



**UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I**
2100 RENAISSANCE BOULEVARD, SUITE 100
KING OF PRUSSIA, PENNSYLVANIA 19406-2713

February 8, 2013

Mr. John Ventosa
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 05000286/2012005**

Dear Mr. Ventosa:

On December 31, 2012, 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 January 16, 2013, 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.

No NRC-identified or self-revealing findings were identified during this inspection. However, two licensee-identified violations which were determined to be of very low safety significance are listed in this report. The NRC is treating these violations as non-cited violations (NCVs) consistent with Section 2.3.2 of the Enforcement Policy. If you contest the violations or significance of the NCVs, 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 I; 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 accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the

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Sincerely,

/RA/

Arthur L. Burritt, Chief
Reactor Projects Branch 2
Division of Reactor Projects

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

Enclosure: Inspection Report 05000286/2012005
w/Attachment: Supplementary Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No.: 50-286

License No.: DPR-26

Report No.: 05000286/2012005

Licensee: Entergy Nuclear Northeast (Entergy)

Facility: Indian Point Nuclear Generating Unit 3

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

Dates: October 1, 2012 through December 31, 2012

Inspectors: P. Cataldo, Senior Resident Inspector
M. Halter, Resident Inspector
J. Furia, Senior Health Physicist
J. Nicholson, Health Physicist
P. Presby, Operations Engineer

Approved By: Arthur L. Burritt, Chief
Reactor Projects Branch 2
Division of Reactor Projects

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SUMMARY OF FINDINGS

IR 05000286/2012005; 10/1/12 – 12/31/12; Indian Point Nuclear Generating (Indian Point) Unit 3.

This report covered a three-month period of inspection by resident inspectors and announced inspections performed by region inspectors. No findings of significance were identified. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4, dated December 2006.

Other Findings

Two violations of very low safety significance identified by Entergy were reviewed by the inspectors. Corrective actions taken or planned by Entergy have been entered into Entergy's corrective action program. These violations and corrective action tracking numbers are listed in Section 4OA7 of this report.

REPORT DETAILS

Summary of Plant Status

Indian Point Unit 3 began the inspection period at 100 percent power. On October 29, 2012, Unit 3 tripped, following inputs from the main generator protection system that indicated the presence of faults on two of three 345kV output feeders. The cause was later determined to be damage to the Consolidated Edison (ConEd) distribution system as a result of Superstorm Sandy. Following ConEd repairs, operators returned the unit to 100 percent on November 2. The unit remained at or near 100 percent power for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R01 Adverse Weather Protection (71111.01 – 2 samples)

.1 Readiness for Seasonal Extreme Weather Conditions

a. Inspection Scope

The inspectors performed a review of Entergy's readiness for the onset of seasonal low temperatures. The review focused on the fire water storage tanks, and the intake structure, which houses the safety-related service water pumps. The inspectors reviewed the Updated Final Safety Analysis Report (UFSAR), technical specifications, control room narrative logs, and the corrective action program, to determine what temperatures or other seasonal weather could challenge these systems, and to ensure Entergy personnel had adequately prepared for these challenges. The inspectors reviewed station procedures, including Entergy's seasonal weather preparation procedure and applicable operating procedures. The inspectors performed walkdowns of the selected systems to ensure station personnel identified issues that could challenge the operability of the systems during cold weather conditions. Documents reviewed for each section of the inspection report are listed in the Attachment.

b. Findings

No findings were identified.

.2 External Flooding

a. Inspection Scope

During the implementation of Temporary Instruction TI-187 (Section 4OA5.2), the inspectors performed an inspection of the external flood protection measures for Indian Point Unit 3. The inspectors reviewed the UFSAR, which describes the design flood levels and protection areas containing safety-related equipment, to identify areas that may be affected by external flooding. The inspectors conducted a site walkdown of specific external areas of the plant including the service water intake structure, to ensure that Entergy staff has maintained flood protection measures in accordance with design specifications. The inspectors also reviewed operating procedures for mitigating

external flooding during severe weather to determine if Entergy planned or established adequate measures to protect against external flooding events.

b. Findings

No findings were identified.

1R04 Equipment Alignment

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

a. Inspection Scope

The inspectors performed partial walkdowns of the following systems:

- 31/33 motor-driven auxiliary feed water pumps during maintenance on the 32 turbine-driven auxiliary feed water pump on October 17, 2012
- 32 safety injection pump following accumulator fill on November 10, 2012
- 32 and 33 emergency diesel generators (EDG) during emergent maintenance and troubleshooting on the 31 EDG on December 3, 2012.

The inspectors selected these systems based on their risk-significance relative to the reactor safety cornerstones at the time they were inspected. The inspectors reviewed applicable operating procedures, system diagrams, the UFSAR, technical specifications, work orders, condition reports, and the impact of ongoing work activities on redundant trains of equipment in order to identify conditions that could have impacted system performance of their intended safety functions. The inspectors also performed field walkdowns of accessible portions of the systems to verify system components and support equipment were aligned correctly and were operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no deficiencies. The inspectors also reviewed whether Entergy staff had properly identified equipment issues and entered them into the corrective action program for resolution with the appropriate significance characterization.

b. Findings

No findings were identified.

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

a. Inspection Scope

On December 7, 2012, the inspectors performed a complete system walkdown of accessible portions of the Unit 3 spent fuel pit cooling system to verify the existing equipment lineup was correct. The inspectors reviewed operating procedures, surveillance tests, drawings, equipment line-up check-off lists, and the UFSAR to verify the system was aligned to perform its required safety functions. The inspectors also reviewed electrical power availability, component lubrication and equipment cooling, hangar and support functionality, and operability of support systems. The inspectors performed field walkdowns of accessible portions of the systems to verify system

components and support equipment were aligned correctly and operable. The inspectors examined the material condition of the components and observed operating parameters of equipment to verify that there were no deficiencies. Additionally, the inspectors reviewed a sample of related condition reports and work orders to ensure Entergy staff appropriately evaluated and resolved any deficiencies.

b. Findings

No findings were identified.

1R05 Fire Protection

Resident Inspector Quarterly Walkdowns (71111.05Q – 5 samples)

a. Inspection Scope

The inspectors conducted tours of the areas listed below to assess the material condition and operational status of fire protection features. The inspectors verified that Entergy staff controlled combustible materials and ignition sources in accordance with administrative procedures. The inspectors verified that fire protection and suppression equipment was available for use as specified in the area pre-fire plan, and passive fire barriers were maintained in good material condition. The inspectors also verified that station personnel implemented compensatory measures for out of service, degraded, or inoperable fire protection equipment, as applicable, in accordance with procedures.

- Pre-fire plan (PFP)-351 [fire zone (FZ) 14]: 480 Volt Switchgear Room – Control Building on November 16, 2012
- PFP-353 (FZ 15): Control Room – Control Building on November 16, 2012
- PFP-355 (FZ 7A): Lower Electrical Tunnel on November 16, 2012
- PFP-356 (FZ 74A): Lower Electrical Penetration Area on November 16, 2012
- PFP-365 (FZ 23): Auxiliary Feedwater (AFW) Pump Room – Auxiliary Feedwater Building on November 16, 2012

b. Findings

No findings were identified.

1R06 Flood Protection Measures (71111.06 – 2 samples)

Internal Flooding Review

a. Inspection Scope

The inspectors reviewed the UFSAR, the site flooding analysis, and plant procedures to assess susceptibilities involving internal flooding. The inspectors also reviewed the corrective action program to determine if Entergy staff identified and corrected flooding problems and whether operator actions for coping with flooding were adequate. In particular, the inspectors focused on the central control room air-conditioning system room and the 480 volt switchgear room, both of which are located in the control building. The inspectors verified the adequacy of accessible equipment seals located below the

flood line, flood and water penetration seals, watertight door seals, common drain lines and sumps, sump pumps, level alarms, control circuits, and temporary or removable flood barriers.

b. Findings

No findings were identified.

1R11 Licensed Operator Regualification Program

.1 Licensed Operator Regualification Annual Review (7.1111.11A – 1 sample)

a. Inspection Scope

On December 17, 2012, the results of the annual operating tests were reviewed to determine if pass/fail rates were consistent with the guidance of NUREG-1021, "Operator Licensing Examination Standards for Power Reactors," Revision 9, Supplement 1, and NRC Manual Chapter 0609, Appendix I, "Operator Regualification Human Performance Significance Determination Process." The inspectors verified the following:

- Individual pass rate on the dynamic simulator test was greater than 80 percent (Pass rate was 100 percent)
- Individual pass rate on the job performance measures of the operating exam was greater than 80 percent (Pass rate was 100 percent)
- Individual pass rate on the written examination was greater than 80 percent (N/A – a comprehensive written examination was previously administered in 2011)
- More than 80 percent of the individuals passed all portions of the exam (100 percent of the individuals passed all portions of the operating examination)
- Crew pass rate was greater than 80 percent (Pass rate was 100 percent)

b. Findings

No findings were identified.

.2 Quarterly Review of Licensed Operator Regualification Testing and Training (71111.11Q – 1 sample)

a. Inspection Scope

The inspectors observed licensed operator simulator training on October 15, 2012, which included loss of a 480 volt bus, a small break loss of coolant accident, anticipated transient without a scram, and degraded core cooling. The inspectors evaluated operator performance during the simulated event and verified completion of risk significant operator actions, including the use of abnormal and emergency operating procedures. The inspectors assessed the clarity and effectiveness of communications, implementation of actions in response to alarms and degrading plant conditions, and the oversight and direction provided by the control room supervisor. The inspectors verified the accuracy and timeliness of the emergency classification made by the shift manager and the technical specification action statements entered by the shift technical advisor.

Additionally, the inspectors assessed the ability of the crew and training staff to identify and document crew performance problems.

b. Findings

No findings were identified.

.3 Quarterly Review of Licensed Operator Performance in the Main Control Room
(71111.11Q – 1 sample)

a. Inspection Scope

The inspectors observed and reviewed licensed-operator performance during various activities in the central control room. This review included: Operator response to a reactor trip on October 29, 2012, during Superstorm Sandy, which was caused by the loss of two of three output feeders following storm damage. In addition, the inspectors observed the reactor restart activities, including initial criticality on November 1, 2012. The inspectors also observed post-maintenance testing associated with the auxiliary feed water system, and a concurrent emergent and unexpected shutdown of the 32 battery charger. The inspectors verified appropriate procedural usage, crew communications, and coordination of activities between work groups consistent with established expectations and standards.

b. Findings

No findings were identified.

1R12 Maintenance Effectiveness (71111.12Q – 1 sample)

a. Inspection Scope

The inspectors reviewed the samples listed below to assess the effectiveness of maintenance activities on structure, system, and component (SSC) performance and reliability. The inspectors reviewed system health reports, corrective action program documents, maintenance work orders, and maintenance rule basis documents to ensure that station personnel were identifying and properly evaluating performance problems within the scope of the maintenance rule. For each sample selected, the inspectors verified that the SSC was properly scoped into the maintenance rule in accordance with 10 CFR 50.65 and verified that the (a)(2) performance criteria established by Entergy staff was reasonable. As applicable, for SSCs classified as (a)(1), the inspectors assessed the adequacy of goals and corrective actions to return these SSCs to (a)(2). Additionally, the inspectors ensured that Entergy staff was identifying and addressing common cause failures that occurred within and across maintenance rule system boundaries.

- Review of EDG overload condition and emergency shutdown on December 3, 2012

b. Findings

No findings were identified.

1R13 Maintenance Risk Assessments and Emergent Work Control (71111.13 – 4 samples)

a. Inspection Scope

The inspectors reviewed station evaluation and management of plant risk for the maintenance and emergent work activities listed below to verify that Entergy personnel performed the appropriate risk assessments prior to removing equipment for work. The inspectors selected these activities based on potential risk significance relative to the reactor safety cornerstones. As applicable for each activity, the inspectors verified that Entergy personnel performed risk assessments as required by 10 CFR 50.65(a)(4) and that the assessments were accurate and complete. When Entergy performed emergent work, the inspectors verified that operations personnel promptly assessed and managed plant risk. The inspectors reviewed the scope of maintenance work and discussed the results of the assessment with the station's probabilistic risk analyst to verify plant conditions were consistent with the risk assessment. The inspectors also reviewed the technical specification requirements and inspected portions of redundant safety systems, when applicable, to verify risk analysis assumptions were valid and applicable requirements were met.

- Planned maintenance on 33 charging pump, 32 auxiliary boiler feed pump (ABFP), and nuclear instrumentation calibrations on October 16, 2012
- Planned 32 ABFP testing and the 32 battery charger failure, on October 17, 2012
- 138 kV feeder 33332 L&M outage, 33 charging pump maintenance, 3-PT-M62A/B/C Degraded Voltage Relay Calibrations, 3-PT-Q109C/D Nuclear Instrumentation Calibrations, and 3-PT-SA43 Refueling Water Storage Tank (RWST) Level Instrument Check and Calibration, on October 18, 2012
- Risk management actions for Superstorm Sandy, on October 28, 2012

b. Findings

No findings were identified.

1R15 Operability Determinations and Functionality Assessments (71111.15 – 2 samples)

a. Inspection Scope

The inspectors reviewed operability determinations for the following degraded or non-conforming conditions:

- Degraded 31 fuel oil storage tank piping on October 1, 2012
- 32 battery charger high voltage shutdown on October 17, 2012

The inspectors selected these issues based on the risk significance of the associated components and systems. The inspectors evaluated the technical adequacy of the operability determinations to assess whether technical specification operability was properly justified and the subject component or system remained available such that no

unrecognized increase in risk occurred. The inspectors compared the operability and design criteria in the appropriate sections of the technical specifications and UFSAR to Entergy's evaluations to determine whether the components or systems were operable. Where compensatory measures were required to maintain operability, the inspectors determined whether the measures in place would function as intended and were properly controlled by Entergy. The inspectors determined, where appropriate, compliance with bounding limitations associated with the evaluations.

a. Findings

No findings were identified.

1R19 Post-Maintenance Testing (71111.19 – 4 samples)

a. Inspection Scope

The inspectors reviewed the post-maintenance tests for the maintenance activities listed below to verify that procedures and test activities ensured system operability and functional capability. The inspectors reviewed the test procedure to verify that the procedure adequately tested the safety functions that may have been affected by the maintenance activity, that the acceptance criteria in the procedure was consistent with the information in the applicable licensing basis and/or design basis documents, and that the procedure had been properly reviewed and approved. The inspectors also witnessed the test or reviewed test data to verify that the test results adequately demonstrated restoration of the affected safety functions.

- 34 service water pump (SWP) discharge check valve inspection and breaker motor cut out switch replacement on October 15, 2012
- Installation of the new Backup Nitrogen supply to 32 ABFP steam valves on October 17, 2012
- 32 SWP strainer electric power source modification on October 26, 2012
- 31 SWP discharge check valve seat repair on November 16, 2012

b. Findings

No findings were identified.

1R22 Surveillance Testing (71111.22 – 4 samples)

a. Inspection Scope

The inspectors observed performance of surveillance tests and/or reviewed test data of selected risk-significant SSCs to assess whether test results satisfied technical specifications, the UFSAR, and Entergy procedure requirements. The inspectors verified that test acceptance criteria were clear, tests demonstrated operational readiness and were consistent with design documentation, test instrumentation had current calibrations and the range and accuracy for the application, tests were performed as written, and applicable test prerequisites were satisfied. Upon test completion, the inspectors considered whether the test results supported that equipment was capable of

performing the required safety functions. The inspectors reviewed the following surveillance tests:

- 3PT-R90F, (Test) Local operations of SWPs on October 8, 2012
- 3-PC-Q109C, Nuclear Power Range Channel N-43 Axial Offset Calibration on October 18, 2012
- 3-PT-SA43, Refueling Water Storage Tank (RWST) Level Instrument Check and Calibration (Loop 920A/B) on October 19, 2012
- 3-PT-Q120C, 33 Auxiliary Feedwater Pump In-Service Test (IST) on October 22, 2012

b. Findings

No findings were identified.

2. RADIATION SAFETY

Cornerstone: Public Radiation Safety and Occupational Radiation Safety

2RS1 Radiological Hazard Assessment and Exposure Controls (71124.01 – 1 sample)

a. Inspection Scope

During the week of November 5–9, 2012, the inspectors reviewed and assessed Entergy's performance in assessing the radiological hazards and exposure control in the workplace. The inspectors used the requirements in 10 CFR Part 20 and guidance in Regulatory Guide 8.38 Control of Access to High and Very High Radiation Areas for Nuclear Plants, the Technical Specifications, and Entergy's procedures required by technical specifications as criteria for determining compliance.

The inspectors reviewed Entergy's performance indicators (PIs) for the Occupational Exposure Cornerstone at Indian Point for follow-up. The inspectors reviewed the results of radiation protection program audits. The inspectors reviewed reports of operational occurrences related to occupational radiation safety since the last inspection.

The inspectors selected occurrences where a worker's electronic personal dosimeter noticeably malfunctioned or alarmed. The inspectors verified that workers responded appropriately to the off-normal condition. The inspectors verified that the issue was included in the corrective action program and dose evaluations were conducted as appropriate.

The inspectors reviewed Entergy's procedures and records to verify that the radiation detection instrumentation was used at its typical sensitivity level based on appropriate counting parameters.

The inspectors selected two sealed sources from Entergy's inventory records that present the greatest radiological risk. The inspectors verified that sources are accounted for and had been verified to be intact.

The inspectors reviewed radiological problem reports since the last inspection that found the cause of the event to be human performance errors. The inspectors determined that there was no observable pattern traceable to a similar cause. The inspectors determined that this perspective matched the corrective action approach taken by Entergy to resolve the reported problems. The inspectors discussed with the RPM any problems with the corrective actions planned or taken.

The inspectors reviewed radiological problem reports since the last inspection that found the cause of the event to be radiation protection technician error. The inspectors determined that there was no observable pattern traceable to a similar cause. The inspectors determined that this perspective matched the corrective action approach taken by Entergy to resolve the reported problems.

The inspectors verified that problems associated with radiation monitoring and exposure control were being identified by Entergy at an appropriate threshold and were properly addressed for resolution in Entergy's corrective action program. In addition to the above, the inspectors verified the appropriateness of the corrective actions for a selected sample of problems documented by Entergy that involve radiation monitoring and exposure controls. The inspectors determined that Entergy was assessing the applicability of operating experience to their plants.

b. Findings

No findings were identified.

2RS2 Occupational ALARA Planning and Controls (71124.02)

a. Inspection Scope

During November 5–9, 2012, the inspectors assessed performance with respect to maintaining occupational individual and collective radiation exposures as low as is reasonably achievable (ALARA). The inspectors used the requirements in 10 CFR Part 20, Regulatory Guides 8.8 and 8.10, Technical Specifications, and Entergy's procedures as criteria for determining compliance.

The inspectors reviewed pertinent information regarding plant collective exposure history, current exposure trends, and ongoing or planned activities in order to assess current performance and exposure challenges. The inspectors determined the plant's 3-year rolling average collective exposure.

Using Entergy's records, the inspectors determined the historical trends and current status of significant tracked plant source term known to contribute to elevated facility aggregate exposure. The inspectors determined that Entergy was making allowances or developing contingency plans for expected changes in the source term as the result of changes in plant fuel performance issues or changes in plant primary chemistry.

b. Findings

No findings were identified.

2RS3 In-Plant Airborne Radioactivity Control and Mitigation (71124.03)

a. Inspection Scope

During November 5–9, 2012, the inspectors verified in-plant airborne concentrations were being controlled as well as the use of respiratory protection devices consistent with ALARA principles. The inspectors used the requirements in 10 CFR Part 20, regulatory guides 8.15 and 8.25, NUREG-0041, technical specifications, and applicable procedures as criteria for determining compliance.

The inspectors selected installed systems to monitor and warn of changing airborne concentrations in the plant. The inspectors verified that alarms and set-points were sufficient to prompt licensee/worker action to ensure that doses were maintained within the limits of 10 CFR Part 20 and ALARA. The inspectors verified that Entergy had established threshold criteria for evaluating levels of airborne beta-emitting and alpha-emitting radionuclides.

The inspectors verified that problems associated with the control and mitigation of in-plant airborne radioactivity were being identified by Entergy at an appropriate threshold and were properly addressed for resolution in Entergy's corrective action program.

The inspectors reviewed records of air testing for supplied-air devices and self-contained breathing air bottles. The inspectors verified that air used in these devices met or exceeded Grade D quality. The inspectors verified that plant breathing air supply systems met the minimum pressure and airflow requirements for the devices in use.

The inspectors selected individuals qualified to use respiratory protection devices, and verified that they had been deemed fit to use the devices by a physician.

b. Findings

No findings were identified.

4. OTHER ACTIVITIES

4OA1 Performance Indicator (PI) Verification (71151 – 3 samples)

.1 Barrier Integrity Cornerstone (1 sample)

a. Inspection Scope

The inspectors sampled Entergy's submittals for the below listed PIs for Unit 3 for the period of October 1, 2011 through September 30, 2012. To determine the accuracy of the PI data reported during those periods, the inspectors used definitions and guidance contained in Nuclear Energy Institute (NEI) Document 99-02, "Regulatory Assessment Performance Indicator Guideline," Revision 6, and NUREG-1022, "Event Reporting

Guidelines 10 CFR 50.72 and 10 CFR 50.73." As applicable, the inspectors reviewed Entergy's operator narrative logs, issue reports, event reports, and NRC integrated inspection reports to validate the accuracy of the submittals.

- Reactor Coolant System Leakage (BI02)

b. Findings

No findings were identified.

.2 Occupational Radiation Safety Cornerstone (1 sample)

a. Inspection Scope

The inspectors reviewed a listing of condition reports for issues related to the occupational radiation safety performance indicator, which measures non-conformances with high radiation areas greater than 1 Roentgen/hour (R/hr) and unplanned personnel exposures greater than 100 millirem (mrem) total effective dose equivalent (TEDE), 5 rem skin dose equivalent (SDE), 1.5 rem lens dose equivalent (LDE), or 100 mrem to the unborn child.

The inspectors determined if any of these PI events involved dose rates >25 R/hr at 30 centimeters or >500 R/hr at 1 meter. If so, the inspectors determined what barriers had failed and if there were any barriers left to prevent personnel access. For unintended exposures >100 mrem TEDE (or >5 rem SDE or >1.5 rem LDE), the inspectors determined if there were any overexposures or substantial potential for overexposure. The inspectors determined that no PI events for occupational radiation safety had occurred during the assessment period.

b. Findings

No findings were identified.

.3 Public Radiation Safety Cornerstone (1 sample)

a. Inspection Scope

The inspectors reviewed a listing of condition reports for issues related to the public radiation safety PI, which measures radiological effluent release occurrences per site that exceed 1.5 mrem/quarter (qtr) whole body or 5 mrem/qtr organ dose for liquid effluents; or 5 millirads (mrads)/qtr gamma air dose, 10 mrads/qtr beta air dose; or 7.5 mrem/qtr organ doses from Iodine-131 (I-131), I-133, Hydrogen-3 (H-3) and particulates for gaseous effluents. The inspectors determined that no PI events for public radiation safety had occurred during the assessment period.

b. Findings

No findings were identified.

4OA2 Problem Identification and Resolution (71152 – 2 samples)

.1 Routine Review of Problem Identification and Resolution Activities

a. Inspection Scope

As required by Inspection Procedure 71152, "Problem Identification and Resolution," the inspectors routinely reviewed issues during baseline inspection activities and plant status reviews to verify that Entergy entered issues into the corrective action program at an appropriate threshold, gave adequate attention to timely corrective actions, and identified and addressed adverse trends. In order to assist with the identification of repetitive equipment failures and specific human performance issues for follow-up, the inspectors performed a daily screening of items entered into the corrective action program and periodically attended condition report screening meetings.

b. Findings

No findings were identified.

.2 Semi-Annual Trend Review (1 sample)

a. Inspection Scope

The inspectors performed a semi-annual review of site issues, as required by Inspection Procedure 71152, "Problem Identification and Resolution," to identify trends that might indicate the existence of more significant safety issues. In this review, the inspectors included repetitive or closely-related issues that may have been documented by Entergy 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 third and fourth quarters of 2012, to assess condition reports written in various subject areas (equipment problems, human performance issues, etc.), as well as individual issues identified during the NRCs daily condition report review (Section 4OA2.1). The inspectors reviewed Entergy's quarterly trend reports for the first, second and third quarters of 2012, 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 the quarterly trend results for a sample of departments that are required to provide input into the quarterly trend reports, in particular, the maintenance and security departments. This review included a sample of issues and events that occurred over the course of the past two quarters, to objectively determine whether issues were appropriately considered or ruled as emerging or adverse trends, and in some cases, verified the appropriate disposition of resolved trends. 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.

For example, the inspectors noted that consistent with the onset of additional issues associated with static inverters that have occurred over the past several months and the ongoing maintenance challenges these safety-related inverters pose to station risk and reliability, Entergy personnel had appropriately identified “static inverters” as an emerging trend in the first quarter of 2012. This trend was also monitored during the subsequent two quarters to ensure ongoing corrective actions were being effective to address these long-standing inverter issues. Additionally, the inspectors reviewed a “monitored trend” associated with maintenance that involved “procedure use and adherence.” The inspectors verified that this trend was being effectively evaluated to ensure applicable success criteria were being evaluated to ensure successful resolution of a previously-identified adverse trend. The inspectors noted that trending tools and software were in use to aid departmental coordinators in the conduct of trending and assessment of data applicable to their departments.

The inspectors noted the security department had effectively identified during the quarterly reviews, a large number of equipment and fatigue rule implementation issues, and appropriately focused the organization toward resolution through the trend reporting and resolution process. Additionally, the departmental coordinator, who is responsible for trending, had effectively captured adverse trend issues within the corrective action program as trend condition reports, which facilitated evaluation of the large number of security equipment and other aspects of the security department, and ensured a single repository for tracking applicable reviews and statistical analyses.

While the inspectors identified several issues that were consistent with adverse trends, such as repetitive instrument air system deficiencies and service water pit conditions, these issues were being effectively evaluated, tracked and prioritized for resolution within current Entergy programs and processes. The inspectors noted that these programs and processes such as the system health reports, the equipment reliability top ten list (facilitated by the Unit Reliability team), and the work orders of concern listing and review process were integrated with the corrective action program to ensure these issues are appropriately identified, evaluated and resolved in a timely manner.

.3 Annual Sample: Review of the Operator Workaround Program (1 sample)

a. Inspection Scope

The inspectors reviewed the cumulative effects of the existing operator workarounds, operator burdens, existing operator aids and disabled alarms, and open main control room deficiencies to identify any effect on emergency operating procedure operator actions, and any impact on possible initiating events and mitigating systems. The inspectors evaluated whether station personnel had identified, assessed, and reviewed operator workarounds as specified in Indian Point Unit 3 procedure OAP-045, “Operator Burden Program.”

The inspectors reviewed Entergy’s process to identify, prioritize and resolve main control room distractions to minimize operator burdens. The inspectors reviewed the system used to track these operator workarounds and recent Entergy self assessments of the program. The inspectors also toured the control room and discussed the current operator workarounds with the operators to ensure the items were being addressed on a schedule consistent with their relative safety significance.

b. Findings and Observations

No findings were identified.

The inspectors determined that the issues reviewed did not adversely affect the capability of the operators to implement abnormal or emergency operating procedures. The inspectors also verified that Entergy staff entered operator workarounds and burdens into the corrective action program at an appropriate threshold and planned or implemented corrective actions commensurate with their safety significance.

4OA3 Follow-Up of Events and Notices of Enforcement Discretion (71153 – 3 samples)

.1 Plant Events

a. Inspection Scope

For the plant events listed below, the inspectors reviewed and/or observed plant parameters, reviewed personnel performance, and evaluated performance of mitigating systems. The inspectors communicated the plant events to appropriate regional personnel, and compared the event details with criteria contained in IMC 0309, "Reactive Inspection Decision Basis for Reactors," for consideration of potential reactive inspection activities. As applicable, the inspectors verified that Entergy operators made appropriate emergency classification assessments and properly reported the event in accordance with 10 CFR Parts 50.72 and 50.73. The inspectors reviewed Entergy's follow-up actions related to the events to assure that Entergy personnel implemented appropriate corrective actions commensurate with their safety significance.

- Main turbine generator trip and subsequent reactor trip on October 29, 2012

b. Findings

No findings were identified associated with the operational response to the reactor trip.

.2 (Closed) Licensee Event Report (LER) 05000286/2011-006-00: Technical Specification Prohibited Condition Due to Exceeding the Allowed Completion Time for an Inoperable Isolation Valve Seal Water System Due to an Out of Position Valve

On November 12, 2011, during operator rounds, a plant operator discovered the normally open valve IV-1400 of the Isolation Valve Seal Water (IVSW) system closed. Entergy personnel reviewed the Check Off List, plant drawings and Technical Specification (TS) 3.6.9 (IVSW System) and determined that valve IV-1400 should be open in Modes 1, 2, 3 and 4. Additionally, Entergy personnel reviewed the electronic equipment data base and past surveillances and determined that valve IV-1400 had been out of position since March 27, 2011, in excess of the seven day allowed outage time (AOT) per TS 3.6.9. Entergy staff entered this issue into their corrective action program as CR-IP3-2011-05110. Corrective actions included opening the valve and performing an apparent cause analysis, which determined that the valve had been out of position due to inadequate procedure use and adherence. The enforcement aspects of this licensee-identified issue are discussed in Section 4OA7. This LER is closed.

.3 (Closed) LER 05000286/2012-002-00: Technical Specification Prohibited Condition Due to Exceeding the Allowed Completion Time for an Inoperable Refueling Water Storage Tank During Connection to Purification System

On February 13, 2012, Entergy personnel determined that opening the boundary valves between the safety related and seismically qualified RWST and the non-safety related and non-seismically qualified Spent Fuel Pool Purification system in Modes 1 through 4 rendered the RWST inoperable. Entergy staff revised plant procedures in 2000 to allow opening these boundary valves in Modes 1 through 4 under administrative controls. Entergy staff performed a 10 CFR 50.59 safety evaluation to support the procedure change and concluded that the administrative controls would allow the RWST to remain TS operable. However, after reviewing NRC Information Notice 2012-01, Entergy staff determined that the RWST would be inoperable, regardless of the administrative controls established, when the RWST was aligned to non-seismic piping in Modes 1 through 4.

Although the RWST purification loop is normally isolated while the plant is above cold shutdown, there are intermittent and infrequent activities of short duration that require the RWST to be placed on purification. Additionally, the RWST is routinely purified prior to refueling outages via the refueling water purification system. This evolution aligned the RWST to non-seismic piping and, in the past, lasted for approximately 30 days each time. Since the RWST was not declared inoperable during these periods, TS Limiting Condition for Operation (LCO) actions were not entered. NRC Information Notice 2012-01, "Seismic Considerations – Principally Issues Involving Tanks," provides information to determine that this resulted in operation of the units in a condition prohibited by TS and is reportable pursuant to 10 CFR 50.73(a)(2)(i)(B).

The licensee entered this issue into the corrective action program as CR-IP3-2012-00485. The inspectors reviewed Entergy's planned corrective actions, which included immediately suspending all RWST alignment to non-seismic piping and revising operating procedures to prevent aligning the RWST to non-seismic piping until the issue is resolved. Additionally, Entergy personnel have submitted a license amendment request to allow recirculation of the RWST using the seismic to non-seismic interface. Entergy's long term corrective action is to obtain seismic qualification of the currently non-seismically qualified piping that is utilized while conducting RWST recirculation. The inspectors determined the licensee corrective actions were sufficient to address the issue. The enforcement aspects of this licensee-identified issue are discussed in section 4OA7. This LER is closed.

4OA5 Other Activities

.1 Institute of Nuclear Power Operations (INPO) Report Review

a. Inspection Scope

The inspectors reviewed the final report for the INPO plant assessment of Indian Point Units 2 and 3 conducted in December 2011. The inspectors reviewed the report to ensure that any issues identified were consistent with NRC perspectives of Entergy performance and to determine if INPO identified any significant safety issues that required further NRC follow-up.

b. Findings

No findings were identified.

.2 (Closed) Temporary Instruction (TI) 05000286/2515/187: Inspection of Near-Term Task Force Recommendation 2.3 – Flooding Walkdowns

a. Inspection Scope

From October – December, 2012, inspectors independently verified that Entergy staff conducted external flood protection walkdown activities using an NRC-endorsed walkdown methodology. These flooding walkdowns were performed at all sites in response to Enclosure 4 of a letter from the NRC to licensees entitled, “Request for Information Pursuant to Title 10 of the *Code of Federal Regulations* (CFR) Part 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident,” dated March 12, 2012 (ADAMS Accession No. ML12053A340).

Inspectors verified that Entergy’s walkdown packages, which were proceduralized as EN-DC-170, “Fukushima Near Term Task Force Recommendation 2.3 Flooding Walkdown Procedure,” contained the required elements as specified in NEI 12-07. In addition, the inspectors verified that Entergy assessed the applicable flood protection and mitigation attributes of the following flood protection features, consistent with the NEI guidance and the associated Entergy procedure. This verification was accomplished by the inspectors through accompanied (A) and independent (I) walkdowns of the following areas:

- IP3-CTL-001, Control Building North Wall, 15’ Elevation, 480V Switchgear Room (A)
- IP3-INT-004, Intake Structure, West Wall, 5’9” Elevation, Strainer Pit (I)

The inspectors verified that where applicable, visual inspections of the flood protection features were performed, which in some cases, required external visual inspections to verify whether indications of degradation would prevent its credited function from being performed. In addition, the inspectors verified that if applicable, reasonable simulations of flood mitigation actions were performed, critical SSC dimensions were measured, available physical margin was determined, and the functionality of flood protection features/attributes was determined using either visual observation or by review of other documents.

The inspectors verified that non-compliances with current licensing requirements, and issues identified in accordance with the 10 CFR 50.54(f) letter, Item 2.g of Enclosure 4, were entered into Entergy’s corrective action program. In addition, issues identified in response to Item 2.g that could challenge risk-significant equipment and Entergy’s ability to mitigate the consequences will be subject to additional NRC evaluation.

b. Findings

No findings were identified.

.3 (Closed) TI 05000286/2515/188: Inspection of Near-Term Task Force Recommendation 2.3 – Seismic Walkdowns

a. Inspection Scope

From October - December, 2012, inspectors independently verified that Entergy had conducted seismic walkdown activities using an NRC-endorsed seismic walkdown methodology. These seismic walkdowns were performed at all sites in response to Enclosure 3 of a letter from the NRC to licensees entitled, "Request for Information Pursuant to Title 10 of the *Code of Federal Regulations* (CFR) Part 50.54(f) Regarding Recommendations 2.1, 2.3, and 9.3, of the Near-Term Task Force Review of Insights from the Fukushima Dai-ichi Accident," dated March 12, 2012 (ADAMS Accession No. ML12053A340).

Inspectors verified that Entergy's walk-down and walk-by packages, which were proceduralized as EN-DC-168, "Fukushima Near-Term Task Force Recommendation 2.3: Seismic Walk-Down Procedure, Revision 0," contained the required elements as specified in EPRI Technical Report 1025286, dated June 2012. In addition, the inspectors verified that Entergy assessed the applicable seismic attributes of the following structures, systems, and components, which were contained within the two seismic walkdown equipment lists (SWEL) generated by Entergy, identified as SWEL-1 and SWEL-2, consistent with the EPRI guidance and the associated Entergy procedure. This verification was accomplished by the inspectors through accompanied (A) and independent (I) walk-downs (WD) and walk-by's (WB) of the following areas:

- SWEL 1-023, 32 ABFP, 18'6" Elevation, ABFP Room (A-WD)
- SWEL 1-076, 31 EDG, 15'-0" Elevation, 31 EDG Room (A-WD)
- SWEL 1-094, Refueling Water Storage Tank (RWST), 80'-0" Elevation, (A-WD)
- AWC-010 (SWEL 1-030, 1-031), Intake Structure, 15'-0" Elevation, Service Water Pump Room, (A-WB)
- SWEL 2-002, 31 Spent Fuel Pit (SFP) Pump, 41'0" Elevation, Fuel Storage Building (FSB), (I-WD)
- SWEL 1-095, Condensate Storage Tank (CST), 69'0" Elevation (I-WD)
- AWC-042 (SWEL 2-004), SFP Heat Exchanger Area, FSB, 55'0" Elevation (I-WB)

The inspectors verified that Entergy evaluated, where applicable, the following seismic features associated with the SWEL items listed above, were free of the following, potential adverse seismic conditions:

- Anchorage was free of bent, broken, missing or loose hardware
- Anchorage was free of corrosion that is more than mild surface oxidation
- Anchorage was free of visible cracks in the concrete near the anchors
- Anchorage configuration was consistent with plant documentation
- SSCs would not be damaged from impact by nearby equipment or structures
- Overhead equipment, distribution systems, ceiling tiles and lighting, and masonry block walls were secure and not likely to collapse onto the equipment
- Attached lines have adequate flexibility to avoid damage
- The area appeared to be free of potentially adverse seismic interactions that could cause flooding or spray in the area

- The area appeared to be free of potentially adverse seismic interactions that could cause a fire in the area
- The area appears to be free of potentially adverse seismic interactions associated with housekeeping practices, storage of portable equipment, and temporary installations (e.g., scaffolding, lead shielding).

The inspectors verified, as appropriate, that observations made during the walkdown that were not immediately determined to be acceptable were entered into Entergy's corrective action program for evaluation. Additionally, inspectors verified that items that could allow the spent fuel pool to drain down rapidly were added to the SWEL and these items were walked down by Entergy personnel.

b. Findings

No findings were identified.

.4 Groundwater Protection Initiative

The inspectors reviewed the circumstances surrounding elevated concentrations of tritium detected in monitoring well MW- during quarterly sampling conducted on May 11, 2012. This well is located near the Unit 2 maintenance outage building and southeast of the fuel handling building. Results for tritium ranged between 24600 pCi/liter to 173000 pCi/liter. Subsequent measurements of this well taken in July and August 2012 indicated a decrease in the tritium concentrations to a range of 1860 pCi/liter to 22400 pCi/liter. The cause for this spike in tritium concentration has not been identified, although Entergy currently postulates that it may be related to a spill or leak related to the Spring 2012 Unit 2 refueling outage. The inspectors will continue to review future groundwater results to confirm there is no ongoing leak.

.5 Inter-Unit Spent Fuel Wet Transfer (IP 60845)

a. Inspection Scope

The inspectors observed the inter-unit fuel transfer of 12 spent fuel assemblies from Unit 3 to Unit 2 on December 17-19, 2012 (Transfer #10). The inspectors verified compliance with Entergy's operating license amendment, safety evaluation report, Holtec licensing report, technical specifications, NRC regulations, and Entergy procedures.

The inspectors observed shielded transfer canister (STC) processing operations including: STC closure operations and preparation of the STC for transfer between Unit 3 and Unit 2 (including portions of the 24-hour pressure rise test, calculating the 4-hour rolling average pressure, leak rate test of the port cover plates, and installation of the HI-TRAC top lid). In addition, the inspectors observed the movement of the HI-TRAC/STC out of Unit 3 on the air pads, transporting the HI-TRAC/STC from Unit 3 to Unit 2 with the vertical cask transporter (VCT), placing the HI-TRAC/STC on the low profile transporter (LPT), and moving the HI-TRAC/STC into the Unit 2 fuel storage building on the LPT. During performance of these activities, the inspectors verified that procedure use, communication, and coordination of inter-unit fuel transfer activities met established standards and requirements.

The inspectors reviewed radiation protection procedures and the established radiological controls associated with the inter-unit fuel transfer. The inspectors assessed whether workers were aware of the radiological conditions in their work area. The inspectors also reviewed radiological surveys and records from the first ten inter-unit fuel transfers to confirm that radiation survey levels measured were within limits established in the technical specifications and consistent with values specified in the Holtec licensing report.

The inspectors reviewed corrective action reports and the associated follow-up actions to ensure that issues were entered into the corrective action program, prioritized, and evaluated commensurate with their safety significance.

b. Findings

No findings were identified.

4OA6 Meetings, Including Exit

On January 16, 2012, the inspectors presented the inspection results to Mr. John Ventosa, Site Vice President, and other members of the Entergy staff. The inspectors verified that no proprietary information was retained by the inspectors or documented in this report.

4OA7 Licensee-Identified Violations

The following violations of very low safety significance (Green) were identified by Entergy and are violations of NRC requirements. They meet the criteria of the NRC Enforcement Policy for being dispositioned as NCVs.

- Technical Specification Limiting Condition for Operation (LCO) 3.6.9, "Isolation Valve Seal Water System (IVSWS)," requires the IVSWS to be operable in Modes 1, 2, 3 and 4. The required action for Condition A, one IVSWS header inoperable or one IVSW automatic actuation valve inoperable, is to restore IVSWS to operable within a completion time of seven days. If the IVSWS is not restored to operable within the completion time, Condition C requires the unit to be placed in Mode 3 within three hours and Mode 5 within 36 hours. Contrary to this requirement, one IVSWS header was inoperable from April 5, 2011 until November 12, 2011 because IVSWS valve IV-1400 was out of position, as identified by an operators' discovery during normal operator rounds that IV-1400, a normally open valve, was shut. Entergy personnel opened the valve and documented the issue in their corrective action program as CR-IP3-2011-05110. The inspectors assessed the issue in accordance with IMC 0609 Appendix A, "The Significance Determination Process for Findings at Power," and determined this violation is of very low safety significance (Green) because the finding did not represent an actual open pathway in the physical integrity of reactor containment, containment isolation system or heat removal components.
- Technical Specification LCO 3.5.4, "Refueling Water Storage Tank," requires the RWST to be operable in Modes 1, 2, 3 and 4. The required action for Condition C, RWST inoperable for reasons other than Condition A or B, is to restore the RWST to operable within a completion time of one hour. If the RSWT is not returned to operable within the completion time, Condition D requires the unit to be placed in

Mode 3 within six hours and Mode 5 within 36 hours. Contrary to the above, Entergy personnel did not implement the required actions of LCO 3.5.4 when Entergy personnel connected the RWST to a non-seismically qualified system for greater than the allowed TS allowed outage time (one hour plus six hours). Entergy personnel performed RWST purification using the fuel pool purification system prior to each refueling outage since at least 2001. This activity lasted approximately 30 days on each occurrence. Entergy personnel entered this issue into their corrective action program as CR-IP3-2012-00485. The inspectors assessed this finding using IMC 0609 Appendix A, "The Significance Determination Process for Findings at Power," and determined this violation is of very low safety significance because the finding represents a qualification deficiency confirmed not to result in the loss of functionality of the RWST.

ATTACHMENT: SUPPLEMENTARY INFORMATION

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Entergy Personnel

J. Ventosa, Site Vice President
L. Coyle, General Manager Plant Operations
R. Allen, Technical Specialist IV, Code Programs
V. Andreozzi, Systems Engineering Manager
N. Azevedo, Engineering Manager
T. Beasely, Engineering
P. Conroy, Nuclear Safety and Assurance Director
G. Dahl, Nuclear Safety/License IV Specialist
M. Dechristopher, Engineering
J. Defrancesco, Project Manager
J. Dinelli, Operations Manager
B. Dolansky, ISI Program Manager
R. Drake, Engineering Supervisor
M. Dreis, Engineering
E. Firth, Corrective Action and Assessment Manager
E. Goetchius, Operations Instructor, Exam Developer
A. Iavicoli, Radiation Protection Supervisor
C. Ingrassia, Engineering
R. Lee, Buried Pipe and Tank Program Lead Engineer
V. Meyers, Design Engineering Supervisor
K. Lo, Engineering
L. Lubrano, Engineering
R. Miller, Project Manager
T. Pasko, Dry Cask Storage Supervisor
C. Patterson, Dry Cask Storage Supervisor
J. Pineda, Systems Engineering Supervisor
W. Riggs, Project Manager
M. Rose, Engineering
R. Tagliamonte, Radiation Protection Manager
T. Salentino, Dry Cask Storage Superintendent
J. Skonieczny, Engineering
B. Sullivan, Superintendent Operations Requalification Training
S. Stevens, Radiation Protection Supervisor
M. Tesoriero, Programs and Components Manager
S. Traditi, Dry Cask Storage
M. Troy, Engineering Manager
B. Walpole, Licensing Manager
R. Waters, Licensing

LIST OF ITEMS OPENED, CLOSED, DISCUSSED, AND UPDATEDOpened/Closed

05000286/2515/187	TI	Inspection of Near-Term Task Force Recommendation 2.3 Flooding Walkdowns (Section 4OA5)
05000286/2515/188	TI	Inspection of Near-Term Task Force Recommendation 2.3 Seismic Walkdowns (Section 4OA5)

Closed

05000286/2011-006-00	LER	Technical Specification Prohibited Condition Due to Exceeding the Allowed Completion Time for an Inoperable Isolation Valve Seal Water System Due to an Out of Position Valve (Section 4OA3)
05000286/2012-002-00	LER	Technical Specification Prohibited Condition Due to Exceeding the Allowed Completion Time for an Inoperable Refueling Water Storage Tank During Connection to Purification System (Section 4OA3)

LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures

OAP-048, Seasonal Weather Preparation, Revision 9

Condition Reports (CR-IP3-)

2012-3553	2012-3981	2012-3979	2012-3987	2012-3791	2012-3788
2012-3746	2011-727	2012-1759	2010-3342		

IP2-2011-1939

Maintenance Orders/Work Orders

51467932	51467931	181463	267366	274916
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Miscellaneous

Engineering Change Request 12407, Cap Retired Instrument Air Line in Zurn Strainer Pit,
Revision 0

Operability Determination 01-044

Section 1R04: Equipment Alignment

Procedures

3-SOP-SFP-001, Spent Fuel Pit Cooling and Purification System Operation, Revision 25

3-COL-SFP-1, Spent Fuel Pit Cooling Loop, Revision 11

3-SOP-SI-001, Safety Injection System Operation, Revision 48

3-COL-EL-1, 6900 and 480 Volt AC Distribution System, Revision 51

3-COL-EL-005, Diesel Generators, Revision 36

3-COL-FW-2, Auxiliary Feedwater System, Revision 30

3-COL-LV-001, Locked Valve Check Off List, Revision 43

Drawings

9321-F-27513, Flow Diagram Auxiliary Coolant System in PAB & FSB Sheet No. 2, Revision 42

9321-F-27503, Flow Diagram Safety Injection System Sheet No. 2, Revision 53

Section 1R05: Fire Protection

Procedures

PFP-351, 480V Switchgear Room – Control Building, Revision 5

PFP-353, Control Room – Control Building, Revision 12

PFP-355, Lower Electrical Tunnel, Revision 5

PFP-356, Lower Electrical Penetration Area, Revision 0

PFP-365, AFW Pump Room – Auxiliary Feedwater Building, Revision 11

Section 1R06: Flood Protection Measures

Condition Reports (CR-IP3-)

1997-1976	2001-2821	2006-33
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IP2-11-4324

Maintenance Orders/Work Orders

298038 51797545

Drawings

9321-F-40633, Turbine & Control Building Floor and Hub Drains Plan El. 15'-0", Revision

Miscellaneous

Action Request 134497

PMID 50068397

Calculation IP3-Calc-FP-00963, Transformer Deluge Valve Station Flooding, Revision 1

IP-RPT-10-23, Indian Point Unit 3 Probabilistic Safety Assessment, Revision 0

Section 1R11: Licensed Operator Requalification Program

Procedures

3-E-0, Reactor Trip Or Safety Injection, Revision 3

3-ES-0.1, Reactor Trip Response, Revision 7

Miscellaneous

I3SX-LOR-SES050, Simulator Evaluated Scenario, Revision 2

Section 1R12: Maintenance Effectiveness

Procedures

3-PT-M079A, 31 EDG Functional Test, Revision 46

Condition Reports (CR-IP3-)

2012-3836

Maintenance Orders/Work Orders

334906

Drawings

IP3V-15-0013, Schematic Exciter Voltage Regulator, Revision 4

Miscellaneous

IP3-DBD-307, Design Basis Document for 480V AC, 125V DC, 120V Vital AC Electrical
Distribution System, Revision 3

IP3-DBD-324, Design Basis Document for the Emergency Diesel Generators And Appendix R
Diesel Generator, Revision 1

IP3-RPT-EDG-02780, EDG Testing In Parallel With The System During Normal Plant Operation

Section 1R13: Maintenance Risk Assessments and Emergent Work Control

Procedures

EN-WM-104, On-Line Risk Assessment, Revision 7

IP-SMM-WM-101, On-Line Risk Assessment, Revision 3

Section 1R15: Operability Determinations and Functionality Assessments

Procedures

EN-OP-104, Operability Determination Process, Revision 6

Section 1R19: Post-Maintenance TestingProcedures

3-PT-Q092A, 31 Service Water Pump, Revision 15
 0-SYS-409-Gen, Belzona and Enecon Metal Repair Applications, Revision 1
 SEP-RR-IPC-001, ASME Section XI Repair/Replacement Program, Revision 0
 EN-DC-117, Post Modification Testing and Special Instructions, Revision 3
 3-PT-Q101, Main Steam Valves PCV-1310A, PCV-1310B, & PCV-1139 Stroke Test,
 Revision 14
 3-PT-Q092D, 34 Service Water Pump, Revision 17

Condition Reports (CR-IP3-)

2012-3351	2012-3193	2012-3186	2012-3190	2012-3251	2012-3224
2012-3690					

Maintenance Orders/Work Orders

52310171	52436808	299145	312869	315099	317199
52309900	304894				

Miscellaneous

EC-14817
 ECT-36689, Install Protective Measures for 32 SW Strainer for Appendix R Operator Manual
 Actions, Revision 0
 IP3-UT-12-08, Ultrasonic Test Report
 ECT-37290, Unit 3 Nitrogen Backup to MS-PCV-1310A & B
 IP3-Calc-MS-03370, AOV Component Level Calculation for 32 Auxiliary Boiler Feed Pump
 (ABFP) Steam Supply First and Second Isolation Valves MS-PCV-1310A and MS-PCV-
 1310B, Revision 0

Section 1R22: Surveillance TestingProcedures

3-PC-Q109C, Nuclear Power Range Channel N-43 Axial Offset Calibration, dated
 October 18, 2012
 3-PT-SA43, RWST Level Instrument Check and Calibration (Loop 920A/B), dated
 October 19, 2012
 3-PT-Q120C, 33 Auxiliary Feedwater Pump, dated October 22, 2012
 3-PT-R090F, Local Operation of 34, 35, and 36 Service Water Pumps, Revision 3, dated
 October 8, 2012

Sections 2RS1: Radiological Hazard Assessment and Exposure ControlsMiscellaneous

Sealed Source Leak Test Worksheets, dated 10/31/12 and 8/12/12, from Procedure
 EN-RP-143, Source Control

Section 2RS2: Occupational ALARA Planning and ControlsProcedures

EN-RP-102, Radiological Controls, Revision 3

Miscellaneous

IPEC Snapshot Assessment Report # IP3LO-2012-00051, Radiation Protection Program Annual Review per 10CFR1101(c) for July 2011–June 2012

Section 2RS3: In-Plant Airborne Radioactivity Control and Mitigation

Miscellaneous

AAA Emergency Supply Breathing Air Certificate, 7/27/12

Section 4OA1: Performance Indicator Verification

Procedures

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

EN-LI-114, Performance Indicator Process – Barrier Integrity Reactor Coolant System Leakage, dated January 10, 2012

EN-LI-114, Performance Indicator Process – Barrier Integrity Reactor Coolant System Leakage, dated April 9, 2012

EN-LI-114, Performance Indicator Process – Barrier Integrity Reactor Coolant System Leakage, dated July 10, 2012

EN-LI-114, Performance Indicator Process – Barrier Integrity Reactor Coolant System Leakage, dated October 3, 2012

Section 4OA2: Problem Identification and Resolution

Procedures

OAP-045, Operator Burden Program, Revision 1

EN-OP-115, Conduct of Operations, Revision 13

EN-FAP-OM-001, Leadership Forums for Continuous Improvement, Revision 12

EN-LI-121, Entergy Trending Process, Revision 12

Miscellaneous

Operator Aggregate Impact Index IP3, November 2012

Quarterly Trend Reports, First, Second and Third Quarters

Work Orders of Concern Listings

Unit Reliability Team Meeting Notes

IPEC Top Ten Equipment Reliability Issues Listing

IPEC System Health Reports

TI-187 Flooding Walkdowns

EN-DC-170, Fukushima Near Term Task Force Recommendation 2.3 Flooding Walkdown Procedure, Revision 0

Drawing 9321-F-21463, Intake Structure Floor & Wall Sleeves, Revision 9

Drawing 9321-F-20113, Intake Structure, General Arrangement Plan, Revision 13

Drawing 9321-F-40113, Miscellaneous Drainage Plant Area Plans, Sections and Details, Revision 12

Drawing 9321-F-21063, Intake Structure, Service Water Piping, River Water System – Sheet No. 1, Revision 22

Drawing 9321-F-70020, Intake Structure Service Water Flow Sensors & Instrumentation Plans, Sections and Details, Revision 2

Drawing 9321-F-30893, Conduit Layout Control Building, Revision 87

Equipment Arrangement Control Building, Revision 50
3-AOP-Flood-1,
CR-IP3-2012-03149, 03629, 03638, 03639, 03466

TI-188 Seismic Walkdowns

EN-DC-168, Fukushima Near-Term Task Force Recommendation 2.3: Seismic Walk-Down
Procedure, Revision 0

CR-IP3-2012-03166, 3935

Drawing 9321-F-30253, Road Lighting & Conduit Layout Plan, Sections & Details, Revision 18

Drawing IP3V-91-141-0067/FP 9321-05-20206, Condensate Storage Tank - Anchor Bolt Plan, ,
Revision 1

Drawing 9321-F-14723, Condensate Water Storage Tank Concrete Foundation, Revision 3

Drawing 670-1, State of NY Department of Transportation, Lampost Foundation

Drawing 9321-F-22873, Yard Area Condensate Piping – Storage Tank to Turbine Building Plan
– Sheet No. 1, Revision 8

Drawing 9321-F-22883, Yard Area Condensate Piping – Storage Tank to Turbine Building Plan
– Sheet No. 2, Revision 8

Drawing 9321-F-14733, Condensate Water Storage Tank Foundation Reinforcing, Revision 2

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3-AOP-FLOOD-1, Flooding, Revision 7

3-AOP-138KV-1, Loss of Power to 6.9kV Bus 5 and/or 6, Revision 7

3-SOP-SI-003, Recirculation and/or Purification of the Refueling Water Storage Tank,
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3-SOP-SI-003, Recirculation and/or Purification of the Refueling Water Storage Tank,
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2011-05110 2012-00485

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2011-03909

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9321-F-27513, Flow Diagram Auxiliary Coolant System in PAB & FSB Sheet No. 2, Revision 42

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NSE 99-3-035 SPFC, RWST Purification Without Continuous Manning While Above Cold Shutdown, Revision 1

Section 40A5: Other Activities

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0-FTR-402-GEN, STC Movement Between Unit 2 and Unit 3, Revision 3
0-RP-RWP-430, Radiological Controls for Inter-Unit Wet Fuel Transfer, Revision 1
2-DCS-006-GEN, Vertical Cask Transporter (VCT) Operation, Revision 8
3-FTR-003-GEN, Air Pad Operation for Unit 3, Revision 2
3-FTR-006-GEN, Unit 3 STC Loading and Sealing Operations, Revision 9

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Maintenance Orders/Work Orders

Drawings

9321-F-40113, Miscellaneous Drainage Plant Area Plans, Sections, And Details, Revision 12

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Indian Point Energy Center Radiological Survey Sheets for first ten loaded STCs coming out of IP3 SFP

Section 40A7: Licensee-Identified Violations

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2011-05110 2012-00485

LIST OF ACRONYMS

ADAMS	Agencywide Document Management System
ABFP	auxiliary boiler feed pump
AFW	auxiliary feedwater
ALARA	as low as is reasonably achievable
AOT	allowed outage time
CFR	Code of Federal Regulations
CR	condition report
CST	condensate storage tank
EC	engineering change
ED	electronic dosimeter
EDG	emergency diesel generator
Entergy	Entergy Nuclear Northeast
FSB	fuel storage building
FZ	fire zone
IMC	Inspection Manual Chapter
INPO	Institute of Nuclear Power Operations
IP	inspection procedure
IPEC	Indian Point Energy Center
IR	inspection report
IST	in-service testing
IVSWS	isolation valve seal water system
LB	licensing basis
LCO	limiting condition for operation
LDE	lens dose equivalent
LER	licensee event report
LPT	low profile transporter
mrads	millirads
mrem	millirem
NCV	non-cited violation
NEI	Nuclear Energy Institute
NRC	Nuclear Regulatory Commission
PFP	pre-fire plan
PI	performance indicator
qtr	quarter
RCS	reactor coolant system
R/hr	roentgen/hour
RWST	refueling water storage tank
SDE	shallow dose equivalent
SFP	spent fuel pool
SRI	senior resident inspector
SSC	structure, system, and component
STC	shielded transfer canister
SW	service water
SWEL	seismic walkdown equipment list
TEDE	total effective dose equivalent
TI	temporary instruction
TS	technical specification
UFSAR	Updated Final Safety Analysis Report
VCT	vertical cask transporter