



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

September 12, 2017

Docket No. 05000003

License No. DPR-5

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

SUBJECT: ENERGENCY NUCLEAR OPERATIONS, INC., INDIAN POINT NUCLEAR
GENERATING STATION UNIT 1 – NRC INSPECTION REPORT NO.
05000003/2017009

Dear Mr. Vitale:

On September 5 – 7, 2017, 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 you and other members of your staff on September 7, 2017, 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 **Radioactive Waste; Decommissioning of Nuclear Facilities; How We Regulate**; 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).

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosure(s), and your response will be made available electronically for public inspection in the NRC Public Document Room or from the NRC document system (ADAMS), accessible from the NRC website at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

A. Vitale

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No reply to this letter is required. Please contact Briana DeBoer (610) 337-5370 if you have any questions regarding this matter.

Sincerely,

/RA/

Raymond J. Powell, Chief
Decommissioning and Technical
Support Branch
Division of Nuclear Materials Safety

cc w/encl: Distribution via ListServ

Enclosure: Inspection Report No. 05000003/2017009

A. Vitale

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No reply to this letter is required. Please contact Briana DeBoer (610) 337-5370 if you have any questions regarding this matter.

Sincerely,

/RA/

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U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Inspection No. 05000003/2017009
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: September 5-7, 2017
Inspector: Briana DeBoer
Health Physicist
Decommissioning and Technical Support Branch
Division of Nuclear Materials Safety
Region I
Approved By: Raymond Powell, Chief
Decommissioning and Technical Support Branch
Division of Nuclear Materials Safety
Region I

Enclosure

EXECUTIVE SUMMARY

Entergy Nuclear Operations, Inc.
Indian Point Nuclear Generating Station Unit 1
NRC Inspection Report No. 05000003/2017009

A routine announced safety inspection was conducted on September 5-7, 2017 at IP-1. The inspectors reviewed IP-1's activities related to the safe storage of radioactive material, including site operations, engineering, maintenance, plant support activities, management oversight, and corrective action program (CAP) implementation. The inspection consisted of observations by the inspector, interviews with Entergy personnel, a review of procedures and records, and plant walk-downs. There are currently no ongoing decommissioning activities being conducted at IP-1. 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. The facility 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. There are ongoing activities in the IP-1 space that are support services for Indian Point Nuclear Generating Station Unit 2 (IP-2) and to a lesser extent Indian Point Nuclear Generating Station Unit 3 (IP-3).

IP-1 and IP-2 are physically contiguous and share systems, such as the integrated liquid waste system and the air handling system; and facilities, such as the chemistry and health physics laboratories. IP-1 also contains radioactive waste processing facilities that 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).

Support services provided by IP-2 to IP-1 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 facility to support IP-2 until the 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, 64704, 71801, 83750, 84750, 86750)

A routine announced safety inspection was conducted on September 5 – 7, 2017 at IP-1. The inspection consisted of observations by the inspector, interviews with Entergy personnel, a review of procedures and records, and plant walk-downs. The inspector reviewed the safe storage (SAFSTOR) program as outlined in the UFSAR, TS, ODCM, and procedure IP-SMM-U1-001, “IPEC Site Management Manual, Control of Indian Point 1.” The inspector reviewed SAFSTOR activities, including site operations, engineering, maintenance, plant support activities, management oversight, and the corrective action program (CAP). The inspector also assessed the material condition of the IP-1 facilities during plant tours of the containment annulus, chemical systems building, containment building, and fuel handling

building. The inspector also discussed any design changes or modifications since the previous inspection.

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

The inspector reviewed quality assurance (QA) audit and CAP documents associated with IP-1 to determine if issues were being appropriately identified, assessed and reviewed; and that corrective actions were being appropriately implemented.

b. Observations and Findings

The inspector noted that organizational responsibilities for IP-1 were shared across multiple groups within the Indian Point Energy Center (IPEC) organization. The inspector discussed the IP-1 support functions performed by various organizational groups including operations, radiation protection, engineering, and work control with representatives from the respective groups and found that activities were effectively coordinated between the various technical groups to maintain IP-1's SAFSTOR condition. The inspector discussed prioritization of maintenance activities for IP-1 with a representative from the work control organization to ensure essential items were being performed in a timely manner.

The inspector confirmed that the staff effectively implemented the SAFSTOR program. The inspector verified that the staff conducted the maintenance and surveillance program for systems and components in accordance with the TS requirements and established procedures. The inspector evaluated the results of Entergy's IP-1 2016 structural engineering inspection that included the Chemical Systems Building, Fuel Handling Building, Superheater Building, and Utility Tunnel. The inspection found that there were some areas of deterioration, but no areas required immediate action.

The annual radiological effluent and REMP reports demonstrated that all calculated doses were below regulatory dose criteria of 10 Code of Federal Regulations (CFR) 50, Appendix I. The inspector noted that radioactive waste from Unit 1 was not shipped for offsite disposal or processing since the last inspection.

The inspector determined that Entergy effectively entered concerns into the CAP to prioritize and evaluate them commensurate with their safety significance. Generally, Entergy effectively addressed identified issues, implemented corrective actions, and tracked them to closure.

c. Conclusions

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

3.0 Exit Meeting Summary

On September 7, 2017, the inspectors presented the inspection results to Anthony Vitale, Site Vice President, and other members of Entergy's organization. The inspectors confirmed that proprietary information was not removed from the site.

SUPPLEMENTARY INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

S. Bianco, Fire Marshall
S. Cuvelier, Licensed Reactor Operator
G. Dahl, Nuclear Safety/Licensing Specialist IV, Regulatory Assurance
J. Doroski, Senior Health Physics/Chemistry Specialist
K. Elliott, Fire Protection Engineer
S. O'Brien, QA Supervisor
W. O'Brien, RP Supervisor
R. Passaulgo, RP Supervisor
J. Ruch, Engineer III, Design Engineering – Civil
P. Searfoorce, Online Superintendent
J. Skonieczny, Lead Senior Engineer, Civil
B. Vanburen, Nuclear Plant Operator
A. Vitale, Site Vice President

ITEMS OPEN, CLOSED, AND DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

EN-WM-100, Work Request (WR) Generation, Screening and Classification, Revision 13
IP-1 TS (Appendix A to Provisional Operating License No. DPR-5)
Indian Point Unit 1 Final Safety Analysis Report
IP-RPT-16-00087, Maintenance Rule Structural Monitoring Inspection Report (Fifth Cycle) for the
Unit 1 Superheater Building, dated April 7, 2017
IP-RPT-16-00089, Maintenance Rule Structural Monitoring Inspection Report (Fourth Cycle) for
the IP1 Utility Tunnel, dated May 30, 2017
IP-RPT-16-00092, Indian Point Unit 1 SAFSTOR 2016 Structural Inspection, dated August 31,
2017
IP-SMM-U1-001, Control of Indian Point 1, Revision 4
QA-2-6-2015-IP-1, Quality Assurance Audit Report, Chemistry, Effluents and Environmental
Monitoring
QA-0-2016-IP-1, Quality Assurance Audit Report, Fire Protection
QA-12/18-2015-IP-1, Quality Assurance Audit Report, Operations/Technical Specifications
QA-14/15-2015-IP-1, Quality Assurance Audit Report, Radwaste/Radiation Protection
Radiological Surveys for IP-1 Containment Building, November 2016, March 2017, May 2017
RP-ADM-109, Radiation Protection Periodic Task Scheduling, Revision 8
RWP 20171000, Unit 1 Safestore Support, Revision 00
RWP Totals for RWP 20171000, 20171001, 20171002, report generated September 6, 2017
TST-PT-A17B- 1Y Test Fire Hose Station
TST-2-PT-M112 – Fire Prot Flow Path and Hose Station Equip
2016 Annual Radioactive Effluent Release Report Indian Point Nuclear Generating Unit Nos 1, 2,
and 3, dated April 26, 2017
2016 Annual Radiological Environmental Operating Report Indian Point Unit Nos. 1, 2, and 3,
dated May 15, 2017
2017 Liquid Release Permit Reports, U1 Foundation Drain, North Curtain Drain, Sphere
Foundation Drain Sump
1-ARP-002, Unit 1 Supervisory Panel, Revision 25
2-RND-SF, Support Facilities Round List, dated September 6, 2017

Condition Reports: CR-IP2-

2016-6044 2016-7206 2017-1208 2017-1504 2017-2054 2017-3030 2017-
3031

LIST OF ACRONYMS USED

CAP	Corrective Action Program
Entergy	Entergy Nuclear Operations, Inc.
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IPEC	Indian Point Energy Center
IP-1	Indian Point Unit 1
IP-2	Indian Point Unit 2
NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
QA	Quality Assurance
REMP	Radiological Environmental Monitoring Program
SAFSTOR	Safe Storage
TS	Technical Specification
UFSAR	Updated Final Safety Analysis Report