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

August 9, 2011

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 05000286/2011003

Dear Mr. Pollock:

On June 30, 2011, 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 July 20, 2011 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.

This report documents one NRC-identified finding of very low safety significance (Green). This finding was determined to involve a violation of NRC requirements. Additionally, two licensee-identified violations, which were determined to be of very low safety significance, are listed in this report. However, because of the very low safety significance and because they are entered into your corrective action program, the NRC is treating these findings as a non-cited violations (NCVs) consistent with Section 2.3.2 of the NRC Enforcement Policy. If you contest any NCV, 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 DC 20555-0001; with copies to the Regional Administrator, Region 1; the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001; and the NRC Senior Resident Inspector at Indian Point Nuclear Generating Unit 3. In addition, if you disagree with the cross-cutting aspect assigned to the finding in this report, you should provide a response within 30 days of the date of this inspection report, with the basis for your disagreement, to the Regional Administrator, Region 1, and the NRC Senior Resident Inspector at Indian Point Nuclear Generating Unit 3.

In accordance with Title 10 of the Code of Federal Regulations 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 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,

Mel Gray, Chief
Projects Branch 2
Division of Reactor Projects

Docket No. 50-286
License No. DPR-26

Enclosure: Inspection Report No. 05000286/2011003
w/ Attachment: Supplemental Information

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Sincerely,

/RA/

Mel Gray, Chief
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U.S. Nuclear Regulatory Commission

Region I

Docket No.:	50-286
License No.:	DPR-26
Report No.:	05000286/2011003
Licensee:	Entergy Nuclear Northeast (Entergy)
Facility:	Indian Point Nuclear Generating Unit 3
Location:	450 Broadway, GSB Buchanan, NY 10511-0249
Dates:	April 1, 2011 through June 30, 2011
Inspectors:	P. Cataldo, Senior Resident Inspector – Indian Point 3 M. Halter, Resident Inspector – Indian Point 3 C. Newport, Acting Resident Inspector – Indian Point 3 K. Mangan, Senior Reactor Inspector – Region I J. Lilliendahl, Reactor Inspector – Region I
Approved By:	Mel Gray, Chief Projects Branch 2 Division of Reactor Projects

TABLE OF CONTENTS

SUMMARY OF FINDINGS 3

REPORT DETAILS 4

1. REACTOR SAFETY 4
   1R01 Adverse Weather Protection 4
   1R04 Equipment Alignment 5
   1R05 Fire Protection 6
   1R06 Flood Protection Measures 7
   1R07 Heat Sink Performance 7
   1R11 Licensed Operator Requalification Program 8
   1R12 Maintenance Effectiveness 8
   1R13 Maintenance Risk Assessments and Emergent Work Control 9
   1R15 Operability Evaluations 10
   1R18 Plant Modifications 10
   1R19 Post-Maintenance Testing 12
   1R20 Refueling and Other Outage Activities 13
   1R22 Surveillance Testing 14
   1EP6 Drill Evaluation 15

4. OTHER ACTIVITIES 16
   4OA1 Performance Indicator Verification 16
   4OA2 Identification and Resolution of Problems 16
   4OA3 Event Follow-Up 22
   4OA5 Other Activities 24
   4OA6 Meetings, Including Exit 26
   4OA7 Licensee-Identified Violations 27

ATTACHMENT: SUPPLEMENTAL INFORMATION A-1

KEY POINTS OF CONTACT A-1

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED A-1

LIST OF DOCUMENTS REVIEWED A-2

LIST OF ACRONYMS A-11

SUMMARY OF FINDINGS

IR 05000286/2011003; 4/1/11 – 6/30/11; Indian Point Nuclear Generating (Indian Point) Unit 3; Identification and Resolution of Problems.

This report covered a three-month period of inspection by resident and region-based inspectors. One finding of very low significance (Green) was identified. This finding was also determined to be an NCV 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." The cross-cutting aspect for the finding was determined using IMC 0310, "Components within the Cross-Cutting Areas." Findings for which the significance determination process (SDP) does not apply may be Green, or be assigned a severity level after NRC management review. 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.

Cornerstone: Mitigating Systems

- Green. The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because Entergy did not assure that the overhaul of the 33 inverter was prescribed by an appropriate procedure and that the overhaul was performed in accordance with the procedure, which resulted in restoring the safety-related inverter to service without completing the necessary post-maintenance testing. Specifically, during March 2011, an overhaul of the 33 inverter was performed with an inadequate procedure and a portion of the post-maintenance testing was not performed. This issue was entered into Entergy's corrective action program (CAP) as condition reports CR-IP3-2011-03148 and CR-IP3-03432.

  This finding is more than minor because it is associated with the procedure quality attribute of the Mitigating Systems Cornerstone and adversely affects the objective to ensure the capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Using IMC 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the inspectors determined this finding was of very low safety significance (Green) because the finding was not related to a design or qualification deficiency, did not represent a loss of system safety function, and the finding did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event.

  The finding has a cross-cutting aspect in the area of Human Performance associated with the Work Practices attribute, because Entergy personnel did not ensure that supervisory and management oversight of work activities was adequate. Specifically, the work order for the overhaul of the 33 inverter was issued with inadequate guidance; the work was, in part, performed without using procedures; and a portion of the post-maintenance testing was not performed, as required. [H.4(c) per IMC 0310] (Section 4OA2)

REPORT DETAILS

Summary of Plant Status

Indian Point Unit 3 (IP3) began the inspection period in a planned refueling outage (3R16). IP3 control room operators established initial reactor criticality on April 7, 2011, synchronized the main unit generator to the grid on April 8, 2011, and achieved full reactor power (100%) on April 12, 2011. Unit 3 remained at or near full power during the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01 – 2 samples)

.1 Summer Readiness of Offsite and Alternate AC Power Systems

a. Inspection Scope

The inspectors performed a detailed review of the station's onsite and offsite AC (alternating current) power systems, and onsite alternate AC power system readiness. This review included a walkdown to observe the material condition of the offsite Buchanan switchyard, which was performed during observations of a hot spot on an output feeder disconnect switch. The inspectors reviewed Entergy's response to 345kV and other grid disturbances that occurred on multiple occasions, including July 19, 2010, August 16, 2010, March 2, 2011, June 9, 2011, to verify appropriate interface and protocols existed between Entergy staff and the offsite power transmission system operators. This review included operator actions performed in accordance with 3-SOP-EL-005, Attachment 5, "Response to Electrical Grid Disturbances," Rev. 39.

The inspectors reviewed the most recent revision to IP-SMM-OP-104, "Offsite Power Continuous Monitoring and Notification," Rev. 10, to evaluate changes since the last revision, and to verify the procedure contained appropriate measures to monitor and maintain availability and reliability of both the offsite AC power systems and the onsite alternate AC power systems. This review included a verification that appropriate protocols, including communications existed to minimize the risk for initiating events, i.e., plant trips, during maintenance work outside the ownership boundaries of Entergy for components in the switchyard.

The inspectors reviewed both completed and outstanding work orders for the AC power systems and components, assessed the adequacy of corrective actions for identified and degraded conditions, and reviewed the overall condition of the 138kV and 345kV systems that are detailed in the system health reports. This review included an assessment of the risk for failure of various components located in the Buchanan switchyard that had been identified by Entergy staff as having exceeded their recommended service life, such as coupling capacitive potential devices and lightning arrestors. The inspectors also verified that following the Unit 2 main transformer failure in November 2010, a similar high voltage bushing (same make and model) was replaced in the "B" phase of the 32 main transformer, during the most recent IP3 refueling outage

(3R16). The inspectors also verified that adverse conditions in the onsite and offsite systems identified during the refueling outage were appropriately evaluated and corrected, as appropriate. Additional documents that were reviewed during this inspection are listed in the Attachment.

b. Findings

No findings were identified.

.2 Category I/II Thunderstorm and Tornado Warning Preparations

a. Inspection Scope

Using the Updated Final Safety Analysis Report (UFSAR), and Procedure OAP-008, "Severe Weather Preparations," Rev. 8., as references, the inspectors reviewed Entergy's preparations and mitigation measures for severe weather, i.e., thunderstorm and tornado warnings that occurred in the local area on April 28, 2011. The inspectors verified that Entergy staff evaluated the potential for electrical grid impacts, the associated impact to the site and plant systems, and implemented applicable sections of Procedure OAP-008, as warranted.

b. Findings

No findings were identified.

1R04 Equipment Alignment

.1 Partial System Walkdowns (71111.04Q – 3 samples)

a. Inspection Scope

The inspectors performed partial system walkdowns to verify the operability of redundant or diverse trains and components during periods of system train unavailability, and where applicable, following return to service after maintenance. The inspectors reviewed 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 or work orders to ensure that Entergy personnel had identified and properly addressed equipment deficiencies that could potentially impair the capability of the available train. The documents reviewed during this inspection are listed in the Attachment. The inspectors performed a partial walkdown on the following systems, which represented three inspection samples:

- 31/32 auxiliary boiler feed pump (ABFP) during 33 ABFP motor current analysis test on May 10, 2011;
- 31 ABFP return to service on June 8, 2011; and
- 33 residual heat removal (RHR) pump return to service on June 29, 2011.

b. Findings

No findings were identified.

.2 Full System Walkdown (71111.04S – 1 sample)

a. Inspection Scope

The inspectors performed a complete system walkdown of accessible portions of the RHR system to identify discrepancies between the existing equipment lineup and the required lineup. The inspectors reviewed operating procedures, surveillance tests, piping and instrumentation drawings, equipment lineup check-off lists, and the UFSAR to verify the system was aligned to perform its required safety functions. The inspectors reviewed a sample of CRs written to address deficiencies associated with the system to ensure they were appropriately evaluated and resolved. The documents reviewed during this inspection are listed in the Attachment.

b. Findings

No findings were identified.

1R05 Fire Protection

Resident Inspector Quarterly Walkdowns (71111.05Q – 4 samples)

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 reviewed, consistent with the applicable administrative procedures, whether: 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.

- Pre-Fire Plan (PFP)-304;
- PFP-305;
- PFP-315; and
- PFP-316.

b. Findings

No findings were identified.

1R06 Flood Protection Measures (71111.06 – 2 samples)

.1 Internal Flooding Review

a. Inspection Scope

The inspectors evaluated the internal flooding effects on the auxiliary boiler feedwater pump room and diesel generator cubicles, during implementation of Temporary Instruction 2515/183, "Followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event," which was completed in April 2011. The results of the inspection were documented in NRC inspection report 50-286/2011-009. The inspectors reviewed design and licensing basis information contained in the Unit 3 Individual Plant Examination, the UFSAR, and other documents listed in the Attachment. The inspectors also performed walkdowns to verify the adequacy of applicable flood mitigation attributes within the two areas of inspection. This inspection represented one sample for internal flood protection measures.

b. Findings

No findings were identified.

.2 Cables Located in Underground Manholes Inspection

a. Inspection Scope

On April 19, 2011, the inspectors evaluated actions by Entergy staff to mitigate the effects of periodic groundwater submergence of safety-related and non-safety-related cables located in Manholes 31, 31A and 31B. This evaluation occurred during performance of the quarterly manhole cable inspection activities, and verified whether Entergy personnel had appropriate water mitigation strategies, cable inspection and testing, and cable support inspections, to ensure continued operability and functionality of the associated components that are supplied electrical power by the cables that route through these manholes. Additionally, the inspectors conducted an independent visual observation of the material condition of cables, associated supports, and cable splices, in all three manholes. Documents reviewed during this inspection are located in the Attachment.

b. Findings

No findings were identified.

1R07 Heat Sink Performance (71111.07 – 1 sample)

a. Inspection Scope

The inspectors evaluated maintenance activities and reviewed inspection data associated with the inspection and cleaning of the 31 fan cooler unit (FCU) heat exchanger on March 29, 2011. The inspectors reviewed applicable design basis information to validate that maintenance activities were adequate to ensure the system

could perform its required safety function. The inspectors also verified that appropriate corrective actions were initiated for deficiencies identified during the maintenance activities. This inspection represented one sample for heat sink performance.

b. Findings

No findings were identified.

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

Quarterly Review

a. Inspection Scope

On May 26, 2011, the inspectors observed licensed-operator requalification training conducted in the plant reference simulator, to verify appropriate operator performance and that evaluators identified crew performance deficiencies, 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 and shift manager.

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. The inspectors verified the operator training was consistent with the requirements of 10 CFR 55, "Operator Licenses." The documents reviewed during this inspection are listed in the Attachment. This observation of licensed-operator training represented one inspection sample.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12Q – 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). When applicable, 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;
- For SSCs classified as Maintenance Rule (a)(1), that goals and associated corrective actions were adequate and appropriate for the circumstances; and
- Identification of common cause failures.

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:

- Intake structure inspection on April 15, 2011; and
- City water system cathodic protection review.

b. Findings

No findings 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 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. The documents reviewed during this inspection are listed in the Attachment. The following activities represented five inspection samples:

- Transition from outage to on-line risk monitoring on April 6, 2011;
- Green risk during MBFP oscillations and troubleshooting on April 12-13, 2011;
- Yellow risk for 31 circulating water pump (CWP), 33 ABFP, and 33 DC bus ground on May 11, 2011;
- Yellow risk for 3PT-M13A1 and Consolidated Edison troubleshooting of metering on 138kv 95331 and 95891 feeders on June 20, 2011; and
- Reactor Protection System (RPS) relay 16-B replacement on June 28, 2011;

b. Findings

No findings were identified.

1R15 Operability Evaluations (71111.15 – 6 samples)

Resident Quarterly Review

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 six inspection samples:

- Steam generator level control testing on April 22, 2011;
- 33 reactor coolant pump (RCP) high vibrations on April 22, 2011;
- 33 static inverter high output voltage on May 4, 2011;
- 33 ABFP Motor Current Analysis evaluation on May 10, 2011; and
- 33 DC bus grounds, May – June 2011; and
- Atmospheric Dump Valve Nitrogen Backup Pressure Deficiencies.

b. Findings

No findings were identified.

1R18 Plant Modifications (71111.18 – 3 samples)

.1 Permanent Modification: Seismic Monitoring Instrumentation Upgrade

a. Inspection Scope

The inspectors reviewed applicable design documentation associated with the installation of an upgraded seismic monitoring system performed under engineering change EC-20457. This change was implemented due to the obsolescence of the installed system. The primary equipment involved in the upgrade included the installation of Kinemetrics FBA-3 force balance accelerometers located in the vapor containment and two Etna digital recorders in the central control room. The inspectors verified the adequacy of the modification to ensure consistency with the applicable design and licensing basis requirements and reviewed changes to associated calculations, procedures, and drawings. This verification included design control attributes, such as engineering design change program requirements and 10 CFR 50.59 screening to ensure that the seismic monitoring system would continue to respond to the applicable design acceleration forces to meet the seismic design criteria, and other applicable attributes contained in Regulatory Guide 1.12, "Instrumentation for Earthquakes," Rev. 1. The inspector also reviewed compliance with applicable commitments contained in the original NRC Safety Evaluation Report and the UFSAR.

Following implementation of the modification, the inspectors verified that appropriate configuration and testing controls were utilized, verified compliance with applicable structural and seismic requirements, as well as other design change interface requirements, including applicable operations and surveillance test procedures, drawings, and abnormal/emergency procedures associated with response to seismic events. The inspectors reviewed the post-modification acceptance test conducted in November and December, 2010, and verified that testing criteria were adequate and appropriate for the circumstances and that acceptable results were obtained.

b. Findings

No findings were identified.

.2 Permanent Modification: SW Zurn Strainer Room Sump Pump Valve Installation and Wall Penetration Sealant Installation

a. Inspection Scope

The inspectors reviewed applicable design documentation associated with the installation of an isolation valve (FD-V-9) in the service water zurn strainer room sump pump discharge piping and flood penetration sealant installation performed under engineering change EC-25985. This change was required due to the potential vulnerability of the safety-related service water system to the design basis flood, as detailed in the UFSAR, first identified by the NRC in October 2010, and documented in NRC inspection report 50-286/2010-009. Specifically, lack of backflow prevention in the sump pump discharge line and unsealed wall penetrations below the design basis flood level, would potentially expose the safety-related service water discharge strainers to flood waters that could impact utilization of service water for cooling critical plant components.

The inspector evaluated the external flooding effects on the service water intake structure, during implementation of Temporary Instruction 2515/183, "Followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event," which was completed in April 2011. The results of the inspection are documented in NRC inspection report 50-286/2011-009, and in Section 1R06 of this report.

The inspectors verified the adequacy of the modification to ensure consistency with the applicable design and licensing basis requirements and reviewed changes to associated calculations, procedures, and drawings. This verification included design control attributes, such as engineering design change program requirements and 10 CFR 50.59 screening, to ensure that the discharge valve and flood barrier sealant would maintain the ability of the service water discharge strainers, as well as the service water system to continue to respond to the applicable design basis events.

The inspectors observed various activities during installation of the sump pump discharge valve and wall penetration sealant including preparation and fitups. In addition the inspectors observed the actual post-modification testing associated with the sump pump discharge valve, conducted on April 21, 2011, and verified that testing criteria were adequate and appropriate for the circumstances and that acceptable results

were obtained. Following implementation of the modification, the inspectors verified that appropriate configuration and testing controls were utilized, verified compliance with applicable structural, seismic and flooding requirements, as well as other design change interface requirements, including applicable operations and surveillance test procedures, drawings, and abnormal/emergency procedures associated with response to external flooding events, such as 3-AOP-FLOOD-1, "Flooding," Rev. 4.

b. Findings

No findings were identified.

.3 Temporary Modification: EC-30153, Defeat RCP-34 High Oil Level Alarm

a. Inspection Scope

The inspectors reviewed applicable design documentation associated with the installation of a temporary modification that removed the high oil level alarm associated with 34 RCP and thus allow the high oil level alarms for 31, 32, and 33 RCPs to annunciate if an actual high oil level occurs. Prior to the modification, the inspectors verified that proper operator action was taken in accordance with applicable alarm response and abnormal operating procedures when the high oil level alarm initially annunciated, and that the cause of the alarm was fully investigated in accordance with site procedures. The inspectors evaluated the engineering change, performed under EC-30153, to ensure appropriate alarm capability was maintained for the 34 RCP low oil level alarm and high and low oil level alarms for 31, 32, and 33 RCPs. The inspectors verified the adequacy of the modification to ensure consistency with the applicable design requirements, procedures, and drawings. This verification included attributes such as engineering design change program requirements, as well as associated 10 CFR 50.59 screening.

Following implementation of the modification, the inspectors verified that appropriate compensatory monitoring of the 34 RCP motor bearings was in place to alert the operators to adverse oil level conditions that would require action in accordance with alarm response and abnormal operating procedures.

b. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19 – 6 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 engineering personnel. The inspectors verified that test acceptance criteria were clear and the test demonstrated operational readiness consistent with design basis documentation; test instrumentation had current calibrations with the appropriate range

and accuracy for the application; and the tests were performed as written, with applicable prerequisites satisfied. Upon completion of the tests, the inspectors reviewed whether equipment was returned to the proper alignment necessary to perform its safety function. Post-maintenance testing was evaluated for conformance against the requirements of 10 CFR 50, Appendix B, Criterion XI, "Test Control." The documents reviewed are listed in the Attachment. The following post-maintenance activities were reviewed and represented six inspection samples:

- Pressure operated relief valve (PORV) block valve RC-MOV-535 failure to close on April 3, 2011;
- Main steam safety valve, MS-45-2, unexpected actuation on April 6, 2011;
- Service water pump (SWP) 38 motor replacement on April 27, 2011;
- 32 ABFP 3PT-Q120B on April 15, 2011;
- Appendix R Diesel Generator oil pump leak on June 6, 2011; and
- RPS relay 16B replacement on June 23, 2011.

b. Findings

No findings were identified.

1R20 Refueling and Other Outage Activities (71111.20 – 1 sample)

Refueling Outage No. 16 Activities (Continued from 1st Quarter 2011)

a. Inspection Scope

In April 2011, the inspectors observed and/or evaluated the selected outage activities listed below to verify that (1) shutdown risk was considered during schedule changes and implementation, and risk significant evolutions such as reduced inventory conditions; (2) defense-in-depth (DID) measures were utilized to mitigate impacts on key safety functions (e.g., reactivity control, electrical power availability, containment integrity, etc.) due to plant configuration control changes and ensure compliance with technical specifications and the operating license throughout the outage period; and (3) risk significant activities were conducted in accordance with procedures and evaluated in a manner appropriate for the circumstances.

- Outage-related fatigue management controls and implementation;
- Plant/reactor startup, heatup activities (verification of TS limits);
- Initial Criticality;
- Transition from shutdown to online risk monitoring;
- Operator response to momentary main steam safety valve actuation on April 6;
- Internal recirculation and VC Sump inspections for vortex suppressor installation;
- RCS Reduced Inventory and Vacuum Refill Activities;
- Post-outage boric acid inspection inside the vapor containment to assess effectiveness of unidentified leakage monitoring and compliance with TS, as well as effectiveness of boric acid cleanup of issues identified post-shutdown;
- Open outage constraints (work orders and condition reports) were reviewed to verify appropriate disposition of issues, both technical and/or administratively, to ensure compliance with procedural and/or TS requirements;

- Performed a final vapor containment closeout inspection to ensure debris and equipment were appropriately removed or restrained to mitigate potential impact on operability of reactor and containment sumps; and
- Verified compliance with TS through verification of Mode change checklists and required surveillances.

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22 – 7 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, technical requirements manual, 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 whether 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 seven inspection samples, which included an in-service testing (IST) surveillance and reactor coolant system (RCS) leak surveillance test:

- Recirculation pump full flow testing on March 29-30, 2011 (IST);
- 32 ABFP full flow test on April 6, 2011;
- 3-PT-2Y021, Hydrogen Recombiners Functional, on April 10, 2011;
- Steam generator level control testing on April 11, 2011;
- 0-SOP-Leakrate-001, RCS Leakrate Surveillance, Evaluation and Leak Identification, on April 24, 2011 (RCS);
- 3-CY-2335, Determination of Dissolved Hydrogen, Total Gas and Specific Activities in Reactor Coolant, on May 24, 2011; and
- 3-PT-Q92F, 36 Service Water Pump, on May 23, 2011.

b. Findings

No findings were identified.

1EP6 Drill Evaluation (71114.06 – 2 samples)

.1 Licensed Operator Requalification Simulator Evaluation

a. Inspection Scope

The inspectors evaluated an emergency classification performed on May 26, 2011, during a licensed-operator requalification evaluation 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,' as well as the simulated notification of appropriate off-site stakeholders within applicable time requirements. The inspectors verified the initial classification and notification were appropriately credited as opportunities toward NRC performance indicator data. The inspectors observed the management evaluation and training critique following termination of the scenarios, and verified that performance deficiencies were appropriately identified and addressed within the critique and, as applicable, within 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 identified. This evaluation constituted one inspection sample.

b. Findings

No findings were identified.

.2 Emergency Preparedness Drill

a. Inspection Scope

The inspectors evaluated an emergency preparedness drill conducted on June 9, 2011. The inspectors observed the initiation of the drill in the Unit 3 simulator, as well as technical/operations support center and emergency operations facility (EOF) activation, and subsequent termination of the drill.

The inspectors observed the operating crew in the simulator respond to various simulated initiating events that ultimately resulted in the activation of the emergency response organization following the classification of an Alert, and the inspectors verified the adequacy, accuracy, and timeliness of that initial declaration. From within the Technical Support Center (TSC), the inspectors observed Entergy TSC personnel coordinate with the control room to utilize Severe Accident Mitigation Guidelines to respond to simulated severe plant conditions. Additionally, the inspectors observed that escalating conditions that warranted subsequent Site Area Emergency and General Emergency declarations, and verified the adequacy and accuracy of those declarations in the EOF. The inspectors verified that the classifications were appropriately credited as opportunities toward NRC performance indicator data. The inspectors observed the critique/discussions following termination of the drill and verified that significant performance deficiencies were appropriately identified and addressed within the critique

and the corrective action program. Also, the inspectors reviewed summaries and information regarding the drill to verify appropriate attributes and objectives of drill performance were captured. This evaluation constituted one inspection sample.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator Verification (71151 – 2 samples)

a. Inspection Scope

The inspectors reviewed performance indicator (PI) data listed below to verify the accuracy of the data recorded from April 2010 through March 2011. The inspectors used Nuclear Energy Institute (NEI) 99-02, "Regulatory Assessment Performance Indicator Guideline," as applicable, and reviewed associated Entergy procedures and data to verify individual PI accuracy and completeness. The documents reviewed during this inspection are listed in the Attachment.

Mitigating Systems Cornerstone

- Safety System Functional Failures

Barrier Integrity Cornerstone

- Reactor Coolant System Activity

b. Findings

No findings were identified.

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

.1 Routine Problem Identification and Resolution 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 CAP 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 causal analysis, extent of condition reviews, operability determinations, and the timeliness of the associated corrective actions.

b. Findings

No findings were identified.

.2 35 FCU Weir High Level Alarms

a. Inspection Scope

The inspectors completed a review of multiple condition reports, listed in the Attachment, which documented 35 FCU high level alarms, to ensure that conditions adverse to quality were appropriately identified, reported, and resolved. The inspectors reviewed work orders, preventative maintenance schedules, alarm response procedures, and interviewed operators and engineers to ensure that the causes of the weir high level alarms were determined and corrected. Additionally, the inspectors verified that operators responded to the alarms in accordance with alarm response procedures.

Based on inspector questioning, Entergy personnel issued condition report CR-IP3-2011-02676 to trend the high number of 35 FCU alarms. As part of the corrective actions associated with this condition report, engineering performed a trend review of the alarms and concluded that the alarms were caused by inadequate cleaning after periodic preventative maintenance (PM) activities, which causes sediment to travel to the weir, block the weir, and cause the weir high level alarm to annunciate. Entergy personnel initiated a work order to further correct the cause of the sediment.

b. Findings

No findings were identified.

.3 Annual Sample: Review of Performance of Safety Related Inverters

a. Inspection Scope

The inspectors performed a focused review of the performance and maintenance of safety related inverters. The inspectors interviewed the responsible system engineer and instrumentation and control maintenance personnel to understand the history of issues with the safety related inverters particularly involving the inverters swapping to their alternate power sources. The inspectors reviewed completed work orders and test results to verify that testing and maintenance are being performed in accordance with vendor recommendations and to verify that the results demonstrate that the equipment is being properly maintained. The inspectors also reviewed condition reports and work orders to verify the adequacy of corrective actions and the proper application of operating experience. Documents reviewed for this inspection activity are listed in the Attachment.

b. Findings

Introduction: The inspectors identified a Green NCV of 10 CFR 50, Appendix B, Criterion V, "Instructions, Procedures, and Drawings," because Entergy did not assure that the overhaul of the 33 inverter was prescribed by an appropriate procedure and that the overhaul was performed in accordance with the procedure, which resulted in restoring the safety related inverter to service without completing the necessary post maintenance testing. Specifically, during March 2011, an overhaul of the 33 inverter was performed with an inadequate procedure and a portion of the post maintenance testing was not performed.

Description: In response to operating experience and vendor recommendations, the 33 inverter was scheduled to have all circuit boards and capacitors replaced. The work was controlled by multiple work orders which the inspectors determined were not well integrated. The inspectors identified numerous examples of procedural inadequacies. One example is that WO-52263380 stated in the task instructions to, "Replace 33 inverter capacitors per 3-IC-PC-I-E-StaticInverter-33." The inspectors reviewed procedure 3-IC-PC-I-E-StaticInverter-33, "No. 33 Static Inverter Maintenance Procedure" and determined that it does not provide any steps or guidance for the replacement of several of the capacitors.

From interviews with instrumentation and control (I&C) supervisors, the inspectors determined that the I&C staff worked through the overhaul primarily based on knowledge and experience and without the benefit of accurate procedural guidance.

The inspectors reviewed WO 51558545 which was used for the post maintenance testing of the 33 inverter after the overhaul. The inspectors noted that one of the steps of the work order for performing the load regulation test was marked "Not required - all settings adjusted via EN-MA-125 - calibrating the cards." The inspectors reviewed the documentation from EN-MA-125, "Troubleshooting Control for Maintenance Activities" and determined that there was no documentation of the load regulation test being performed.

Entergy personnel wrote CR-IP3-2011-03148 and CR-IP3-03432 to address the procedural inadequacy issues. Entergy performed an apparent cause evaluation to understand the organizational and programmatic issues with the performance of the 33 inverter overhaul. The apparent cause evaluation determined that it was unclear if several calibrations were performed in accordance with station procedures. The inspectors reviewed the apparent cause evaluation and based upon: interviews with supervisors that were involved with the work, vendor oversight during the overhaul, and satisfactory operational and surveillance test results since the overhaul, the inspectors concluded that there is a reasonable basis for operability of the inverter.

Analysis: The performance deficiency associated with this finding was that Entergy did not assure that the overhaul of the 33 inverter was prescribed by an appropriate procedure and that the overhaul was performed in accordance with the procedure, which resulted in restoring the safety related inverter to service without completing the necessary post maintenance testing. Specifically, during March 2011, an overhaul of the

33 inverter was performed with an inadequate procedure, and a portion of the post maintenance testing was not performed. This finding is more than minor because it is associated with the procedure quality attribute of the Mitigating Systems Cornerstone and adversely affects the objective to ensure the capability of systems that respond to initiating events to prevent undesirable consequences (i.e., core damage). Using IMC 0609.04, "Phase 1 - Initial Screening and Characterization of Findings," the inspectors determined this finding was of very low safety significance (Green) because the finding was not related to a design or qualification deficiency, did not represent a loss of system safety function, and the finding did not screen as potentially risk significant due to a seismic, flooding, or severe weather initiating event.

The finding has a cross-cutting aspect in the area of Human Performance associated with the Work Practices attribute because Entergy personnel did not ensure that supervisory and management oversight of work activities was adequate. Specifically, the work order for the overhaul of the 33 inverter was issued with inadequate guidance; the work was, in part, performed without using procedures; and a portion of the post maintenance testing was not performed as required. [H.4(c) per IMC 0310]

Enforcement: 10 CFR 50, Appendix B, , Criterion V, "Instructions Procedures and Drawings," requires, in part, that activities affecting quality shall be prescribed by documented instructions, procedures, or drawings, of a type appropriate to the circumstances and shall be accomplished in accordance with these instructions, procedures, or drawings. Contrary to the above, Entergy personnel did not assure that the overhaul of the 33 inverter in March 2011 was prescribed by an appropriate procedure and that the overhaul was performed in accordance with the procedure, which resulted in restoring the safety related inverter to service without completing the necessary post maintenance testing. Because the violation was of very low safety significance and it was entered into Entergy's CAP as CR-IP3-2011-03148 and CR-IP3-03432, this violation is being treated as a NCV, consistent with Section 2.3.2 of the NRC Enforcement Policy: **NCV 05000286/2011003-01, Inadequate Procedure and Procedural Compliance for 33 Inverter Overhaul.**

.4 Annual Sample: Unidentified Reactor Coolant Leakage Trending Reviews

a. Inspection Scope

The inspectors selected condition reports (CR) IP3-2010-2172/2055 and IP3-2011-2863/3210 as problem identification and resolution (PI&R) samples for a detailed follow-up review. These CRs documented increased unidentified leakage that exceeded statistical thresholds established as administrative limits from a trending database used by Entergy staff to ensure degrading conditions could be identified prior to the onset of a significant leak.

Additionally, one of these administrative thresholds, "9 consecutive days of RCS unidentified leakage greater than the baseline mean," was also an initiator for additional actions in response to an active, but very small RCS leak from the 32 reactor coolant pump thermal barrier flange identified since startup from refueling outage No. 16 (3R16) in April 2011.

The inspectors assessed Entergy's problem identification threshold, extent of condition reviews, operability determinations, and the prioritization and timeliness of corrective actions, to determine whether Entergy was appropriately identifying, characterizing, and correcting problems associated with the identified issues. The inspectors evaluated the adequacy of planned or completed corrective actions, and interviewed cognizant plant personnel regarding the identified issues. Specific documents reviewed are listed in the attachment to this report.

b. Findings and Observations

The inspectors determined that Entergy staff properly implemented their corrective action process regarding the increased RCS leakage trending. The CRs and associated corrective actions were evaluated, and sensitivity to increased RCS leakage was appropriate for the circumstances. This sensitivity was evidenced by control room operators implementing the RCS leakrate procedure, and documenting increased leakage trends in condition reports, as required by the procedure. In addition, the inspectors noted that various plant-specific conditions can unnecessarily contribute to increased leakage that would otherwise mask actual, unidentified leakage, and potentially impact the need for appropriate attention to comply with technical specifications. For example, leakage from CH-113 in the Unit 3 chemical and volume control system, had an impact on the increased leakage trending statistics, and was appropriately evaluated to ensure increased RCS unidentified leakage was not present. In addition, the baseline mean was recalculated in the trending database to ensure the statistical data represented the appropriate condition of the RCS.

.5 Semi-Annual Trend Review

a. Inspection Scope

The inspectors performed a semi-annual review of site issues, to identify trends that might indicate the existence of more significant safety issues, as required by Inspection Procedure 71152, "Identification and Resolution of Problems." The inspectors included in this review, repetitive or closely-related issues that may have been documented by Entergy staff outside of the corrective action program, such as trend reports, performance indicators, major equipment problem lists, system health reports, maintenance rule assessments, and maintenance or corrective action program backlogs. The inspectors also reviewed Entergy's corrective action program database for the first and second quarters of 2011, to assess CRs written in various subject areas (equipment problems, human performance issues, etc.), as well as individual issues identified during the NRCs daily CR review (Section 4OA2.1). The inspectors reviewed Entergy's quarterly trend report for the first quarter of 2011, conducted under LO-IP3LO-2011-00125, and specific departmental inputs to the 2011 second quarter report, which was still in progress, as well as EN-LI-121, "Entergy Trending Process," Rev. 10, to verify that Entergy personnel were appropriately evaluating and trending adverse conditions in accordance with applicable procedures.

b. Findings and Observations

No findings were identified.

The inspectors evaluated a sample of departmental trend reviews that are utilized as input into the quarterly trend reports, which included, for example, inputs and assessments performed by the Maintenance department. This review included a sample of issues and events that occurred over the course of the past two quarters to objectively determine whether issues either were appropriately considered or identified as emerging or adverse trends, and in some cases, verified the appropriate disposition of resolved trends, consistent with the trend definitions provided in the trend review procedure, EN-LI-121.. The inspectors verified that these issues were addressed within the scope of the corrective action program, or through department review and documentation in the quarterly trend report for overall assessment.

The inspectors noted that, consistent with known component and piping leakage, service water leaks were identified as an adverse trend. Service water leaks were previously characterized as a monitored trend in 2010, due to the ongoing challenges these service water leaks pose to safety-related and non-safety-related systems. However, the inspectors noted that significant activities were performed in the most-recent refueling outage to address a number of contributors to this ongoing issue at the site. In other cases, the inspectors verified the reasonableness of proposed resolved trends, such as main feedwater system excursions that had manifested during previous plant startup and shutdowns.

Additionally, based on daily CR reviews, the inspectors performed a search of the CAP database for instances that involved keywords "potentiometer" or "closed to work management system." This search yielded a number of condition reports that were characterized as significance level "D", which indicates that (1) the condition identified has been documented and corrected, and no further corrective actions are warranted, (2) is identified as a straightforward condition that can be closed to a work order or another condition report, or (3) is below the level of an adverse condition as defined in the EN-LI-102, "Corrective Action Process," Rev. 16.

The inspectors identified that CR-IP3-2011-1917 (dated March 31, 2011), CR-IP3-2011-2227 (dated April 9, 2011) and CR-IP3-2011-2305 (dated April 14, 2011), were ultimately determined to involve a degraded potentiometer of power range nuclear instrument No. 44, and in most cases, resulted in fluctuations of indicated reactor power on that channel. The inspectors noted that the condition review group (CRG) screened the first CR listed above as "D" significance, and closed the CR to track and trend. The CRG screened the second CR (2227) as a "D" significance, closed to the work management system for corrective action, which had not been planned at the time of the inspection. This CR documented a power fluctuation that occurred during potentiometer adjustments, followed by a second power fluctuation of approximately 7% that occurred two hours later, without any operator actions. The inspector noted that a third power fluctuation occurred on April 14, 2011, documented in CR 2305, and was characterized by CRG as a "C" significance. The inspector noted that Entergy procedures detailed "C" significant CRs as non-significant, but these conditions could still be considered adverse conditions. This CR documented a reactor power spike to 100% power in conjunction with inward control rod motion of three steps, and subsequently resulted in the identification and replacement of a degraded coarse adjust

potentiometer. The inspectors determined that while the plant impact was not significant, these degraded conditions should have warranted a more focused inspection under station procedures and processes, and was a missed opportunity to address appropriately within the CAP based on the "D" classification. Moreover, the corrective action and work control processes were not effectively utilized in a timely manner to ensure the cause of power fluctuations was identified and corrected when the power fluctuations first occurred.

Another example noted by the inspectors, involved a trend of central control room air conditioning unit trips either classified as "D" significant level CRs, or not identified in the corrective action process because ambient air temperature was determined to be a known cause of compressor trips, and procedural guidance was utilized to externally reset the compressor and not identify the trip as an adverse condition or a track and trend opportunity. The decision to classify as a "D" track and trend, (CR-IP3-2011-921, dated March 7, 2011) at a minimum, entered the issue into the CAP for trending purposes, but individual control room log entries were later reviewed by Entergy staff who determined the compressor trips on March 17 and 23, were missed opportunities of a degraded condition. This degraded condition was identified during subsequent troubleshooting and repair, as documented in CR-IP3-2011-2003. The inspectors noted that while degradation of a safety-related component was not identified in a timely manner, a current licensee process (control room logs) was effective in the identification of an adverse trend, the issue was entered into the CAP for performance of an apparent cause evaluation, and the adverse condition was corrected. Entergy personnel ultimately determined that contaminated refrigerant caused by foreign material, i.e., brazing material from a December 2010 repair activity, was the cause of the compressor trips.

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

.1 (Closed) LER 05000286-2010-001-00, SSFF and TS Violation for an Inoperable RCS Wide Range Temperature Cold Leg Instrument TE-413B Credited for TS 3.3.4 Remote Shutdown

On March 2, 2010, after review of repeated failures of the surveillance test, Entergy personnel determined that the switch used to transfer the cold leg temperature loop TE-413B from the control room to the remote shutdown cabinet, had evidence of high resistance on the contacts, which rendered the instrument inoperable. While Entergy personnel determined the total time the cold leg temperature loop TE-413B was inoperable, they also identified that the plant had operated outside conditions permitted by technical specifications and that a safety system functional failure had occurred.

Entergy staff determined the cause of the failure was high resistance on the transfer switch contacts, which was not detected during testing due to inadequate steps in the calibration procedure associated with R/I calibrations and proper as-found criteria. The failure to identify the adverse trend was determined to be poor management and a lack of commitment to implement the drift monitoring program. The inspectors reviewed the LER and the associated condition report CR-IP3-2009-04823, and verified that Entergy staff's evaluation and corrective actions were adequate. The enforcement aspects of this licensee-identified finding are discussed in Section 40A7. This LER is closed.

.2 (Closed) LER 05000286-2011-002-00, Technical Specification Prohibited Condition Caused by an Inoperable 31 Battery Charger Due to Low Voltage Caused by a Degraded Gate Driver Board

On October 13, 2010, at 12:58 pm, during performance of weekly station battery inspections, Entergy personnel were unable to adjust the float voltage on 31 battery charger, when the voltage was found to be lower than required by procedure, but greater than the lowest voltage allowed by technical specifications (TS). At 4:18 pm, 31 static inverter reverse transferred to its alternate power supply, and subsequently auto-transferred back to its normal power supply. At 9:58 pm that evening, operators removed 31 battery charger from service and placed the 35 battery charger, an installed spare, in service, to perform troubleshooting on the 31 battery charger. Further investigation determined that 31 battery charger had been inoperable, but remained in service for eight hours and 27 minutes, from 12:58 pm to 9:58 pm, and had exceeded its TS 3.8.4, "DC Sources – Operating," allowed outage time of two hours. Entergy staff entered this issue in the corrective action program as CR-IP3-2010-03092 and CR-IP3-2011-00098.

The information described above, as documented in CR-IP3-2010-03092, was evaluated and dispositioned by the inspectors in NRC inspection report 2011-002. The subsequent LER submitted by Entergy following the NRC inspection, was reviewed, including associated corrective actions implemented as a result of this inspection. The inspectors verified the information in the LER was consistent with the updated corrective action documents. There were no additional findings of significance or violations of NRC requirements identified. This LER is closed.

.3 (Closed) LER 05000286-2011-004-00, Technical Specification Prohibited Condition Caused by Two MSSVs Outside Their As-Found Lift Setpoint Test Acceptance Criteria

On March 8, 2011, Entergy personnel identified two (2) main steam safety valves (MSSVs) had exceeded as-found lift setpoints during performance of surveillance testing in accordance with as-found lift setpoint acceptance criteria. (+/- 3 percent of required pressure band), and were appropriately adjusted within required limits to restore operability. Entergy staff determined the cause of the failure of the MSSVs to lift within the required pressure range was internal friction caused by spindle wear and spring skew. The inspectors reviewed the LER and the associated condition report CR-IP3-2011-00960, and verified that the Entergy staff's evaluation and corrective actions were adequate. The enforcement aspects of this licensee-identified finding are discussed in Section 4OA7. This LER is closed.

.4 Main Turbine Control Oil Oscillations and Adjustments

a. Inspection Scope

On June 17, 2011, Unit 3 control room operators observed a 5 MW load reduction, a minor, corresponding lowering of the main turbine common control oil system pressure, main turbine control valve oscillations, as well as minor reactor coolant system parameter changes, such as pressurizer level and average coolant temperature.

Entergy personnel entered this issue into the corrective action program as CR-IP3-2011-03263, and initiated troubleshooting to identify the cause of the perturbation. The inspectors reviewed applicable turbine hydraulic and control system procedures and drawings, reviewed the troubleshooting plan, and observed various implementation stages of the troubleshooting activities, which occurred on June 21-22, and June 29, 2011. The inspectors verified that Entergy personnel were properly briefed, utilized applicable system procedures and implemented the troubleshooting plan, as written. Also, on June 29, 2011, adjustments to the common control oil orifice successfully resolved the issues originally identified, and the unit was returned to full load and stable parameters.

b. Findings

No findings were identified.

4OA5 Other Activities

.1 (Closed) NRC Temporary Instruction 2515/177 – Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems

b. Inspection Scope

The inspectors performed the inspection in accordance with Temporary Instruction (TI) 2515/177, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal and Containment Spray Systems." The NRC staff developed TI 2515/177 to support the NRC's confirmatory review of licensee responses to NRC Generic Letter (GL) 2008-01, "Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal and Containment Spray Systems." The Office of Nuclear Reactor Regulation (NRR) reviewed Entergy's GL 2008-01 response and based on this review the NRR staff provided guidance on TI inspection scope to the regional inspectors. The inspectors used this inspection guidance along with the TI to verify that Entergy implemented or was in the process of acceptably implementing the commitments, modifications, and programmatically controlled actions described in their GL 2008-01 response. The inspectors verified that the plant-specific information (including licensing basis documents and design information) was consistent with the information that Entergy submitted in their GL 2008-01 response.

The inspectors reviewed a sample of isometric drawings and piping and instrumentation diagrams, and conducted selected system piping walkdowns to verify that Entergy's drawings reflected the subject system configurations and UFSAR descriptions. Specifically, the inspectors verified the following related to a sample of isometric drawings for the high pressure injection, containment spray, and RHR systems:

- High point vents were identified;
- High points that did not have vents were recognized and evaluated with respect to their potential for gas buildup;
- Other areas where gas could accumulate and potentially impact subject system operability, such as orifices in horizontal pipes, isolated branch lines, heat exchangers, improperly sloped piping, and under closed valves, were acceptably

evaluated in engineering reviews or had ultrasonic testing (UT) points which would reasonably detect void formation; and,

- For piping segments reviewed, branch lines and fittings were clearly shown.

The inspectors conducted walkdowns of portions of the above systems to assess the acceptability of the drawings Entergy used during their review of GL 2008-01. The inspectors verified that Entergy conducted walkdowns of the applicable systems to confirm that the combination of system orientation, vents, instructions and procedures, and testing, would ensure that each system was sufficiently full of water to assure operability. The inspectors reviewed Entergy's methodology used to determine system piping high points, identification of negative sloped piping, and calculations of void sizes based on UT equipment readings, to ensure the methods were reasonable.

The inspectors also observed a field UT measurement in the residual heat removal system discharge piping to assess the adequacy of the monitoring techniques used to ensure system operability. The inspectors also verified that Entergy identified and evaluated all systems within the scope of the GL.

The inspectors reviewed a sample of Entergy's procedures used for filling and venting the identified GL 2008-01 systems to verify that the procedures were effective in venting or reducing voiding to acceptable levels. The inspectors verified that Entergy's surveillance frequencies were consistent with the Indian Point Nuclear Generating Unit 3 Technical Specifications and associated bases, and the Unit 3 UFSAR. The inspectors reviewed a sample of system venting surveillance results to ensure proper implementation of the surveillance program and that the existence of unacceptable gas accumulation was evaluated within the CAP, as necessary. The inspectors reviewed CAP documents to verify that selected actions described in Entergy's nine-month and supplemental response submittals were acceptably documented including completed actions and implementation schedule for incomplete actions, and to verify that commitments made in the response were included the CAP. Additionally, the inspectors reviewed evaluations and corrective actions for issues Entergy identified during their GL 2008-01 review. The inspectors performed this review to ensure Entergy appropriately identified and corrected gas voiding issues. Finally, the inspectors verified the training program included training on gas voiding issues for operators and engineers. Documents reviewed are listed in the Attachment.

b. Findings

No findings were identified. The inspectors identified a discrepancy between Entergy's GL response and existing plant procedures regarding the techniques used to verify the systems full of water. The inspectors reviewed plant procedures to verify their adequacy and discussed the issue with NRR. The inspectors determined the issue was minor and Entergy planned to change the plant procedure to correct the discrepancy. This completes the inspection requirements for TI 2515/177.

.2 (Closed) NRC Temporary Instruction 2515/183 – Followup to the Fukushima Daiichi Nuclear Station Fuel Damage Event

a. Inspection Scope

The inspectors assessed the activities and actions taken by the licensee to assess its readiness to respond to an event similar to the Fukushima Daiichi nuclear plant fuel damage event. This included (1) an assessment of the licensee's capability to mitigate conditions that may result from beyond design basis events, with a particular emphasis on strategies related to the spent fuel pool, as required by NRC Security Order Section B.5.b issued February 25, 2002, as committed to in severe accident management guidelines, and as required by 10 CFR 50.54(hh); (2) an assessment of the licensee's capability to mitigate station blackout (SBO) conditions, as required by 10 CFR 50.63 and station design bases; (3) an assessment of the licensee's capability to mitigate internal and external flooding events, as required by station design bases; and (4) an assessment of the thoroughness of the walkdowns and inspections of important equipment needed to mitigate fire and flood events, which were performed by the licensee to identify any potential loss of function of this equipment during seismic events possible for the site.

b. Findings

No findings were identified.

Inspection Report 05000286/2011003 (ML111310606) documented detailed results of this inspection activity. Following issuance of the report, the inspectors conducted follow-up on selected issues, which are documented in this quarterly integrated inspection report.

.3 (Closed) NRC Temporary Instruction 2515/184 – Availability and Readiness Inspection of Severe Accident Management Guidelines (SAMGs)

a. Inspection Scope

On May 19, 2011, the inspectors completed a review of the licensee's SAMGs, implemented as a voluntary industry initiative in the 1990's, to determine (1) whether the SAMGs were available and updated, (2) whether the licensee had procedures and processes in place to control and update its SAMGs, (3) the nature and extent of the licensee's training of personnel on the use of SAMGs, and (4) licensee personnel's familiarity with SAMG implementation.

b. Findings

No findings were identified.

The results of this review were provided to the NRC task force chartered by the Executive Director for Operations to conduct a near-term evaluation of the need for agency actions following the Fukushima Daiichi fuel damage event in Japan. Plant-specific results for Indian Point Unit 3 were provided in an Attachment to a memorandum to the Chief, Reactor Inspection Branch, Division of Inspection and Regional Support, dated May 27, 2011 (ML111470361).

4OA6 Meetings, Including Exit

Exit Meeting Summary

On July 20, 2011, the inspectors presented the inspection results of the integrated inspection to Mr. Joseph Pollock, Site Vice President, and other members of the Entergy staff. The licensee acknowledged the conclusions and observations presented. The inspectors asked whether any materials examined during the inspection should be considered proprietary. No proprietary information was identified.

4OA7 Licensee-Identified Violations

The following violations of very low safety significance (Green) were identified by the licensee and are violations of NRC requirements which meet the criteria of the NRC Enforcement Policy, for being dispositioned as a non-cited violation.

- TS 3.3.4 requires that the remote shutdown function of RCS cold leg temperature shall be operable, which, in part, is specifically met if wide range instrument TE-413B is operable. Contrary to this requirement, on March 2, 2010, Entergy personnel determined that the switch used to transfer the cold leg temperature loop from the Control Room to the remote shutdown cabinet had evidence of high resistance on the contacts, and therefore rendered the instrument inoperable. Entergy concluded that the exact period of time the cold let temperature loop TE-413B was inoperable could not be determined, but TE-413B had exceeded its TS allowed outage time of 30 days. Entergy subsequently performed a surveillance test to demonstrate the current operability of the instrument and performed a revision to the surveillance procedure to provide adequate steps for performing R/I calibrations, switch contact resistance checks, and proper as found criteria. Entergy documented this issue in the corrective action program for resolution as CR-IP3-2009-04823.

  A Region I Senior Reactor Analyst evaluated the significance of the finding using IMC 0609, Appendix F, "Fire Protection Significance Determination Process," and qualitatively determined that the finding screened as very low safety significance (Green). The basis for screening this post-fire safe shutdown finding as Green is that the inoperability of TE-413B, used for monitoring the condition of the reactor from outside the control room, could be readily compensated for by operators via verification of control rod position (maintenance of shutdown margin) and reactor temperature and pressure (negative temperature/pressure reactivity coefficients) until the operability of TE-413B could be restored. This finding is assigned a moderate degradation rating based upon Appendix F, Attachment 2, Table A.2.3 – "Guidance for Ranking an Observed SSD Degradation Finding." Specifically, the SRA concluded that the inoperable TE-413B instrument equates to "equipment or tools not staged or located as specified by procedures." This moderate degradation rating screens the finding to Green because it only affects the ability to reach and maintain cold shutdown conditions (Task 1.3.1: Qualitative Screening for All Finding Categories).

- TS 3.7.1 requires that all MSSVs shall be operable, which, in part, is specifically met if as-found lift setpoints are within applicable acceptance criteria during in-service testing. Contrary to this requirement, on March 8, 2011, during

performance of MSSV testing, Entergy personnel identified that MS-45-1 and 48-3 exceeded as-found lift setpoints. Entergy subsequently performed satisfactory adjustments and as-left testing to ensure operability was restored. Entergy documented this issue in the corrective action program for resolution under condition report CR-IP3-2011-00960. In addition, Entergy personnel analyzed the past operability and associated impact on the safety analysis with two MSSVs potentially lifting greater than the allowable setpoints. Although two MSSVs were determined to be inoperable for an unknown duration, and potentially longer than the allowed outage time listed in the Unit 3 technical specifications, the inspectors determined that this finding is of very low safety significance because it did not increase the probability or consequences of any anticipated operational occurrence or accidents covered by the safety analysis.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Entergy Personnel

J. Pollock	Site Vice President
H. Anderson	Licensing Specialist
V. Andreozzi	Systems Engineering Supervisor
R. Burroni	Systems Engineering Manager
G. Dahl	Licensing Specialist
J. Dinelli	Site Operations Manager
M. Dreis	System Engineer
D. Morales	System Engineer
T. Orlando	Engineering Director
A. Singer	Training Superintendent
M. Tesoriero	Programs and Components Engineering Manager
A. Vitale	General Manager, Plant Operations
B. Walpole	Licensing Manager
V. Meyers	Design Engineering Supervisor
R. Drake	Civil/Structural Engineering Supervisor
J. Kaczor	Civil/Structural Engineer

LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Opened and Closed

05000286/2011-003-01	NCV	Inadequate Procedure and Procedural Compliance for 33 Inverter Overhaul (Section 4OA2)

Closed

05000286/2010-001-00	LER	SSFF and TS Violation for an Inoperable RCS Wide Range Temperature Cold Leg Instrument TE-413B Credited for TS 3.34 Remote Shutdown
05000286/2011-002-00	LER	Technical Specification Prohibited Condition Caused by an Inoperable 31 Battery Charger Due to Low Voltage Caused by a Degraded Gate Driver Board
05000286/2011-004-00	LER	Technical Specification Prohibited Condition Caused by Two MSSVs Outside Their As-Found Lift Setpoint Test Acceptance Criteria

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures
ENN-EP-G-004, Switchyard and Large Power Transformer Preventive Maintenance Guidelines, Rev.0

Condition Reports

IP3-2009-1568	IP3-2010-2123	IP3-2010-2169	IP3-2010-2436
IP3-2010-3248	IP3-2010-3536	IP3-2010-3537	IP3-2010-03538
IP3-2-11-1285	IP3-2011-1292	IP3-2011-1888	IP3-2011-1965
IP3-2011-2002	IP3-2011-2006	IP3-2011-2266	

Miscellaneous
Site Integrated Planning Database Items, Nos. 1029, 1350, 1357, and 1358

Section 1R04: Equipment Alignment

Procedures
3-COL-RHR-1, Residual Heat Removal System, Rev. 27
3-PT-R090D, Local Operation of 31 and 33 ABFPs, Rev. 14
3-PT-Q134B, 32 RHR Pump Functional Test (RHR Cooling Not In Service), Rev. 10
3-COL-FW-2, Auxiliary Feedwater System, Rev. 29

Condition Reports (CR-IP3-)

2011-02563	2011-02098	2011-01723	2011-01291
2011-02832	2011-3127	2011-2728	

Drawings
9321-F-27503, Flow Diagram Safety Injection System Sheet No. 2, Rev. 52
9321-F-27353, Flow Diagram Safety Injection System Sheet No. 1, Rev. 42
9321-F-27513, Flow Diagram Auxiliary Coolant System in PAB & FSB Sheet No. 1, Rev. 31
9321-F-20193, Flow Diagram Boiler Feedwater, Rev. 60

Miscellaneous
IP3-DBD-302, Design Basis Document for Residual Heat Removal System, Rev. 4
IP3-10971, Operations Document Feedback Form
Work Order 52309668

Section 1R05: Fire Protection

Miscellaneous
PFP-304, Primary Auxiliary Building Elev. 15'-0" General Floor Plan, Rev. 11
PFP-305, Safety Injection Pumps / Main Corridor – Primary Auxiliary Building, Rev. 0
PFP-315, Fuel Storage Bay Area – Fuel Storage Building, Rev. 0
PFP-316, General Floor Plan – Fuel Storage Building, Rev. 11

Section 1R06: Flood Protection Measures

Condition Reports (CR-IP3-)
2011-2393

Work Orders
52316412 01, 3M Record WTR Depth & Dewater
IP3-03-10958, Diesel Generator Valve Room sump pump preventive maintenance

Drawings
9321-F-31203, Rev. 4 Conduit Details Manhole 31A, 31B & 33, Rev. 4
9321-F-30973, Rev. 21 Conduit Layout Intake Structure, Sheet 1, Rev. 21

Miscellaneous
Indian Point Unit 3 Individual Plant Evaluation for Internal Events
Design Change DC 95-3-341, Installation of Flood Control gates on AFW Building Doors 212 and 215.
New York Power Authority Work Authorization (Task #400124) Evaluation, 24 Inch Drains in Diesel Compartment, dated December 1, 1980
3-AOP-FIOOD-1, Flooding, Rev. 5

Section 1R07: Heat Sink Performance

Condition Reports (CR-IP3-)
2011-01489 2011-01605 2011-00730 2011-02710

Work Orders
50068137 03 31, Containment Recirc Fan Main Cooling Coils
50068136 01 31, Containment Recirc Fan Motor Cooler Heat Exchanger

Section 1R11: Licensed Operator Requalification Program

Procedures
TQF-210-DD03, LOR Simulator Crew Performance Evaluation Report, Rev. 2

Miscellaneous
IPEC Simulator Evaluated Scenario, I3SX-LOR-SES(# deleted), Rev 2.

Section 1R12: Maintenance Effectiveness

Procedures
EN-DC-150, Condition Monitoring of Maintenance Rule Structures, Rev. 1
EN-DC-203, Maintenance Rule Program, Rev. 1
EN-DC-205, Maintenance Rule Monitoring, Rev. 3
EN-DC-324, Preventive Maintenance Program, Rev. 7

Condition Reports (CR-IP3-2011-)
2515 2520 2521 2522 2523 2391
IP2-2011-3185 IP2-2008-5499 IP2-2009-3050 IP2-2009-3770
IP2-2009-4495 IP2-2010-4653 IP2-2010-1928

Miscellaneous
IP-RPT-11-00020, Maintenance Rule Structural Monitoring Inspection Report (4th Cycle) for Intake Structure, Rev. 0
PMCR #94112, 1Y Cathodic Protection Survey and Rectifier Adjustment
PCA Job No. 29444, Cathodic Protection Energization for Underground Water Service Piping at Indian Point Energy Center, Dec. 2009

QA Surveillance, QS-2009-IP-22
EC-13314, Installation of City Water Cathodic Protection System
WO-51326066

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Procedures
EN-WM-104, On Line Risk Assessment, Rev. 4

Completed Procedures
EN-OP-116, Infrequently Performed Tests or Evolutions, dated June 20, 2011

Condition Reports (CR-IP3-)
2011-02905 2011-03389

Work Orders
52336685

Drawings
9321-LL-30412, 118 VAC Instrument Bus Panel No. 33, Rev. 7
113E301, Reactor Protection System Schematic Diagram, Rev. 10

Section 1R15: Operability Evaluations

Procedures
3-PT-W020, Electrical Verification – Inverters and DC Distribution in Modes 1 to 4, Rev. 12
3-AOP-RCP-1, Reactor Coolant Pump Malfunction, Rev. 10
3-ARP-013, Panel SKF – Bearing Monitor, Rev. 37

Condition Reports (CR-IP3-)
2011-02468 2011-02657 2011-2632 2011-2457

Miscellaneous
WO-275641 WO-235503
IP3-CALC-MULT-382, N2 Backup to Auxiliary Feedwater Bldg Valves and Atmospheric Dump Valves, Rev. 3

Section 1R18: Plant Modifications

Procedures
EN-DC-136, Temporary Modification, Rev. 5
EN-LI-100, Process Applicability Determination, Rev. 10
3-ARP-003, Panel SAF – Reactor Coolant System, Rev. 47
3-AOP-RCP-1, Reactor Coolant Pump Malfunction, Rev. 10
3-ARP-007, Panel SDF – Turbine Recorder, Seismic Event Occurred/Recorder Failure, Rev. 28
EN-DC-149, Acceptance of Vendor Documents, Rev. 4
EN-DC-117, Post Modification Testing and Special Instructions, Rev. 4
EN-DC-163, Human Factors Evaluation, Rev. 0
EN-DC-134, Design Verification, Rev. 4
EN-DC-141, Design Inputs, Rev. 9
EN-DC-115, Engineering Change Process, Rev. 11
0-AOP-Seismic-1, Seismic Event, Rev. 1

3-SOP-S-001, Seismic Monitoring Equipment Operation, Rev. 10
3-PT-M032, Seismic Instrumentation Channel Check, Rev. 17

Condition Reports (CR-IP3-)

2011-02999	2011-01756	2011-01705	2011-02459
2010-03336			

Drawings
113E302 Sheet 3, Miscellaneous Relay Racks, Rack No. 2 (G1) Front, Rev. 7
500B971 Sheet 173, Annunciator Panel SAF, Rev. 3
9321-F-21463, Intake Structure Floor & Wall Sleeves, Rev. 8

Miscellaneous
EC-30153, Defeat RCP-34 High Oil Level Alarm
Process Applicability Determination Form, EC-20457
Supplement No. 2, to the NRCs Safety Evaluation Report, dated December 12, 1975
EPRI TR-100082, Standardization of the Cumulative Absolute Velocity
Vendor Manual 148-100000185, Operation & Maintenance Manual for Peak Shock Annunciator Model PSA875 & PSA1575
Technical Requirements Manual, Section 3.3.E, Seismic Monitoring Instrumentation, Rev. 1
IP-EP-120, Emergency Classification," Rev. 5
IP-EP-AD-13, EAL Technical Bases, Section 8.4, Natural Events, Rev. 8
COM-0673, IP3-10844, 10842, and 10843, Operations Document Feedback Forms
IP3-10752, Operations Document Feedback Forms
Calculation IP-CALC-10-00117, Evaluation of Mounting of Kinemetrics FBA-3 Force Balance Accelerometer in VC and ETNA Accelerographs in CCR
Sika Corporation Product Data Sheet, Sikaflex-2C NS
Work Order 257179
EC-29690, Supplemental Documentation for EC-25985, Dow Corning 832 Product Selection and Technical Evaluation

Section 1R19: Post-Maintenance Testing

Procedures
EN-LI-102, Corrective Action Process, Rev. 16
EN-DC-153, Preventative Maintenance Component Classification, Rev. 5
EN-LI-119-01, Equipment Failure Evaluation, Rev. 0
3-PT-CS028, Pressurizer PORV and Block Valve Test, Rev. 13
3-PT-Q120B, 32 ABFP Surveillance and IST, Rev. 18
3-AOP-UC-1, Uncontrolled Cooldown, Rev. 2
3-PT-M13B1, Reactor Protection Logic Channel Functional Test (Reactor Power Greater than 35% - P8), Rev. 18
3-PT-Q58, 38 Back-Up Service Water Pump Test, Rev. 15

Condition Reports (CR-IP3-)

2011-02022	2011-02358	2011-02127	2011-02256
2011-02663	2010-02440	2011-02905	2011-03688
2011-1363	2011-2028	2011-2095	

Work Orders

52214684	52213821	52329233	00279763	52336685	51472530

Miscellaneous
ASME OMb Code-2003, Subsection ISTC Inservice Testing of Valves in Light-Water Reactor Nuclear Power Plants
DCP 00-3-063, IP3 Replacement of Westinghouse BFD Relays, Rev. 0
TE-97-007147, Procurement Engineering Technical Evaluation for Replacement of Westinghouse BFD Relays with Eaton Corporation Relays, Rev. 7

Section 1R20: Refueling and Other Outage Activities

Procedures
3-PT-V053E, Mode Change Checklist, Mode 3 to Mode 2, Rev. 7
3-PT-V053D, Mode Change Checklist, Mode 4 to Mode 3, Rev. 8
3-PT-V053C, Mode Change Checklist, Mode 5 to Mode 4, Rev. 13
3-SOP-RCS-017, Reactor Vessel Vacuum Refill and Mansell Level Monitoring System Operation, Rev. 10
3-SOP-RP-020, Draining the RCS/Refueling Cavity, Rev. 31
0-NF-212, Estimated Critical Position, Rev. 3
3-POP-1.2, Reactor Startup, Rev. 51
OAP-007, Containment Entry and Egress, Rev. 21

Condition Reports
IP3-2011-573 IP3-2011-1928 IP3-2011-1510 IP3-2011-2127
IP3-2011-2125

Miscellaneous
Fatigue database tracking reports: Operations, Security, Maintenance, Covered Electricians
IP-RPT-05-463, Attachment F, VC Dirt Estimation Assessment, Rev. 0

Section 1R22: Surveillance Testing

Procedures
3-PT-R007B, 32 ABFP Full Flow Test, Rev. 15
3-CY-2335, Determination of Dissolved Hydrogen, Total Gas and Specific Activities in Reactor Coolant, Rev. 3
3-SOP-SS-1, Operation of the Primary Sampling System, Rev. 20
0-CY-2310, Reactor Coolant System Specifications and Frequencies, Rev. 15
3-PT-R013, Recirculation Pumps, Rev. 23
3-PT-2Y021, Hydrogen Recombiners Functional Test, Rev. 0

Completed Procedures
0-SOP-Leakrate-001, RCS Leakrate Surveillance, Evaluation and Leak Identification, dated April 24, 2011
0-SOP-Leakrate-001, RCS Leakrate Surveillance, Evaluation and Leak Identification, dated May 8, 2011
0-SOP-Leakrate-001, RCS Leakrate Surveillance, Evaluation and Leak Identification, dated May 9, 2011
3-PT-Q92F, 36 Service Water Pump, dated May 23, 2011
3-PT-Q92F, 36 Service Water Pump, dated May 24, 2011

Condition Reports (CR-IP3-)

2011-02147	2011-02142	2011-02146	2011-02147
2011-02902	2011-2244		

Miscellaneous

Work Order 273236 Work Order 272804

Section 1EP6: Drill Evaluation

Procedures

IP-EP-AD13, Emergency Action Level Technical Bases, Rev. 7

Condition Reports (CR-IP3-2011-)

03162 03163 03164

Section 4OA1: Performance Indicator Verification

Procedures

EN-LI-114, Performance Indicator Process, Rev. 4

Completed Procedures

EN-LI-114, Performance Indicator Process – Reactor Coolant System Specific Activity, dated July 7, 2010

EN-LI-114, Performance Indicator Process – Reactor Coolant System Specific Activity, dated October 12, 2010

EN-LI-114, Performance Indicator Process – Reactor Coolant System Specific Activity, dated January 5, 2011

EN-LI-114, Performance Indicator Process – Reactor Coolant System Specific Activity, dated April 3, 2010

EN-LI-114, Performance Indicator Process – Safety System Unavailability / Safety System Functional Failures, dated July 7, 2010

EN-LI-114, Performance Indicator Process – Safety System Unavailability / Safety System Functional Failures, dated October 7, 2010

EN-LI-114, Performance Indicator Process – Safety System Unavailability / Safety System Functional Failures, dated November 12, 2011

EN-LI-114, Performance Indicator Process – Safety System Unavailability / Safety System Functional Failures, dated April 12, 2010

Section 4OA2: Identification and Resolution of Problems

Procedures

3-ARP-015, Alarm Response Procedure, Rev. 34

0-SOP-LEAKRATE-001, RCS Leakrate Surveillance, Evaluation and Leak Identification, Rev. 2

Condition Reports (CR-IP3-)

2010-01003	2010-00380	2010-00717	2010-00884
2010-01628	2010-01991	2010-02530	2010-02731
2010-02809	2010-02816	2010-02818	2010-03665
2010-03720	2010-03755	2011-00899	2011-00924
2011-01615	2011-01904	2011-02371	2011-02429
2011-03123	2011-03148	2011-03174	2011-03416
2011-03432	2011-03553		

Work Orders
51558545-01 51558545-04 52263380

Miscellaneous
Maintenance Rule Basis Document Units 2 and 3, 118VAC Instrument Bus System, Rev. 0
Operational Decision-Making Issue, CR-IP3-2011-1102, 32 RCP flange leak

Section 4OA3: Event Follow-up

Procedures
EN-LI-119, Apparent Cause Evaluation (ACE) Process, Rev. 12
EN-LI-102, Corrective Action Process, Rev. 16
EN-MA-125, Troubleshooting Control of Maintenance Activities, Rev. 8
3-SOP-TG-004, Turbine Generator Operation, Rev. 48 and 49

Condition Reports (CR-IP3-)
2009-04823 2010-00601 2011-00960

Miscellaneous
IP3 FSAR, Rupture of a Steam Pipe, Section 14, Rev. 3
Work Order 281256

Section 4OA5: Other Activities

Completed Surveillance Test Procedures
IP3-UT-10-048, 3-PT-M108, UT Calibration/Examination, performed 11/4/10
IP3-UT-10-063, 3-PT-M108, UT Calibration/Examination, performed 12/6/10
IP3-UT-11-003, 3-PT-M108, UT Calibration/Examination, performed 1/27/11
IP3-UT-11-014, 3-PT-M108, UT Calibration/Examination, performed 3/2/11
IP3-UT-11-056, 3-PT-M108, UT Calibration/Examination, performed 3/31/11
IP3-UT-11-024, 3-PT-M108, UT Calibration/Examination, performed 4/6/11
IP3-UT-11-063, 3-PT-M108, UT Calibration/Examination, performed 4/20/11

Procedures
0-VLV-432-VCK, Generic Procedure for Testing Check Valves Using MOVATS Diagnostic Test System, Rev. 1
3-PT-M108, RHR/SI/CS System Venting, Rev. 13
3-PT-Q116A, 31 Safety Injection Pump, Rev. 15
3-PT-Q116C, 31 Safety Injection Pump, Rev. 16
3-SOP-CB-011, Non-Automatic Containment Isolation, Rev. 10
3-SOP-CSS-002, Containment Spray System Support Procedure, Rev. 0
3-SOP-RHR-001, Residual Heat Removal System, Rev. 41
3-SOP-SI-001, Safety Injection System Operation, Rev. 47

Calculations
IP-CALC-05-00771, Operability Assessment of RHR/SI Piping with As-found Gas Voids in RHR Piping – IPEC Unit 3, Rev. 1
IP-CALC-05-00834, Indian Point Unit 3 Minimum Post-LOCA Containment Water Level, Rev. 2
IP-CALC-10-00114, Gas Void Size Criteria in ECCS Piping, Rev. 1
IP-CALC-10-00146, RHR Condition Analysis with Mode 3 or 4 LOCA, Rev. 0
IP-CALC-10-00151, Pipe Stress Evaluation of Safety Injection System Piping for Postulated Voids, Rev. 0

Condition Reports
HQN-2008-00880

Condition Reports (CR-IP3-)

2010-00294	2011-00319	2011-00528	2011-00831	2011-00927	2011-01027
2011-01185	2011-01291	2011-01319	2011-01430	2011-01613	2011-01638
2011-01672	2011-01723	2011-01937	2011-01944	2011-02026	2011-02095
2011-02098	2011-02142	2011-02414	2011-02423	2011-02810	2011-02832
2011-02870	2011-02872	2011-02984	2011-03035	2011-03425	2011-03603
2011-04010					

Drawings
9321-F-2562, Recirculation Sump, Sh. 2, Rev. 31
9321-F-2720, Flow Diagram Auxiliary Coolant System, Rev. 89
9321-F-2735, Safety Injection System, Sh. 1, Rev. 140
9321-F-27353, Flow Diagram Safety Injection System, Sh. 1 and 2, Rev. 42 and 52
9321-F-50103, Containment Building Restraint and Support Design, Lines 10 and 56, Rev. 5
9321-F-50313, Containment Building Restraint and Support Design, Line 16, Sh. 2, Rev. 11
9321-F-50323, Primary Auxiliary Building Restrain and Support Design, Line No. 56, Sh. 1, Rev. 7
9321-F-50403, Containment Building Restraint and Support Design, Lines 91 and 293, Rev. 4
9321-F-50483, Containment Building Restraint and Support Design, Line 56A, Rev. 7
9321-F-53553, Containment Building Restraint and Support Design, Lines 60 and 89, Rev. 8
9321-F-54183, Primary Auxiliary Building Restraint and Support Design, Line 518, Rev. 8
9321-F-55013, Primary Auxiliary Building Restraint and Support Design, Lines 15 and 51, Rev. 12
9321-F-55133, Primary Auxiliary Building Restraint and Support Design, Lines 181 and 314, Rev. 6
9321-F-55143, Pipe Trench Area Restraint and Support Design, Lines 10, 57, 155 and 553, Rev. 8
9321-F-55203, Containment Building Restraint and Support Design, Lines 358 and 359, Rev. 8
9321-F-55323, Primary Auxiliary Building Restraint and Support Design, Line 145, Rev. 5
9321-F-55343, Containment Building Restraint and Support Design, Line 361, Rev. 9/12
9321-F-55403, Primary Auxiliary Building Restraint and Support Design, Lines 60, 277, & 278, Rev. 8
9321-F-55563, Pipe Trench Area Restraint and Support Design, Line 16, Sh. 1, Rev. 9
9321-F-55583, Primary Auxiliary Building Restraint and Support Design, Lines 550 and 876, Rev. 9
9321-F-55683, Containment Building Restraint and Support Design, RHR Heat Exchanger, Rev. 4
9321-F-55983, Containment Building Restraint and Support Design, Line 16A, Rev. 7

Engineering Evaluations
IP-RPT-08-00067, Summary Report Associated with NRC GL 2008-01, Managing Gas Accumulation in ECCS, Decay Heat and Containment Spray System, Rev. 0
IP-RPT-08-00069, Summary Report Associated with NRC GL 2008-01 Managing Gas Accumulation in ECCS, Decay Heat and Containment Spray Systems - Inside and Outside Containment, Rev. 1
IP-RPT-08-00077, Summary of Activities Associated with the Resolution of GL 2008-01
IP-RPT-11-00015, Indian Point Energy Center Unit 3 Residual Heat Removal System – Evaluation of Acceptable Pump Suction Void Size, Rev. 0

IP-RPT-11-00017, Generic Letter GL 2008-01: Evaluation of Acceptable Void Sizes in ECCS, Decay heat, and Containment Spray Systems, Rev. 1
IP-RPT-11-00017, Generic Letter GL 2008-01: Evaluation of Acceptable Void Sizes in ECCS, Decay Heat, and Containment Spray Systems, Rev. 0

Miscellaneous
280-RLCA02848-02A, Recirculation Pump Performance Curve at 1170 RPM, dated 3/14/2005
CEP-NDE-0530, Ultrasonic Examination of Components to Determine Fluid Level, Rev. 2
IP3 Technical Specifications, as Amended to 225
LPI Quality Assurance Letter, Entergy IPEC Containment Spray System, dated 4/28/2011
Indian Point Entergy Center (IPEC) Units 2 and 3 Nine Month Response to NRC Generic Letter 2008-001, Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal, and Containment Spray Systems, dated 10/9/08
Manual 1059, Form 7978-I, Instructions for Installation – Operation and Maintenance of "S" Line General Service Pumps, Ingersoll-Rand Pumps, Rev. 2
Vendor Manual NYPA #209-100000311, Installation, Operation and Maintenance Type "A" Overhung Process Pump – Containment Spray, Ingersoll-Rand Pumps, Rev. 3

Work Orders
WO 51285119 WO 51285120

LIST OF ACRONYMS

ABFP	Auxiliary Boiler Feed Pump
ADAMS	Agency-wide Document Management System
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CR	Condition Report
DID	Defense-In-Depth
DRA	Deputy Regional Administrator
DRP	Division of Reactor Projects
DRS	Division of Reactor Safety
EC	Engineering Change
EDG	Emergency Diesel Generator
ENTERGY	Entergy Nuclear Northeast
EOF	Emergency Operations Facility
FCU	Fan Cooler Unit
GL	Generic Letter
I&C	Instrumentation and Control
IMC	Inspection Manual Chapter
IPEC	Indian Point Energy Center
IR	Inspection Report
IST	In-Service Testing
LER	Licensee Event Report
MSSV	Main Steam Safety Valve
NCV	Non-Cited Violation
NRC	Nuclear Regulatory Commission
NRR	Office of Nuclear Reactor Regulation
NYPA	New York Power Authority
OEDO	Office of the Executive Director for Operations
PFP	Pre-Fire Plan
PI	Performance Indicator
PMCR	Preventive Maintenance Change Request
PORV	Pressure Operated Relief Valve
RA	Regional Administrator
RCP	Reactor Coolant Pump
RCS	Reactor Coolant System
RHR	Residual Heat Removal
RI	Resident Inspector
RPS	Reactor Protection System
R1	Region 1
SAMG	Severe Accident Management Guidelines
SSC	Structures, Systems, and Components
SSFF	Safety System Functional Failure
SRI	Senior Resident Inspector
TI	Temporary Instruction
TS	Technical Specifications
TSC	Technical Support Center
UFSAR	Updated Final Safety Analysis Report
UT	Ultrasonic Test
WO	Work Order