

July 29, 2005

Mr. Fred R. Dacimo
Site Vice President
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Indian Point Energy Center
295 Broadway, Suite 1
P.O. Box 249
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SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT 3 - NRC INTEGRATED
INSPECTION REPORT 05000286/2005003

Dear Mr. Dacimo:

On June 30, 2005, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Indian Point Nuclear Generating Unit 3 (IP3). The enclosed integrated inspection report documents the inspection findings, which were discussed on July 21, 2005, with you and other members of your staff.

The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations, and with the conditions of your license. The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel. Based on the results of the inspection, two findings of very low safety significance (Green) were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure, and your response (if any) will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

Sincerely,

/RA/

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

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

Enclosure: Inspection Report No. 05000286/2005003
w/Attachment: Supplemental Information

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No. 50-286

License No. DPR-64

Report No. 05000286/2005003

Licensee: Entergy Nuclear Northeast

Facility: Indian Point Nuclear Generating Unit 3

Location: 295 Broadway, Suite 3
Buchanan, NY 10511-0308

Dates: April 1, 2005 - June 30, 2005

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Enclosure

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SUMMARY OF FINDINGS

IR 05000286/2005002; 04/01/2005 - 06/30/2005, Indian Point Nuclear Generating Unit 3; TI 2515/163, Operational Readiness of Offsite Power, Event Followup, and Cross-Cutting Areas.

The report covers a 3-month period of inspection by resident inspectors and regional inspectors. Two Green findings were identified. The significance of most findings is indicated by their color (Green, White, Yellow, Red) using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process," (SDP). Findings for which the SDP does not apply may be Green or be assigned a severity level after NRC management review. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 3, dated July 2000.

A. NRC Identified and Self-Revealing Findings

Cornerstone: Initiating Events

Green. A Green self-revealing finding was identified involving Entergy's failure to use adequate work instructions during troubleshooting on the condensate polisher system which resulted in an automatic reactor trip on May 6, 2005.

This finding is greater than minor because Entergy did not provide adequate controls for maintenance troubleshooting activities on a secondary plant component and this error directly contributed to the occurrence of a reactor trip. The reactor trip adversely impacted the Initiating Events Cornerstone Objective, and was associated with the objective's human performance attribute. The finding was determined to be of very low safety significance (Green) based on a Phase 1 analysis in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations." The basis of this determination was that all safety systems were available during the reactor trip. No violation of regulatory requirements occurred. (Section 4OA3)

This finding is associated with the cross-cutting area of human performance, in that, the plant staff did not implement appropriate work controls for the troubleshooting activities and their technical review of the troubleshooting activities did not identify the potential for an undesired plant response. These errors negatively impacted the likelihood of an initiating event. (Section 4OA4)

Cornerstone: Mitigating Systems

Green. The inspectors identified a green finding involving inadequate corrective actions associated with the adequacy of plant procedures to be utilized during degraded grid voltage conditions and the operators' knowledge of these procedures.

This finding was determined to be greater than minor because the issue adversely impacted the Mitigating Systems Cornerstone objective associated with procedure

quality. The inspectors conducted a Phase 1 SDP screening and determined that the finding was of very low safety significance. The 138KV system voltage had been maintained greater than the minimum operating voltage throughout the year and implementation of the procedure was not required, therefore an actual loss of safety function did not exist during the period in question. This finding is associated with the cross-cutting issue of problem identification and resolution in that it resulted from inadequate corrective actions associated with a previously identified issue (Section 4OA5)

B. Licensee-Identified Violations.

None.

REPORT DETAILS

Summary of Plant Status

On April 6, 2005, the unit resumed power operations following a planned refueling outage (3R13) that began on March 12, 2005. The unit operated at or near full power until May 6, 2005, when the unit automatically tripped due to a feedwater transient (Section 4OA3). The unit returned to operation on May 7, 2005 and operated at or near full power until June 10, 2005 when the unit was shutdown due to cooling water leakage on the turbine generator exciter (Section 4OA3). The unit returned to operation on June 11, 2005 and operated at or near full power for the remainder of the inspection period.

1. REACTOR SAFETY

Cornerstones: Initiating Events, Mitigating Systems, Barrier Integrity, and Emergency Preparedness

1R01 Adverse Weather Protection

a. Inspection Scope (71111.01 - 1 sample)

The inspectors reviewed Entergy's controls, material condition, and implementation of a periodic maintenance program to ensure adequate protection to the ultimate heat sink availability in the event of severe debris on the Hudson River. On April 22, 2005, the inspectors walked down the circulating water traveling screens, service water discharge strainers, screenwash system, and availability of alarm functions for degraded conditions. The inspectors also evaluated availability of mitigating systems in response to a loss of service water event, applicable system operating procedures, alarm response procedures, calibration records for associated instrumentation, outstanding maintenance deficiencies, temporary modifications, operator workarounds, and control room deficiencies that impact availability of the ultimate heat sink. The specific information reviewed is referenced in the Supplemental Information attachment at the end of this report.

b. Findings

No findings of significance were identified.

1R04 Equipment Alignment

a. Inspection Scope (71111.04Q - 4 samples, 71111.04S - 1 sample)

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

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to verify correct system alignment is referenced in the Supplemental Information attachment at the end of this report. The following system walkdowns were performed:

- On April 11, 2005, the inspector performed a partial system walkdown of the Safety Injection system following its alignment to standby status after the unit's return to full power operation.
- **On April 13, 2005, the inspector performed a partial system walkdown in the control room of the Reactor Protection System and associated inputs following the unit's return to full power operation from refueling outage 3R13 and the associated power uprate.**
- c On April 22, 2005, the inspector performed a partial system walkdown of the 32 and 33 Auxiliary Boiler Feedwater Pumps (ABFP) during and after surveillance testing on the 31 ABFP.
- On June 23-24, 2005, the inspectors performed a partial system walkdown of the Service Water (SW) pumps, traveling screens, major isolation valves, and strainer pit following realignment of the essential service water headers. The inspectors reviewed system drawings and checkoff lists to verify proper alignment of risk-significant SW valves at the SW intake, Primary Auxiliary Building (PAB) and in the Emergency Diesel Generator (EDG) rooms. In addition, the inspectors walked down the 480V vital switchgear associated with the Service Water system.

Full Equipment Alignment

- The inspectors performed an extensive walkdown of the Residual Heat Removal (RHR) and recirculation portion of the safety injection systems. The inspectors walked down the entire systems using 3-COL-RHR-1, "Residual Heat Removal System," Rev. 23 and drawing 9321-F-27353, "Safety Injection System," Rev. 35. The inspectors verified that components were in the proper position per the checkoff list (COL) and verified that any position discrepancies were properly documented. The inspectors also verified that the field configuration was consistent with the current revision of the COL. In addition, the inspectors evaluated the physical condition of the equipment during the walkdown.

b. Findings

No findings of significance were identified.

1R05 Fire Protection (71111.05Q - 9 samples)a. Inspection Scope

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

- Fire Zone 9 on April 4, 2005, and April 11, 2005
- Fire Zone 8a on April 5, 2005
- Fire Zone 5 on April 26, 2005
- Fire Zone 10 on April 26, 2005
- Fire Zone 2a on May 17, 2005
- Fire Zone 132 on May 18, 2005
- Fire Zone 22 on June 23, 2005
- Fire Zone 14 on June 28, 2005
- Fire Zone 15 on June 28, 2005

b. Findings

No findings of significance were identified.

1R06 Flood Protection Measuresd. Inspection Scope (71111.06 - 1 external sample)

The inspector reviewed Entergy's external flood analysis, flood mitigation procedures and design features to verify whether they were consistent with IP3's design requirements. The inspector walked down several internal and external plant areas that contain equipment important to safety. The inspector evaluated the condition and adequacy of mitigation equipment to assess whether flood protection design features were adequate. The specific information reviewed is referenced in the Supplemental Information attachment at the end of this report. The specific areas walked down by the inspector included:

- Service Water (SW) strainer pit
- Service Water pump room
- Condensate Polishing Facility
- 15-ft elevation of the control building
- Circulating Water pump bay

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

b. Findings

No findings of significance were identified.

1R11 Licensed Operator Requalification Program

1. Quarterly Licensed Operator Requalification Program Review

a. Inspection Scope (71111.11Q - 1 sample)

On April 25, 2005, the inspectors observed training for licensed operators on Operations Team "3-E." The inspectors reviewed an "as found" simulator scenario to determine if the scenario contained: 1) clear event descriptions with realistic initial conditions; 2) clear start and end points; 3) clear descriptions of visible plant symptoms for the crew to recognize; and 4) clear expectations of operator actions in response to abnormal conditions.

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

b. Findings

No findings of significance were identified.

2. Biennial Licensed Operator Requalification Program Review

a. Inspection Scope (71111.11B - 1 sample)

The following inspection activities were performed using NUREG-1021, Rev. 9, "Operator Licensing Examination Standards for Power Reactors," and Inspection Procedure Attachment 71111.11, "Licensed Operator Requalification Program," and 10 CFR 55.46, Simulator Rule (on a sampling basis).

The inspectors reviewed documentation of operating history since the last requalification program inspection. The inspectors also discussed facility operating events with the resident staff. Documents reviewed included NRC inspection reports and licensee Condition Reports (CRs) to ensure that operational events were not indicative of possible training deficiencies. Inspectors selected the following CRs for review to evaluate the need for training involvement: IP3-2005-02011, related to 32 MBFP operation; IP3-2005-01472, related to removing instrument air from service; IP3-2004-03656, related to a tagging error involving 22 MBFP; IP3-2004-03581, related to an operability review of the containment isolation function of radiation monitor; and IP3-2005-01494, related to removing instrument busses from service.

The inspectors reviewed two comprehensive written exams administered in December 2003 at the completion of the last two year training cycle. The written exams for the current cycle will be administered in November and December 2005. In addition, the inspectors reviewed six scenarios and ten JPMS administered during this current annual operating exam period to ensure the quality of these exams met the criteria established in the Examination Standards (NUREG 1021) and 10 CFR 55.59.

The inspectors observed the administration of operating examinations to two operating crews. Each licensed operator was examined on three simulator scenarios and five job performance measures.

The inspectors interviewed instructors, training/operations management personnel, and licensed operators for feedback regarding the implementation of the licensed operator requalification program to ensure the requalification program was meeting their needs and responsive to their comments regarding the quality of the requalification program

Inspectors reviewed one remediation training record for an operator whom the facility determined required additional training related to emergency plan implementation.

Conformance with operator license conditions was verified by reviewing the following records:

- A sample of attendance records for the current training cycle;
- Ten medical records (5 SRO; 5 RO); and
- A sample of proficiency watch-standing records, reactivation records, and license renewal records.

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The inspectors observed simulator performance during the conduct of the examinations, reviewed simulator performance tests (e.g., steady state performance tests, selected transient tests, selected performance tests, and normal plant evolution tests), and simulator deficiency reports to verify compliance with the requirements of 10 CFR 55.46. The following types of tests and data were reviewed:

Steady State Accuracy Tests:

- Test # 14.04.03.01.01: Steady State Accuracy - 100%
- Test # 14.04.03.01.02: Steady State Accuracy - 90%
- Test # 14.04.03.01.04: Steady State Accuracy - 70%
- Test # 14.04.03.01.05: Steady State Accuracy - 45%

Normal Evolution Tests:

- Test # 14.04.02.01: Plant Shutdown from 100% to 0%
- Test # 14.04.02.02: Hot Shutdown to Cold Shutdown
- Test # 14.04.02.03: Plant Heatup from Cold Shutdown
- Test # 14.04.02.04: Reactor Startup Test
- Test # 14.04.02.05: Plant Startup from 0% to Full Power

Transient Tests:

- Test # 14.04.08.01: Manual Reactor Trip
- Test # 14.04.08.04: Simultaneous Trip of All RCPs

Malfunction Tests:

- Test # 14.04.07.17.04: RCP Shaft Break
- Test # 14.04.07.02.08: Loss of CCW to the Non-Regenerative HX
- Test # 14.04.07.11.08: HP Feedwater Tube Leak
- Test # 14.04.07.11.14: Feedline Break in Containment
- Test # 14.04.07.04.02: Loss of Condenser Vacuum

Simulator Comparison to Actual Plant Events:

- DR200500231: Plant Trip Comparison - Manual Trip from 100% with Loss of 32 RCP.
- DR 200500234: Plant Trip Comparison - Automatic Unit Trip Due to Loss of Offsite Power.

Final results of requalification tests, which will include the annual operating and comprehensive written exams, will be available for inspection at the conclusion of the current requalification cycle, in late December 2005.

b. Findings

No findings of significance were identified.

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1R12 Maintenance Effectiveness

a. Inspection Scope (71111.12Q - 2 samples)

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

- The inspector reviewed maintenance activities to correct deficiencies with containment isolation valves PCV-1190, and PCV-1191. The inspector discussed these maintenance activities with operations, engineering and maintenance personnel. Additionally, the inspectors reviewed maintenance history, post work and surveillance test data.
- **The inspector reviewed maintenance activities to correct deficiencies with 35 isophase bus duct cooling fan troubleshooting and repair due to excessive vibrations per WO IP3-05-17140.** The inspector discussed these maintenance activities with operations, engineering and maintenance personnel. Additionally, the inspectors reviewed maintenance history, post work and surveillance test data.

b. Findings

No findings of significance were identified.

1R13 Maintenance Risk Assessment and Emergent Work Control

a. Inspection Scope (71111.13 - 5 samples)

The inspector observed selected portions of emergent and planned maintenance work activities to assess Entergy's risk management in accordance with 10 CFR 50.65(a)(4). The inspector verified that Entergy took the necessary steps to plan and control emergent work activities, to minimize the probability of initiating events, and to maintain the functional capability of mitigating systems. The inspector observed and/or discussed risk management with maintenance and operations personnel. The specific

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information reviewed is referenced in the Supplemental Information attachment at the end of this report. The following three emergent and two planned activities were observed:

- WO IP3-05-17126: Repairs to 35 and 36 isophase fans.
- WO IP3-05-16950: Rod B-6 Individual Rod Position Indication not indicating motion with other rods in Control Bank "D".
- WO IP3-05-17848: Repair disconnected feedback linkage in the controller for the actuator to 32 Steam Generator atmospheric dump valve.
- Operations directed maintenance on the Condensate Polisher system performed on May 6, 2005 (CR-IP3-2005-02478).
- System Operator 13.8KV grid reduced voltage testing on June 15, 2005.

b. Findings

No findings of significance were identified.

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

a. Inspection Scope (71111.14 - 2 samples)

For the non-routine events described below, the inspectors reviewed operator logs, plant computer data, and strip charts to determine what occurred and how the operators responded, and to determine if the response was in accordance with plant procedures, and training.

- Reactor startup on May 7, 2005 following automatic trip from 100% power.
- New York Electrical System Operator 13.8KV grid reduced voltage testing on June 15, 2005.

b. Findings

No findings of significance were identified.

1R15 Operability Evaluations

a. Inspection Scope (71111.15 - 5 samples)

The inspectors selected a sample of Entergy's operability evaluations for review on the basis of potential risk significance. The operability evaluations selected as samples are associated with the CRs listed below. The inspectors assessed the accuracy of the evaluations, the use and control of compensatory measures, if needed, and compliance with the IP3 Technical Specifications. The inspectors' review included a verification that the operability evaluations were made as specified by procedure ENN-OP-104, "Operability Determinations." The inspectors reviewed the technical adequacy of the

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evaluations. References used during these reviews included the Technical Specifications, the Technical Requirements Manual, the Final Safety Analysis Report (FSAR), and associated design basis documents. The specific information reviewed is referenced in the Supplemental Information attachment at the end of this report.

- CR-IP3-2005-02280: Gas void in safety injection high head to low head crossover line on the Safety Injection pump suction side of MOV-888A/B.
- CR-IP3-2005-02613: Procedure change to allow closing 345 KV breakers 3 and 5 with the 345 KV feeder W98 secured for maintenance.
- CR-IP3-2005-02634: Insulation resistance readings for 33 Service Water pump phase "A" cable.
- CR-IP3-2005-01857: 32 EDG cell switch contact failure.
- CR-IP3-2005-03336: PRT level increase during SI pump operation

b. Findings

No findings of significance were identified.

1R17 Permanent Plant Modifications

a. Inspection Scope (71111.17 - 1 sample)

The inspector reviewed DCP 01-3-058 RCS for the replacement of twelve reactor coolant flow transmitters, including the transmitter rack, and the associated power supply modules to verify that the design bases, licensing bases, and performance capability of risk significant SSCs have not been degraded through modifications. All transmitters were located inside the containment and the replacement was completed during the March 2005 refueling outage. The original transmitters were Foxboro differential pressure (DP) transmitters with 10 - 50 ma dc output signals and were obsolete. The replacement transmitters were Rosemount Model 1154 DP transmitters with 4 - 20 ma dc output signals and with higher accuracy and better linearity. The original power supply modules were from Foxboro and the replacement ones were from NUS. The inspector reviewed the functional characteristics, such as pressure rating and voltages, of the replacement instruments to ensure that they met the design requirements. The inspector also reviewed the 10 CFR 50.59 screen-out evaluations to verify that a formal safety evaluation was not required for this modification. In addition, the inspector also reviewed four work orders (IP3-990529604, IP3-02-18522, IP3-02-18611 and IP3-02-18612) for the fabrication of the instrument racks, the installation of the replacement transmitters and power supply modules (in the control room), and electrical terminations of all replacement items, to verify that appropriate installation processes were used. The inspector also reviewed the post-modification testing (calibrations) to ensure that these transmitters were ready for operation.

The inspector reviewed the changes of four instrument calibration procedures (3-PC-R02A, 3-PC-R02B, 3-PC-R02C, and 3-PC-R02D) to verify that changes to these procedures did not cause the affected safety related flow instruments to lose their

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protective functions. Revisions of these procedures were required for the twelve replacement flow transmitters (described above) because the output signals from these transmitters were different from the existing ones. The inspector also reviewed the screen-out evaluation for the procedure changes to verify that the changes were accomplished in accordance with 10 CFR 50.59 requirements.

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing

a. Inspection Scope (71111.19 - 9 samples)

The inspectors reviewed PMT procedures and associated testing activities to assess whether: 1) the effect of testing in the plant had been adequately addressed by control room personnel; 2) testing was adequate for the maintenance performed; 3) acceptance criteria were clear and adequately demonstrated operational readiness consistent with design and licensing documents; 4) test instrumentation had current calibrations, range, and accuracy for the application; and, 5) test equipment was removed following testing.

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

- **WO IP3-04-12526:** Post-work test (PWT) after replacing the 33 station battery on March 30, 2005.
- **WO IP3-05-11058:** PWT after reassembly of the manual steam supply isolation to the Turbine Driven Auxiliary Feedwater pump (MS-54) performed on April 5, 2005.
- **WO IP3-05-16669:** PWT after installation of new manual isolation valve SI-839H in the Safety Injection test line downstream of valve SI-839G performed on April 5, 2005.
- **WO IP3-04-09235:** PWT after repairs to the Service Water header piping adjacent to valve SWN-55 performed on April 6, 2005.
- **WO IP3-02-22361:** PWT for 31 Main Boiler Feed pump discharge check valve testing following reassembly.
- **WO IP3-05-16887:** PWT for Weld repairs to 33 Reactor Coolant Pump component cooling water line on April 6, 2005.
- **WO IP3-04-16668:** PWT for 35 Service Water pump following breaker replacement.
- **WO IP3-04-17276:** 31 EDG functional test following biennial maintenance activities.

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- WO IP3-05-19347: PWT for Relay replacement on Reactor Trip Breaker "A" on June 14, 2005.

b. Findings

No findings of significance were identified.

1R20 Refueling and Outage Activities (71111.20 - 1 sample)

a. Inspection Scope

The inspectors evaluated, observed and verified a number of activities associated with 3R13. The refueling outage occurred between March 12 through April 6, 2005.

Outage Risk Control Plan

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

Control of Outage Activities

The inspectors performed walkdowns of various areas and systems during 3R13. Areas specifically evaluated during the outage were:

- Containment to perform a boric acid walkdown of the RCS
- EDG building
- EDG fuel oil transfer system
- Normal and back-up spent fuel pool (SFP) cooling system
- RHR system
- Low temperature/overpressure protection system and controls
- Primary Auxiliary Building (PAB)
- Auxiliary Feedwater building
- Turbine building

During 3R13 the inspectors periodically verified adequate shutdown margin in accordance with technical specifications. The inspectors independently verified the adequacy of system tagout isolation and configuration controls.

Plant Heatup and Startup Activities

The inspectors observed a number of plant restart activities within the control room, and conducted walkdowns of the containment, PAB, and the Auxiliary Feedwater (AFW) pump building. The specific activities, in part, included containment cleanliness, RCS leakage calculations, containment integrity, plant heat-up, start-up, and selected safety system alignment verifications.

b. Findings

No findings of significance were identified.

1R22 Surveillance Testing

a. Inspection Scope (71111.22 - 7 samples)

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

- 3-PT-R003B, "Safety Injection Test Breaker Sequencing/Bus Stripping," Rev. 22, on April 2, 2005.
- 3-PT-R003D, "Safety Injection Test," Rev. 2, on April 2, 2005.
- 3-PT-R003C, "Safety Injection Check Valve Test," Rev. 22, on April 3, 2005.
- 3-PT-V021, "Turbine Generator Overspeed Trip Test," Rev. 10, on April 7, 2005.
- 3-PT-M14B, "SI System Logic Functional Train B," Rev. 1, on May 23, 2005.
- 3-PT-Q92E, "35 SWP Train Operational Test," Rev. 12, on June 6, 2005.
- 3-PT-079A, "31 EDG Functional Test," Rev. 32 on June 9, 2005.

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope (71111.23 - 2 samples)

The inspectors reviewed the following temporary modifications and associated 10 CFR 50.59 screening against the system design bases documentation, including Updated Final Safety Analysis Report (UFSAR) and Technical Specifications (TS) to verify that the modifications did not affect system operability or availability. The inspectors verified that the installation and/or restoration of the temporary modifications were consistent with the modification documents. The inspectors verified configuration control of the modification was adequate by verifying that the plant documents such as drawings and procedures were updated including operating and maintenance procedures. Additionally, the inspectors reviewed post-installation or removal test results to confirm that the tests were satisfactory and the actual impact of the temporary modifications on the permanent systems and interfacing systems were adequately verified by test.

- The inspector reviewed documentation on Temporary Alteration No. TA-05-3-046 "Disconnect RCP-31 Vertical Frame Vibration Monitor Signal," to ensure that the modification was installed. The Reactor Coolant Pump (RCP) vertical vibration signal is normally processed by a Bentley Nevada Series 7000 monitoring system which then provides input for the RCP high vibration category alarm. Entergy operators and engineers determined that there was a problem in the alarm circuit input from the RCP-31 vertical frame vibration signal that was causing nuisance alarms in the control room. The modification involved installing a jumper from the input of the normal monitoring system to a temporary data recording computer. The modification also involved disabling the alarm input for the RCP-31 vertical frame vibration to the RCP high vibration category alarm.
- The inspector reviewed documentation on a temporary leak repair to the 32 Main Boiler Feed Pump inlet piping. The modification involved drilling and tapping the flange to install injection valves for sealant. The modification was successfully completed and stopped the leakage (WO IP3-03-02986).

b. Findings

No findings of significance were identified.

1EP6 Drill Evaluation

a. Inspection Scope (71114.06 - 1 sample)

The inspectors observed an emergency preparedness (EP) drill conducted on May 19, 2005. The inspectors used NRC Inspection Procedure 71114.06, "Drill Evaluation" as guidance and criteria for evaluation of the drill. The drill consisted of a

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loss of component cooling water, reactor coolant pump thermal barrier leak, steam generator tube leak followed by a loss of all on-site and off-site power. The inspectors observed the drill and conducted reviews from the participating facilities on-site, including the IP2 Plant Simulator, the Technical Support Center (TSC), and the Emergency Operations Facility (EOF). The inspectors focused the reviews on the identification of weaknesses and deficiencies in the classification and notification timeliness and quality and accountability of essential personnel during the drill. The inspectors were briefed on Entergy's critique results and compared the licensee's self-identified issues with the observations from the inspectors' review to ensure that performance issues were properly identified.

b. Findings

No findings of significance were identified.

3. SAFEGUARDS

Physical Protection (PP)

3PP8 Fitness for Duty Program

a. Inspection Scope (71130I.08)

The inspector evaluated selected portions of this program relative to fatigue and work hour controls by: reviewing program procedures, implementing procedures, and records; conducting interviews with responsible personnel and plant employees; and reviewing payroll records, work hour tracking records, and overtime hour records for compliance with the Indian Point Energy Center Physical Security Plan.

b. Findings

No findings of significance were identified.

4. OTHER ACTIVITIES

4OA2 Problem Identification and Resolution

1. Daily Review

a. Inspection Scope (71152)

The inspectors screened all items entered into Entergy's CAP, as required by Inspection Procedure 71152, "Identification and Resolution of Problems," in order to identify repetitive failures or specific human performance issues for follow-up. This review was accomplished by reviewing paper copies of each condition report (CR).

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b. Findings

No findings of significance were identified.

2. Semi-annual Trend Review (71152 - 1 sample)

a. Inspection Scope

The inspectors performed a semi-annual review to identify trends that might indicate the existence of a more significant safety issue. The inspectors included in this review repetitive or closely related issues that may have been documented by Entergy outside of the normal CAP, such as trend reports, performance indicators (PIs), major equipment problem lists, maintenance rework lists, departmental challenges, system health reports, maintenance rule assessments and maintenance and CAP backlogs.

The inspectors reviewed Entergy's CAP database during 2004 in order to assess the total number and significance of CRs written in various subject areas such as equipment or processes, and to discern any notable trends in these areas. The CRs entered into the CAP in all quarters included those written as a result of NRC findings.

b. Findings

No findings of significance were identified.

3. PI&R Annual Sample - Selected Issue Follow-up Inspection - Drift Monitoring Program, Condition Reports, CR-IP3-2004-01389 and CR-IP3-2004-03123 (71152 - 1 sample)

a. Inspection Scope

The licensee developed an instrument setpoint drift monitoring program to monitor and trend instrument drifts when IP3 changed their refueling outage from 18 months to 24 months and in response to NRC Generic Letter 91-04, Specification Surveillance Intervals to Accommodate a 24-month Fuel Cycle. The activities associated with this program and the instruments requiring monitoring were prescribed in Procedure PCE-AD-01, Drift Monitoring Program. A computer program was established to enter the drift data and to monitor the setpoint drift trend for each instrument. The inspector reviewed the procedure to determine whether the procedure covered all necessary attributes for setpoint drift monitoring and trending. The inspector selected two CRs (CR-IP3-2004-01389 and CR-IP3-2004-03123) associated with repeated instrument drift issues (reactor coolant flow transmitters as-found signals were outside their allotted bands) for review to verify that the corrective actions adequately addressed the issues. The inspector reviewed Calculation IP3-CALC-RPC-00298, "Reactor Protection and Control Instrument Loop Accuracy/Setpoint Calculation/RC Loop Low Flow", to verify that the calculation included all uncertainty parameters and that the assumptions used in the calculation were justified. The inspector also reviewed IP3's submittal to the NRC entitled Instrument Drift Analysis for RPS, Report No. IP3-RPT-RPC-00357, dated

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November 10 1992, to verify that assumptions used in the uncertainty calculations were acceptable to the NRC. In addition, the inspector also reviewed the records of the latest two calibrations (24 month interval) of twelve reactor coolant flow transmitters (three channels for each of the four loops) and three quarterly surveillance tests of twelve flow controllers (one bistable for each transmitter) which provided signals for reactor trip when flow fell below 93 percent of full flow. The review was to verify that the tests were conducted in accordance with the test procedures and any abnormalities were documented.

b. Findings

No findings of significance were identified.

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

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

- Section 4A05.1 - Inadequate corrective actions resulted in inadequate training and operator knowledge of procedure for degraded grid voltage conditions.

4OA3 Event Followup (71153 - 2 samples)

5. Inadequate Work Instructions during Troubleshooting Leads to Automatic Reactor Trip

a. Inspection Scope

The inspectors responded to an automatic reactor trip on May 6, 2005. The automatic reactor trip was generated by a 32 Steam Generator steam flow/feed flow mismatch signal coincident with a low 32 Steam Generator water level signal. These off-normal 32 Steam Generator conditions were inadvertently caused by technicians when a condensate polisher valve they were troubleshooting went closed. The inspectors observed follow-up actions in the control room by licensed operators, including control room briefings, actions required by off-normal procedures, and monitoring of plant conditions. As part of the follow-up to this event, the inspectors reviewed plant chart recorders, compared requirements of off-normal procedures, and reviewed Entergy's Post Transient Review Group's evaluation of the event.

b. Findings

Introduction. A Green self-revealing finding was identified involving Entergy's failure to use adequate work instructions during troubleshooting on the condensate polisher system which resulted in an automatic reactor trip.

Description. On May 6, 2005, the Control Room Supervisor (CRS) directed an Instrumentation and Controls (I&C) supervisor to reset a sealed-in relay on the

Condensate Polisher system. The CRS and the I&C supervisor reviewed circuit schematics and decided to momentarily lift the power supply lead to the relay. This activity was not governed by a formal work procedure and was treated as "operational maintenance" using general guidance in IP-SMM-WM-100, "Work Control Process." This guidance allows certain simple tasks to be conducted without a formally planned and approved work procedure. However, the actions of this troubleshooting were beyond the scope of the procedure.

As a result of lifting the lead, a signal was sent to the controller for the Condensate Polisher post-filter bypass valve, CD-AOV-521, to go shut. The I&C supervisor incorrectly assumed that the control switch for CD-AOV-521 was in the open position when the switch was actually in the automatic position in the CCR. This caused CD-AOV-521 to go closed, which diverted all condensate flow through the Condensate Polisher. Since the polisher did not have sufficient capacity to handle the full condensate flow, this caused a reduction in main boiler feed pump suction pressure. The Main Boiler Feed Pump controller responded to the reduced suction pressure as designed, reducing pump speed and consequently the outlet flow of the pumps. The resultant mismatch between steam flow and feedwater flow caused a reduction in steam generator water levels. An automatic reactor trip signal was generated based on the 32 Steam Generator steam flow/feed flow mismatch signal coincident with the low 32 Steam Generator level.

Analysis. Entergy's failure to provide adequate work controls for a troubleshooting activity with the potential to initiate a plant transient or reactor trip is considered a performance deficiency associated with the Initiating Events Cornerstone Objective. Entergy did not properly plan and control this maintenance activity in accordance with IP-SMM-WM-100, "Work Control Process," in that the CRS and I&C supervisor treated this activity as "operational maintenance" when it did not meet this definition. It is reasonable that Entergy should have been able to recognize and prevent this deficiency by utilizing appropriate procedural compliance. Traditional enforcement does not apply because an event did not occur that resulted in an actual safety consequence, did not impact the NRC's regulatory function, and was not the result of a willful violation of NRC requirements or Entergy procedures. This finding is more than minor because Entergy did not implement appropriate controls for a maintenance activity and this directly contributed to the occurrence of a reactor trip. The finding is associated with the Initiating Events Objective attribute of human performance and adversely affected the likelihood of those events that upset plant stability and challenge critical safety functions during power operations. The finding was determined to have very low safety significance (Green) based on a Phase 1 analysis in accordance with IMC 0609, Appendix A, "Significance Determination of Reactor Inspection Findings for At-Power Situations" because all safety systems were available during the event.

(FIN 05000286/2005003-01; Inadequate Work Controls during Troubleshooting Leads to Automatic Reactor Trip)

This finding is associated with the cross-cutting area of human performance, in that, the plant staff did not implement appropriate work controls for the troubleshooting activities

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and their technical review of the troubleshooting activities did not identify the potential for an undesired plant response. These errors negatively impacted the likelihood of an initiating event. (Section 4OA4)

Enforcement. No violation of regulatory requirements occurred. The inspectors determined that the finding did not represent a violation because it occurred on non-safety related secondary plant equipment.

6. Manual Reactor Trip on June 10, 2005

a. Inspection Scope

The inspectors responded to a manual reactor trip on June 10, 2005. The reactor trip was manually initiated by control room licensed operators due to concerns with a leaking gasket on the Turbine Generator exciter cooler. The inspectors observed follow-up action in the control room by licensed operators, including control room briefings, actions required by off-normal procedures, and monitoring of plant conditions. As part of the follow-up to this event, the inspectors reviewed plant chart recorders, compared requirements of off-normal procedures, and reviewed the post transient review group's evaluation of the event.

b. Findings

No findings of significance were identified.

4OA4 Cross Cutting Aspects of Findings

Section 4OA3 describes a finding in which plant staff did not implement appropriate work controls for the troubleshooting activities and their technical review of the troubleshooting activities did not identify the potential for an undesired plant response. This finding was determined to be associated with the cross-cutting area of human performance (personnel).

4OA5 Other Activities

1. TI 2515/163, Operational Readiness of Offsite Power

a. Inspection Scope

The inspector performed Temporary Instruction 2515/163, "Operational Readiness of Offsite Power." The inspector reviewed licensee procedures and supporting information pertaining to the offsite power system. The inspector reviewed this data against the requirements of 10 CFR 50.63; 10 CFR 50.65; 10 CFR 50 Appendix A General Design Criterion 17, "Electric Power Systems," and Plant Technical Specifications. This information was forwarded to NRC headquarters for further review.

b. Findings

Introduction. The inspectors identified a green finding involving inadequate corrective actions associated with the adequacy of plant procedures to be utilized during degraded grid voltage conditions and the operators' knowledge of these procedures.

Description. In June 2004, the inspectors performed Temporary Instruction (TI) 2515/156, "Operational Readiness of Offsite Power." As part of the inspection effort the inspectors reviewed plant procedures dealing with degraded voltage on the offsite power grid. The required plant actions for responding to degraded grid conditions are contained in procedure IP-SMM-OP-104 "Offsite Power Continuous Monitoring and Notification." The inspectors noted that the Site Management Manual (SMM) does not contain procedures that operators would normally reference for routine or abnormal plant operations. A review of the standard and abnormal operating procedures (SOP's and AOP's) associated with the system showed that no reference was provided in these procedures to the appropriate SMM procedure. Based on discussions with licensed plant operators the inspectors determined there was a general lack of knowledge that this specific procedure existed and that the minimum voltage for operability of the 138KV system was not known by the operators and not readily available to them in any documents or procedures except for IP-SMM-OP-104. The inspectors discussed these deficiencies with site operations management in June 2004. Entergy documented these items in CR-IP2-2004-6535 and CR-IP2-2004-2447.

During the performance of TI 2515/163 in June 2005, the inspectors again evaluated procedures associated with degraded grid conditions and operator knowledge of IP-SMM-OP-104 to ensure the corrective actions from observations the preceding year had been adequately addressed. The inspectors found that a majority of the operators interviewed would not have referenced the appropriate procedure and did not know the minimum voltage requirements for system operability. The inspectors reviewed condition reports relating to offsite power and found that no CR's were written to specifically address the operators lack of knowledge identified the previous year. A review of corrective actions for condition reports associated with procedure quality showed that the licensee evaluated the procedure to determine if the SMM was the appropriate place for its inclusion and additional corrective actions were written to provide the operating limits in the technical specification basis and in SOP 27.1.1 "Operation of 345 KV and 138 KV Components." Entergy determined that the SMM was the appropriate manual for the procedure and the technical specification basis change had not yet been submitted.

Analysis. The inspectors determined that this was a performance deficiency since the corrective actions associated with existing CR's (CR-IP2-2004-6535 and CR-IP2-2004-2447) did not correct the operator lack of knowledge on how to mitigate grid problems resulting in low voltage on the 138 KV system. In addition, procedural inconsistencies that were previously identified were not adequately addressed. Entergy procedure EN-LI-102 Rev.1 "Corrective Action Process" requires that appropriate corrective actions be developed and implemented to correct adverse conditions. It is reasonable that Entergy

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was cognizant that this requirement existed and the deficiencies should have been prevented. Traditional enforcement does not apply since there were no actual safety consequences or potential for impacting the NRC's regulatory function, and the finding was not the result of any willful violation of NRC requirements or Entergy's procedures. This finding was determined to be greater than minor because it impacted the Mitigating Systems Cornerstone Objective, and was associated with the cornerstone's procedure quality attribute. The inspectors determined that without adequate operator training to ensure the operators would follow the steps specified in IP-SMM-OP-104, the standard and abnormal operating procedures would be inadequate to ensure appropriate compensatory measures would be established during a degraded grid condition. In addition, the SOP's and AOP's associated with the 138kV system would not guide the operators to IP-SMM-OP-104 or list it as an interfacing document. A review of training records identified that while the SMM procedure had been placed in the training document database, there was no formal training associated with the procedure. Based on these factors the inspectors determined that the SOP's and AOP's associated with the 138KV system were inadequate to address a degraded voltage condition. This issue has been placed in Entergy's corrective actions program as CR-IP2-2005-1814. The inspectors conducted a Phase 1 SDP screening and determined that the finding is of a very low safety significance since the performance deficiency does not represent an actual loss of safety function. The 138KV system voltage had been maintained greater than the minimum operating voltage throughout the year, and procedure entry would not have been required.

This finding is associated with the cross-cutting issue of problem identification and resolution in that it resulted from inadequate corrective actions associated with a previously identified issue. (See Section 4OA2)

Enforcement. No violation of regulatory requirements occurred since corrective action issues related to the non safety-related 138KV system are outside of the scope of 10 CFR 50 Appendix B. **(FIN 05000286/20050302; Inadequate corrective actions associated with training, procedural adequacy and operator knowledge on methods to address degraded grid)**

4OA6 Meetings, including Exit

On July 21, 2005, the inspectors presented the inspection results to Mr. Dacimo and other Entergy staff members, who acknowledged the inspection results presented. Entergy did not identify any material as proprietary.

ATTACHMENT: SUPPLEMENTAL INFORMATION

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SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee Personnel

T. Barry, Security Manager
T. Beasley, Systems Engineer
J. Boccio, I&C Superintendent
T. Carson, Manager, Maintenance
C. Schwarz, Vice President, Operations Support
J. Comiotes, Director, Nuclear Safety Assurance
P. Conroy, Manager, Licensing
F. Dacimo, Site Vice President
C. Ingrassia, Systems Engineer
F. Inzirillo, Emergency Planning Manager
T. Jones, Licensing Supervisor
T. McCaffrey, Manager, Systems Engineering
E. O'Donnell, IP3 Assistant Operations Manager
J. O'Driscoll, Systems Engineer
P. Okas, Engineering Programs
T. Orlando, Manager, Programs and Components
J. Parrotia, QA Manager
P. Rubin, General Manager, Plant Operations
J. Ventosa, Site Operations Manager
A. Vitale, Operations Manager, IP3
C. Wend, Radiation Protection Manager
D. Shah, Systems Engineer
S. Wilkie, Fire Protection Engineer
L. Cortopassi, Training Director
A. Singer, LOR Training Manager
R. Ruzicka, LOR Program Administrator
R. Robenstein, Simulator Manager
P. McWilliams, Simulator Supervisor
B. Rokes, Licensing Supervisor

NRC Personnel

D. Caron, Physical Security Manager

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

Opened and Closed

05000286/2005003-01	FIN	Inadequate Work Controls during Troubleshooting Leads to Automatic Reactor Trip
05000286/2005003-02	FIN	Inadequate corrective actions associated with training, procedural adequacy and operator knowledge on methods to address degraded grid

BASELINE INSPECTION PROCEDURE PERFORMED

71130.08	Fitness for Duty Program	3PP8
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LIST OF DOCUMENTS REVIEWED

Section 1R01: Adverse Weather Protection

Procedures

ONOP-RW-1, "Service Water Malfunction," revision 12
 3-ARP-012, "Service Water Header 34, 35, 36 HIGH/LOW Pressure" Rev. 42
 3-ASRP-012, "Service Water Strainer Trouble Alarm," Rev. 42
 3-SOP-RW-005, "Service Water System Operation," Rev. 32
 3-SOP-RW-002, "Intake Structure Operation," revision 17
 3-SOP-RW-007, "Circulating and Service Water Sodium Hypochlorite Injection System," Rev. 27
 IC Calibration Procedure IC-PC-IP-1191 (completed calibrations since 1996)
 IC Calibration Procedure IC-PC-I-PD-1111 (complete calibrations since 1994)

Work Orders

IP3-04-09170	IP3-04-05315	IP3-01-50401	IP3-01-97809
IP3-04-5056	IP3-05-1191	IP3-05-12091	IP3-04-5072
IP3-04-6579	IP3-02-19719		

Temporary Alteration

TA 03-3-102, Chlorination to 37 and 38 service water bays

Calculation

MMM-00014-00, UE&C Calculation "Screen House Arrangement"

Miscellaneous

FSAR Section 9.6.1

OPT-16, Conventional Plant Operations Routine Logs, revision 59

Condition Reports

CR-IP3-2005-00571	CR-IP3-2004-01636	CR-IP3-2004-03769
CR-IP3-2002-02401	CR-IP3-2005-02349	

Section 1R04: Equipment Alignment

Procedures:

COL-RWV-2 Rev 4
3-SOP-RW-005 Rev 22
3-COL-RHR-1, Residual Heat Removal System, Rev. 23

Drawings

9321-F-27353 Safety Injection System, Rev. 35

Condition Reports

CR-IP3-2005-01587	CR-IP3-2005-01548	CR-IP3-2005-01649	CR-IP3-2005-00950
CR-IP3-2005-01641	CR-IP3-2005-01617		

Section 1R05: Fire Protection

Procedures: IPEC Pre Fire Plan (PFP)

Work Orders

IP3-03-03363	IP3-03-03363	IP3-03-04812
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Condition Reports

CR IP3-2003-03608	CR-IP3-2004-01090	CR-IP3-2004-01725
CR IP3-2005-00449	CR-IP3-2005-03339	CR-IP3-2005-03340

Section 1R06: Flood Protection Measures

Condition Reports

CR IP3-2005-02250 CR IP3-2005-02349

Drawings

IP3V-503-0010	Intake Structure Plan 12'X 16' Traveling Screens 31-38, Rev. 1
9321-LL-12003	Intake Structure EL 15'0" Floor Access Hatch Key Plan, Section and Details, Rev. 0

Procedures

IP-EP-AD13	IPEC Emergency Action Level Technical Bases, Rev. 1
ONOP-RW-3	Plant Flooding, Rev. 9
OAP-008	Severe Weather Preparations, Rev. 0
IP-SMM-MA-118	Foreign Material Exclusion, Rev. 0

Section 1R11: Licensed Operator Regualification Program

Miscellaneous

Simulator Guide 3-INPO-AOP-2

CCW Pump Trips with Failure of Standby Pump to Auto Start, RCO Thermal Barrier HX Leak, RCP High Vibration, Rev. 0

Section 1R12: Maintenance Effectiveness

Condition Reports

CR-IP3-2005-00345 CR-IP3-2005-00362 CR-IP3-2004-01578 CR-IP2-2005-00212
CR-IP3-2003-05488 CR-IP3-2004-01578 CR-IP3-2004-01578 CR-IP3-2003-01600
CR-IP3-2003-02602 CR-IP3-2003-06146 CR-IP3-2004-01931 CR-IP3-2004-00315
CR-IP3-2004-03688 CR-IP3-2005-01885 CR-IP3-2005-02036 CR-IP3-2005-02063
CR-IP3-2005-02123

Miscellaneous

IP-RPT-00090, "Maintenance Rule Structural Monitoring Report," Rev. 0

IP3-RPT-STR-01932, "Maintenance Rule Basis Document for System C09 IP3 Structures System," Rev. 0

"Maintenance Rule Basis Document for 125V DC Power System," Rev. 0

Unit 3 - DC Power - Fourth Quarter 2004 System Health Report

ER-04-3-022É, 32 Station Battery Replacement

3-ARP-008, Rev. 41, Operator Response to Iso Phase Bus Low Air Flow Alarm

Unit 3 Electrical System High Voltage System Description: 345 KV, 138 KV, 22KV, 13.8KV

Maintenance Rule Basis Document, Rev. 0, "22 kVAC Electrical System (22kV) and Main Generator (GEN) (MTG)"

Work Orders

IP3-05-17116 IP3-05-17140

Section 1R13: Maintenance Risk Assessment and Emergent Work Control

Drawings

IP3V-171-0357, "Instrument Block Diagram Integrating Reactor Protection and Control System," Rev. 3

5651D72, "Logic Diagrams Steam Generator Trip Signals," Rev. 7

9321-H-38156, "Condensate Polishing System Schematic Diagram Condensate Polisher/Filtration System Bypass Valve," Rev. 1

Procedures

3PT-Q100C, "Steam Flow/Feedwater Flow Mismatch Functional Test," Rev. 3

OAP-035, Technical Specifications and Technical Requirements Manual - License Adherence and Use, Rev. 1

3-POP-2.3, Core Operating Limits for Cycle 14, Rev. 14

3-SOP-C-002, Condensate System Operation, Rev. 40

IP-SMM-OP-106, Procedure Use and Adherence, Rev. 0
IP-SMM-WM-100, Work Control Process, Rev. 1

Work Orders

IP3-05-10839 IP3-05-10565 IP3-05-17126 IP3-05-16950
IP3-05-17848

Condition Reports

IP3-2005-00209 IP3-2005-00124 IP3-2005-00227 IP3-2005-02355
IP3-2005-02478

Section 1R14: Operator Performance During Non-Routine Evolutions

Condition Reports

CR-IP3-2005-00989
CR-IP3-2005-00994

Section 1R15: Operability Evaluations

Procedures

3-SOP-SI-003, "Recirculation and/or Purification of the Refueling Water Storage Tank," Rev. 16

Calculations

IP3-CALC-SI-03333, "Engineering Evaluation of Postulated RWST Inventory Loss in Support of ACT 99-44077," Rev. 0

Condition Reports

CR-IP3-2005-00036 CR-IP3-2005-00263 CR-IP3-2005-00366 CR-IP3-2005-00510
CR-IP3-2005-00529 CR-IP3-2005-00560 CR-IP3-2005-00572 CR-IP3-2005-00649
CR-IP3-2005-00700 CR-IP3-2005-02611 CR-IP3-2005-02613 CR-IP3-2005-02615
CR-IP3-2005-03336

Drawings

CONED Drawing 900, High Tension Operating Diagram Transmission Systems 69 KV and Above, dated June 7, 2002

Miscellaneous

NSE 99-3-035, "RWST Purification Without Continuous Manning While Above Cold Shutdown," Rev. 1

Section 1R19: Post-Maintenance Testing

Calculations

ER IP3-03-19131 ER-04-3-022

Miscellaneous

"Maintenance Rule Basis Document for 125V DC Power System," Rev. 0
Unit 3 - DC Power - Fourth Quarter 2004 System Health Report

Procedures

3PT-Q001C, Rev. 7, "#33 Station Battery Surveillance"
3PT-R156C, Rev. 13, "Station Battery #33 Load-Profile Service Test"
PFM-82, Rev. 5, "BCT-2000 Battery Test Computer Calibration"

Work Orders

IP3-04-12526

Section 1R20: Refueling and Outage Activities

Procedures

3-POP-2.3, Core Operating Limits for Cycle 14, Rev. 14
3-POP-1.3, Plant Start-up from Zero to 45% Power, Rev. 49

Section 1R22: Surveillance Testing

Condition Reports

CR-IP3-2005-02016 CR-IP3-2005-02026 CR-IP3-2005-02031 CR-IP3-2005-02052

Procedures

3-PT-V021, "Turbine Generator Overspeed Trip Test," Rev. 10
3PT-R156B, "Station Battery #32 Load-Profile Service Test," Rev. 8
PFM-82, "BCT-2000 Battery Test Computer Calibration," Rev. 5

Work Orders

IP3-02-15923

Section 1R23: Temporary Plant Modifications

Procedures

3-ARP-003, "Pressurizer Spray Line Loop Low Temperature," Rev. 38
Leak Repair Evaluation (LR) Control Form LR-03-3-043 "Temporary Leak Repair on Flange connection of RS-20".
SYS-GEN-001, "Temporary Online Leak Repair," Rev. 9.
SPO-SD-7 Attachment 1, "At Risk" Activity Report, Rev. 3.

Drawings

113E302, Miscellaneous Relay Racks Rack No. 1 (G2) Front, Rev. 15
9321-LD-72453, Pressurizer Spray Temperature Loop T-451 Diagram, Rev. 0
9321-F-39843, Internal Wiring Diagram Vibration Monitoring Panel Reactor Coolant Pumps 31, 32, 33, 34, Rev. 2

Temporary Alterations

TA-05-3-046

Work Orders

WO IP3-05-17196 WO IP3-03-02986 WO IP3-04-19893 WO IP3-04-19894

Miscellaneous

Leak Repairs, Inc. Engineering Repair Procedure NP-2113, 'Wire and Cable - Drill and Tap', LRI Job No. P237-04335-LRS.

Leak Repairs Inc. Maximum Injection Pressure Calculation, Engineering Order No. 21815C

Section 1EP6: Emergency Plan Drill

Procedures

IP-EP-120, "Emergency Classifications," Rev. 0

IP-EP-130, "Emergency Notification and Mobilization," Rev. 2

IP-EP-430, "Site Assembly, Accountability and Relocation of Personnel Offsite," Rev. 1

IP-EP-220, "Technical Support Center," Rev. 0

IP-EP-250, "Emergency Operations Facility," Rev. 3

Condition Reports

CR-IP2-2005-01968 CR-IP2-2005-0169 CR-IP2-2005-0171

Miscellaneous

Entergy Nuclear Northeast Indian Point Energy Center, Unit 2, May 19, 2005 Drill Scenario

Section 3PP8: Fitness for Duty Program

Security Training records for Range Qualifications, Annual T&Q, and Inclusion Training

Sample of Security Payroll records for November 28, 2004 - February 19, 2005

Sample of Security Fatigue Hour tracking records for November 28, 2004 - February 19, 2005

Security Shift rosters for November 28, 2004 - February 19, 2005

Section 4OA2: Problem Identification and Resolution

Condition Reports

CR-IP3-2004-3114 CR-IP2-2004-5906 CR-IP2-2004-4322 CR-IP2-2004-6271

CR-IP2-2004-5164 CR-IP2-2004-6219 CR-IP2-2004-5179 CR-IP2-2004-6632

CR-IP2-2005-00613 CR-IP2-2005-00737 CR-IP2-2005-01106 CR-IP3-2005-00400

CR-IP3-2005-00462 CR-IP3-2005-00463 CR-IP3-2005-00531 CR-IP3-2005-00781

CR-IP3-2005-00896 CR-IP3-2005-00934 CR-IP3-2005-00977 CR-IP3-2005-01209

CR-IP3-2005-01334 CR-IP3-2005-01416

LIST OF ACRONYMS

ABFP	auxiliary boiler feedwater pump
CAP	corrective action program
CFR	Code of Federal Regulations
COL	check-off list
CR	condition report
CRS	control room supervisor
EDG	emergency diesel generator
EOF	Emergency Operations Facility
EOP	emergency operating procedure
EP	emergency preparedness
FSAR	final safety analysis report
I&C	instrumentation and controls
IP3	Indian Point Nuclear Generating Unit 3
IPEC	Indian Point Energy Center
IPEEE	Individual Plant Examination of External Events
NCV	non-cited violation
NRC	Nuclear Regulatory Commission
ONOP	off-normal operating procedure
PAB	primary auxiliary building
PI	performance indicator
PWT	post-work test
RCP	reactor coolant pump
RHR	residual heat removal
SDP	significance determination process
SFP	spent fuel pool
SOP	system operating procedure
SSC	systems, structures, and components
SW	service water
TS	technical specification
TSC	Technical Support Center