UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

March 4, 2022

Mr. Kelly Trice
President - HDI
Holtec Decommissioning International, LLC
Krishna P. Singh Technology Campus
1 Holtec Boulevard
Camden, NJ 08104

SUBJECT: HOLTEC DECOMMISSIONING INTERNATIONAL, LLC, INDIAN POINT ENERGY CENTER UNITS 1, 2 AND 3 - NRC INSPECTION REPORT NOS. 05000003/2021004, 05000247/2021004, 05000286/2021004, AND 07200051/2021001

Dear Mr. Trice:

On December 31, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection under Inspection Manual Chapter 2561, “Decommissioning Power Reactor Inspection Program” and IMC 2690, “Inspection Program for Storage of Spent Reactor Fuel and Reactor Related Greater-Than-Class C Waste at Independent Spent Fuel Storage Installations and for 10 CFR Part 71 Transportation Packagings” at the permanently shut down Indian Point Nuclear Generating Station Units 1, 2 and 3. A combination of on-site and remote inspection activities (in-office reviews) were performed as a consequence of the COVID-19 public health emergency (PHE) during this inspection period. The inspection examined activities conducted under your licenses as they relate to safety and compliance with the Commission’s rules and regulations, and the conditions of your licenses. The inspection consisted of observations by the inspectors, interviews with site personnel, a review of procedures and records and plant walk-downs. The results of the inspection were discussed with Mr. Richard Burroni, Site Vice President and other members of your staff on January 20, 2022, and are described in the enclosed inspection report.

Based on the results of this inspection, one NRC-identified violation of NRC requirements of very low safety significance (Severity Level IV) is documented in this report. Because of the very low safety significance and because it was entered into your corrective action program, the NRC is treating the violation as a Non-Cited Violation (NCV), consistent with Section 2.3.2.a of the Enforcement Policy.

If you contest the subject or severity of this NCV, you should provide a response within 30 days of the date of this letter, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington DC 20555-0001; with copies to the Regional Administrator, Region I; and the Director, Office of Enforcement, U.S. Nuclear Regulatory Commission, Washington, DC 20555-001.

In accordance with 10 Code of Federal Regulations (CFR) 2.390 of the NRC’s "Rules of Practice," a copy of this letter, its enclosure, and your response, if any, 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. Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Radioactive Waste**; **Decommissioning of Nuclear Facilities**; 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).

No reply to this letter is required. Please contact Katherine Warner of my staff at (610) 337-5389 if you have any questions regarding this matter.

Sincerely,

Anthony M. Dimitriadis

Digitally signed by Anthony M. Dimitriadis
Date: 2022.03.04 08:42:44 -05'00'

Anthony Dimitriadis, Chief
Decommissioning, ISFSI, and Reactor Health Physics Branch
Division of Radiological Safety and Security

Docket Nos. 05000003, 05000247, 05000286, and 07200051
License Nos. DPR-5, DPR-26 and DPR-64

cc w/encl: Distribution via ListServ

Enclosure: Inspection Report Nos. 05000003/2021004, 05000247/2021004, 05000286/2021004, and 07200051/2021001 w/Attachment

HOLTEC NUCLEAR OPERATIONS, INC., INDIAN POINT NUCLEAR GENERATING STATION UNITS 1, 2 AND 3, NRC INSPECTION REPORT NOS. 05000003/2021004, 05000247/2021004, 05000286/2021004, AND 07200051/2021001 DATED MARCH 4, 2022

DOCUMENT NAME: https://usnrc.sharepoint.com/:w:/r/teams/Region-I-Decommissioning-Branch/_layouts/15/Doc.aspx?sourcedoc=%7BA7B950C4-84B3-47EE-9999-EC3E0CFF21BC%7D&file=4Q%202021%20Indian%20Point%20Decommissioning%20report.docx&action=default&mobileredirect=true

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SUNSI Review Complete: KWarner After declaring this document "An Official Agency Record" it **will** be released to the Public. **To receive a copy of this document, indicate in the box: "C"** = Copy w/o attach/encl **"E"** = Copy w/ attach/encl **"N"** = No copy

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DATE	01/24/2022		03/04/2022					

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U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Docket Nos.	05000003, 05000247, 05000286, and 07200051
License Nos.	DPR-5, DPR-26, and DPR-64
Report Nos.	05000003/2021004, 05000247/2021004, 05000286/2021004, and 07200051/2021001
Licensee:	Holtec Decommissioning International, LLC (HDI)
Facility:	Indian Point Energy Center, Units 1, 2 and 3
Location:	Buchanan, NY
Inspection Dates:	October 1 – December 31, 2021
Inspectors:	K. Warner, Senior Health Physicist Decommissioning, ISFSI and Reactor Health Physics Branch Division of Radiological Safety and Security E. DiPaolo, Senior Reactor Inspector Engineering Branch 2 Division of Operating Reactor Safety S. Harwell, Financial Analyst Financial Assessment Branch Division of Rulemaking, Environmental, and Financial Support P. Koch, Structural Engineer Materials and Structural Branch Division of Fuel Management L. Parks, Risk Analyst, Training Risk and Technical Analysis Branch Division of Decommissioning, Uranium Recovery, and Waste Programs R. Rodriquez, Structural Engineer Materials and Structural Branch Division of Fuel Management J. Tapp, Storage and Transportation Safety Inspector Inspection and Oversight Branch Division of Fuel Management

Enclosure

R. Turtil, Senior Financial Analyst,
Financial Assessment Branch
Division of Rulemaking, Environmental, and Financial Support

Observers: H. Roth, P.E.
Fire Protection Engineer 2
New York State Office of Fire Prevention and Control
New York State Homeland Security and Emergency Services
(Section 2.2)

Approved By: Anthony Dimitriadis, Chief
Decommissioning, ISFSI and Reactor Health Physics Branch
Division of Radiological Safety and Security

Enclosure

EXECUTIVE SUMMARY

Holtec Decommissioning International, LLC (HDI)
Indian Point Energy Center Units 1, 2, and 3 (IP-1, IP-2, and IP-3)
NRC Inspection Report Nos. 05000003/2021004, 05000247/2021004, 05000286/2021004, 07200051/2021001

An announced quarterly decommissioning inspection was completed on December 31, 2021 at Indian Point Units 1, 2, and 3. A combination of on-site and remote inspection activities were performed over this period. The inspection included a review of problem identification and resolution at permanently shut down reactors, fire protection, spent fuel safety, financial assurance and decommissioning performance and status. The inspection consisted of observations by the inspectors, interviews with site personnel, a review of procedures and records, and plant walk-downs. The U.S. Nuclear Regulatory Commission's (NRC's) program for overseeing the safe decommissioning of a shut down nuclear power reactor is described in Inspection Manual Chapter (IMC) 2561, "Decommissioning Power Reactor Inspection Program."

Additionally, the inspection period included a review and observation of the ISFSI dry cask activities and a review of the structural analysis of a second planned ISFSI pad at Indian Point. The NRC's program for overseeing the operation of dry storage of spent fuel at an ISFSI is described in IMC 2690, "Inspection Program for Storage of Spent Reactor Fuel and Reactor Related Greater-Than-Class C Waste at Independent Spent Fuel Storage Installations and for 10 CFR Part 71 Transportation Packagings."

List of Violations

One NRC identified Severity Level IV NCV of Title 10 CFR 72.150, "Instructions, Procedures, and Drawings," is documented for failing to follow procedures that are relied upon to ensure that combustible material surrounding a loaded HI-STORM is less than the maximum evaluated. Specifically, HDI did not properly implement HPP-2880-0500, "HI-STORM Operations and Transport at IPEC" and as a result, did not identify diesel fuel in excess of the 50-gallon limit creating the potential for exceeding the allowable amount of fuel in the vicinity of a loaded HI-STORM. HDI entered the issue into its corrective action program (IR-IP2-00141).

REPORT DETAILS

1.0 Background

IP-1 was a pressurized water reactor that was granted a 40-year Operating License in 1962 and was permanently shut down in 1974. 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.

On February 8, 2017, Entergy Nuclear Operations, Inc. (Entergy) notified the NRC of its intent to permanently cease power operations at IP-2 and IP-3 by April 30, 2020, and April 30, 2021, respectively subject to operating extensions through, but not beyond 2024 and 2025 (Agencywide Documents and Access Management System (ADAMS) Accession Number: ML17044A004). On May 12, 2020, Entergy certified cessation of power operations and the permanent removal of fuel from the IP-2 reactor vessel (ADAMS Accession Number: ML20133J902). On May 11, 2021, Entergy certified cessation of power operations and permanent removal of fuel from the IP-3 reactor vessel (ADAMS Accession Number: ML21131A157). On May 13, 2021, the NRC notified Indian Point that the NRC would no longer perform its oversight activities in accordance with the Operating Reactor Assessment Program and that oversight would be conducted under the provisions outlined in IMC 2561 "Decommissioning Power reactor Inspection Program" (ADAMS Accession Number: ML21132A069). On May 28, 2021, Entergy Nuclear Operations, Inc. informed the NRC of the successful purchase and sale transaction closing of the Indian Point facilities to Holtec Decommissioning International, LLC (ADAMS Accession No. ML21147A553). On May 28, 2021, the NRC issued license amendments transferring Indian Point Unit Nos. 1, 2, and 3 facility licenses from Entergy Nuclear Operations, Inc. to Holtec Indian Point 2, LLC; Holtec Indian Point 3, LLC; and Holtec Decommissioning International, LLC (ADAMS Accession No. ML21126A004).

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).

IP-1 transitioned from "SAFSTOR, No Fuel in the Spent Fuel Pool Phase" to the "Actively Decommissioning (DECON), No Fuel in the Spent Fuel Pool" category and IP-2 and IP-3 transitioned from "Post Operation Transition Phase" to the "Actively Decommissioning (DECON), Fuel in the Spent Fuel Pool" category of decommissioning during this inspection period. The categories of decommissioning are described in IMC 2561.

2.0 Decommissioning Performance and Status Reviews

2.1 Inspection Procedures 37801, 40801, 71801, 83750, 86750

a. Inspection Scope

The inspectors performed on-site decommissioning inspections supplemented by in-office reviews and periodic phone calls. The inspection consisted of observations by the inspectors, interviews with site personnel, a review of procedures and records, and plant walk-downs. The inspectors attended several decommissioning planning meetings, including an initial planning meeting for removal of the Unit 3 mast climber removal and met periodically with IPEC management.

The inspectors assessed the implementation of IPEC's design change and plant modification processes to determine if select plant modifications were performed in accordance with applicable regulations, technical specifications, and license conditions. The inspectors reviewed select plant modifications to determine if the changes, tests, or experiments required NRC approval prior to implementation of the activity.

The inspectors assessed the implementation and effectiveness of IPEC's corrective action program (CAP) by reviewing the daily documentation of issues, non-conformances and conditions adverse to quality into the CAP. The inspectors reviewed a representative selection of CAP documents to determine if a sufficiently low threshold for problem identification existed, if follow-up evaluations were of sufficient quality, and if the site assigned timely and appropriate prioritization for issue resolution commensurate with the significance of the issue. The inspectors evaluated the effectiveness of the licensee's management oversight and quality assurance assessments of IPEC activities in accordance with the decommissioning quality assurance program (DQAP).

The inspectors reviewed select programs for emergency SFP level make up for wet spent fuel storage at IPEC Unit 3.

The inspectors performed several plant tours to assess field conditions and decommissioning activities by assessing material condition of structures, systems, and components, housekeeping, system configurations, and worker level of knowledge or procedure use and adherence. These tours included Unit 1 containment and various other areas in Unit 1. The inspectors reviewed documentation of several radioactive waste shipments.

b. Observations and Findings

The inspectors determined that 10 CFR 50.59 screenings and evaluations had been properly performed. The inspectors determined that selected changes made under 10 CFR 50.59 did not require prior NRC approval and safety reviews were performed for design changes and modifications in accordance with applicable regulatory requirements, license conditions and the Decommissioning Safety Analysis Report. One item reviewed of note is the IPEC engineering evaluation and 10 CFR 50.59 screening of the vapor containment equipment hatch enlargement activities (EC IPC-2021-018). During this inspection period,

IPEC performed enlargement activities on the equipment hatches for Units 2 and 3. This is considered a "major decommissioning activity" as defined under 10 CFR 50.2. The inspectors determined the activities were performed safely and in accordance with work plans.

The inspectors determined that issues had been identified, entered into the CAP, and evaluated commensurate with their safety significance through document review and observation of several management review committee meetings. The inspectors determined that IPEC had performed activities described in the DQAP as appropriate.

The inspectors determined that IPEC maintained the capability to maintain and restore Unit 3 Spent Fuel Pool cooling capabilities as required.

The inspectors interviewed personnel from IPEC and HDI personnel responsible for financial assurance on the overall financial status of decommissioning. The inspectors noted that NRC headquarters staff has the lead for assessing the appropriateness of a licensee's decommissioning fund allocation.

The inspectors conducted walk-downs and tours of various facilities, including the Unit 1 containment during this inspection period. The inspectors did not note any major changes to the material condition of the facilities. The inspectors noted that the modification associated with a change in liquid radwaste stream processing described in IR2021003 was ongoing during this inspection period. Implementation of this change will be reviewed during subsequent inspections. The inspectors verified that the processing, packaging, storage, and shipment of licensed radioactive material was performed as required by NRC regulations.

The inspectors discussed ongoing active decommissioning preparations and upcoming plans with IPEC staff.

c. Conclusions

No violations of more than minor safety significance were identified.

2.2 Inspection Procedure 64704, Fire Protection Program at Permanently Shutdown Reactors

a. Inspection Scope

The inspectors performed an inspection at Indian Point Units 1, 2, and 3 to determine if HDI maintained the Fire Protection Program (FPP) in a state of operational readiness and if changes made to the program continued to meet commitments, NRC requirements, and if such changes had negatively affected the overall state of the FPP. The inspection consisted of interviews with HDI personnel, a review of procedures and records, and plant walk-downs. The inspectors conducted the inspection to:

- Assess whether HDI has an effective decommissioning FPP that is maintained and implemented to address the potential for fires that could result in the release or spread of radioactive materials.

- Determine if the decommissioning Fire Protection Program protects the integrity of the spent fuel and if it prevents or minimizes the release of radioactive materials resulting from fires involving contaminated plant structures, systems, and components (SSCs) or radioactive waste products.
- Determine if in the absence of spent fuel in the spent fuel storage pool (i.e., Unit 1), the decommissioning fire protection program ensures adequate protection from fire-induced release of radioactive material from contaminated plant areas and combustible waste products.

Specifically, the inspectors reviewed the updated fire protection plan and a sample of FPP implementation procedures to assess compliance with the current FPP, to ensure that it reflected the current decommissioning status of the facility, and to determine if it was being implemented, as appropriate. Procedures reviewed included those controlling storage of combustibles and flammables, conduct of hot work, ignition sources, and transient combustibles. Pre-fire plans were reviewed to determine if the plans were updated and reflected the plant's decommissioning status. The inspectors reviewed fire brigade training, training with offsite responders, qualifications, and responsibilities to ensure they were qualified to participate in firefighting activities. The inspectors performed a walkdown of firefighting equipment and equipment carts to ensure that they were properly maintained, inventoried and ready for use. Pre-fire plans were reviewed to determine if they were updated and reflected the plant's decommissioning status. The inspectors reviewed changes to the FPP including decommissioning of systems.

The inspectors conducted walk-downs of active plant detection systems, suppression systems, fire barriers, and fire pumps/water sources, to evaluate their material condition and its maintenance. This included a review of fire pump testing to ensure that an adequate water supply was available to the necessary systems and standpipes for fire suppression/firefighting activities. The inspectors performed a focused review of the installed fire detection, suppression systems, and fire barriers in fire areas associated with the Spent Fuel Pool (SFP), SFP cooling equipment, and SFP power supply to determine if they were maintained, if surveillances were performed on a periodic basis, and if they were capable of performing their intended function.

The inspectors reviewed a sample of self-assessments and corrective action documents to evaluate if HDI had identified FPP decommissioning deficiencies and if issues had been appropriately entered into the CAP for resolution.

b. Observations and Findings

Based on the inspection results, the inspectors concluded that HDI maintained the FPP within NRC requirements and the fire protection plan. Required fire protection detection systems, suppression systems, barriers, and fire water supply systems had been maintained and appropriately tested and were in a state of operational readiness. Proper emphasis was placed on SFP systems, components, and support systems to minimize the potential for radiological releases in the event of a fire at the plant. During the review of changes made or approved to the site's FPP, the inspectors did not identify any issues which reduced the program's effectiveness. The inspectors noted that screenings and evaluations contained the appropriate level of detail and sufficient basis to support the changes.

HDI maintained the leadership, staffing, and training of the on-site fire brigade. Agreements were appropriately established with the local fire department to provide equipment and assistance to the site fire brigade for onsite fires. Procedures for response and measures for coordination with offsite responders were appropriately established. The inspectors verified that HDI conducted training with offsite responders on facility layout, fire hazards, fire pre-fire plans, firefighting equipment, radiological hazards, and health physics relevant to firefighting operations.

c. Conclusions

No violations of more than minor safety significance were identified.

2.3 Inspection Procedure 60853, On-Site Fabrication of Components and Construction of an Independent Spent Fuel Storage Installation

a. Inspection Scope

HDI plans to construct a second concrete storage pad (ISFSI II pad) at Indian Point for its ISFSI to store up to 64 HI-STORM 100S Version E storage casks in accordance with Amendment 9, Revision 1 to CoC 1014. The inspectors reviewed HDI's evaluations of the ISFSI pad to determine if the requirements of 10 CFR 72.212(b)(5)(ii) had been met. The inspectors performed a review of the structural assessment of the ISFSI pad design for static and dynamic loads associated with the new casks, as required by 10 CFR 72.212. In addition, the inspectors reviewed the site-specific tip-over analysis and soil structure interaction analysis performed for IPEC.

b. Observations and Findings

The inspectors reviewed the applicable documentation, focusing on the completeness and accuracy of HDI's assumptions, methodology, analytical results, and safety conclusions. The inspectors also considered HDI's demonstration of compliance with 10 CFR 72.212(b)(5)(ii) requirements. The inspectors verified that the design methodology and analyses of the planned Indian Point ISFSI pad for storing HI-STORM 100S Version E casks are consistent with the HI-STORM 100 FSAR as well as the applicable design code, American Concrete Institute (ACI) 318, and NRC guidance in NUREG-1536. The staff concluded that HDI's overall approach was reasonable, satisfied the requirements of 10 CFR 72.212(b)(5)(ii), and therefore provides a reasonable assurance of safety.

c. Conclusions

No violations of more than minor safety significance were identified.

2.4 Inspection Procedure 60855, Operation of an ISFSI

a. Inspection Scope

The inspectors conducted direct observations and performed independent evaluations to determine if the licensee was conducting dry cask activities in accordance with the commitments and requirements. The inspectors reviewed changes to the program and procedures since the last inspection, reviewed selected records, and observed select licensee dry cask activities. This effort was a partial inspection under IP 60855.

b. Observations and Findings

On September 27 – 30, 2021 and October 18 – 21, 2021, the inspectors observed and evaluated IPEC's ISFSI activities associated with casks 1 and 2 of the 4-cask campaign. The inspectors evaluated compliance with the Certificate of Compliance (CoC), Technical Specifications (TS), and station procedures.

The inspectors reviewed fuel selection for a sample of the fuel to be loaded during the campaign. The inspectors also observed multi-purpose canister (MPC) processing operations including: (1) welding; (2) non-destructive weld examinations; (3) hydrostatic testing; and (4) forced helium dehydration. The inspectors also observed MPC movement activities including: (1) lifting of the loaded MPC out of the SFP; stack-up and MPC transfer (2) stack-up and MPC transfer and (3) preparation and removal of the loaded HI-STORM from the Unit 2 fuel storage building. Inspectors additionally observed placement of the MPC lid and HI-STORM lids. During performance of these activities, the inspectors evaluated procedural use, communication, and coordination of ISFSI activities to determine if they met established regulatory requirements and Holtec approved procedures. The inspectors also observed pre-job briefings to assess the licensee's ability to identify critical steps of the evolution, potential failure scenarios, and human performance tools to prevent errors.

The inspectors observed radiation protection technicians as they provided job coverage for the cask loading workers. The inspectors review noted that the dose received early in the campaign had been higher than previously seen during similar operations. The inspectors noted that additional shielding was subsequently used during welding and processing operations. The inspectors noted that significant procedure changes were made during this campaign transitioning from previously used site procedures to Holtec fleet style procedures. The inspectors noted that dose relative to the heat load declined once the additional shielding was added and as workers became more proficient with the new procedures.

Violation

The inspectors identified one Severity Level IV NCV of Title 10 CFR 72.150, "Instructions, Procedures, and Drawings," for failing to follow procedures that are relied upon to ensure that combustible material surrounding a loaded HI-STORM is less than the maximum evaluated. Specifically, HDI did not properly implement procedure HPP-2880-0500, "HI-STORM Operations and Transport at IPEC" and as a result, did not identify diesel fuel in

excess of the 50-gallon limit creating the potential for exceeding the allowable amount of fuel in the vicinity of a loaded HI-STORM.

On October 18, 2021, the licensee started transportation operations for an MPC loaded into a HI-STORM using procedure HPP-2880-0500 section 7.5 "HI-STORM Lid Installation on Loaded HI-STORM." At the beginning of the operation, a tugger is typically driven up to the Unit 2 Fuel Storage Building rollup door where it is connected to the low-profile transporter with the HI-STORM and enclosed MPC sitting on top. The tugger then moves the HI-STORM outside near a mobile crane, which is used to place the HI-STORM lid on the HI-STORM. Prior to this operation, Step 7.5.3 directs the user to perform a visual inspection of the ISFSI haul route in accordance with attachment 8.6, "ISFSI Haul Route Inspection." The first item in the checklist, states "All vehicles and equipment within 30 feet of a loaded HI-STORM shall have no more than a combined total of 50 gallons of fuel." This is additionally stated in the note above step 7.5.3 and Step 6.15 in the precautions and limitations section of the procedure. All had been marked complete on the controlled copy of the procedure when the NRC inspector queried the fuel inventory of the tugger and the 70T mobile crane just prior to the actual transportation occurring. Upon closer review, the crane fuel tank was observed to be approximately half full, which combined with the fuel inventory of the tugger, would have exceeded the 50-gallon limit had the operation continued. Based on the inspector's questioning and identification, the licensee took immediate corrective actions, halting operations, siphoning off diesel fuel from the mobile crane to ensure the 50-gallon limit would be met when transportation operations resumed.

10 CFR 72.150, "Instructions, Procedures, and Drawings," states, in part, that the licensee shall prescribe activities affecting quality by documented instructions, procedures, or drawings of a type appropriate to the circumstances and shall require that these instructions, procedures, and drawings be followed. Contrary to the above, on October 18, 2021, the licensee failed to follow procedure HPP-2880-0500, which directed the licensee to ensure that all vehicles and equipment within 30 feet of a loaded HI-STORM have no more than a combined total of 50 gallons of fuel.

The inspectors used example 6.3 of the Enforcement Policy and determined that this is a Severity Level IV. The issue was identified at a point in the process where there were no more licensee reviews or approval barriers that could reasonably preclude the site from violating the assumptions made in the licensing basis fire evaluation. If left uncorrected, the issue had a potential to lead to a more significant safety concern, i.e., could allow the licensee to reach an unanalyzed condition outside of its licensing basis.

Since the licensee took immediate corrective actions and placed the deficiency into its corrective action program (IR-IP2-00141), the safety significance was determined to be very low, and because the violation was not willful or repetitive, the violation was treated as an NCV, consistent with Section 2.3.2.a of the NRC Enforcement Policy **(NCV07200051/2021001–01; Failure to Ensure Combustible Materials Limits Met).**

c. Conclusions

The NRC determined that one Severity Level IV NCV of 10 CFR Part 72.150, "Instructions, Procedures, and Drawings," occurred based on the licensee's failure to follow its transportation procedure.

3.0 Exit Meeting Summary

On January 20, 2022, the inspectors presented the inspection results to Mr. Richard Burroni, Site Vice President, and other members of the IPEC organization. No proprietary information was retained by the inspectors or documented in this report.

SUPPLEMENTARY INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

J. Fleming, Vice President, Regulatory Affairs (HDI)
A. Sterdis, Vice President, Regulatory and Environmental Affairs (HDI)
R. Burroni, Site Vice President (HDI)
F. Spagnuolo, Decommissioning Manager (CDI)
M. Johnson, Regulatory Assurance Manager (CDI)
W. Wittich, Senior Licensing Specialist (CDI)
G. Delfini, Engineering Supervisor (CDI)
W. O'Brien, Radiation Protection Supervisor (CDI)
R. Fucheck, Chemistry and Radiation Protection Manager (CDI)
R. Daley, CAA Specialist Sr. (CDI)
C. Bohren, Operations Manager (CDI)
B. Murray, Project Manager (Holtec)
K. Elliott, Fire Protection Engineer (CDI)
P. Bowe, Fire Marshal (CDI)
G. Couch, (Holtec)
R. Motko, Engineer (CDI)

ITEMS OPEN, CLOSED, AND DISCUSSED

None

Partial LIST OF DOCUMENTS REVIEWED

Audits and Reports
Audit 2021-I-16, Operations and Technical Specification, July 19 – August 19, 2021
Quality Assurance Audit Report QA-9-2020-IP-1, Fire Protection Program, dated 02/10/2020
Quality Assurance Audit Report QA-20-2020-IP-01, Independent Spent Fuel Storage Installation (ISFSI), dated 9/8/2020
Quality Assurance Surveillance Report QS-2019-IP-005, dated 3/28/2019

Engineering Changes
EC-88584 (IPC-2021-008), ISFSI II Pad and Canister Transfer Pit (CTP) Installation, Rev. 0
EC-89510, Licensing and Operations for HI-STORM 100S Version E, Rev. 0
EC IPC-2021-018, October 7, 2021
ER-04-2-028, Dry Cask Storage, IPEC ISFSI Facility, August 10, 2004
IP-CALC-19-00003, Post-Permanent Shutdown Analyses of Fuel Handling, Waste Handling, and High Integrity Container Drop Accidents for Indian Point Units 2 and 3, Rev. 0
IPC-2021-005, Supplemental Rail Restraints for LPT, Revision 1

Procedures
2-DCS-008-GEN, Unit 2 MPC Loading & Sealing Operation, Revision 32
2-DCS-027-GEN, FSB 110 Ton X-SAM Gantry Crane Preventive Maintenance, Rev. 7
EN-DC-127, Control of Hot Work and Ignition Sources, Rev. 21

Procedures (Cont'd)
EN-DC-128, Fire Protection impact Reviews, Rev. 14
HPP-2880-0200, MPC Loading at IPEC, Rev. 4
HPP-2880-0300, MPC Sealing, Drying, and Backfilling at IPEC, Rev. 2
HPP-2880-0400, MPC Stack-Up and Transfer at IPEC, Revision 0
HPP-2800-0500, HI-STORM Operations and Transport at IPEC, Revision 2
IP-EN-DC-161, Control of Combustibles, Rev. 0
Pre-Fire Plan 212, General Floor Plan-Primary Auxiliary Building, Rev. 14
Pre-Fire Plan 213, Electrical Tunnel, Rev. 0
Pre-Fire Plan 251, 489 Volt Switchgear Room-Control Building, Rev. 15
Pre-Fire Plan 252, Cable Spreading Room, Rev. 17
Pre-Fire Plan 307, General Floor Plan-Primary Auxiliary Building, Rev. 12
Pre-Fire Plan 351, 480 Volt Switchgear Room-Control Building, Rev. 16
Pre-Fire Plan 352, Cable Spread Room-Control Building, Rev. 10
Pre-Fire Plan 355, Lower Electrical Tunnel, Rev. 5
Pre-Fire Plan 357, Upper Electrical Tunnel, Rev. 5
Process Applicability Determination Form for EC-89510, Rev. 0
SAO-703, Fire Protection Impairment Criteria and Surveillance, Rev. 36
0-SOP-ESP-002, Emergency Contingency Plan, Revision 13

Procedures-Completed Surveillance Procedures
0-PT-M001, Fire Brigade Equipment Inventory and Inspections, completed 09/13/2021
2-PT-A016, Electrical Tunnel Pre-Action Water Spray System, completed on 11/20/2020
2-PT-M034A, 11 Fire Main Booster Pump, completed on 08/26/2021
2-PT-M034B, 12 Fire Main Booster Pump, completed on 08/25/2021
2-PT-M040, Diesel Fire Pump, completed on 09/09/2021
3-FIR-005-FIR, Inspection, Cleaning and Preventive Maintenance of IP3 Fire and Smoke Dampers, completed 06/21/2021
3-PT-A013, Electrical Tunnel Heat Detector and Pre-Action Water Spray System Operability Test, completed 04/07/2020
3-PT-M042A, Electric Fire Pump Test, completed on 07/15/2021
3-PT-M042B, Diesel Fire Pump Test, completed on 06/15/2021
3-PT-M042B, Diesel Fire Pump Test, completed on 09/15/2021

Condition Reports Reviewed
CR-IP2-2018-05766
IR-IP2-00047
IR-IP2-00056
IR-IP2-00068
IR-IP2-00092
IR-IP2-00109
IR-IP2-00110
IR-IP2-00113
IR-IP2-00127
IR-IP3-00014
IR-IP3-00016
IR-IP3-00022

Condition Reports Reviewed (Cont'd)
IR-IP3-00032
IR-IP3-00063
IR-IP3-00080
IR-IP3-00163

Condition Reports Generated from Inspection
Holtec Field Condition Report (FCR) 28801013, MPC Lid staged on painted carbon cribbing (S/N 869), dated 9/27/2021
IR-IP3-00106
IR-IP2-00111
IR-IP2-00112
IR-IP2-00116
IR-IP2-00120
IR-IP2-00121
IR-IP2-00141
IR-IP2-00146
IR-IP2-00149
IR-IP2-00152
IR-IP2-00155

Licensing Bases Documents
CD-020, Decommissioning Quality Assurance Program, Revision 1
Certificate of Compliance 1014, Amendment 15
HI-2002444, HI-STORM 100 Final Safety Analysis Report, July 2, 2021
Indian Point 2 Defueled Safety Analysis Report, Rev. 0
Indian Point 3 Defueled Safety Analysis Report, Rev. 0
IP3-ANAL-FP-02143, Indian Point 3 Fire Hazards Analysis, Rev. 6
IP2-RPT-03-00015, Indian Point 2 Fire Hazards Analysis, Rev. 8

Work Orders
52898015, Perform Annual 110TFSB X-SAM Gantry Crane Inspections
Completed 0-PT-Q003, B.5.b Equipment Inventory and Diesel Driven Pump Test associated with WO 5293999-01, June 2021
5333915-SEG-12, Removal of the unit Manipulator in support of Decommissioning
534600-SEF-12, Removal of the unit 3 Manipulator in support of Decommissioning
00161061, 3M Insp and Lube – 110TFSB X-SAM Gantry Crane

Miscellaneous
10 CFR 72.48 Evaluation # 19-2002-00-72.48 EVAL, Rev. 0
I0LP-OPS-FBT003, Annual Fire Brigade Retraining, Rev. 1
21-2-0951, Indian Point Energy Center Radiological Survey Sheet HI-TRAC Wet, October 12, 2021
20212029, ALARA Plan- Load four MPCs and place on the ISFSI pad, October 21, 2021
Breakdown of IPEC costs of Activities since May 28, 2021 through August 31, 2021
EN-DC-141R17_190507, Revision 0
HI-2032977, Generic Crawler Specification, October 27, 2010
HI-2201107, DBE Time Histories for Indian Point 3 ISFSI, Rev. 1

Miscellaneous (Cont'd)
HI-2210165, Analysis of the Non-Mechanistic Tip-Over Event of the Loaded HI-STORM 100 S Version E Cask with MPC 32M CBS Basket on IPEC ISFSI Pads, Rev. 1
HI-2210218, Soil Structure Interaction Analysis for Indian Point ISFSI II, Rev. 0
HI-2210394, Structural Analysis of ISFSI Pad II, Rev. 0
HI-2210651, Fuel Loading Plan for Indian Point Unit 2, July 20, 2021
Holtec Decommissioning International Documentation Regarding Work Performed at IP1, IP2 and IP3 through August 31, 2021
Holtec Decommissioning International Indian Point Unit 1 Reimbursement Paperwork, May 28 – August 31, 2021
Holtec Decommissioning International Indian Point Unit 2 Reimbursement Paperwork, May 28 – August 31, 2021
Holtec Decommissioning International Indian Point Unit 3 Reimbursement Paperwork, May 28 – August 31, 2021
Holtec Drawing No. 12104, ISFSI II General Arrangement, Rev. 3
Holtec Drawing No. 12127, ISFSI II Details, Rev. 2
Indian Point Energy Center, Decommissioning Plan for Fire Protection Program, Rev. 0
IP-EN-RW-102, Vehicle Inspection Check Sheet, Shipment 21-1006a
IP-RPT-17-00046, Maintenance Rule Structural Monitoring Inspection Report (Third Cycle) for the ISFSI Pad, September 7, 2017
IP2-DBD-221, Indian Point Unit 2 Design Basis Document for Fire Protection System, Rev. 3
IP3-DBD-321, Indian Point Unit 3 Design Basis Document for Fire Protection System, Rev. 4
IPEC 10 CFR 72.212 Report, HI-STORM 100 System, Rev. 12
IPEC NDT Fund Reports, through August 31, 2021
RP-STD-42, Method for Determining the Neutron to Gamma Ratio for Dry Cask Operations, December 17, 2019
SEP-FPP-IP-001, IPEC Fire Protection Program Plan, Rev. 8

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access Management System
CAP	Corrective Action Program
CDI	Comprehensive Decommissioning International
CoC	Certificate of Compliance
DSAR	Defueled Safety Analysis Report
DQAP	Decommissioning Quality Assurance Program
Entergy	Entergy Nuclear Operations, Inc.
EP	Emergency Plan
FSBAFS	Fuel Storage Building Air Filtration System
FPP	Fire Protection Program
Holtec/HDI	Holtec Decommissioning International, LLC (HDI)
IMC	Inspection Manual Chapter
IP	Inspection Procedure
IPEC	Indian Point Energy Center
IP-1	Indian Point Unit 1
IP-2	Indian Point Unit 2
IP-3	Indian Point Unit 3

LIST OF ACRONYMS USED (Cont'd)

NRC	Nuclear Regulatory Commission
ODCM	Offsite Dose Calculation Manual
PHE	Public Health Emergency
SAFSTOR	Safe Storage
SSCs	Structures, Systems, and Components
SFP	Spent Fuel Pool
TS	Technical Specifications