009

a. Inspection Scope

The inspectors evaluated the response of control room personnel following the turbine trip and subsequent automatic reactor trip caused by a loss of turbine auto stop oil pressure. The inspectors reviewed plant computer data, evaluated plant parameter traces, and discussed the event with plant personnel, to verify that plant equipment responded as expected, and to ensure that operating procedures were appropriately implemented. The inspectors verified that Entergy's post-trip review group (PTRG) correctly identified the cause of the trip to facilitate corrective actions prior to restart. This event and the PTRG report were entered into Entergy's corrective action program as CR IP3-2009-03592. Corrective actions included the replacement of a failed fitting as well as a RCE.

b. Findings

No findings of significance were identified. The inspectors determined that operational response to the reactor trip was appropriate. The inspectors will conduct further review of the RCE and associated corrective actions in conjunction with the review of the licensee event report submitted by Entergy personnel.

.3 (Closed) Licensee Event Report (LER) 05000286/2008-006-00 and 05000286/2009-001-00: Automatic Actuation of an Emergency Diesel Generator (EDG) and Two Auxiliary Feedwater Pumps During Surveillance Testing due to Inadvertent De-Energization of the Normal Supply Breaker to 480-Volt Safeguards Bus 6A.

On October 9, 2008, and again on January 2, 2009, during surveillance testing associated with undervoltage and degraded relays for 480-Volt safety Bus 6A, the normal supply breaker for the Bus 6A opened unexpectedly, which caused various perturbations, including loads de-energized/re-energized and the 32 EDG to start and load onto its associated Bus 6A.

Entergy personnel conducted causal evaluations (CR-IP3-2008-02519 and CR-IP3-2009-00011) and determined that equipment malfunctions were not the causes, which had initially been considered early in the investigations. Subsequent investigations

through independent vendor testing of a Fluke digital volt meter, (suspected cause of the October 9th event) and degraded grid relay 62-1/6A (suspected cause of the January 2nd event) determined these components were not the causes of the events. Additionally, Entergy staff conducted follow-up troubleshooting on the Bus 6A circuitry during the Spring 2009 refueling outage and ruled out additional causes initially considered potential event initiators.

The inspectors noted the following: (1) Entergy staff has considered additional information to determine the causes of both events during a rollup revision to the causal evaluation under CR-IP3-2009-00011; (2) original equipment malfunctions identified in the LERs as causes were subsequently ruled out; (3) the original LERs being discussed in this section are being supplemented to address new information gathered from extensive evaluations; and (4) the NRC will review the supplemented LERs that will be submitted by Entergy staff to ensure all appropriate information to assess the events are available for review. As a result, the inspectors determined there were no findings of significance or violations of NRC requirements identified. This review represents two event follow-up inspection samples. These LERs are closed.

4OA5 Other Activities

Quarterly Resident Inspector Observations of Security Personnel and Activities

a. Inspection Scope

During the inspection period, the inspectors conducted observations of security force personnel and activities to ensure that these activities were consistent with Entergy security procedures and applicable regulatory requirements. Although these observations did not constitute additional inspection samples, the inspections were considered an integral part of the normal, resident inspector plant status reviews during implementation of the baseline inspection program.

b. Findings

No findings of significance were identified.

4OA6 Meetings, including Exit

Exit Meeting Summary

On October 8, 2009, the inspectors presented the inspection results to Mr. Joseph Pollock and other Entergy staff members, who acknowledged the inspection results. While some proprietary items were reviewed and returned during the inspection, no proprietary information is presented in this report.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Entergy Personnel

J. Pollock, Site Vice President
A. Vitale, General Manager, Plant Operations
K. Davison, Assistant General Manager, Plant Operations
P. Conroy, Director, Nuclear Safety Assurance
D. Gagnon, Manager, Security
R. Walpole, Manager, Licensing
J. Dinelli, Assistant Operations Manager, Unit 3
V. Myers, Supervisor, Mechanical Design Engineering
T. Orlando, Engineering Director
R. Burroni, Manager Programs, Components and Engineering
D. Loope, Manager, Radiation Protection
S. Verrochi, Manager System Engineering
F. Inzirillo, Manager, Quality Assurance
N. Azevedo, Supervisor, Code Programs
T. Morzello, Maintenance Supervisor
G. Dahl, Licensing Engineer
H. Anderson, Licensing Engineer
D. Smith, ALARA Specialist
G. Hocking, Supervisor, Radiation Protection Support
R. Blaine, Supervisor, Radiation Protection Operations
S. Sandike, Specialist, Effluent & Environmental Monitoring
P. Donahue, Specialist, Effluent & Environmental Monitoring
R. Mages, ALARA Specialist
N. Papayia, QA
B. Allen, Code Programs
R. Walpole, Manager, Licensing
M. Burney, Licensing
B. Sullivan, Emergency Planning Manager
T. Garvey, Senior Project Manager, Emergency Planning
A. Grosjean, Senior Project Manager, Emergency Planning

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Closed

05000286/2008006-00	LER	Automatic Actuation of an Emergency Diesel Generator and Two Auxiliary Feedwater Pumps During Surveillance Testing due to Inadvertent De-Energization of the Normal Supply Breaker to 480 Volt Safeguards Bus 6A. (Section 4OA3.3)
05000286/2009001-00	LER	Automatic Actuation of an Emergency Diesel Generator and Two Auxiliary Feedwater Pumps During Surveillance Testing due to Inadvertent De-Energization of the Normal Supply Breaker to 480 Volt Safeguards Bus 6A. (Section 4OA3.3)

LIST OF DOCUMENTS REVIEWED

Section 1R04: Equipment Alignment

Procedures
SOP-FW-004, Auxiliary Feedwater System Operation, Rev. 24
3-COL-EL-005, Diesel Generators, Rev. 34
3-COL-SI-001, Safety Injection System, Rev. 39

Section 1R05: Fire Protection

Procedures
EN-DC-161, Control of Combustibles, Rev. 3
IP-SMM-DC-901, IPEC Fire Protection Program, Rev. 6

Section 1R07: Heat Sink Inspection

Procedures
SEP-SW-001, Service Water Program, Rev. 2

Calculations
IP-CALC-MULT-00928

Work Orders
51653157
51653158

Other
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OAP-033, Conduct of Operations Simulator Training, Evaluations, and Debriefs, Rev. 5

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Procedures
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EN-DC-203, Maintenance Rule Program, Rev. 1
EN-DC-204, Maintenance Scope and Basis, Rev. 1
EN-DC-205, Maintenance Rule Monitoring, Rev. 2
EN-DC-143, System Health Reports, Rev. 8
EN-DC-159, System Monitoring Program, Rev. 3
EN-DC-167, Classification of Structures, Systems, and Components, Rev. 2
EN-DC-206, Maintenance Rule (a)(1) Process, Rev. 1
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2009-02505 2009-03766

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116865 131653 151243 196627 207133 200238
200239

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Section 1R13: Maintenance Risk Assessment and Emergent Work Control

Procedures
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IP-SMM-WM-120, Contingency Planning, Rev. 0
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Section 1R15: Operability Evaluations

Procedures
3-PT-Q116B, 32 Safety Injection Pump Functional Test, Rev. 16
3-PT-M079C, 33 EDG Functional Test, Rev. 37
3-SOP-EL-001, Diesel Generator Operation, Rev. 40
EN-LI-102, Corrective Action Process, Rev. 13
EN-OP-104, Operability Determinations, Rev. 3

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51690394	51701210	52026625	52186517	51796830	51691116
51695634	51675760	51803399	52036450	52035212	51793597
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9321-F-30073, Three Line Diagram, Low Voltage, Rev 24
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IP3V-13-0006, DC Wiring Diagram of EDG 31, 32, and 33, Rev. 6
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Section 1R19: Post-Maintenance Testing

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0-EDG-407-ELC, Emergency and Appendix "R" Diesel Generator Engine Analysis/Inspection, Rev. 3, completed 8/13/09
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3-PT-W012, Appendix R Diesel Support Systems Inspection, Rev. 18
3-PT-M090, Appendix "R" DG Functional Test, Rev. 14

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00122463	51658264	51692331	00203434	52191590
51551366	52035846	51662650	51662651/52	52186207
51454004	51450796	51496507/08		

Section 1R22: Surveillance Activities

Procedures
3PT-R151, Test of Appendix R Alternate Feed to 31 and 32 Charging Pumps, Rev. 3
3PT-W019, Electrical Verification of Offsite Power Sources and AC Distribution, Rev. 8

3-IC-PC-I-P-439, Steam Generator No. 33 Atmospheric Steam Dump Pressure, Rev. 6

Surveillance Test Procedure Feedback Forms
IP3-10157 IP3-10159

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

Procedures

IP-EP-AD30, IPEC ATI Siren System Administration, Rev. 2
IP-EP-AD31, IPEC Siren System Maintenance Administration, Rev. 0
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Miscellaneous
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FEMA letter to NYSEMO, "Response to Entergy Letter dated June 15, 2009, Concerning the new Alert and Notification System at the Indian Point Energy Center," dated June 26, 2009
Entergy letter to NYSEMO, "Revised/Additional Sections of Indian Point Energy Center Alert and Notification System Final Design Report, and Response to FEMA Letter dated June 26, 2009," dated August 17, 2009
IPEC ANS Maintenance and Test Records, August 2008 through July 2009

Section 2PS2: Radioactive Material Processing and Transportation

Procedures
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Radioactive Shipping Procedure, EN-RW-102, Rev. 6
14-170 and 8-120 Cask/Liner Handling Procedure, VY-OPF 2511, Rev. 42

Section 4OA1: Performance Indicator Verification

Procedures
EN-LI-114, Performance Indicator Process, Rev. 4
NEI 99-02, Regulatory Assessment Performance Indicator Guideline, Rev. 5
EN-LI-144, Performance Indicator Process, Rev.3, Attachment 9.2

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Section 4OA2: Identification and Resolution of Problems

Procedures
EN-LI-102, Corrective Action Process, Rev. 13

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9321-F-24023, Flow Diagram Turbine Generator Seal Oil System, Rev. 11

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3-E-0, Reactor Trip or Safety Injection, Rev. 0
3-ES-0.1, Reactor Trip Response, Rev. 3

LIST OF ACRONYMS

ADAMS	Agency Wide Document Management System
AFW	Auxiliary Feedwater
ANS	Alert and Notification System
CAP	Corrective Action Program
CCW	Component Cooling Water
CFR	Code of Federal Regulations
CR	Condition Report
EDG	Emergency Diesel Generator
EP	Emergency Preparedness
FEMA	Federal Emergency Management Agency
GL	NRC Generic Letter
IMC	Inspection Manual Chapter
IPEC	Indian Point Energy Center
IST	In-service Testing
LER	Licensee Event Report
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
PARS	Publicly Available Records
PI	Performance Indicator
PI&R	Problem Identification and Resolution
PORV	Pressurizer Operated Relief Valve
PRT	Pressurizer Relief Tank
PTRG	Post-Trip Review Group
RCE	Root Cause Evaluation
SDP	Significance Determination Process
SI	Safety Injection
SSC	Structures, Systems, and Components
SW	Service Water
TRM	Technical Requirements Manual
TS	Technical Specifications
UFSAR	Updated Final Safety Analysis Report
WO	Work Order