



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

July 17, 2013

Docket No. 05000003

License No. DPR-5

John Ventosa
Site Vice President
Entergy Nuclear Operations, Inc.
Indian Point Energy Center
450 Broadway, GSB
P.O. Box 249
Buchanan, NY 10511-0249

SUBJECT: ENTERGY NUCLEAR OPERATIONS, INC., INDIAN POINT NUCLEAR
GENERATING STATION UNIT 1 – NRC INSPECTION REPORT NO.
05000003/2013008

Dear Mr. Ventosa:

On June 25 - 27, 2013, the U.S. Nuclear Regulatory Commission (NRC) conducted an inspection at the Indian Point Nuclear Generating Station Unit 1. The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations, and the conditions of your license. The inspection consisted of observations by the inspector, interviews with personnel, and a review of procedures and records. The results of the inspection were discussed with Chris English, Superintendent, Unit 1, and other members of your staff on June 27, 2013, and are described in the enclosed inspection report. No findings of safety significance were identified.

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Med, Ind, & Academic Uses**; then **Regulations, Guidance and Communications**. The current Enforcement Policy is included on the NRC's website at www.nrc.gov; select **About NRC, Organizations & Functions; Office of Enforcement; Enforcement documents**; then **Enforcement Policy (Under 'Related Information')**. You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 8:00 a.m. to 5:30 p.m. EST, Monday through Friday (except Federal holidays).

J. Ventosa

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Please contact Laurie Kauffman (610-337-5323) if you have any questions regarding this matter.

Sincerely,

A handwritten signature in black ink, appearing to read "Mr S Ferdas", with a long horizontal line extending to the right.

Marc S. Ferdas, Chief
Decommissioning Branch
Division of Nuclear Materials Safety

Enclosure: Inspection Report No. 05000003/2013008

cc w/encl: Distribution via ListServ

J. Ventosa

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Please contact Laurie Kauffman (610-337-5323) if you have any questions regarding this matter.

Sincerely,

Original Signed By Marc S. Ferdas

Marc S. Ferdas, Chief
Decommissioning Branch
Division of Nuclear Materials Safety

Enclosure: Inspection Report No. 05000003/2013008

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| OFFICE | DNMS/RI | N | DNMS/RI | | | | |
| NAME | LKauffman/lk | | MFerdas/msf | | | | |
| DATE | 07/ 16 / 2013 | | 07/ 17 / 2013 | | | | |

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U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Inspection No. 05000003/2013008
Docket No. 05000003
License No. DPR-5
Licensee: Entergy Nuclear Operations Inc. (Entergy)
Facility: Indian Point Nuclear Generating Station Unit 1 (IP-1)
Address: 450 Broadway
Buchanan, NY 10511-0249

Inspection Dates: June 25 - 27, 2013

Inspector: Laurie A. Kauffman
Health Physicist
Decommissioning Branch
Division of Nuclear Materials Safety

Approved By: Marc S. Ferdas, Chief
Decommissioning Branch
Division of Nuclear Materials Safety

EXECUTIVE SUMMARY

Entergy Nuclear Operations, Inc.
Indian Point Nuclear Generating Station Unit 1
NRC Inspection Report No. 05000003/2013008

A routine announced safety inspection was conducted on June 25 through 27, 2013, at IP-1. The inspection included a review of operations, management oversight, maintenance, corrective action program implementation, fire protection, and plant support activities while in safe storage (SAFSTOR) status. The inspection consisted of observations by the inspector, interviews with Entergy personnel, and a review of procedures and records. The inspection also included a review of activities associated with the partial dismantlement of the IP-1 vent stack. The NRC's program for overseeing the safe operation of a shut-down nuclear power reactor is described in Inspection Manual Chapter (IMC) 2561, "Decommissioning Power Reactor Inspection Program." Based on the results of this inspection, no findings of safety significance were identified.

REPORT DETAILS

1.0 Background

IP-1 is a pressurized water reactor that was granted a 40-year Operating License in 1962, and was permanently shut down in 1974, and is being maintained in SAFSTOR status. Pursuant to the June 19, 1980 "Commission Order Revoking Authority to Operate Facility" and the "Decommissioning Plan for Indian Point Unit No. 1," approved by the NRC in an Order, dated January 31, 1996, the reactor remains in a defueled status and the unit continues to operate as a support facility for Indian Point Nuclear Generating Station Unit 2 (IP-2) operations.

IP-1 and IP-2 are physically contiguous and share systems and facilities as well as a common operating organization. IP-1 contains radioactive waste processing facilities, which provide waste processing services for both units. Radiological effluent limits are met on an overall site basis and specific operating limits and surveillance requirements for effluent monitoring instrumentation, including stack noble gas monitoring, are discussed in the Offsite Dose Calculation Manual (ODCM).

Services provided by IP-2 include maintenance, corrective action program implementation, plant support activities while in SAFSTOR status, and implementation of the SAFSTOR activities required in the Updated Final Safety Analysis Report (UFSAR), and Technical Specifications (TS).

Appendix A to Provisional Operating License No. DPR-5 recognizes this commonality as well as the intended use of the IP-1 facilities to support IP-2 until retirement of that unit, and contains specific references to Appendix A of the IP-2 Facility Operating License No. DPR-26.

The NRC's program for overseeing the safe operation of a shut-down nuclear power reactor is described in IMC 2561.

2.0 Safe Storage (SAFSTOR) Performance and Status Review

- a. Inspection Scope (Inspection Procedures (IPs) 36801, 37801, 40801, 62801, 64704, 71801, 83750, 84750, 86750)

A routine announced safety inspection was conducted on June 25 through 27, 2013, at IP-1. The inspector reviewed the SAFSTOR program as outlined in the UFSAR, TS, ODCM, and procedure IP-SMM-U1-001, "IPEC Site Management Manual, Control of Indian Point 1," to assess the adequacy of management oversight of SAFSTOR responsibilities for the IP-1 facility. Specifically, the inspector reviewed the decommissioning management and staff organization and Entergy's implementation of SAFSTOR activities related to safe storage of radioactive material. The inspector discussed any design changes or modifications since the previous inspection. The inspector also conducted a tour to assess the material condition of IP-1 facility (nuclear service building, the chemical systems building, fuel handling building, and the IP-1 main stack).

The inspector also reviewed activities associated with the partial dismantlement of the IP-1 vent stack and containment annulus exhaust duct that occurred between June 2012 and February 2013. Specifically, the inspector reviewed the most recent engineering change

notices (ECNs) to the engineering change (EC) document 32468, "IP-1 Vent Stack Height Modification." The inspector reviewed documents used by Entergy during the partial dismantlement of the IP-1 stack, including work orders, radiation work permits, and documents associated with the management, control and transportation of the stack debris.

The inspector reviewed activities and documentation associated with the following SAFSTOR programs: occupational exposure, fire protection, radioactive effluent control, and site radiological environmental monitoring program (REMP). The inspector reviewed radioactive gaseous and liquid effluent release reports, the groundwater monitoring program, the annual REMP report, and the annual effluent report, which included a summary of the radioactive waste management and transportation programs.

The inspector also reviewed corrective action program (CAP) condition reports associated with IP-1 to determine if issues were being properly identified and evaluated, and if corrective actions were appropriately prioritized in the CAP. The inspector also reviewed corrective actions related to condition report CR-IP2-2012-03986, which addressed a Severity Level IV Non Cited Violation that was issued in NRC Inspection Report No. 05000003/2012010, dated July 19, 2012.

b. Observations and Findings

The inspector noted that there were no personnel changes within IP-1 related to the SAFSTOR activities and confirmed that the staff effectively implemented the SAFSTOR program. The inspector verified that the maintenance and surveillance program for systems and components had been conducted in accordance with the TS requirements and established procedures.

The inspector evaluated four ECNs to EC32468 related to the IP-1 vent stack partial dismantlement. The changes included suspending the demolition of the stack and containment annulus exhaust duct at 200 feet (ft) above mean sea level (msl) instead of at 170 ft above msl, as originally planned. The changes also included re-evaluation of the associated seismic, wind fragility, and dose assessments for the stack at 200 ft above msl. The inspector determined that the decision to suspend the dismantlement activities at 200 ft above msl did not significantly alter the conclusions of the original EC and that Entergy's overall dismantlement goals had been met. The inspector determined through interviews and a review of condition reports that there were no accidental drop events during this project. The inspector noted that the partial demolition of the stack and containment annulus exhaust duct was completed and Entergy was in the process of completing some final activities associated with the project (welding a new grating cover at the top of the stack, removing debris from the hopper, and painting the stack and containment annulus exhaust duct) at the time of the inspection.

The annual radiological effluent and REMP reports demonstrated that all calculated doses were below regulatory dose criteria of 10 CFR 50, Appendix I. The inspector noted that Entergy shipped one container of debris from the stack dismantlement project for offsite disposal, as low specific activity radioactive material. The inspector determined that the radioactive waste shipping papers were complete and accurate.

The inspector determined that issues were entered into the CAP, prioritized, and evaluated commensurate with their safety significance. Corrective actions were implemented to address identified issues and were being tracked to closure using the CAP.

c. Conclusions

Based on the results of this inspection, no findings of safety significance were identified.

3.0 Exit Meeting Summary

On June 27, 2013, the inspector presented the inspection results to Chris English, Superintendent, IP-1, and other members of Entergy's organization. The inspector confirmed that proprietary information was not provided or examined during the inspection.

SUPPLEMENTARY INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

G. Dahl, Licensing Engineer
M. Donegan, Certified Health Physicist Consultant, IP-1
J. Doroski, Health Physics and Chemistry Specialist
C. English, Superintendent, IP-1
M. Readinger, Radiation Protection Supervisor
R. Rodino, Superintendent, Radiation Protection
W. Scholtens, Radioactive Waste Engineer

ITEMS OPEN, CLOSED, AND DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

Indian Point Unit 1 Final Safety Analysis Report
IP-1 TS (Appendix A to Provisional Operating License No. DPR-5)
IP-2 TS (Appendix A of the Indian Point Unit 2 Facility Operating License No. DPR-26)
Indian Point Offsite Dose Calculation Manual (ODCM)
0-CY-1840, "ODCM Impact Reviews"
IP-SMM-U1-001, "IPEC Site Management Manual, Control of Indian Point 1"
0-RP-ADM-109, "Radiation Protection Periodic Task Scheduling"
EN-RP-101, "Access Control for Radiologically Controlled Areas"
EN-RP-108, "Radiation Protection Posting"
EN-RP-203, "Dose Assessment"
RP-STD-17, "Satellite RP Key Issuance and HRA, LHRA, and VHRA Boundary Verifications"
IPEC-CHM-13-001, "Radioactivity Releases From IPEC – December 2012. Memorandum dated January 9, 2013"
2012 Annual Radioactive Effluent Release Report, dated May 1, 2013
Liquid Release and Dose Summary Reports, January 2012 – May 2013
Gaseous Release and Dose Summary Reports, January 2012 – May 2013
TST-2-PC-EM32-2Y TS PRM R-60 CAL (WO#52309310-01) April 19, 2013
TST-2-PC-2Y23-62-2Y CAL R-62 (WO#52309287-01) August 24, 2011
2-SOP-12-03-01 and 2-SOP-12-03-02 for Radiation Monitor (R-60) Operation
Sphere Foundation Sump Pump Discharge Flow Meter Calibration (WO#52309615-01) 12/15/11
North Curtain Drain Effluent Line Flow Meter Calibration (WO#52309368-01) 9/25/2012
2012 Annual Radiological Environmental Operating Report, dated May 15, 2013
IP-RPT-11-00044, "SAFSTOR 2011 Structural Inspection"
EN-LI-100, "Process Applicability Determination; Engineering Change 32468/ECN40171
EC No.: 32468/ ECN 37267; ECN 40171; ECN 42663; ECN 44305; ECN 45312"

Radiological Surveys - Containment (all elevations) (June 2012; November 2012; April 2013)
 Radiological Surveys - IP-1 steam generators (June 2012; November 2012; April 2013)
 Dose Totals for 2012 and January – June 2013 (RWPs: 2013-1000 through 1005)

SEP-FPP-IP-001, "IPEC Fire Protection Program Plan"
 O-PT-M004, "Fire Extinguisher Inspection" (monthly: December 2012 through May 2013)
 PT-A17B, "Fire Hose Stations" (annual: April 2012 and April 2013)
 2-PT-A062, "Fire Hose Hydrostatic Test Verification" (annual: July 21, 2011 & September 2, 2012)
 2-PT-M112, "Fire Protection Flow Path and Hose Station Equipment Verification" (monthly: April and May 2013)

Condition Reports: IP2-2012-03888; IP2-2012-03890; IP2-2012-03986; IP2-2012-04163; IP2-2012-04752; IP2-2012-04810; IP2-2012-06344; IP2-2012-04856; IP2-2012-04946; IP2-2012-07021; IP2-2013-00397; IP2-2013-00519; IP2-2013-00807; IP2-2013-01040; IP2-2013-01865; IP2-2013-01687; IP2-2013-01714; IP2-2013-01789; IP2-2013-02044;

LIST OF ACRONYMS USED

| | |
|---------|--------------------------------------|
| CAP | Corrective Action Program |
| EC | Engineering Change |
| ECN | Engineering Change Notice |
| Entergy | Entergy Nuclear Operations, Inc. |
| ft | feet |
| IMC | Inspection Manual Chapter |
| IP | Inspection Procedure |
| IPEC | Indian Point Energy Center |
| IP-1 | Indian Point Unit 1 |
| IP-2 | Indian Point Unit 2 |
| msl | Mean Sea Level |
| NRC | Nuclear Regulatory Commission |
| ODCM | Offsite Dose Calculation Manual |
| SAFSTOR | Safe Storage |
| TS | Technical Specification |
| UFSAR | Updated Final Safety Analysis Report |