

October 20, 2005

Mr. Fred R. Dacimo
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SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT 3 - NRC INTEGRATED
INSPECTION REPORT 05000286/2005004

Dear Mr. Dacimo:

On September 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 finding, which was discussed on October 19, 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, one finding of very low safety significance (Green) was 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

Mr. Fred R. Dacimo

2

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Sincerely,

/RA/

Donald E. Jackson, Chief (Acting)
Projects Branch 2
Division of Reactor Projects

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

Enclosure: Inspection Report No. 05000286/2005004
w/Attachment: Supplemental Information

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4

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U.S. NUCLEAR REGULATORY COMMISSION

REGION I

Docket No. 50-286

License No. DPR-64

Report No. 05000286/2005004

Licensee: Entergy Nuclear Northeast

Facility: Indian Point Nuclear Generating Unit 3

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

Dates: July 1, 2005 - September 30, 2005

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Approved by: Donald E. Jackson, Chief (Acting)
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TABLE OF CONTENTS

SUMMARY OF FINDINGS	iii
REACTOR SAFETY	1
1R04 Equipment Alignment	1
1R05 Fire Protection	2
1R07 Heat Sink Performance	3
1R11 Operator Requalification Inspection	4
1R12 Maintenance Effectiveness	5
1R13 Maintenance Risk Assessment and Emergent Work Control	5
1R14 Personnel Performance During Non-routine Plant Evolutions and Events	6
1R15 Operability Evaluations	6
1R16 Operator Workarounds	7
1R19 Post-Maintenance Testing	8
1R22 Surveillance Testing	8
1R23 Temporary Plant Modifications	9
1EP6 Drill Evaluation	9
RADIATION SAFETY	10
2OS1 Access Control to Radiologically Significant Areas	10
2OS2 ALARA Planning and Controls	11
2PS2 Radioactive Materials Processing and Shipping	12
OTHER ACTIVITIES	14
4OA2 Problem Identification and Resolution	14
4OA3 Event Followup	15
4OA4 Cross Cutting Aspects of Findings	18
4OA5 Other Activities	18
4OA6 Meetings, including Exit	18
SUPPLEMENTAL INFORMATION	A1-1
KEY POINTS OF CONTACT	A1-1
LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED	A1-1
LIST OF DOCUMENTS REVIEWED	A1-2
LIST OF ACRONYMS	A1-7

SUMMARY OF FINDINGS

IR 05000286/2005004; 07/01/2005 - 09/30/2005, Indian Point Nuclear Generating Unit 3; Event Followup, and Cross-Cutting Areas.

The report covers a 3-month period of inspection by resident inspectors and regional inspectors. One Green finding was 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 for failure to have adequate work instructions for a maintenance activity performed by Entergy maintenance technicians during the 3R13 refueling outage in April 2005.

This finding is greater than minor because Entergy did not provide adequate work instructions for a maintenance activity 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 instructions during a maintenance activity and their technical review of the maintenance activity did not identify the potential for an undesired plant response. These errors negatively impacted the likelihood of an initiating event. (Section 4OA4)

B. Licensee-Identified Violations.

None.

REPORT DETAILS

Summary of Plant Status

The unit operated at or near full power until September 29, 2005, when the unit power was reduced to approximately 65 percent due to a dropped control rod (Section 4OA3).

1. **REACTOR SAFETY**

Cornerstones: Initiating Events, Mitigating Systems, and Barrier Integrity

1R04 Equipment Alignment

2. Partial System Walkdowns (71111.04Q - 3 samples)

- a. Inspection Scope The inspectors performed system walkdowns during or following periods of system train unavailability in order to verify that the alignment of the available train was proper to support the availability of safety functions, and to assure that Entergy had identified and properly addressed equipment discrepancies that could potentially impair the functional capability of the available train. The specific information reviewed to verify correct system alignment is referenced in the Supplemental Information attachment at the end of this report. The following system walkdowns were performed:

- On July 29, 2005, the inspector performed a partial system walkdown of the Instrument Air system due to repetitive instrument air system high humidity alarms.
- On September 8, 2005, the inspector performed a partial system walkdown of the 33 Emergency Diesel Generator (EDG) following system maintenance and functional testing.
- On September 9, 2005, the inspector performed a partial system walkdown of the Auxiliary Feedwater (AFW) system following AFW Pump Room Temperature Sensor Maintenance.

b. Findings

No findings of significance were identified.

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

- a. Inspection Scope The inspector performed system walkdown during a period of system availability in order to verify that the alignment was proper to support the operability of safety functions, and to assure that Entergy had identified and properly addressed equipment discrepancies that could potentially impair the operational readiness of the available trains. The following walkdown was performed:

- On September 13 and 15, the inspector performed a full system walkdown of the accessible portions of the Safety Injection system outside containment.

Enclosure

d. Findings

No findings of significance were identified.

1R05 Fire Protection5. Quarterly Inspectiona. Inspection Scope (71111.05Q - 8 samples)

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

- Fire Zone 102A on July 7, 2005
- Fire Zone 11, 12, 13 on July 8, 2005
- Fire Zone 14 on July 25, 2005
- Fire Zone 7A on August 10, 2005
- Fire Zone 23 on August 23, 2005
- Pre-Fire Plan 388 on August 25, 2005
- Fire Zone 50A September 8, 2005
- Fire Zone 15 on September 15, 2005

b. Findings

No findings of significance were identified.

2. Annual Inspectionn. Inspection Scope (71111.05A - 1 Sample)

On September 21, 2004, the inspectors observed an unannounced fire brigade drill. The drill was conducted in accordance with the licensee's preplanned drill scenario and simulated an electrical fire in the primary auxiliary building. The drill was a routine training exercise for current fire brigade members. The inspectors evaluated the

readiness of the fire brigade to suppress and contain the fire, and evaluated the following aspects of the drill:

- The fire brigade properly donned protective clothing/turnout gear.
- Self-contained breather apparatus (SCBA) equipment was properly worn and used.
- Fire hose lines were capable of reaching all necessary fire hazard locations, were laid out without flow restrictions, and were simulated as charged with water.
- Brigade members entered the fire area in a controlled manner.
- Sufficient fire fighting equipment was brought to the scene by the fire brigade.
- The fire brigade leader's fire fighting directions were thorough, clear and effective.
- Radio communications with the plant operators and between fire brigade members were efficient and effective.
- Members of the fire brigade checked for fire victims and propagation into other plant areas.
- Effective smoke removal operations were simulated.
- The fire fighting pre-plan strategies were utilized.
- The licensee's pre-planned drill scenario was followed.
- The drill objectives and acceptance criteria were met.

The inspectors also observed the post-drill critique and evaluated it for thoroughness and degree of critical self-assessment.

b. Findings

No findings of significance were identified.

1R07 Heat Sink Performance (IP 71111.07B - 2 samples)

a. Inspection Scope

Based on a plant specific risk assessment, past inspection results, and recent operational experience, the inspectors selected a sample of two sets of heat exchangers (HXs), the Central Control Room (CCR) HXs and Instrument Air (IA) HXs. The Service Water (SW) system was also reviewed.

The CCR HXs provide cooling for Central Control Room air conditioners to ensure habitability and provide the necessary equipment environment. The IA HXs provide cooling to the closed loop cooling system for the IA compressors, which are the primary source of generating IA. The CCR and IA HXs transfer their heat loads directly to the SW system. The SW system was designed to supply cooling water from the Hudson River (the ultimate heat sink) to various heat loads to ensure a continuous flow of cooling water to systems and components necessary for plant safety either during normal operation or during abnormal or accident conditions. The inspectors verified that potential common cause heat sink performance problems that had the potential to

increase risk were identified and corrected by the licensee, and closely examined potential macro fouling (silt, debris, etc.) issues and biotic fouling issues.

In response to Generic Letter 89-13, "Service Water System Problems Affecting Safety-Related Equipment," Entergy committed to perform frequent periodic cleaning of essential SW HXs in lieu of testing for degraded performance. To ensure compatibility with commitments, the inspectors reviewed Entergy's inspection, cleaning, and performance monitoring methods and frequency. The inspectors compared surveillance test and inspection data, including as found condition and eddy current summary sheets, to the established acceptance criteria to verify that the results were acceptable and that system HX operation was consistent with design. The inspectors walked down the CCR HXs, the IA HXs, the sodium hypochlorite system, the SW system components and the intake structure to assess the material condition and operational functioning of these systems and components.

The inspectors reviewed a sample of condition reports (CRs) related to the CCR and IA HXs and the SW system to ensure that Entergy was appropriately identifying, characterizing, and correcting problems related to these systems and components.

b. Findings

No findings of significance were identified.

1R11 Operator Requalification Inspection

a. Inspection Scope (71111.11Q - 1 sample)

On September 12, 2005, the inspectors observed training for Operations Staff licensed operators. The inspectors reviewed an "as found" simulator scenario to determine if the scenario contained: 1) clear event descriptions with realistic initial conditions; 2) clear start and end points; 3) clear descriptions of visible plant symptoms for the crew to recognize; and 4) clear expectations of operator actions in response to abnormal conditions.

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

b. Findings

No findings of significance were identified.

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 repetitive instrument air high humidity alarms. 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 reactor trip breaker shunt trip relays. 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 - 7 samples)

The inspector observed selected portions of emergent and planned maintenance work activities to assess Entergy's risk management in accordance with 10 CFR 50.65(a)(4). The inspector verified that Entergy took the necessary steps to plan and control

emergent work activities, to minimize the probability of initiating events, and to maintain the functional capability of mitigating systems. The inspector observed and/or discussed risk management with maintenance and operations personnel. The specific information reviewed is referenced in the Supplemental Information attachment at the end of this report. The following 3 emergent and 4 planned activities were observed:

- WO IP3-04-18867: Semi-annual preventative Maintenance on 32 EDG.
- WO IP3-05-21400: Replace B Phase wire on 4-1-31MT
- WO IP3-04-16789: 33 SG Atmospheric Steam Dump Actuator Replacement
- WO IP3-02-18035: 31 SG Low Flow Bypass Piping Flow Control Valve
- WO IP3-05-00488: Steam Leak from Main Turbine Casing
- WO IP3 05-20242: 2 Year Preventative Maintenance 32 EDG
- WO IP3-05-15343: 32 ABFP Bearing Repair

b. Findings

No findings of significance were identified.

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

a. Inspection Scope (71111.14 - 1 sample)

For the non-routine 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.

- On September 29, 2005, Control Rod H-12 dropped due to a short circuit in a cable that was determined to be caused by a degraded splice. The inspectors observed the control room and plant operator activities following the dropped control rod and subsequent reduction in power per plant procedures and technical specifications. The inspectors observed operator response, procedure usage and evaluated the post-transient evaluation.

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, and compliance with the TS. The inspector's review included a verification that the operability evaluations were

made as specified by procedure ENN-OP-104, "Operability Determinations." The inspectors reviewed the technical adequacy of the evaluations. References used during these reviews included the Technical Specifications, the Technical Requirements Manual, the Final Safety Analysis Report (FSAR), and associated design basis documents. The specific information reviewed is referenced in the Supplemental Information attachment at the end of this report.

- CR-IP3-2005-01857: 33 CCW Pump/32 EDG cell switch contact failure.
- CR-IP3-2005-03336: SI-855 and SI-733A lifting
- CR-IP3-2005-02614: Frequent Instrument Air Humidity Alarms
- CR-IP3-2005-04006: DC Logic Power Train "A" and "B" RPS
- CR-IP3-2005-04369: RHR Gas Intrusion

b. Findings

No findings of significance were identified.

1R16 Operator Workarounds

a. Inspection Scope (71111.16 - 1 sample)

The inspectors performed a cumulative review of operator workarounds to identify any potential effects on the functionality of mitigating systems and impacts on the operators. The inspectors reviewed workarounds and burdens identified by Entergy and performed an evaluation of selected work orders and deficiencies to ensure Entergy was appropriately classifying these issues. The inspectors evaluated deficiencies for effects on the reliability and availability, and the potential for mis-operation of a mitigating system. The inspector also reviewed the cumulative impact of deficiencies on the operators' ability to respond in a correct and timely manner to plant transients.

Additionally, the inspectors reviewed the following "operator burden" to determine if it should have been classified as an "operator workaround," and to identify any potential effects on the functionality of mitigating systems and impacts on the operators:

- Fire Water Storage Tank Automatic Level Control (IP3-05-11799)

b. Findings

No findings of significance were identified.

1R19 Post-Maintenance Testing

a. Inspection Scope (71111.19 - 9 samples)

The inspectors reviewed Post Maintenance Testing (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-IP3-04-17799: 32 Emergency Diesel Generator
- 3PT-R126, Rev 3: Safety Injection Header Safety Relief Valve SI-855
- WO IP3-04-12135: ISLT for Safety Injection/Recirculation System Components
- WO IP3-04-18867: PWT for 3M Inspection IAW 3-GNR-004-ELC
- WO IP3-04-18109: PWT for Replacement of 33 EDG Comp Unloader Valve
- WO IP3-05-19720: PWT for 32 SI Pump High Vibration Motor Balancing
- WO IP3-04-16789: PWT for PCV 136 Actuator Replacement
- WO IP3-04-18080: PWT for BFD-405-C
- WO IP3-05-13924: Time Response Test of Reactor Trip Breaker

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-M079C, Rev 33, 33 EDG Functional Test, on August 11, 2005
- 3-PT-M108, Rev 1, Safety Injection System Venting on August 19, 2005
- 3-PT-M108, Rev 1, Safety Injection System Venting on September 20, 2005
- 3-PT-W019, Rev 5, Electrical Verification - Offsite Power Sources on August 18, 2005
- 3-PT-OL-91, Rev 1, Reactor Trip and Bypass Breaker Response Time Testing on August 10, 2005
- 3-PT-M13A1, Rev 5, Reactor Protection Logic Channel Functional Test on August 10, 2005
- 3-PT-Q120B, Rev 9, 32 ABFP Surveillance and IST on September 20, 2005

b. Findings

No findings of significance were identified.

1R23 Temporary Plant Modifications

a. Inspection Scope (71111.23 - 1 sample)

The inspector reviewed documentation on Temporary Alteration IP3-05-00486, Turbine Vacuum Line installation to facilitate repairs to the high pressure turbine steam casing leak. The inspectors walked down the piping installation, and reviewed drawings to evaluate any potential impact on equipment indications, alarms, or protective functions. The inspectors observed the pre-job briefing and the activation of the turbine vacuum line temporary modification.

b. Findings

No findings of significance were identified.

Cornerstone: Emergency Preparedness

1EP6 Drill Evaluation

a. Inspection Scope (71114.06 - 1 sample)

The inspectors observed an Emergency Preparedness (EP) drill conducted on September 21, 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 fire in the Primary Auxiliary Building resulting in a loss of Component Cooling Water containment isolation valves, a subsequent Reactor Coolant Pump thermal barrier leak and a fuel clad failure. The inspectors observed the drill and conducted reviews from the participating facilities onsite, including the IP3 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 reviewed Entergy's critique results and compared the NRC-identified weaknesses and deficiencies to those identified by Entergy to ensure that problem areas were properly identified.

b. Findings

No findings of significance were identified.

2. RADIATION SAFETY

Cornerstone: Occupational Radiation Safety

2OS1 Access Control to Radiologically Significant Areas

a. Inspection Scope (71121.01 - 8 samples)

On July 11-15, 2005, the inspector conducted the following activities during normal plant operating conditions to verify that the licensee was properly implementing physical, engineering, and administrative controls for access to high radiation areas, and other radiologically controlled areas, and that workers were adhering to these controls when working in these areas. Implementation of the access control program was reviewed against the criteria contained in 10 CFR 20, site technical specifications, and the licensee's procedures.

- (1) The following exposure significant work area was evaluated to determine if radiological controls (e.g., surveys, postings, and barricades) were acceptable.
 - CVCS pump pit
- (2) The radiation work permit (RWP) associated with the above work activity was reviewed with respect to high radiation area controls including electronic dosimeter alarm set points.
- (3) With respect to the work activity listed in (1) above, a walk down of this work area was conducted with a radiation survey instrument to determine whether radiation work permit (RWP), procedure, and engineering controls were in place, and whether licensee surveys and postings were complete and accurate, and that air samplers were properly located.
- (4) The work activity listed in (1) above was reviewed against the radiological control requirements as specified in the applicable RWP and ALARA review, as well as verbal instructions provided by radiation protection (RP) technicians during radiological briefings to workers.

- (5) With respect to the work activity listed in (1) above, the conduct of necessary system breach survey and evolving radiological hazards associated with work activities were observed to evaluate the radiation protection job coverage and contamination controls.
- (6) During observations of the work activity listed in (1) above, radiation worker performance was evaluated with respect to radiological work requirements and radiological briefing instructions.
- (7) The inspectors toured the accessible areas of Units 1, 2, and 3 and verified the adequacy of radiological postings and verified the locking of all high dose rate high radiation areas and very high radiation areas as required.
- (8) There were no licensee internal dose assessments greater than 50 mrem CEDE during 2005 at Indian Point Energy Center.

b. Findings

No findings of significance were identified.

2OS2 ALARA Planning and Controls

a. Inspection Scope (71121.02 - 6 samples)

During July 11 - 15, 2005, the inspector conducted the following activities to verify that the licensee was properly maintaining individual and collective radiation exposures as low as is reasonably achievable (ALARA). Implementation of the ALARA program was reviewed against the criteria contained in 10 CFR 20.1101(b) and the licensee's procedures.

- (1) The plant collective exposure history trend and current three-year rolling average collective exposure data was reviewed. Based on 2002-2004 exposure data, Indian Point Unit 2 performance of 152 person-rem, ranks in the fourth quartile, and Indian Point Unit 3 performance of 36 person-rem, ranks in the first quartile of U.S. pressurized water reactors.
- (2) The following highest exposure work activities for the Unit 3 Spring 2005 refueling outage were selected for review.
 - reactor coolant pump work
 - outage valve work
 - reactor disassembly / reassembly
 - scaffold building and inspection
 - radiation protection support

- (3) The ALARA reviews for the outage work activities listed in (2) above were evaluated with respect to initial exposure estimates and any subsequent credits due to emergent work or increased dose rates, and then compared to the actual exposure results obtained. Any causes for exposure overruns were identified and quantified where appropriate.
- (4) With respect to the ALARA reviews that were evaluated in (3) above, the methods for adjusting exposure estimates were reviewed relative to changes in work scope or increased dose rates in order to preserve the original work activity exposure performance measurement of the work activities.
- (5) The site specific trend in source term was reviewed and found to be stable at approximately 70 mrem/hr average for intermediate loop piping for Unit 2 and a decreasing trend at approximately 20 mrem/hr for Unit 3. This compares favorably with the industry average of 100 mrem/hr.
- (6) The following licensee self-assessments and audits related to the ALARA program were reviewed to determine if the licensee's overall audit program scope and frequency met the requirements of 10 CFR 20.1101.
 - Radiation Protection Department Annual Self-Assessment Report, June 2004 - June 2005
 - TID-04-008, Evaluation for the Temporary Storage of Radioactive Materials within the Protected Area, June 30, 2005
 - TID-05-002, Prospective Evaluation of the Need for Internal Monitoring for Radiation Workers, June 30, 2005

b. Findings

No findings of significance were identified.

Cornerstone: Public Radiation Safety

2PS2 Radioactive Materials Processing and Shipping

a. Inspection Scope (71122.02 - 6 samples)

During the period September 19-23, 2005, the inspector conducted the following activities to verify that the licensee's radioactive material processing and transportation programs complied with the requirements of 10 CFR 20, 61, and 71; and Department of Transportation (DOT) regulations 49 CFR 170-189.

- (1) The inspector reviewed the solid radioactive waste system description in Chapter 11 of the final safety analysis reports (FSAR) for Units 2 and 3, the 2003 radiological effluent release reports for Units 2 and 3 for information on the types and amounts of

radioactive waste disposed, and the scope of the licensee's audit program to verify that it meets the requirements of 10 CFR 20.1101.

- (2) The inspector walked-down the liquid and solid radioactive waste processing systems to verify and assess that the current system configuration and operation agree with the descriptions contained in the FSAR and in the Process Control Program (PCP); and reviewed the status of any radioactive waste process equipment that is not operational and/or is abandoned in place; verified that the changes were reviewed and documented in accordance with 10 CFR 50.59, as appropriate.
- (3) The inspector reviewed the radio-chemical sample analysis results for each of the licensee's radioactive waste streams (primary resin Unit 2/ Unit 3, liquid waste system resin Unit 2/ Unit 3, dry active waste Unit 2/ Unit 3, and Unit 1 east spent fuel pool sludge); reviewed the licensee's use of scaling factors and calculations with respect to these radioactive waste streams to account for difficult-to-measure radionuclides; verified that the licensee's program assures compliance with 10 CFR 61.55 and 10 CFR 61.56 as required by Appendix G of 10 CFR Part 20; and, reviewed the licensee's program to ensure that the waste stream composition data accounts for changing operational parameters and thus remains valid between the annual or biennial sample analysis update.
- (4) The inspector observed shipment packaging, surveying, labeling, marking, placarding, vehicle checks, emergency instructions, disposal manifests, shipping papers provided to the driver, and licensee verification of shipment readiness; verified that the receiving licensee is authorized to receive the shipment packages; and, observed radiation workers during the preparation and shipment of shipment no. 05-176 on September 21, 2005 to Duratek, Oak Ridge, TN. The inspector determined that the shipper was knowledgeable of the shipping regulations and that shipping personnel demonstrated adequate skills to accomplish the package preparation requirements for public transport with respect to NRC Bulletin 79-19 and 49 CFR Part 172 Subpart H, and verified that the licensee's training program provides training to personnel responsible for the conduct of radioactive waste processing and radioactive material shipment preparation activities.
- (5) The inspector sampled the following non-excepted package shipment records and reviewed these records for compliance with NRC and DOT requirements.
 - 05-176, Unit 2 and 3 DAW shipment to Duratek on September 21, 2005
 - 05-165, Unit 2 bead resin shipment to Studsvik on September 8, 2005
 - 05-046, Unit 2 reactor coolant pump motor shipped to Curtis Wright EMD on February 25, 2005
 - 04-117, Unit 3 primary resin shipped to Studsvik on August 20, 2004
 - 04-100, Unit 2 and 3 DAW shipment to Duratek on August 3, 2004
 - 04-053, Unit 3 bead resin shipment to Studsvik on April 14, 2004
 - 04-010, Unit 3 reactor vessel capsule shipment to Westinghouse on January 16, 2004

- (6) The inspector reviewed the licensee's Licensee Event Reports, Special Reports, audits, State agency reports, and self-assessments related to the radioactive material and transportation programs performed since the last inspection and determined that identified problems are entered into the corrective action program (CAP) for resolution. The inspector also reviewed corrective action reports written against the radioactive material and shipping programs since the previous inspection.

b. Findings

No findings of significance were identified.

4. **OTHER ACTIVITIES**

4OA2 Problem Identification and Resolution

1. Daily Review

a. Inspection Scope (71152)

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

b. Findings

No findings of significance were identified.

2. Occupational Radiation Safety Cornerstone

a. Inspection Scope (71121)

The inspector reviewed 10 corrective action condition reports that were initiated between April 2005 and June 2005, and were associated with the radiation protection program. The inspector verified that problems identified by these condition reports were properly characterized in the licensee's event reporting system, and that applicable causes and corrective actions were identified commensurate with the safety significance of the radiological occurrences.

b. Findings

No findings of significance were identified.

3. Public Radiation Safety Cornerstone

a. Inspection Scope (71122.01)

The inspector reviewed nine corrective action condition reports that were initiated between January 2004 and August 2005 and were associated with the radwaste transportation program. The inspector verified that problems identified by these condition reports were properly characterized in the licensee's event reporting system, and that applicable causes and corrective actions were identified commensurate with the safety significance of the radiological occurrences.

b. Findings

No findings of significance were identified.

4OA3 Event Followup (71153 - 4 samples)

1. (Closed) LER 05000286/2005002-00, Automatic Reactor Trip Due to 32 Steam Generator Steam Flow/Feedwater Flow Mismatch Caused by Low Feedwater Flow Due to Inadvertent Condensate Polisher Post Filter Bypass Valve Closure

This item was previously discussed in NRC Integrated Inspection Report 05000286/2005003, Section 4OA3. (FIN 05000286/2005003-01) This LER is closed.

2. (Closed) LER 05000286/2005003-00, Inadvertent Actuation and Automatic Start of the Auxiliary Feedwater Pumps During Reactor Protection Logic Testing Due to Personnel Error

a. Inspection Scope

On May 16, 2005, an automatic start of both the motor driven Auxiliary Feedwater Pumps (AFWP) occurred due to an instrumentation and control maintenance technician allowing the 28 second time delay to be exceeded during performance of the Reactor Protection Logic Channel Functional Test, procedure 3-PT-M13B. The technician allowed himself to be distracted by questions in the control room. This resulted in actuating the auto-start sequence of the motor driven feed pumps. There was no resulting steam generator or reactor transient or impact to any mitigating systems. On May 16, 2005, an eight hour non-emergency notification was made to the NRC for a valid actuation of the AFW system under 10 CFR 50.72(b)(3)(iv)(A). This event was recorded in the Indian Point Energy Center's corrective action program under CR-IP3-2005-02626. This LER is closed.

b. Findings

No findings of significance were identified.

3. (Closed) LER 05000286/2005004-00, Manual Reactor Trip Due to a Service Water Leak Inside the Main Generator Exciter Enclosure Caused by Exciter Cooler Gasket Leaks

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. This event was previously reported in Section 4OA3 of NRC Inspection Report 05000286/2005003.

b. Findings

Introduction. A Green self-revealing finding was identified for failure to have adequate work instructions for a maintenance activity performed by Entergy maintenance technicians during the 3R13 refueling outage in April 2005.

Description. On June 10, 2005, operators manually tripped the unit due to a service water leak inside the main turbine generator exciter. The Operations Shift Manager was concerned that the amount of water leaking into the exciter housing could potentially result in a fire or damage to the exciter, and appropriately ordered a manual reactor trip so that the turbine generator would be rapidly removed from service.

During the 3R13 refueling outage, in April 2005, maintenance technicians performed maintenance activities on the main turbine generator exciter cooler, which included replacing the gaskets on the cooler water head. Post work testing identified that several of the cooler heads were leaking. The normally specified gasket material was not available. The maintenance supervisor, with verbal concurrence from engineering, decided to replace the gasket with a thicker material. Additionally, maintenance personnel decided to use room temperature vulcanizing (RTV) sealant due to problems with placing the gasket on the vertical surface of the cooler. Post work testing revealed some additional leaking, and the technicians further tightened the covers to stop the leakage.

Following the unit's shutdown, Entergy personnel inspected the cooler heads and determined that the gasket was split due to over compression. This was due to the use of RTV and the thicker gasket material, which was not specified for this use in the work instructions. The root cause of the service water leak due to the exciter cooler gasket failure was due to inadequate work instructions. Maintenance did not revise the work instructions for correcting the leak. Formal approval for using thicker gasket material and RTV sealant was not obtained. Additionally, maintenance and engineering did not identify and incorporate into work instructions specific gasket material for the cooler heads, sealant, tightening sequences and values to prevent the gasket from failing. These factors were within Entergy's ability to reasonably identify and incorporate into work instructions.

Analysis. Entergy's failure to provide adequate work controls for a maintenance 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 maintenance supervisor and engineer did not recognize and prevent this deficiency by utilizing appropriate procedural compliance and consulting the vendor for proper repair methods. 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 05000286/2005004-01; Inadequate Work Instructions during Troubleshooting Leads to Manual Reactor Trip)

This finding is associated with the cross-cutting area of human performance, in that, maintenance technicians and engineers did not adequately evaluate the scope of changes to their maintenance activities. This error impacted the likelihood of an initiating event. (See 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.

4. Dropped Control H-12 on September 29, 2005

a. Inspection Scope

The inspectors responded to a dropped control rod on September 29, 2005. The dropped control rod was caused by a short in the power supply cabling to control rod H-12. 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 material history relevant to the control rod drive mechanism cabling and repair work.

b. Findings

No findings of significance were identified.

4OA4 Cross Cutting Aspects of Findings

Section 4OA3 describes a finding associated with the cross-cutting area of human performance, in that, the plant staff did not implement appropriate work instructions during maintenance activities and their technical review of the maintenance activities did not identify the potential for an undesired plant response. These errors negatively impacted the likelihood of an initiating event.

4OA5 Other Activities

TI 2515/161 - Transportation of Reactor Control Rod Drives (CRD) in Type A Packages

a. Inspection Scope

This area was inspected to verify that the licensee's radioactive material transportation program complies with specific requirements of 10 CFR Parts 20, 71, and Department of Transportation regulations contained in 49 CFR Part 173. The inspector interviewed licensee personnel and determined the licensee had undergone refueling/defueling activities between January 1, 2002, and present, but it had not shipped irradiated control rod drives in Department of Transportation Specification 7A Type A packages.

b. Findings

No findings of significance were identified.

4OA6 Meetings, including Exit

On August 12, 2005, the inspectors presented the Heat Sink Performance Inspection results to members of Entergy management led by Mr. Don Leach. On October 19, 2005, the inspectors presented the inspection results to Mr. F. Dacimo and other Entergy staff members, who acknowledged the inspection results presented. The inspectors reviewed some information that Entergy considered proprietary, however, that information was not retained and is not included in this report.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION**KEY POINTS OF CONTACT**Licensee Personnel

T. Barry, Security Manager
 T. Beasley, Systems Engineer
 T. Carson, Manager, Maintenance
 J. Comiotes, Director, Nuclear Safety Assurance
 P. Conroy, Manager, Licensing
 F. Dacimo, Site Vice President
 G. Dahl, Licensing
 F. Inzirillo, Emergency Planning Manager
 T. Jones, Licensing Supervisor
 R. Lee, Design Engineer (Lead)
 E. O'Donnell, IP3 Operations Manager
 J. O'Driscoll, Systems Engineer
 T. Orlando, Manager, Systems Engineering
 P. Rubin, General Manager, Plant Operations
 A. Vitale, Site Operations Manager
 J. Ventosa, Director, Engineering
 D. Shah, Systems Engineer
 L. Lee, Systems Engineering Supervisor
 S. Wilkie, Fire Protection Engineer
 C. Bergen, Sr. Engineer, Nuc
 M. Troy, Procurement Engineering Supervisor
 D. Wilson, Chemistry Superintendent
 T. Beasley, System Engineering
 B. Meek, System Engineering
 E. Zozobrado, Sr. Engineer
 G. Mosher, Maintenance
 E. Ballenger, FIN Supervisor

LIST OF ITEMS OPENED, CLOSED, AND DISCUSSEDOpened and Closed

05000286/2005002-00	LER	Automatic Reactor Trip Due to 32 Steam Generator Steam Flow/Feedwater Flow Mismatch Caused by Low Feedwater Flow Due to Inadvertent Condensate Polisher Post Filter Bypass Valve Closure (Section 4OA3.1)
05000286/2005003-00	LER	Inadvertent Actuation and Automatic Start of the Auxiliary Feedwater Pumps During Reactor Protection Logic Testing Due to Personnel Error (Section 4OA3.2)

05000286/2005004-00 LER Manual Reactor Trip Due to a Service Water Leak Inside the Main Generator Exciter Enclosure Caused by Exciter Cooler Gasket Leaks (Section 4OA3.3)

LIST OF DOCUMENTS REVIEWED

Section 1R04: Equipment Alignment

Procedures:

3-PT-M079C, Rev 33: 33 EDG Functional Test
3-PT-R20B, Rev 5: ABFP Room Temperature Sensors
3-COL-SI-1: Safety Injection System

Drawings

System Description 21.2, Figure 21.2-3: Auxiliary Feedwater Steam Supply

Condition Reports

CR-IP3-2005-00345 CR-IP3-2005-01662 CR-IP3-2005-02280 CR-IP3-2005-03289

Section 1R05: Fire Protection

Procedures:

IPEC Pre Fire Plans (PFP): PFP-354; PFP-352A, DWG 9321-F-40035; PFP-388

Section 1R07: Heat Sink Performance

Drawings:

9321-F-20333 sheet 1, Rev 49, 4/13/05: Flow Diagram Service Water System
9321-F-20333 sheet 2, Rev 26, 4/13/05: Flow Diagram Service Water System
9321-F-20363 Rev 55, 3/11/05: Flow Diagram Instrument Air
9321-F-27223 Rev 41, 5/20/05: Flow Diagram Service Water System Nuclear Steam Supply Plant
PCA Engineering DW-17517-1, Rev 0, 5/24/00: Hydrographic Survey performed on May 2000 (drawing number illegible)
PCA Engineering DW-17517-2, Rev 0, 5/24/00: Hydrographic Survey performed on May 2000 (drawing number illegible)
PCA Engineering DW-17517, Rev 0, 7/16/98: Hydrographic Survey performed on 5/28/98
PCA Engineering DW-91832700, Rev 0, 9/13/91: Hydrographic Survey performed on 9/10/91 and 9/11
Great Lakes Dredge & Doc 4027-A, Rev 0, 10/26/84: After Dredge Soundings

Procedures:

3-PT-Q016, Rev 19, 12/3/03: EDG and Containment Temperature SW Valves SWN-1176 & 1176A and SWN-TCV-1104 & 1105

A1-3

3-PT-Q092A, Rev 11, 5/19/05: 31 Service Water Pump Train Operational Test
3-PT-Q092C, Rev 10, 11/10/03: 33 Service Water Pump Train Operability
3-PT-Q092D, Rev 10, 5/19/05: 34 Service Water Pump Train Operability
AP-58, Rev 3, 7/5/01: IP3 SWS Corrosion Monitoring Program
FAN-008-HVAC, Rev 11, 3/7/2003: CCR Air Conditioning System Preventive Maintenance
HTX-006-IAC, Rev 1, 9/14/98: Instrument Air Compressor Closed Cooling Water Heat Exchanger Maintenance

Work Orders:

WO IP3-980420800, (12/17/97): De-silting of Service Water Pump Bay (info copy)
WO IP3-02-20676, 2/15/04: Map Silt Levels in SW Bays
WO IP3-02-20960, 2/8/04: PM Inspection and Cleaning (Tube site) of 31 IA CC HX IAW HTX-006-IAC
WO IP3-02-20962, 8/29/04: PM Inspection and Cleaning (Tube site) of 32 IA CC HX IAW HTX-006-IAC
WO IP3-04-12510, 3/9/05: 6M Insp/Cleaning AC Unit IAW FAN-008-HVAC, unit 32
WO IP3-04-16168, 5/26/05: 6M Insp/Cleaning AC Unit IAW FAN-008-HVAC, unit 31
WO IP3-04-16188, 2/28/05: Perform hard bottom soundings of SW bay

Work Requests:

WR IP3-96-07661-00, 7/7/97: CW/SW Intake Structure
WR IP3-97-06172-02, 9/25/99: pp 11f, North SWP Bay Bypass
WR IP3-97-06172-03, 9/23/99: pp 10f, South SWP Bay Bypass
WR IP3-97-06172-04, 05/06/07, 9/23/99, p10, 31/2/3/4: CWP Intake Bay
WR IP3-99-00668-00, 7/6/99: Intake Bay Silt Measurement
WR IP3-04-15885, 5/17/05: PM of 33 SW pump IAW 3-PT-Q092C
WR IP3-04-16999, 6/21/05: PM of 34 SW pump IAW 3-PT-Q092D
WR IP3-04-17570, 7/19/05: Normal Surveillance 3-PT-Q016
WR IP3-04-17763, 7/25/05: Normal Surveillance 3-PT-Q092A
PR 32-115, 2/3/04: Integrated Technologies Preliminary Report of Eddy Current Inspection, for IACC 31, WR IP3-02-20961
PR 32-122, 8/5/04: Integrated Technologies Preliminary Report of Eddy Current Inspection, for IACC 32, WR IP3-02-19117
PR 32-116, 7/22/03: Integrated Technologies Preliminary Report of Eddy Current Inspection, for CCR A/C Condensers 31A & 31B, WR IP3-02-22223 & -22224
PR 32-123, 12/15/04: Integrated Technologies Preliminary Report of Eddy Current Inspection, for CCR A/C Condensers 32A & 32B, WR IP3-02-22225 & -22226

Miscellaneous:

IP3-DBD-304 rev 2, 11/18/97: Design Basis Document for the Service Water System
IPN-90-004, 2/6/90: Response to NRC GL 89-13 SWS Problems Affecting Safety-Related Equipment
IPN-92-040, 9/9/92: SWS Problems Affecting Safety Related Equipment GL 89-13 (GL 89-13 response follow-up)
Unit 3 Component Cooling Water System Health Report, Fourth Quarter 2004

Unit 3 Component Cooling Water System Health Report, Second Quarter 2005
IP3 Service Water System Health Report, Fourth Quarter 2004
IP3 Service Water System Health Report, First/Second Quarters 2005
IP3 HX Health Report.xls, 8/9/05: Component Performance Monitoring Plan for IP3 Heat Exchangers
IP3 BOP Heat Exchangers in Eddy Current Program, 8/9/05: Excel spreadsheet from Component Cooling Water chemistry result spreadsheet, 8/1/2005
DRR to DER 97-1497, 7/8/97: DER Response Report on R09 Intake Bay Silt Measurements ACT-10-50039, 7/21/00: Determine the maximum silt level in the SW bay to ensure pump operability
IP3 Ultimate Heat Sink Learning Organization Condition Report IP3LO-2005-00143
Normandeau Associates Ref No 20407.000, 7/25/05: July Sampling Results for IP Zebra Mussel Monitoring Program
PCA Engineering Job #23919, 2/9/04: Unit #3 Silt Mapping Service Water Intake Pump Bay
George Dahl e-mail 8/5/05, 9:23 AM: List of SWS & CCW Design changes in the last 3 years
Gary Fain e-mail 4/9/00, 10:07 PM: Re: Hudson River Data, including attachments
Dennis Pennino e-mail, 7/9/99, 3:17 PM: Service Water Pump Bay Silt Levels
Dennis Pennino e-mail, undated, Entergy Due Diligence: Intake Structure R10 Inspections

Condition Reports

IP3-2001-03720	IP3-2002-04705	IP3-2002-05203	IP3-2002-05210
IP3-2003-01547	IP3-2003-05099	IP3-2003-05396	IP3-2004-00116
IP3-2005-00695	IP3-2005-01102	IP3-2005-01818	IP3-2005-01823
IP3-2005-02977	IP3-2005-03051	IP3-2005-03256	IP3-2005-03570
IP3-2005-03964			

Section 1R12: Maintenance Effectiveness

Miscellaneous:

IP3 Instrument Air System Health Report
MAT 92-030251-03, REV 0: 31 Instrument Air Dryer Functional Test

Procedures:

3-COL-IA-1, Rev 28: Instrument Air System

Work Orders

IP3-05-020614	IP3-05-00601	IP3-05-20484
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Section 1R13: Maintenance Risk Assessment and Emergent Work Control

Drawings:

9321-F-20173, Rev 69: Main Steam

Procedures:

IP-SMM-WM-100: Work Control Process

SPO-SD-09, Rev 0: On-Line Risk Assessment Process

Work Orders:
IP3-04-16789

Condition Reports:
IP3-2005-04049 IP3-2003-02370 IP3-2004-02392 IP3-2005-00136
IP3-2005-04510

Section 1R15: Operability Evaluations

Procedures:
WO IP3-05-17175: Replace 52/EG2 Compartment Cell Switch
WO IP3-05-16605: 33 CCW Pump Verification of Operation
3-PT-R003D, Rev 24: Safety Injection Test
3-PT-M079B, Rev 34: 32 EDG Functional Test
SOP-SI-1, Rev 13: SI System Operation
3-SOP-SI-001, Rev 36: SI System Operation

Calculations:
IP3-RPT-EDG-03314, Rev 1: 480V Safety Bus Load Breaker Failure to Trip Effects on EDG Performance During an SI Load Sequence
IP3-CALC-ED-00207: Electrical Load Study
Lower Tier Apparent Cause supporting CR-IP3-2005-03336
Operability Evaluation supporting CR-IP3-2005-03336
Westinghouse LTR-SEE-03-122: IP3 High Head SIS Flows for 5% Uprate Program
IP-3-CALC-AFW-00418: AFW Pump Room Temperatures after Station Blackout

Condition Reports:
CR-IP3-2005-03336 CR-IP3-2005-01374 CR-IP3-2003-05550 CR-IP3-1995-00426
CR-IP3-1994-00842

Drawings:
Dwg No. 9321-LL-31183, Sheet 17: 480V Switchgear 32
Dwg No. 6842D89: D5 SWGR No 32 Connection Diagram
Dwg No. 05-02014: Sheet 46

Miscellaneous:
IP3 LER 87-009-00: Failure of 480V Circuit Breaker Cell Switches
IP2 Inspection Report 50-2247/01-10

Procedures:
3-PT-M079B, Rev. 34: 32 EDG Functional Test
WO IP3-04-12135: ISLT for Safety Injection/Recirculation System Components
3PT-R126, Rev 3: Safety Injection Header Relief Valve SI-855

3-GNR-004-ELC, Rev 25: EDG Quarterly Inspection
2-PT-2Y001C, Rev 4: 33 EDG Overspeed Trip Test

Work Orders:

IP3-04-17799 IP3-05-17959 IP3-05-18045 IP3-05-10560V

Section 1EP6: Emergency Plan Drill

Procedures:

IP-EP-120, Rev 1: Emergency Classification
3-AOP-SSD-1, Rev 4: Control Room Inaccessibility Safe Shutdown Control
3-ONOP-FP-1: Plant Fires
IP-EP-360: Core Damage Assessment

Condition Reports:

IP3-2005-04481 IP3-2005-04482 IP3-2005-04483 IP3-2005-04484

Section 2OS1: Access Control to Radiologically Significant Areas

Westinghouse Issue Report No. 05-89-M004, June 10, 2005

Procedures:

Reactor Coolant Pump Back Seating Procedure, O-PMP-402-RCS, Rev. 1
HRA/LHRA/REA/VHRA Boundary Verifications, RP-STD-17
ALARA Program, IP-SMM, RP-301
RWP Preparation and ALARA Planning, O-RP-RWP-400, Rev. 2

Condition Reports:

CR-IP2-2005-1444 CR-IP3-2005-2209 CR-IP3-2005-2219
CR-IP2-2005-1604 CR-IP3-2004-2448 CR-IP3-2005-2584
CR-IP3-2005-2797 CR-IP3-2005-2799 CR-IP2-2005-2679
CR-IP3-2005-1794

Section 2PS2: Radioactive Materials Processing and Shipping

Condition Reports:

CR-IP3-2005-00400 CR-IP3-2005-02620

Quality Assurance Audit no. QA-15-2005-IP-1: IPEC Radiological Waste Program, September 2005

NUPIC Audits: Framatome ANP, December 2003; Duratek - Barnwell, April 2003; Barnwell - Oakridge and Kingston, TN, May 2003; Studsvik, October 2004; RACE, January 2003

Procedures:

Process Control Program, RW-SQ-4.007, Rev. 9, Solid Radioactive Waste Process Control Program, RE-PCP, Rev. 7

LIST OF ACRONYMS

ABFP	Auxiliary Boiler Feedwater Pump
A/C	Air Conditioning
ALARA	As Low As is Reasonably Achievable
BOP	Balance of Plant
CAP	Corrective Action Program
CEDE	Committed Effective Dose Equivalent
CCR	Central Control Room
CCW	Component Cooling Water
CFR	Code of Federal Regulations
COL	Check-off List
CR	Condition Report
CVCS	Chemical and Volume Control System
CWP	Circulating Water Pump
DAW	Dry Active Waste
DOT	U. S. Department of Transportation
EDG	Emergency Diesel Generator
EOF	Emergency Operations Facility
EOP	Emergency Operating Procedure
EP	Emergency Preparedness
FSAR	Final Safety Analysis Report
GL	Generic Letter
HVAC	Heating Ventilation and Air Conditioning
HX	Heat Exchanger
IA	Instrument Air
I&C	Instrumentation and Controls
IACC	Instrument Air Closed Cooling
IP3	Indian Point Nuclear Generating Unit 3
IPEC	Indian Point Energy Center
IPEEE	Individual Plant Examination of External Events
LER	Licensee Event Report
NRC	Nuclear Regulatory Commission
ONOP	Off-normal Operating Procedure
PCP	Process Control Program
PI	Performance Indicator
PWT	Post-work Test
RHR	Residual Heat Removal
RP	Radiation Protection
RTV	Room Temperature Vulcanizing
RWP	Radiation Work Permit

A1-8

SDP	Significance Determination Process
SOP	System Operating Procedure
SSC	Systems, Structures, and Components
SW	Service Water
SWP	Service Water Pump
SWS	Service Water System
TCV	Temperature Control Valve
TSC	Technical Support Center
WO	Work Order