UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD, SUITE 102
KING OF PRUSSIA, PA 19406-1415

February 22, 2024

EA-2024-010

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. 05000003/2023004, 05000247/2023004, 05000286/2023004, 07200051/2023004 AND NOTICE OF VIOLATION

Dear Kelly Trice:

On December 31, 2023, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection under Inspection Manual Chapter 2561, “Decommissioning Power Reactor Inspection Program,” at the permanently shutdown Indian Point Energy Center Units 1, 2 and 3. 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, and a review of procedures records, and plant walk-downs. The results of the inspection were discussed with Frank Spagnuolo, Site Vice President, and other members of your staff on January 24, 2024, and are described in the enclosed inspection report.

Based on the results of this inspection, the NRC staff has determined that one Severity Level IV violation of NRC requirements occurred. The violation was evaluated in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC’s Web site at (https://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html). The violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail in the subject inspection report. The violation involved Holtec’s failure to establish proper oversight and controls to ensure that expenditures from the decommissioning trust fund (DTF) at Indian Point were only used for legitimate decommissioning purposes as required by 10 CFR 50.82. The violation is being cited in the Notice because the NRC determined that the necessary corrective actions are complex and will likely require a review and independent assessment by multiple NRC Offices. Therefore, the NRC is issuing a NOV and is requiring a response from, Holtec Decommissioning International (HDI) that describes your actions to ensure that future expenditures from the DTF will meet the requirements of 10 CFR 50.82. In addition, as part of your corrective actions, you are required to describe the actions and timeline to restore the funds that were improperly removed from the DTF.

You are required to respond to this letter and should follow the instructions specified in the enclosed Notice when preparing your response. If you have additional information that you believe the NRC should consider, you may provide it in your response to the Notice. The NRC review of your

response to the Notice will also determine whether further enforcement action is necessary to ensure compliance with regulatory requirements.

In accordance with Title 10 of the *Code of Federal Regulations* (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 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).

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: 2024.02.22 11:58:24 -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: Notice of Violation
Inspection Report Nos. 05000003/2023004, 05000247/2023004, 05000286/2023004, and 07200051/2023004 w/Attachment

SUBJECT: HOLTEC DECOMMISSIONING INTERNATIONAL, LLC, INDIAN POINT ENERGY CENTER UNITS 1, 2 AND 3 - NRC INSPECTION REPORT NOS. 05000003/2023004, 05000247/2023004, 05000286/2023004, 07200051/2023004 AND NOTICE OF VIOLATION DATED FEBRUARY 22, 2024

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NOTICE OF VIOLATION

Holtec Decommissioning International
Indian Point Energy Center

Docket Nos. 05000003,
05000247, and 05000286
License Nos. DPR-5, DPR-26,
and DPR-64
EA-2024-010

During an NRC inspection conducted between June 12, 2023, and December 31, 2023, a violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is listed below:

> 10 CFR 50.82(a)(8)(i) states, in part, decommissioning trust funds may be used by licensees if the withdrawals are for expenses for legitimate decommissioning activities consistent with the definition of decommissioning in § 50.2.
>
> 10 CFR 50.2 defines decommissioning as removing a facility or site safely from service and reducing residual radioactivity to a level that permits—
>
> (1) Release of the property for unrestricted use and termination of the license; or
> (2) Release of the property under restricted conditions and termination of the license.
>
> Contrary to the above, from July 21, 2021, through June 14, 2023, Holtec Decommissioning Incorporated (HDI) used the Indian Point Energy Center (IPEC) decommissioning trust funds for expenses that were not legitimate decommissioning activities. Specifically, HDI used funds to support community outreach activities that were not related to removing the facility or site safely from service and reducing residual activity to a level that permits release of the property for either unrestricted or restricted conditions and termination of the license.

This is a Severity Level IV violation (NRC Enforcement Policy Section 6.3)

Pursuant to the provisions of 10 CFR 2.201, HDI is hereby required to submit a written statement or explanation to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with a copy to the Regional Administrator, Region I, 475 Allendale Road, Suite 102, King of Prussia, PA 19406-1415, and a copy to the Chief of the Decommissioning, ISFSI and Reactor Health Physics Branch, Region I within 30 days of the date of the letter transmitting this Notice of Violation (Notice). This reply should be clearly marked as a "Reply to a Notice of Violation; EA-2024-010" and should include: (1) the reason for the violation, or, if contested, the basis for disputing the violation or severity level; (2) the corrective steps that have been taken and the results achieved; (3) the corrective steps that will be taken; and (4) the date when full compliance will be achieved. Your response may reference or include previous docketed correspondence if the correspondence adequately addresses the required response. If an adequate reply is not received within the time specified in this Notice, an order or a Demand for Information may be issued requiring information as to why the license should not be modified, suspended, or revoked, or why such other action as may be proper should not be taken. Where good cause is shown, consideration will be given to extending the response time.

If you contest this enforcement action, you should also provide a copy of your response, with the basis for your denial, to the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

Your response will be made available electronically for public inspection in the NRC Public Document Room or in the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site 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. If personal privacy or proprietary information is necessary to provide an acceptable response, then please provide a bracketed copy of your response that identifies the information that should be protected and a redacted copy of your response that deletes such information. If you request withholding of such material, you must specifically identify the portions of your response that you seek to have withheld and provide in detail the bases for your claim of withholding (e.g., explain why the disclosure of information will create an unwarranted invasion of personal privacy or provide the information required by 10 CFR 2.390(b) to support a request for withholding confidential commercial or financial information). If safeguards information is necessary to provide an acceptable response, please provide the level of protection described in 10 CFR 73.21.

In accordance with 10 CFR 19.11, you may be required to post this Notice within two working days of receipt.

Dated this 22nd day of February 2024

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.	05000003/2023004, 05000247/2023004, 05000286/2023004, and 07200051/2023004
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, 2023
Inspectors:	K. Warner, CHP, Senior Health Physicist Decommissioning, ISFSI and Reactor Health Physics Branch Division of Radiological Safety and Security
	O. Masnyk Bailey, Health Physicist Decommissioning, ISFSI and Reactor Health Physics Branch Division of Radiological Safety and Security
	M. Henrion, Senior Health Physicist Decommissioning, ISFSI and Reactor Health Physics Branch Division of Radiological Safety and Security
	S. Hammann, Senior Health Physicist Decommissioning, ISFSI and Reactor Health Physics Branch Division of Radiological Safety and Security
	A. Taverna, Health Physicist Decommissioning, ISFSI and Reactor Health Physics Branch Division of Radiological Safety and Security
	R. Turtil, Senior Financial Analyst Financial Assessment Branch Division of Rulemaking, Environmental, and Financial Support Office of Nuclear Material Safety and Safeguards

Accompanied By:	C. Hargest, Health Physicist Decommissioning, ISFSI and Reactor Health Physics Branch Division of Radiological Safety and Security
	A. Kostick, Health Physicist Decommissioning, ISFSI and Reactor Health Physics Branch Division of Radiological Safety and Security
	G. Eklund, Health Physicist (In-Training) Decommissioning, ISFSI and Reactor Health Physics Branch Division of Radiological Safety and Security
	T. Winkel, Health Physicist (In-Training) Decommissioning, ISFSI and Reactor Health Physics Branch Division of Radiological Safety and Security
Approved By:	Anthony Dimitriadis, Chief Decommissioning, ISFSI and Reactor Health Physics Branch Division of Radiological Safety and Security

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. 05000003/2023004, 05000247/2023004, 05000286/2023004, and 07200051/2023004

A routine announced decommissioning inspection was completed on December 31, 2023, 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 and identification and resolution, decommissioning performance and status, occupational radiation exposure, and solid radioactive waste management and transportation. 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 inspection of Unit 3's dry cask loading campaign. The NRC's program for overseeing the operation of dry storage of spent fuel at an Independent Spent Fuel Storage Installation (ISFSI) is described in IMC 2690, "Inspection Program for Storage of Spent Reactor Fuel at Independent Spent Fuel Storage Installations and for Title 10 of the *Code of Federal Regulations* (10 CFR) Part 71 Transportation Packagings."

List of Violations

The inspectors identified one Severity Level IV notice of violation (NOV) of 10 CFR 50.82(a)(8)(i) because HDI expended decommissioning trust funds for expenses that were not for legitimate decommissioning activities. Specifically, HDI used funds to support community outreach activities that were not related to removing the facility or site safely from service and reducing residual activity to a level that permits release of the property for either unrestricted or restricted conditions and termination of the license. HDI entered the issue into its corrective action program as IR-IP3-01494.

REPORT DETAILS

1.0 Background

Indian Point (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. However, IP-1 provided system support for IP-2, and in 2003 NRC issued Amendment No. 52 to IP-1's provisional operating license that changed the license's expiration date to be consistent with that of the IP-2 license (ML032240282).

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. Liquid waste from IP-3may be transported to and processed at IP-1. 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.

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

2.0 Active Decommissioning Performance and Status Review

2.1 Inspection Procedures 40801, 71801, 83750, and 86750

a. Inspection Scope

The inspectors performed on-site decommissioning inspection activities on October 16 - 19 and November 27 - 30, 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 assessed the implementation and effectiveness of IPEC's corrective action program (CAP) by reviewing a sampling of issues, non-conformances, and conditions adverse to quality as entered into the CAP.

Inspectors reviewed documentation and met with IPEC management to discuss financial assurance for decommissioning, staffing, occupational safety, status of decommissioning and upcoming activities, among other topics to determine if the licensee had conducted activities in accordance with regulatory requirements. The inspectors performed several plant walkdowns to evaluate field conditions and decommissioning activities by assessing material condition of structures, systems, and components, housekeeping, system configurations, and worker level of knowledge, and procedure use and adherence. These walkdowns included select areas in the Unit 1 sphere, Units 2 and 3 containments, the solid radwaste storage building, and the Unit 2 Fuel Storage Building. The inspectors observed select pre-job briefings and associated work activities, including the Unit 2 spent fuel pool rack removal and Reactor Coolant System (RCS) pipe cutting work in Unit 1.

The inspectors continued their review of sampled withdrawals from the decommissioning trust fund to determine if the expenditures were for legitimate decommissioning activities and allowable under NRC regulations as described in the list of Open Items in Inspection Report Nos., 050000003/2023002-01, 050000247/2023002-02, 050000286/2023002-03, Review of Decommissioning Trust Fund Withdrawals (ML23215A139).

The inspectors conducted site walk-downs of radiologically controlled areas and observed select work activities to examine and assess radiological protection (RP) controls including airborne and contamination controls, and radiological postings. The inspectors reviewed Radiation Work Permits (RWP's), to determine if radiation work activities were pre-planned effectively to limit worker exposure. Additionally, the inspectors reviewed As Low As Reasonably Achievable (ALARA) work plans ALARA briefings and Total Effective Dose Equivalent (TEDE) ALARA evaluations to determine if ALARA work plans were effective and if the use of respirators was warranted for ongoing work activities. The inspectors reviewed source term characterization and radiological controls for Unit 1. The inspectors observed RCS pipe cutting activities and interviewed RP personnel in Unit 1 examining radiological controls, ventilation, instruments, and personal protections such as respiratory gear and protective clothing.

The inspectors reviewed documentation associated with external dosimetry. The inspectors reviewed the 2023 National Voluntary Laboratory Accreditation Program (NVLAP) accreditations for ionizing radiation dosimetry used at IPEC.

The inspectors observed radiation protection support work activities, including Unit 2 spent fuel pool rack removal, RCS pipe cutting in Unit 1 and radiation surveys supporting shipment of a waste package. The inspectors observed personnel exiting out of their protective clothing and respirators in Unit 1. The inspectors also observed source and calibration checks on a whole-body contamination monitor to assess instrument material condition and function. The inspectors observed the calibration of an RO-20 ionization chamber survey meter and also observed a demonstration of the site's newly installed dosimeter calibrator to assess function and proper use of the device.

The inspectors observed activities, interviewed personnel, and reviewed documentation to assess the effectiveness of IPEC's programs for handling, storage, and transportation of radioactive material. The inspectors attended pre-job briefings for the loading of Greater Than Class C (GTCC) waste from the Unit 3 spent fuel pool into a Non-Fuel Waste Container (NFWC) to assess the site's ability to identify critical steps of the evolution, potential failure scenarios, and human performance tools to prevent errors. The inspectors observed the movement of GTCC waste into the NFWC as well as the RP coverage of the activities to ensure compliance with site work packages, procedures, and radiation work permits (RWPs). The inspectors reviewed the associated GTCC 50.59 and 72.48 screenings and GTCC move sheets and held discussions with workers during the work activity. The inspectors interviewed site personnel and contractors involved in waste handling and transportation, reviewed procedures, programs, and shipper qualifications to determine if personnel were knowledgeable and qualified to appropriately implement the site radwaste and transportation program. The inspectors also reviewed the transportation packages for selected shipments of radioactive waste. The review included records of shipment packaging, surveying, labeling, marking, placarding, vehicle checks, and emergency instructions to ensure compliance with the applicable NRC and Department of Transportation regulations. The inspectors also reviewed the most recent sealed source inventory and leak tests to determine compliance with the regulations.

The inspectors conducted walk-downs of several radioactive waste handling and storage areas, including the solid radwaste storage building, the Unit 2 and 3 Spent Resin Storage Tanks, and Unit 2 chemical and volume control system tanks for status and condition of the area. Additionally, the inspectors performed walkdowns and specifically examined the 21 Waste Hold Up Tank cubicle in Unit 2 as a follow-up to a violation previously identified for inadequate surveys (ML23047A154).

b. Observations

The inspectors determined that issues had been identified, entered into the CAP, and evaluated commensurate with their safety significance through document reviews and interviews.

The inspectors noted that during this inspection period, IPEC prepared for upper reactor internal segmentation in Unit 2 and lower internal segmentation at Unit 3, completed removal of the spent fuel pool racks at Unit 2, continued cutting and removing piping in Unit 1, and removed the Unit 2 reactor vessel head. Based on the inspectors walkdowns, the inspectors noted that for the areas of the plant toured, the material condition and housekeeping was generally adequate.

The inspectors reviewed HDI's plans for the site's "Phase 3" organization implementation after the transition to the Fuel on Pad Protected (FOPP) security and emergency

preparedness stance on December 9, 2023. The inspectors noted that the planned Phase 3 organization appeared to incorporate the necessary qualifications and skillsets commensurate with both the reduction in risk associated with the FOPP stance and the planned work activities in calendar year 2024.

The inspectors reviewed available source term data for Unit 1 and noted a high (greater than 80%) percentage of Nickel-63 in the RCS sludge and Unit 1 reactor head smear results. The inspectors noted that Nickel-63 is a weak beta emitter and is not typically found at these high percentages compared to a typical operating reactor nuclide mix, which is comprised mostly of higher energy beta-gamma emitters such cobalt-60 and cesium-137. The inspectors noted that approximately 10 half-lives of cobalt-60 had occurred since Unit 1's shutdown, but a small amount still remained. The inspectors noted the need to perform an evaluation of IPEC's RP program to determine if any changes were necessary to address the abundance of Nickel-63. IPEC captured the high Nickel-63 percentage in Unit 1 RCS piping into its CAP as IR-IP2-01022 for further evaluation. IPEC prepared IPEC-RPT-23-013, Radionuclide Characterization for Indian Point Unit 1 dated November 29, 2023, in part to address the high Nickel-63 percentage. Recommendations included the collection of additional smear data for hard-to-detect nuclides to improve understanding of the ratios and the prevention of improper tool and/or equipment release from Unit 1 until completion of additional data analysis and current practices are evaluated. The report concludes that work practices for personnel contamination monitoring remained adequate based on the monitor's ability to detect the present gamma emitting nuclides.

The inspectors walked down the ongoing Unit 1 pipe cutting work area and observed the mechanical cutting method, in service HEPA units and air monitors, the presence of beta-gamma instrumentation (ion chamber and telepoles), and the use of powered air purifying respirators by the workers performing the cutting. During interviews with site personnel, the inspectors raised questions on the radiological controls for alpha-emitting radionuclides for the work area and will continue to review during future inspections.

The inspectors determined that the external dosimetry for the site was adequate and the NVLAP accreditation was appropriate for ionizing radiation dosimetry used at IPEC. The inspectors noted that there were no assessments on special dosimetric situations such as declared pregnant workers, effective dose equivalent for external exposures, shallow dose equivalent, and neutron dose for 2023. The inspectors noted that the site's determination of bias for electronic alarming dosimeters was adequate.

The inspectors determined that RP staff maintained adequate radiological controls during the observed Unit 2 spent fuel rack removal activities, including during site investigation into higher-than-expected dose rates on one of the racks. Specifically, the inspectors noted appropriate instruments being used for the surveys, survey records were clear and complete, and proper contamination controls were utilized. The inspectors determined that the Unit 2 spent fuel racks shipped for disposal at land disposal facilities were properly packaged, marked, labeled and in proper condition for transportation. The inspectors noted that RP personnel took adequate measures to control entry and exit of the radiological control areas for the transport by observing surveys and smears, and that site personnel were knowledgeable of their duties and responsibilities. A briefing with the transporters and the waste control specialist was observed and the inspector determined that the drivers were knowledgeable of their requirements for the shipment. The inspectors noted that there were no personnel contamination events from the vessel segmentation or dry cask work groups in 2023 demonstrating appropriate implementation of radiological controls. The

inspectors noted that the two personnel contamination events in 2023 were associated with work in the Unit 1 sphere. The activity associated with these events were considered Level 1 action level events, the lowest classification, and did not result in any significant dose to the workers.

The inspectors determined that licensee performance of source and calibration checks on an Argos whole body contamination monitor was adequate. The inspectors determined that the demonstration of both the instrument and the dosimeter calibrator were appropriate and followed site procedure and manufacturer instructions.

The inspectors also determined the licensee workforce conducted the GTCC loading in a safe manner and in accordance with the work packages, procedures and associated RWP. The inspectors determined that pre-job briefings were thorough and identified the significant potential hazards for the activities to be performed. The inspectors verified that solid radioactive waste was adequately stored and monitored and worker radwaste training and qualifications were up to date. The inspectors also verified that radioactive waste shipping paperwork was properly completed, and site personnel were knowledgeable of their duties and responsibilities. The inspectors determined radioactive waste shipped by the site was properly classified, described, packaged, marked, and labeled, and was in proper condition for transportation. The inspectors determined the licensee's radwaste shipments were in compliance with NRC and DOT regulations. The inspectors verified sealed source inventories and leak tests were performed as required by NRC regulations.

The inspectors determined that the radioactive waste handling and storage areas observed were adequately maintained, with the exception of water identified near several of the Unit 2 Chemical and Volume Control System tanks. HDI documented this condition into its CAP as IR-IP2-01024. The inspectors noted a marked improvement in the conditions of the 21 waste hold up tank cubicle since the last walkdown of the area in December 2022. The inspectors noted that IPEC had performed a significant source reduction and cleanup of the tank and cubicle. The inspectors noted that the oily substance that previously coated the floor had been cleaned up and the current radiological conditions allowed the cubicle to be down posted from a Locked High Radiation and High Contamination Area to a High Radiation and Contamination Area. The inspectors noted that IPEC's RP department conducted a campaign to reduce the number of locked high radiation areas on site from over 40 to less than 10. The inspectors noted that this reduction resulted in additional controls to ensure that exposures to workers were in accordance with the requirements.

During the June 2023 on-site inspection, the inspectors reviewed financial assurance documentation, including HDI's annual report on the status of decommissioning funding and various invoices to determine, in part, whether the funds were used in accordance with the requirements. The inspectors identified three categories of expenditures for which further review was necessary to determine if they were appropriate uses of the DTF. These expense categories included lobbying expenses (consultation/lobbying during the 2023 New York State Legislative Session), community outreach expenses, and expenses associated with DOE spent fuel settlement efforts. The inspectors initiated Open Item 050000003/2023002-01, 050000247/2023002-02, 050000286/2023002-03, Review of Decommissioning Trust Fund Withdrawals to track the NRC's continued review of this issue. The violation listed below closes out this open item.

Violation

The inspectors identified one Severity Level IV violation of 10 CFR 50.82(a)(8)(i) because HDI's failure to establish proper oversight and controls to ensure that expenditures from the decommissioning trust fund (DTF) at Indian Point were used only for legitimate decommissioning purposes as required. Specifically, HDI used funds to support community outreach activities that were not related to removing the facility or site safely from service and reducing residual activity to a level that permits release of the property for either unrestricted or restricted conditions and termination of the license.

The inspectors interviewed HDI personnel responsible for financial assurance on the overall financial status of decommissioning. The inspectors, in coordination with staff from the Office of Nuclear Material Safety and Safeguards and the Office of General Counsel, determined that one of the three reviewed types of expenses, community outreach activities, were not for legitimate decommissioning activities. Furthermore, the NRC staff determined that two of the three expenditures, designated as lobbying expenses and expenses associated with Department of Energy (DOE) spent fuel settlement efforts, directly relate to the efforts of advancing radiological decommissioning and supporting spent fuel management. The NRC determined that the lobbying efforts associated with keeping New York State legislators informed and educated about decommissioning issues at IPEC fall within the objectives in accordance with the definition of decommissioning in 10 CFR 50.2, "Definitions." The NRC staff evaluated the DOE spent fuel settlement efforts and noted that HDI has an approved exemption for the use of Decommissioning Trust Fund (DTFs) at IPEC for spent fuel management and for site restoration (ML20309A785). Therefore, the NRC staff determined that the DOE legal expenditures directly support the objectives of spent fuel management at IPEC and thus should be considered a reasonable use of DTF.

The inspectors examined the records associated with the expenditures, held interviews with site personnel and with Holtec Corporate representatives as numerous discrepancies were identified. The NRC determined that community outreach expenditures did not qualify as an acceptable expense. These expenses would be considered a donation and one that could not be considered as directly related to or contributing to decommissioning at IPEC. Specifically, the inspectors reviewed a sampling of paid community outreach expenditures and determined that approximately $63,000 had been expended for events such as parades, softball events and other community-based events that were not associated with removing the site safely from service.

The inspectors noted that the implementation of the financial assurance for each Holtec Decommissioning site is executed by Holtec Corporate. The inspectors identified several deficiencies in the implementation of HDI's corrective action program and identified several additional expenses after HDI had completed its review.

10 CFR 50.82(a)(8)(i) states, in part, decommissioning trust funds may be used by licensees if the withdrawals are for expenses for legitimate decommissioning activities consistent with the definition of decommissioning in § 50.2.

10 CFR 50.2 defines decommissioning as removing a facility or site safely from service and reducing residual radioactivity to a level that permits—

(1) Release of the property for unrestricted use and termination of the license; or
(2) Release of the property under restricted conditions and termination of the license.

Contrary to the above, from July 21, 2021, through June 14, 2023, HDI used the IPEC decommissioning trust funds for expenses that were not for legitimate decommissioning activities. Specifically, HDI used funds to support community outreach activities that were not related to removing the facility or site safely from service and reducing residual activity to a level that permits release of the property for either unrestricted or restricted conditions and termination of the license.

This violation was determined to be a Severity Level IV violation. The NRC considered NRC Enforcement Policy example 6.3.c.12, dated January 12, 2024, regarding a significant failure to meet decommissioning as required by regulation or license condition for materials sites. Additionally, the NRC considered the legitimacy of use, the dollar amount involved compared to the total DTF amount, and the programmatic aspects in making this determination. The inspectors determined that approximately $63,000 of the DTF was not used for legitimate decommissioning activities, that the amount, is a small fraction of the IPEC DTFs and did not represent a significant failure to meet decommissioning, and that this was not a single failure event, in that there were numerous occurrences. IPEC initiated corrective actions to restore the funds to the DTF and entered the issue into its corrective action program as IR-IP3-01494.

This violation meets the criteria in Section 2.3.2.a of the NRC Enforcement Policy to disposition as a Non-Cited Violation (NCV). However, the violation is cited in the enclosed Notice of Violation (Notice) and the circumstances surrounding it are described in detail. This violation is being cited in the Notice because the NRC determined that the necessary corrective actions are complex and will likely require a review and independent assessment by multiple NRC Offices. Therefore, the NRC is issuing a NOV and is requiring a response from HDI that describes a comprehensive corrective action plan for restoring the funds that were improperly removed from the DTF and ensure that future expenditures from the DTF will meet the requirements of 10 CFR 50.82. **(NOV 05000003/2023004-01, 05000247/2023004-01, 05000286/2023004-01, Improper Use of Decommissioning Trust Fund)**.

c. Conclusions

One Severity Level IV, NOV of 10 CFR 50.82(a)(8)(i) was identified.

3.0 Independent Spent Fuel Storage Installation (ISFSI)

3.1 Operation of an Independent Spent Fuel Storage Installation (Inspection Procedure 60855)

a. Inspection Scope

The inspectors conducted direct observations and performed independent evaluations to determine if the licensee was operating the ISFSI program in conformance with the site's commitments and requirements. The inspectors reviewed changes to the program and procedures since the last inspection, evaluated the effectiveness of the licensee's plans for

controlling radiological activities, reviewed selected records, and observed selected licensee activities for loading fuel. The inspectors evaluated the effectiveness of the licensee's management oversight and quality assurance assessments of ISFSI activities.

The inspectors observed and evaluated Indian Point's ISFSI activities associated with dry cask operations. In addition to the ISFSI activities, the inspectors also reviewed the licensee's activities associated with long-term operation and monitoring of the ISFSI. The inspectors verified conformance with the Certificate of Compliance (CoC), Technical Specifications (TSs), and station procedures.

b. Observations

On October 2 - 5, 2023, the inspectors observed dry cask operations for the 35th canister (MPC s/n 935 HI-STORM s/n 1833) and 36th canister (MPC s/n 936 HI-STORM s/n 1830) loaded during the Unit 3 continuous offload campaign. The inspector's observations included: (1) Loading of fuel assemblies from the Spent Fuel Pool (SFP) storage racks into the Multi-Purpose Canister (MPC)/HI-TRAC; (2) installation of the MPC lid; (3) welding of the MPC lid to the MPC and subsequent non-destructive penetrant examination; (4) transportation of loaded MPC/HI-TRAC from the Fuel Storage Building (FSB) to the ISFSI pad; (5) placement of HI-TRAC on top of the HI-STORM; (6) downloading of the MPC into the HI-STORM at the cask transfer pit; (7) performance of radiation protection surveys related to fuel transfer. During performance of these activities, the inspectors verified that procedure use, communication, and coordination of ISFSI activities met established regulatory requirements and IPEC approved site procedures. The inspectors also observed pre-job briefings and determined that the licensee's ability to identify critical steps of the evolution, potential failure scenarios, and human performance tools to prevent errors were effective to ensure procedural adherence and a safe work environment.

The inspectors observed radiation protection staff as they provided job coverage for the cask loading workers. The inspectors reviewed survey data maps and radiological records from the MPC loadings to date and confirmed that radiation survey levels measured were within limits specified by the TS and consistent with values specified in the final safety analysis report.

The last spent fuel assemblies from Unit 3 were placed into dry storage on the ISFSI pad on October 16, 2023 (ML23289A158).

Open Item:

The inspectors identified an open item related to design changes on the dry storage system multi-purpose canisters (MPC) utilized by the licensee. On July 19, 2021, Holtec International (Holtec), the supplier of the HI-STORM 100 dry storage system for HDI, performed Engineering Change Order (ECO) and 10 CFR 72.48 evaluation 1532 Revision 0. These evaluations performed a design change to introduce a new MPC basket design to the HI-STORM 100 dry storage system, designated as the Continuous Basket Shim (CBS) variant.

On September 12, 2023, the NRC issued Inspection Report 07201014/2022-201 (ADAMS Accession No. ML23145A175) to Holtec International, identifying three apparent violations associated with design change. The apparent violations, related to 10 CFR 72.48 and 10 CFR 72.146 requirements, are for Holtec's apparent failures to provide adequate bases

that the CBS variant did not require a license amendment, failure to ensure the change did not result in a departure from the method of evaluations described in the Final Safety Analysis Report, and failure to establish design control measures commensurate with those applied to the original design. At this time, the NRC has determined there are no immediate safety concerns associated with the use of the modified basket design.

On May 23, 2023, Holtec (Indian Point Energy Center) adopted Holtec International's CBS ECO/72.48 through ECO-1024-164; evaluated Holtec International's 72.48 in accordance with 72.212(b)(7); and subsequently loaded the MPC-32M-CBS canisters from September 12, 2023, to October 16, 2023.

General licensees are responsible to ensure that each cask used conforms to the terms, conditions, and specifications of a Certificate of Compliance (CoC) or an amended CoC listed in 72.214 and regulatory requirements in 10 CFR Part 72.

Planned Closure Actions:

On January 30, 2024, the NRC issued three Severity Level IV violations to Holtec, documented in Inspection Report 07201014/2022-201 (ML24016A190). The inspectors will disposition this issue of Indian Point's compliance with regulatory requirements associated with loading of MPC baskets with the CBS variant in a future inspection report.

Licensee Actions:

HDI's loading of the CBS fuel basket 32M assumes the risk of potentially being in violation of regulatory requirements pending the outcome of the NRC enforcement action involving Holtec.

HDI entered the issue into its corrective action program and initiated actions to review the results of the NRC's final determination and determine if changes are warranted.

Corrective Action References: IR-IP3-01285

(Open Item 07200051/2023004-01, Use of Holtec Multipurpose Canister Continuous Basket Shim Variant).

c. Conclusions

One Open Item for Use of Holtec Multipurpose Canister Continuous Basket Shim Variant.

4.0 Exit Meeting Summary

On January 24, 2024, the inspectors presented the inspection results to Frank Spagnuolo, 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

R. Burroni, HDI Chief Nuclear Officer
F. Spagnuolo, Site Vice President
B. Noval, HDI Director Regulatory Affairs
M. Johnson, Regulatory Assurance Manager
W. Wittich, Senior Licensing Specialist
B. Murray, Senior Project Manager
W. O'Brien, Radiation Protection Superintendent
R. Fucheck, Chemistry and Radiation Protection Manager
C. Bohren, Operations Manager
C. Fabricante, ALARA Specialist
D. Quinn, Radiological Supervisor
R. Passalugo, Waste Controls Specialist Representative
J. Bakker, Site Radwaste Manager
S. Emich, WCS Radwaste Shipper
M. Masterson, Senior RP Technician
J. Stewart, Radiation Protection Supervisor
M. Troy, Project Manager
D. Cooke, Safety Manager

ITEMS OPEN, CLOSED, AND DISCUSSED

Opened		
07200051/2023004-01	3.1.b	Use of Holtec Multipurpose Canister Continuous Basket Shim

Closed	Section	Summary
050000003/2023002-01 050000247/2023002-02 050000286/2023002-03	2.1.b	Review of Decommissioning Trust Fund Withdrawals

PARTIAL LIST OF DOCUMENTS REVIEWED

Procedures
DSP-RA-001, Corrective Action Procedure, Revision 1
HPP-2880-0045, HI-LIFT Operating Instructions, Revision 5
HPP-2880-0201, MPC Loading at IPEC Unit 3, Revision 13
HPP-2880-0301, MPC Sealing, Drying, and Backfilling at IPEC Unit 3, Revision 7
HPP-2880-0401, MPC Stack-Up and Transfer Using J&R VCT at IPEC Unit 3, Revision 5
HPP-2880-0501, HI-STORM Operations and Transport Using J&R VCT at IPEC Unit 3, Revision 2
HPP-2880-0504, MPC Closure Welding at IPEC, Revision 4
HPP-2880-0700, Abnormal Event Procedure at IPEC, Revision 7
IP-EN-RP-122, Alpha Monitoring, Revision 0
IP-EN-RP-204-01, Effective Dose Equivalent (EDEX) Monitoring, Revision 0
IP-EN-RP-203, Dose Assessment, Revision 1
IP-EN-RP-201, Dosimetry Administration, Revision 0

0-RP-IC-801, Characterization of Source Check Devices, Revision 0
0-RP-IC-802, Characterization of the Source Standards, Revision 1
IP-EN-RP-303, Source Checking of Radiation Protection Instrumentation, Revision 0
IP-EN-RP-104, Personnel Contamination Events, Revision 0
0-RP-IC-502, Operation and Calibration of the Argos Personnel Contamination Monitor, Revision9
0-RP-IC-101, Calibration of Portable Ion Chamber Survey Meters, Revision 4
EN-RW-105, Rev. 5, Process Control Program
HPP-2880-0039, Rev. 0, NFWC Offload, Receipt Inspection and Storage at IPEC
HPP-2880-0391, Rev. 1, NFWC Pre-Operation Inspection at IPEC
HPP-2880-0393, Rev. 0, NFWC Loading, Processing, Transfer, and Storage at IPEC
IP-EN-RW-101, Rev. 0, Radioactive Waste Management
IP-EN-RW-102, Rev. 21, Radioactive Shipping Procedure
IP-EN-RW-104, Rev. 0, Scaling Factors

Issue Reports Reviewed
IP2-00929
IP2-00930
IP3-00841
IP3-01414

Issue Reports Generated from Inspection
IP2-01022
IP2-01023
IP2-01024
IP3-01494
IP3-01539

Licensing Bases Documents
Indian Point 2 Technical Specifications, May 10, 2021
Indian Point 3 Technical Specifications, May 17, 2021
Indian Point 2 Technical Requirements Manual, September 2022
Indian Point 3 Technical Requirements Manual, May 26, 2021
Indian Point 2 Defueled Safety Analysis Report, Revision 1
Indian Point 3 Defueled Safety Analysis Report, Revision 0
Post Shutdown Decommissioning Activities Report (IPEC 1, 2, and 3 PSDAR), December 19, 2019

Miscellaneous
2023 NVLAP Certification
EN-RPT-18-001-RO, Standardization of Bias Between DLRs and SRDs in Entergy Fleet
EN-RPT-21-001-RO, Audit of Landauer
IRD 2000, DosiCal N Version User's Manual
IPEC-RPT-23-013, Radionuclide Characterization for Indian Point Unit 1, November 29, 2023
Nuclide Distribution Report, Unit 1 Primary System Components, October 25, 2023
Personnel Contamination Events Log, 2023
IPEC Segmentation Remaining Schedule, November 29, 2023
IPEC Unit 1 Q1 Schedule, November 30, 2023
2022 IPEC OSHA list2023 IPEC OSHA list
Phase 2 IPEC Organization Chart, October 1, 2023
Phase 3 IPEC Organization Chart, October 12, 2023
IPEC Unit 1 Tanks and Vessels Cleanout Project, August 2006
Holtec NDT Invoices Position Paper

Report on Status of Decommissioning Funding for Reactors and Independent Spent Fuel Storage Installations – Holtec Decommissioning International
Copy of Mapped Invoices Paid IPEC, November 29, 2023
ALARA Plan and TEDE ALARA screening and evaluation, June 14, 2023
20231000, Unit 1 Demolition (Excludes Unit 1 Reactor Cavity) RWP, Revision 3
Indian Point Energy Center Radiological Survey Sheet, Unit 2 42 Ft Spent Resin Storage Tank, November 28, 2023
Indian Point Energy Center Radiological Survey Sheet, Unit 3 SRST Post Sluice to HIC, November 14, 2023
Indian Point Energy Center Radiological Survey Sheet, Unit 3 SRST, November 28, 2023
Indian Point Energy Center Radiological Survey Sheet, Unit 2 SFP Rack G-2 Under Water, September 2023
Indian Point Energy Center Radiological Survey Sheet, 21 WHUT, October 3, 2023
Radiological Survey Form, Spent Fuel Rack E-3 Post Bagging i/s the IP-1 Shipping Bag, November 27, 2023
PAD Review, EC IPC-2023-106, Rev. 0
Radiological Work Permit 2023 3028
Report 23-431-RE-295, Indian Point Energy Center (IPEC), Unit 3 Fuel Pool Project, Summary Report, Final, October 2023
Rad Survey # 23-2-, 5006, 5025
Radwaste Transportation Packages, SR-2771-0007 and SR-2771-0093
Sealed Source Inventory, 10/20/23
Site Safety/HU Trend Improvement Initiatives, 10/17/23
Summary of ACE on Safety/HU Adverse Trend
Waste Control Specialists, Certificate of Disposal, October 9, 2023
Work Order IP3-01483-02, NFWC MPC Loading

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access Management System
ALARA	As Low As-Reasonably Achievable
CAP	Corrective Action Program
CBS	Continuous Basket Shim
CFR	*Code of Federal Regulations*
CoC	Certificate of Compliance
DECON	Actively Decommissioning
DOE	Department of Energy
DTF	Decommissioning Trust Fund
ECO	Engineering Change Order
Entergy	Entergy Nuclear Operations, Inc.
FOPP	Fuel on Pad Protected
FSB	Fuel Storage Building
GPO	Government Printing Office
GTCC	Greater Than Class C
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
ISFSI	Independent Spent Fuel Storage Installation
MPC	Multi-Purpose Canister
NCV	Non-cited Violation
NFWC	Non-Fuel Waste Container
NOV	Notice of Violation
NRC	Nuclear Regulatory Commission
NVLAP	National Voluntary Laboratory Accreditation Program
PILOT	Payment In Lieu of Taxes
OSHA	Occupational Safety and Health Administration
RCS	Reactor Coolant System
RP	Radiation Protection
RWP	Radiation Work Permits
SFP	Spent Fuel Pool
TEDE	Total Effective Dose Equivalent
TS	Technical Specifications