## November 10, 2004

Mr. Fred R. Dacimo Site Vice President Entergy Nuclear Operations, Inc. Indian Point Energy Center 295 Broadway, Suite 1 P.O. Box 249 Buchanan, NY 10511-0249

SUBJECT: INDIAN POINT NUCLEAR GENERATING UNIT 3 - PROBLEM

IDENTIFICATION AND RESOLUTION INSPECTION REPORT

05000286/2004005

Dear Mr. Dacimo:

On October 1, 2004, the NRC completed an inspection at the Indian Point Unit 3, Nuclear Power Plant. The enclosed report documents the inspection findings which were discussed on October 1, 2004, with Mr. Schwarz and members of your staff.

The inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, compliance with the Commission's rules and regulations, and the conditions of your operating license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of activities, and interviews with personnel.

There were no findings of significance identified during this inspection. On the basis of the samples selected for review, the team concluded that problems were properly identified, evaluated, and resolved within the problem identification and resolution program (PI&R). However, during the inspection, several examples of minor problems were identified, including conditions adverse to quality that were not being entered into the corrective action program, narrowly focused condition report evaluations, and corrective actions that were ineffectively tracked or had not occurred.

In accordance with 10 CFR 2.790 of the NRC's "Rules of Practice," a copy of this letter and its enclosure 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 <a href="http://www.nrc.gov/reading-rm/adams.html">http://www.nrc.gov/reading-rm/adams.html</a> (the Public Electronic Reading Room).

Sincerely,

/RA/

Raymond K. Lorson, Chief Performance Evaluation Branch Division of Reactor Safety

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

Enclosure: Inspection Report No. 05000286/2004005

w/Attachment: Supplemental Information

#### cc w/encl:

- G. J. Taylor, Chief Executive Officer, Entergy Operations, Inc.
- M. R. Kansler, President Entergy Nuclear Operations, Inc.
- J. T. Herron, Senior Vice President and Chief Operations Officer
- C. Schwarz, General Manager Plant Operations
- D. L. Pace, Vice President, Engineering
- B. O'Grady, Vice President, Operations Support
- J. McCann, Director, Licensing
- C. D. Faison, Manager, Licensing, Entergy Nuclear Operations, Inc.
- P. Conroy, Manager, Licensing, Entergy Nuclear Operations, Inc.
- M. J. Colomb, Director of Oversight, Entergy Nuclear Operations, Inc.
- J. Comiotes, Director, Nuclear Safety Assurance
- J. M. Fulton, Assistant General Counsel, Entergy Nuclear Operations, Inc.
- P. R. Smith, President, New York State Energy, Research, and Development Authority
- J. Spath, Program Director, New York State Energy Research and Development Authority
- P. Eddy, Electric Division, New York State Department of Public Service
- C. Donaldson, Esquire, Assistant Attorney General, New York Department of Law
- T. Walsh, Secretary, NFSC, Entergy Nuclear Operations, Inc.
- D. O'Neill, Mayor, Village of Buchanan
- J. G. Testa. Mayor. City of Peekskill
- R. Albanese, Executive Chair, Four County Nuclear Safety Committee
- S. Lousteau, Treasury Department, Entergy Services, Inc.

Chairman, Standing Committee on Energy, NYS Assembly

Chairman, Standing Committee on Environmental Conservation, NYS Assembly

Chairman, Committee on Corporations, Authorities, and Commissions

- M. Slobodien, Director, Emergency Planning
- B. Brandenburg, Assistant General Counsel

## P. Rubin, Manager of Planning, Scheduling & Outage Services

cc w/encl: (Cont'd)

Assemblywoman Sandra Galef, NYS Assembly

County Clerk, Westchester County Legislature

A. Spano, Westchester County Executive

R. Bondi, Putnam County Executive

C. Vanderhoef, Rockland County Executive

E. A. Diana, Orange County Executive

T. Judson, Central NY Citizens Awareness Network

M. Elie, Citizens Awareness Network

D. Lochbaum, Nuclear Safety Engineer, Union of Concerned Scientists

Public Citizen's Critical Mass Energy Project

M. Mariotte, Nuclear Information & Resources Service

F. Zalcman, Pace Law School, Energy Project

L. Puglisi, Supervisor, Town of Cortlandt

Congresswoman Sue W. Kelly

Congresswoman Nita Lowey

Senator Hillary Rodham Clinton

Senator Charles Schumer

J. Riccio, Greenpeace

A. Matthiessen, Executive Director, Riverkeeper, Inc.

M. Kapolwitz, Chairman of County Environment & Health Committee

A. Reynolds, Environmental Advocates

M. Jacobs, Director, Longview School

D. Katz, Executive Director, Citizens Awareness Network

P. Gunter, Nuclear Information & Resource Service

P. Leventhal, The Nuclear Control Institute

K. Coplan, Pace Environmental Litigation Clinic

R. Witherspoon, The Journal News

W. DiProfio, PWR SRC Consultant

D. C. Poole, PWR SRC Consultant

W. T. Russell, PWR SRC Consultant

W. Little, Associate Attorney, NYSDEC

## <u>Distribution</u> w/encl: (VIA E-MAIL)

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OFFICE	RI/DRS	RI/DRP	RI/DRS		
NAME	CCahill	BMcDermott	RLorson		
DATE	10/19/04	10/21/04	11/10/04		

# U.S. NUCLEAR REGULATORY COMMISSION REGION I

Docket No: 50-286

License No: DPR-64

Report No: 05000286/2004005

Licensee: Entergy Nuclear Northeast (Entergy)

Facility: Indian Point Nuclear Generating Unit No. 3

Location: 295 Broadway, Suite 3

Buchanan, NY 10511-0308

Dates: September 13, 2004 - October 1, 2004

Inspectors: Christopher G. Cahill, PE, Team Leader

Stephen M. Pindale, Senior Reactor Inspector Thomas R. Hipschman, Senior Resident Inspector

Glenn W. Meyer, Senior Reactor Inspector Joel S. Wiebe, Reactor Inspector (training)

Approved by: Raymond K. Lorson, Chief

Performance Evaluation Branch

Division of Reactor Safety

## **SUMMARY OF FINDINGS**

IR 05000286/2004005; 09/13/04 - 09/17/04 and 09/27/04 - 10/01/04; Indian Point Nuclear Generating Unit No. 3; biennial baseline inspection of the identification and resolution of problems.

This inspection was conducted by three regional inspectors and one resident inspector. 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.

## Identification and Resolution of Problems

The NRC team determined that Entergy was effective at identifying discrepant conditions at an appropriate threshold and entering them into the corrective action program. Once entered into the system, issues were typically prioritized appropriately and in a timely fashion; and were properly evaluated, commensurate with their safety significance. Overall, the evaluations reasonably identified the causes of problems, the extent of the condition, and provided for corrective actions to address the causes. However, the team noted some minor instances where long-standing and recurring equipment problems were not effectively evaluated and corrected in a timely fashion. The team also determined that Entergy was implementing the programs, process and initiatives, as described in their response to the annual assessment letter dated April 1, 2004, to address the cross-cutting issue associated with Indian Point Unit 2. On the basis of interviews conducted, the team determined that plant staff personnel were familiar with and utilized the corrective action program to identify problems.

A. NRC-Identified and Self-Revealing Findings

No findings of significance were identified.

B. Licensee-Identified Violations

None.

ii Enclosure

## Report Details

## 4. OTHER ACTIVITIES (OA)

## 4OA2 Problem Identification and Resolution

a. Effectiveness of Problem Identification

## (1) Inspection Scope

The inspection team reviewed the procedures describing the corrective action program (CAP) at the Indian Point Nuclear Generating Unit No. 3 (IP3). The team reviewed items selected from various Entergy processes and activities to determine whether personnel were properly identifying, characterizing and entering problems in the CAP for evaluation and resolution. Entergy's formal CAP utilizes condition reports (CRs) to identify and document problems at IP3. The team reviewed a sample of CRs as well as outstanding maintenance work orders in the licensee's backlog to cover the seven cornerstones of safety identified in the NRC Reactor Oversight Process (ROP). In addition, the team considered risk insights from the individual plant examination report and the probabilistic risk assessment to focus the sample selection and system walkdowns on risk significant components. The CRs are classified by category level (A, B, C, D) with level A requiring the most rigorous review due to higher safety and/or risk significance.

The team reviewed logs, control room deficiencies, operator work-arounds, system health reports, temporary modifications, operating experience reviews, and procedures. The team selected items from Entergy's maintenance, operations, engineering, emergency planning, security, radiological controls and oversight processes for entry into the CAP. In addition, the team interviewed plant staff and management to determine their understanding of and involvement with the CAP; and to determine whether personnel were familiar with and utilized the CAP to identify problems. The specific documents reviewed and referenced during the inspection are listed in the attachment to this report.

The team reviewed a sample of quality assurance audits and departmental self-assessments. The review was to determine whether the problems identified by these assessments were entered into the CAP, and whether the corrective actions were properly completed to resolve the self-identified deficiencies. The team evaluated the effectiveness of the audits and self-assessments by comparing the associated results against self-revealing and NRC-identified findings.

The team also conducted several plant walkdowns of safety-related, risk significant areas to determine if observable system equipment and plant material adverse conditions were identified and entered into the CAP. Team members attended daily review and management meetings where CRs were reviewed for screening and assignment. The team attended these meetings to understand the threshold for

identifying problems and to assess management involvement with the CAP. The team also assessed the interface between the CAP and the work control process.

## (2) Observations and Findings

No findings of significance were identified.

The team identified only minor deficiencies where CRs had not been previously initiated; and for those identified by the team, Entergy promptly initiated CRs to address the deficiencies. Accordingly, the team concluded that plant staff generally identified deficiencies and entered them in the CAP, and at an appropriate threshold. The team also found that self-assessments and audits were sufficiently self-critical and provided relevant performance observations and insights.

## b. <u>Prioritization and Evaluation of Issues</u>

#### (1) Inspection Scope

The team reviewed the work orders and CRs listed in the attachment to this report to assess whether Entergy adequately prioritized and evaluated problems. These reviews evaluated the causal assessment of each issue (i.e., root cause analysis, apparent cause evaluation); and for significant conditions adverse to quality, the extent of condition and determination of corrective actions to preclude recurrence. The team selected the CRs to cover the seven cornerstones of safety identified in the NRC ROP. A portion of the items chosen for review were those that were age dependent (e.g., service water system erosion and/or corrosion, boric acid accumulation), and accordingly, the scope of review was expanded to five years. The team also considered risk insights from the IP3's probabilistic risk assessment to help focus the inspection sample. Throughout the inspection, the team attended periodic meetings to observe the CR review process and to understand the bases for assigned category and root cause level.

The team selected a sample of CRs associated with previous NRC non-cited violations (NCVs) and findings to determine whether Entergy evaluated and resolved problems associated with compliance with applicable regulatory requirements and standards. The team reviewed Entergy's evaluation of industry operating experience for applicability to IP3. The team also reviewed Entergy's assessment of equipment operability and reportability requirements associated with CRs.

## (2) Observations and Findings

No findings of significance were identified.

Overall, the team found that CRs were appropriately prioritized and evaluated. The quality and completeness of root cause evaluations and apparent cause analyses were generally good. In addition, the team observed that both the CR Screening Committee and the CR Review Group were effective in reviewing and prioritizing CRs. The team

identified some minor instances where the bases or justification for specific actions associated with CRs were not well documented or readily apparent. Examples included the following:

- CR-IP3-2004-00071 (accumulator leakage and increase in safety injection pump starts);
- CR-IP3-2003-05112 (operability review of the 480 volt switchgear room carbon dioxide system); and
- Several CRs (examples of work orders that were required to be completed as corrective action for closed condition reports that were deferred and the work orders did not get the same level of management review and approval as the condition report corrective actions).

Station personnel subsequently addressed each of these minor documentation deficiencies.

## c. <u>Effectiveness of Corrective Actions</u>

## (1) <u>Inspection Scope</u>

The team reviewed the corrective actions associated with selected CRs to determine whether the actions had addressed the identified cause(s) of the problems. The team also reviewed Entergy's timeliness for implementing the corrective actions, and their effectiveness in precluding recurrence for significant conditions adverse to quality. Additionally, the team assessed the backlog of outstanding corrective actions to determine if they, individually or collectively, represented an increased risk to the plant. The team also reviewed the NCVs and findings issued since the last inspection of the IP3 CAP to determine if issues placed in their program had been properly evaluated and corrected.

## (2) Observations and Findings

No findings of significance were identified.

The team determined that overall, corrective actions associated with CRs were appropriate and effective. However, there were some instances where long-standing and recurring equipment problems were not effectively evaluated and/or corrected. Two specific examples were identified, which were related to 1) repeat instances in which problem identification tags were left on systems or components after the work had been completed or canceled; and 2) corrective actions associated with the AFW recirculation valve controls were not revised as intended. Details for each of these examples are provided below.

 During the IP2 PI&R inspection (IR05000247/2004003), the NRC identified several deficiency tags that were still in place for completed work. Entergy issued IP2-2003-06956 to address this issue. Entergy identified additional examples in which deficiency tags were misapplied and issued IP3-2003-03048. During the inspection, the team identified additional examples in which deficiency tags were still applied to components for work that was completed or canceled. This issue was entered into their corrective action program as IP3-2004-03215. Although none of the identified problems affected the operability of any of the associated systems, the team noted leaving tags in place could adversely impact the entry of new problems on that component into the CAP.

A corrective action (Loss of Instrument Air AOP) associated with CR-IP3-2003-03742 (AFW recirculation valve controls) was not revised as intended. The procedure was upgraded and given a new number, but the proposed procedure change/feedback form was not transferred and linked to the new procedure number. Entergy issued CR-IP3-2004-03380 to address this issue.

The team reviewed the details associated with each of the items above, and determined that equipment operability had not been adversely impacted; and in each case, Entergy was pursuing an appropriate corrective action plan.

## 4OA6 Meetings, including Exit

The team presented the inspection results to Mr. Schwarz and other members of Entergy management and staff on October 1, 2004. Entergy acknowledged that no proprietary information was involved.

#### A-1

#### **ATTACHMENT**

#### SUPPLEMENTAL INFORMATION

#### **KEY POINTS OF CONTACT**

## Licensee Personnel

V. Andreozzi Supervisor, System Engineering, Electrical and I&C

J. Comiotes Director, Nuclear Safety Assurance

G. Dahl Licensing Engineer

J. Donnelly Manager, Corrective Actions

C. Embry Operations Support

M. Hornyak Sr. Operating Experience Coordinator

T.R. Jones Licensing Supervisor L. Lubrano Component Engineer

V. Myers Systems Engineering Primary Systems Supervisor

W. Nilsen, Jr. Maintenance Support Supt

R. Plechaty Nuclear Mechanic

A. Remskar Operating Experience Coordinator

J. Reynolds Supervisor, Corrective Action & Assessment

H. Smith Nuclear Electrical Technician

C. Schwarz General Manager, Plant OperationsG. Sciascia Sr. Nuclear Electrical Technician

B. Taggart Employee Concerns
J. Ventosa Manager, Operations

## LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

## None

#### LIST OF DOCUMENTS REVIEWED

## Procedures

EN-LI-102	Corrective Action Process, Rev. 0
EN-LI-104	Self-Assessment and Benchmark Process, Rev.0
EN-LI-111	Operational Decision-Making Issue (ODMI) Process, Rev. 0
EN-LI-114	Performance Indicator Process, Rev. 1
EN-LI-118	Root Cause Analysis Process, Rev. 0
EN-OE-100	Operating Experience Program, Rev. 0
ENN-DC-121	Maintenance Rule, Rev. 2
IP-SMM-LI-102	Corrective Action Review Board, Rev. 1

# Surveillance Tests

3PT-Q134A 31 RHR Pump Functional Test, Revision 0, performed 8/25/04, 3/3/04, 5/25/04 3PT-Q01A 31 Station Battery Surveillance, Revision 5

# Condition Reports (all are prefixed with CR)

IP2-03-01341	IP3-03-04720	IP3-04-00192	IP3-04-02603
IP2-03-05886	IP3-03-04727	IP3-04-00209	IP3-04-02624
IP2-03-06884	IP3-03-04823	IP3-04-00395	IP3-04-02626
IP2-03-06956	IP3-03-04967	IP3-04-00487	IP3-04-02652
IP2-04-03561	IP3-03-04953	IP3-04-00626	IP3-04-02683
IP2-04-03606	IP3-03-04990	IP3-04-00771	IP3-04-02691
IP2-04-04687*	IP3-03-05112	IP3-04-00071	IP3-04-03008
IP2-04-04688*	IP3-03-05142	IP3-04-01097	IP3-04-03034
IP3-02-00943	IP3-03-05158	IP3-04-01125	IP3-04-03133
IP3-02-02072	IP3-03-05260	IP3-04-01209	IP3-04-03193
IP3-02-04550	IP3-03-05379	IP3-04-01316	IP3-04-03197
IP3-02-04581	IP3-03-05550	IP3-04-01411	IP3-04-03199*
IP3-02-04599	IP3-03-05575	IP3-04-01476	IP3-04-03201*
IP3-02-04923	IP3-03-05648	IP3-04-01538	IP3-04-03205
IP3-03-00153	IP3-03-05833	IP3-04-01715	IP3-04-03215*
IP3-03-00160	IP3-03-05883	IP3-04-01828	IP3-04-03309
IP3-03-00173	IP3-03-05912	IP3-04-02008	IP3-04-03227
IP3-03-00923	IP3-03-06007	IP3-04-02067	IP3-04-03226*
IP3-03-01059	IP3-03-06050	IP3-04-02134	IP3-04-03284
IP3-03-01518	IP3-03-06106	IP3-04-02141	IP3-04-03355
IP3-03-01523	IP3-03-06107	IP3-04-02142	IP3-04-03380*
IP3-03-02274	IP3-03-06151	IP3-04-02143	IP3-04-03284*
IP3-03-02367	IP3-03-06298	IP3-04-02362	IP3-04-03335*
IP3-03-02795	IP3-03-06317	IP3-04-02399	IP3-04-03380*
IP3-03-03048	IP3-03-06320	IP3-04-02401	IP3-04-03388*
IP3-03-03368	IP3-03-06321	IP3-04-02403	IP3-04-03394*
IP3-03-03742	IP3-03-06374	IP3-04-02406	IP3-04-03395*
IP3-03-03809	IP3-03-06443	IP3-04-02419	IP3-04-03397*
IP3-03-03893	IP3-03-06513	IP3-04-02421	IP3-04-03401*
IP3-03-03975	IP3-03-06956	IP3-04-02459	IP3-04-04687*
IP3-03-04048	IP3-04-00119	IP3-04-02479	IP3-04-04688*
IP3-03-04717	IP3-04-00130	IP3-04-02509	

(Note " \* " = CR was generated as a result of NRC inspection)

#### Audits and Self-Assessments

A03-02-01, Quality Assurance Audit

A03-04-01, Quality Assurance Audit

A03-03-I, IPEC Corrective Action Program

IP2 Incident Response Quality Review Of Cr Response (January 12, 2004)

LO- IP3LO-2002-00087, Benchmark Report for Corrective Actions Trend Report

LO-IP3LO-2003-00274, IPEC Focused Self-Assessment Report - Maintenance Rework

LO-IP3LO-200-00313, IPEC Protective Tagging Orders (PTO) Process

LO-IP3LO-2004-00162, IPEC Focused Self-Assessment Report - Maintenance Procedures and Work Instructions

LO-IP3LO-2004-00177, IPEC Reactivity Management

LO-IP3LO-2004-00312, IPEC Long Term Tagouts

2004 Operating Experience Program Self-Assessment (July 12, 2004)

IP3 Forced Outage (FOT3) Critique (February 12, 2003)

Human Performance (April 16, 2004)

Maintenance Integration (April 14, 2004)

Transition from Outage to Online (August 7, 2003)

#### System Health Reports (2004)

Auxiliary Feedwater, First Quarter Component Cooling Water, Second Quarter DC Power, Second Quarter Emergency Diesel Generators, Second Quarter Service Water, First Quarter

## Work Orders

13-000461001	IP3-02-03898
13-017701488	IP3-03-15783
13-020087300	IP3-03-15784
13-027709802	IP3-03-17711
IP2-04-21379	IP3-03-17652
IP3-02-00630	IP3-03-22975
IP3-02-00688	IP3-03-25400
IP3-02-01274	IP3-03-25400
IP3-02-02031	IP3-04-04652
IP3-02-02998	IP3-04-04560
IP3-02-21732	IP3-04-06154
IP3-03-22471	IP3-04-09360
IP3-03-22473	IP3-04-15947
IP3-02-03230	IP3-04-15948
IP3-03-03324	IP3-04-15949
IP3-02-03872	IP3-04-18855
IP3-03-03882	

## Operating Experience Reviews (all are prefixed with CR)

OEN-2004-117 OEN-2004-127 OEN-2004-130 OEN-2004-135 OEN-2004-142 OEN-2004-148 OEN-2004-151 OEN-2004-163

#### Other

316EDGF CB Exhaust Fan Vibration Data

CARB Agenda, September 15, 2004

CRG Morning Report September 17, 2004

IP3-CALC-EDG-03849, Revision 0, Structural Evaluation of Oil Leak for Line 1055

IP3-LO-2003-00332

IPEC Operations Shift Orders, September 28, 2004

Letter INT-00-228, Plant Operation with Reduced CRDM Flow, dated September 8, 2000

LO-IP3LO-2003-00426 LO-OEN-2003-00112

Quarterly Corrective Action Trend Report - Fourth Quarter 2003

Quarterly Corrective Action Trend Report - First Quarter 2004

Quarterly Corrective Action Trend Report - Second Quarter 2004

Safety Injection System Health Reports , 1st Quarter 2002 - 1st Quarter 2004

#### LIST OF ACRONYMS

ADAMS Agencywide Documents Access & Management System

AFW Auxiliary Feedwater

AOP Abnormal Operating Procedure
CA&A Corrective Action and Assessment

CAP Corrective Action Program
CFR Code of Federal Regulations

CR Condition Report DC Direct Current

IP3 Indian Point Generating Unit No. 3

NCV Non-Cited Violation

NRC Nuclear Regulatory Commission PARS Publically Available Records

PI&R Problem Identification and Resolution

ROP Reactor Oversight Process