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

August 22, 2023

EA-23-077

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. 05000003/2023002, 05000247/2023002, 05000286/2023002, AND 07200051/2023002

Dear Kelly Trice:

On June 30, 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 Nuclear Generating Station 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 and records, and plant walk downs. The results of the inspection were discussed with Richard Burroni, Site Vice President, and other members of your staff on July 11, 2023, and are described in the enclosed inspection report.

Based on the results of this inspection, three NRC identified violations of NRC requirements with no or relatively inappreciable safety consequence (Severity Level IV) are documented in this report. Because of the very low safety significance and because the issues were entered into your corrective action program, the NRC is treating the violations as Non-Cited Violations (NCVs), consistent with Section 2.3.2.a of the Enforcement Policy. If you contest the subject or severity of any of these NCVs, 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 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).

No reply to this letter is required. Please contact Steve Hammann, of my staff at (610) 337-5399 if you have any questions regarding this matter.

Sincerely,

Anthony M. Dimitriadis

Digitally signed by Anthony M. Dimitriadis
Date: 2023.08.22 11:16:44 -04'00'

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

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Enclosure: Inspection Report Nos. 05000003/2023002, 05000247/2023002, 05000286/2023002, and 07200051/2023002 w/Attachment

SUBJECT: HOLTEC DECOMMISSIONING INTERNATIONAL, LLC, INDIAN POINT ENERGY CENTER UNITS 1, 2 AND 3 - NRC INSPECTION REPORT NOS. 05000003/2023002, 05000247/2023002, 05000286/2023002, AND 07200051/2023002 DATED AUGUST 22, 2023

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REGION I

INSPECTION REPORT

Docket Nos.	05000003, 05000247, 05000286, and 07200051
License Nos.	DPR-5, DPR-26, and DPR-64
Report Nos.	05000003/2023002, 05000247/2023002, 05000286/2023002, and 07200051/2023002
Licensee:	Holtec Decommissioning International, LLC (HDI)
Facility:	Indian Point Energy Center, Units 1, 2 and 3
Location:	Buchanan, NY
Inspection Dates:	April 1 – June 30, 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 K. Mangan, Senior Reactor Inspector Engineering Branch 1 Division of Operating Reactor Safety A. Istar, Civil Engineer Structural, Civil, and Geotech Branch Division of Engineering and External Hazards Office of Nuclear Reactor Regulation R. Turtil, Senior Financial Analyst, Financial Assessment Branch Division of Rulemaking, Environmental, and Financial Support Office of Nuclear Material Safety and Safeguards

Enclosure

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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. 05000003/2023002, 05000247/2023002, 05000286/2023002, and 07200051/2023002

A routine, announced decommissioning inspection was completed on June 30, 2023, at Indian Point Units 1, 2, and 3. A combination of onsite and remote inspection activities were performed over this period. The inspection included a review of design changes and modifications, problem identification and resolution, fire protection, financial assurance, decommissioning performance and status, occupational radiation exposure, radioactive waste treatment, effluent and environmental monitoring, solid radioactive waste management and 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 walkdowns. The U.S. Nuclear Regulatory Commission's (NRC's) program for overseeing the safe decommissioning of a shutdown 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 Independent Spent Fuel Storage Installation (ISFSI) HI-LIFT construction activities, inspection of Unit 3's dry cask loading campaign, and dry run activities for Unit 3's dry cask loading campaign. 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 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

One NRC identified Severity Level IV non-cited violation (NCV) of 10 CFR 50.48(f) is documented for failure to follow site procedures for control of hot work and ignition sources in the Unit 2 vapor containment. Specifically, HDI did not ensure that transient combustibles were removed or otherwise protected prior to and during hot work. HDI entered the issue into its corrective action program (CAP) as IR-IP2-00892.

One Severity Level IV NCV of 10 CFR 20.1906(d)(2) is documented for making an untimely report to the NRC Headquarters Operations Center when external radiation levels exceeding the limits of 10 CFR 71.47 were identified on an incoming radioactive materials shipment. Specifically, HDI received a radioactive materials shipment on May 3, 2023, identified contact dose rates higher than the allowable limits of 200 mrem/h at any point on the external surface of the package, and did not make the required report until mid-day May 4, 2023. HDI entered the issue into its CAP as IR-IP3-001181.

One NRC identified Severity Level IV NCV of 10 CFR 72.146 is documented because design control measures did not ensure that appropriate quality standards were specified and included in design documents associated with the HI-LIFT crane structure. Specifically, Holtec failed to ensure suitability of the crane swing arm hydraulic system counterbalance valves during postulated seismic conditions, which are essential to the function of the HI-LIFT crane and therefore important to safety. HDI entered the issue into its CAP as IR-IP3-01202 and completed actions to seismically qualify the valves.

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, 2022, 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 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 the IP-1, IP-2, and IP-3 facility licenses from Entergy to Holtec Indian Point 2, LLC; Holtec Indian Point 3, LLC; and HDI (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-3 will be transported to and processed at IP-1.

IP-1 and IP-2 were inspected under the “Actively Decommissioning (DECON), No Fuel in the Spent Fuel Pool” category. IP-3 was inspected under the “Active Decommissioning (DECON), Fuel in the Spent Fuel Pool” category. The categories of decommissioning are described in IMC 2561.

2.0 Active Decommissioning Performance and Status Review

2.1 Inspection Procedures 37801, 40801, 64704, 71801, 83750, 84750, and 86750

a. Inspection Scope

The inspectors performed onsite decommissioning inspection activities on April 24 - 27, May 16 - 18, and June 12 - 15, 2023, 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 walkdowns.

The inspectors reviewed a sampling of changes to determine if changes made by the Indian Point Energy Center (IPEC) required prior NRC approval under 10 CFR 50.59.

The inspectors assessed the implementation and effectiveness of the site's corrective action program by reviewing a sampling of issues, non-conformances and conditions adverse to quality entered into the CAP. The inspectors also conducted interviews with site personnel, and observations of several management review committee meetings.

The inspectors reviewed documents and interviewed plant personnel to assess the effectiveness of HDI's decommissioning fire protection program and to determine if it was maintained and implemented to address the potential for fires that could result in the release or spread of radioactive materials. Documents reviewed included the fire protection plan, implementing procedures, routine surveillances, self-assessments, and corrective action documents. The inspectors discussed the status of fire protection issues identified in the CAP with cognizant licensee personnel. The inspectors conducted walkdowns of fire areas associated with the Spent Fuel Pool (SFP), SFP cooling equipment, SFP power supply, and SFP inventory to determine if the installed fire suppression systems and fire barriers were as described in the fire protection plan and if they were capable of performing their intended function. The inspectors conducted walkdowns of hot work areas to determine if the work was being done in accordance with the applicable fire protection program implementing procedures.

The inspectors reviewed the status of the decommissioning trust fund and met with HDI staff to determine whether the funds were used as expected and if any changes had the potential to significantly impact the site's decommissioning financial assurance.

The inspectors attended select management and staff level meetings, including daily management meetings, a Unit 2 SFP rack removal readiness meeting, a site safety meeting, and various vessel segmentation morning meetings to determine the level of management and staff engagement and assess how issues were typically handled. The inspectors performed several site walk downs to observe work and assess material conditions and housekeeping, including the discharge canal, portions of the Unit 1 sphere and Units 2 and 3 vapor containments (VCs), auxiliary buildings, and fuel storage buildings. The inspectors observed several pre-job briefings and associated work activities, including observations of Unit 3 upper internals segmentation, Unit 1 reactor head cutting, lift of the Unit 3 upper core plate, surveys and movement of the Class B/C waste alignment fixture, cutting and capping of piping within the Unit 2 inner crane wall in preparation of decontamination activities, Unit 2 greater than Class C (GTCC) storage activities, and a lift of a radioactive material waste box out of the Unit 3 reactor cavity. The inspectors interviewed the maintenance manager and reviewed documentation to determine the status of IPEC's maintenance program.

The inspectors conducted site walk downs, including radiologically controlled areas, to examine radiological postings, airborne and contamination controls, and locked high radiation controls. The inspectors reviewed radiation work permits (RWP's)and As Low As Reasonably Achievable (ALARA) work plans and attended ALARA briefings discussing radiation safety during work activities to determine if radiation work activities were pre-planned effectively to limit worker exposure. The inspectors also reviewed Total

Effective Dose Equivalent (TEDE) ALARA evaluations to determine whether if a respirator was needed for work activities. The inspectors attended various radiation protection (RP) meetings, including daily RP technician briefings and daily RP supervisor meetings. The inspectors observed and reviewed survey documentation, including “down post” surveys for portions of the Unit 1 sphere to determine if they were completed in accordance with site procedures. The inspectors reviewed RP staffing to determine whether staffing was commensurate with current site activities. The inspectors observed RP personnel during site work activities to determine if technicians and supervisors adequately implemented both RP procedures and controlled the work, including coaching radiological workers as appropriate. The inspectors reviewed several technical information documents to determine if the conclusions were technically justified and adequately implemented.

The inspectors reviewed procedures and the flow path associated with plans to drain down and release the first six feet of the Unit 2 SFP should existing plant systems be utilized. The inspectors reviewed documentation and observed activities associated with the loading of a non-fuel waste canister (NFWC) with radioactive material from the Unit 2 SFP.

The inspectors reviewed select documentation associated with the radioactive effluent monitoring program; conducted walkdowns of select structures, systems, and components (SSCs); and observed maintenance activities for an effluent radiation monitor to determine if the radiological effluent monitoring program had been adequately implemented for the portions reviewed.

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. This included walkdowns of selected waste collection tanks and radioactive material storage areas. The inspectors reviewed a selection of radioactive source leak test documentation, shipping documentation, and waste characterization.

The inspectors reviewed documentation and conducted interviews and observations pertaining to the receipt of a radioactive package that was shipped on May 3, 2023, from HDI’s Oyster Creek Nuclear Generating Station. The inspectors assessed the circumstances of the shipment, because upon arrival of the shipment to IPEC, site staff conducted surveys and identified that the package had external radiation levels exceeding the regulatory limits.

b. Observations

The inspectors determined that the reviewed change documentation, including process applicability screenings and 10 CFR 50.59 screenings had been performed in accordance with the requirements. The inspectors noted that there were no 10 CFR 50.59 evaluations performed during this inspection period. The inspectors reviewed change documentation for the reclassification of the U2 SFP, which documented an evaluation of the reclassification of SSCs in the Unit 2 fuel storage building (FSB) after the spent fuel elements were removed. The inspectors noted that the Unit 2 SFP was appropriately reclassified as non-safety related. The inspectors also reviewed documentation describing changes to allow for the eventual draining of the Unit 2 SFP. Specifically, HDI evaluated modifying the existing valve lineup in the spent fuel pit to route the water through the liquid radwaste SSCs to drain the Unit 2 SFP of all water as part of the decommissioning process. This would be conducted once all spent fuel, non-fuel waste, and storage racks are removed from the Unit 2 SFP. The inspectors evaluated the engineering change

package and determined that the changes were appropriately evaluated and did not require prior NRC approval via a license amendment. Inspection of these activities, including procedure changes, valve modification, and SFP drain down were ongoing during the inspection period and inspectors will continue to provide regulatory oversight.

The inspectors determined that the sampling of issues reviewed during this inspection had been identified, entered into the CAP, and evaluated commensurate with their safety significance through document review and discussion. The inspectors included a focus on many of the NRC identified issues since May 2021. The inspectors noted adequate management engagement during Management Review Committee (MRC) meetings.

The inspectors determined that HDI maintained the fire protection program within NRC requirements and site procedures, with one exception. The fire areas evaluated were maintained according to the fire protection plan 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. Deficiencies in the fire protection program were entered into the CAP and appropriately addressed. HDI maintained the leadership, staffing, and training of the onsite incipient fire brigade and maintained appropriate agreements and training with offsite responders.

The inspectors reviewed financial assurance documentation, including HDI's annual report on the status of decommissioning funding and met with HDI staff to determine whether the funds were used as expected and if any changes could significantly impact the site's decommissioning financial assurance. The inspectors noted that the annual report included a notification of schedule change in accordance with 10 CFR 50.82(a)(7). This schedule change related to a delay in the start of activities associated with segmentation milestones for the reactor pressure vessel and internals, but did not impact the milestones for partial site release or the overall scheduled license termination date. An open item was initiated to track the NRC's continued review of sampled withdrawals from the decommissioning trust funds to determine if they were for legitimate decommissioning activities and allowable under NRC regulations **(Open Item 050000003/2023002-01, 050000247/2023002-02, 050000286/2023002-03, Review of Decommissioning Trust Fund Withdrawals)**.

The inspectors noted that during this inspection period, IPEC continued upper reactor vessel internals segmentation activities at Unit 3, initiated characterization activities in the Unit 1 sphere, including the reactor pressure vessel, and continued preparations for reactor vessel internals segmentations at Unit 2. Additionally, IPEC had completed loading of a NFWC with radioactive material from the Unit 2 SFP, placed it on the ISFSI pad, and continued source term reduction and preparations for steam generator decontamination activities in the Unit 2 VC. The inspectors conducted plant walk downs and noted that the material condition was adequate, and housekeeping improved during the inspection period with one exception associated with combustible material described below. The inspectors determined that the maintenance backlog was minimal, manageable, and that items important to safety were appropriately prioritized and tracked.

The inspectors reviewed survey documentation associated with the down posting of several areas in the Unit 1 sphere. The inspectors noted that several of these areas were formerly posted as locked high radiation areas and had not been entered for a number of years. The inspectors found the surveys to be properly documented and the current postings to be appropriate for current radiological conditions. The inspectors noted that RP was

conservatively implementing radiological work controls for alpha contamination in the Unit 1 sphere until a further characterization of the radionuclide mix is completed.

The inspectors reviewed select documentation and maintenance activities for the R-54 radiation monitor. The R-54 radiation monitor is a liquid waste effluent in-line monitor located on in the chemical support building on the 70' elevation that functions to terminate distillate tank releases on receipt of a high radiation level alarm. The inspectors observed a channel operation test of the R-54 radiation monitor. The test included verifying whether the system would respond appropriately to a high radiation level alarm. The inspectors determined that the portions of the test observed were performed in accordance with site procedures with satisfactory results. The inspectors also reviewed documentation for the periodic calibration of R-54 and determined that the results were satisfactory. For the liquid release permits reviewed, the inspectors determined that effluent releases had been properly controlled in accordance with NRC requirements.

The inspectors determined that IPEC maintained adequate control and accountability for radioactive sources and monitored for leakage at required intervals. The inspectors conducted walkdowns of the 11 and 12 waste collection tanks at Unit 1 and noted the waste collection tanks to be in good material condition with no evidence of recent leaks, spills, or significant degradation. The inspectors determined that HDI had performed shipment receipt activities of the Class B/C waste alignment plate on May 3, 2023, from Oyster Creek Generating Station in accordance with site procedures with one exception listed below. The inspectors noted that the Class B/C waste alignment plate was highly contaminated measuring up to 196 millirad/hour smearable based on a survey conducted while at Oyster Creek Generating Station on February 17, 2023. The inspectors noted that while there was no detectable contamination above the minimum detectable activity on the outside of the shipping package during the receipt survey conducted on May 3, 2023, the high levels of contamination necessitated appropriate radiological controls when the package was to be opened, including airborne monitoring. The inspectors observed survey activities of the unwrapped alignment plate inside the Unit 3 VC and determined that the RP technicians and supervisors appropriately assessed the potential hazard and conducted survey and decontamination activities in accordance with site procedures with no personnel contamination or airborne events.

Violations

1. Control of Hot Work and Ignition Sources

The NRC identified one Severity Level IV NCV of 10 CFR 50.48(f) based on the licensee's failure to follow procedures for the control of transient combustibles during hot work. Specifically, the site did not properly implement procedure EN-DC-127, Revision 21,

“Control of Hot Work and Ignition Sources” prior to or while performing hot work in the Unit 2 vapor containment.

On June 15, 2023, the inspectors walked down several work areas in the Unit 2 vapor containment 46’ elevation to determine whether IPEC was performing hot work activities in accordance with their procedures and the associated hot work permit. The inspectors noted that the Unit 2 vapor containment was posted as a contamination area. NRC inspectors were informed that hot work was being performed intermittently to cut and cap reactor coolant system piping surrounding the 22 and 24 steam generators. The inspectors identified transient combustible material, including a full plastic trash bag, cardboard, hoses, and cords within 35 feet of the hot work locations, and were not otherwise protected.

The inspectors interviewed the fire watch for the recently completed 22 steam generator hot work. The inspectors noted that the individual was completing the watch required during the 30-minute cool down period after a hot work activity is complete and, while generally familiar with the requirements for transient combustibles, had not inspected the area to ensure that combustible materials were removed or protected as required by EN-DC-127. The inspectors interviewed the hot work supervisor who had reauthorized the hot work permit for that day and determined that walkdowns of the work areas prior to reauthorization had been inadequate. The inspectors shared their observations of transient combustibles with the supervisor and noted that the supervisor stopped work and directed workers to begin the removal of transient combustibles to immediately restore compliance prior to the inspectors leaving the area.

Upon identification, HDI entered the issue into its CAP as Issue Report IR-IP2-00892 and took the following immediate corrective actions: (1) removed combustible materials and protected hoses remaining in the area and (2) suspended all hot work until extent of condition could be further evaluated.

Title 10 CFR 50.48(f) requires, in part, that the licensee maintain a fire protection program to address the potential for fires that could cause the release or spread of radioactive materials, including reasonably preventing these fires from occurring. IPEC procedure EN-DC-127, “Control of Hot Work and Ignition Sources,” Revision 21 is a quality related procedure that is part of the IPEC fire protection program used to meet 10 CFR 50.48(f). EN-DC-127 requires, in part, that the licensee ensure combustible material meets the required minimum distance (35 feet) from ignition sources or be protected and that work areas be inspected by both the hot work supervisor and the fire watch for that area to ensure that combustible materials are removed or protected.

Contrary to the above, the licensee failed to implement multiple steps in EN-DC-127 designed to establish the necessary controls prevent fires. Specifically, on June 15, 2023, the inspectors identified combustible materials within 35 feet of multiple work areas in the Unit 2 vapor containment 46’ inner crane wall and were not otherwise protected and determined that inspections of the area were inadequately performed.

This violation was determined to be a Severity Level IV violation using Section 6.3.d of the NRC Enforcement Policy, dated January 14, 2022, regarding the failure to implement procedures, which has a low safety significance as no fires resulting in the spread of contamination were caused by this event.

Since the licensee placed the deficiency into its CAP (IR-IP2-00892), the violation was of inappreciable (very low) safety significance, and because the violation was not willful or repetitive, this violation is being treated as a NCV, consistent with Section 2.3.2.a of the NRC Enforcement Policy **(NCV 05000247/2023002-01, Failure to Implement Adequate Control of Hot Work and Ignition Sources)**.

2. Making an Untimely Report to the NRC

One Severity Level IV NCV of 10 CFR 20.1906(d)(2) was identified for failing to immediately notify the NRC Headquarters Operations Center when external radiation levels exceed the limits of § 71.47 of this chapter were identified on an incoming radioactive materials shipment. Specifically, HDI received a radioactive materials shipment on May 3, 2023, identified contact dose rates higher than allowable 200 mrem/h at any point on the external surface of the package, and did not immediately notify the NRC as required.

On May 3, 2023, Oyster Creek Generating Station (OC) shipped reactor segmentation tooling (Class B/C waste alignment plate) to IP3 as Low Specific Activity Category II (i.e., LSA-II) material using *Exclusive Use* controls in an open transport vehicle. Upon receipt, IP-3's initial radioactive survey identified a maximum contact dose rate of 450 mrem/h on top of the package at 1615 on May 3, 2023. The contact dose rate of 450 mrem/h is above the 200 mrem/h contact radiation dose rate limit specified in 10 CFR 71.47.

IPEC failed to recognize the significance of the higher radiation level and failed to execute the notification requirements established in site procedure IP-EN-RP-121-01 to comply with 10 CFR 20.1906(d)(2) and 10 CFR 71.47. Site staff became aware of the heightened dose rates on the morning of May 4, 2023. A confirmatory survey of the package was subsequently performed identifying maximum contact dose rates of 215 and 555 mrem/h at two separate spots on top of the package. The NRC Headquarters Operation Center was notified at 12:25 pm, which constituted an untimely immediate reporting to the NRC.

Upon identification, IP-3 entered the issue into its CAP as IR-IP3-01181 and took corrective actions, including: (1) removing shipping survey qualification from the staff who performed the survey until remediation was performed; (2) briefed radiation protection personnel on this event; and (3) revised IP-EN-RP-121-01 to add notification to an HDI Supervisor and changed the procedure to be a "reference use" procedure, which will require staff performing the procedure to have the applicable section of the procedure in hand while performing surveys.

10 CFR 20.1906(d)(2) states, in part, "the licensee shall immediately notify the final delivery carrier and the NRC Headquarters Operations Center by telephone at the numbers specified in appendix A to part 73 of this chapter, when external radiation levels exceed the limits of § 71.47 of this chapter."

10 CFR 71.47 states, in part, except as provided in paragraph (b) of this section, each package of radioactive materials offered for transportation must be designed and prepared for shipment so that under conditions normally incident to transportation the radiation

level does not exceed 2 mSv/h (200 mrem/h) at any point on the external surface of the package.

Contrary to the above, HDI did not immediately notify the NRC Headquarters Operations Center of external radiation levels exceeding 200 mrem/h on the external surface of a radioactive materials shipment. Specifically, HDI identified radiation levels up to 450 mrem/h on the external surface of a radioactive materials shipment received on May 3, 2023, but did not notify the final delivery carrier and the NRC until mid-day May 4, 2023.

This violation was determined to be a Severity Level IV violation using Sections 2.2.1.c and 6.3.d of the NRC Enforcement Policy, dated January 14, 2022, regarding the failure to make a report associated with any SLIII violation factoring in the circumstances of this untimely report, in contrast to no report. The NRC considered the dose impact to the public to be negligible given the dose rates, short duration of transit between OC and IP-3, Exclusive Use status of the shipment and that upon receipt at IPEC the shipment was secured from public access, and additionally considered IP-3's self-identification of the issue and appropriate immediate corrective actions of performing a confirmatory survey and notifying the NRC Headquarters Operations Center.

Since the licensee placed the deficiency into its CAP (IR-IP3-01181), the violation was of inappreciable (very low) safety significance, and because the violation was not willful or repetitive, this violation is being treated as an NCV, consistent with Section 2.3.2.a of the NRC Enforcement Policy **(NCV 05000286/2023002-01, Failure to Make a Timely Report to the NRC)**.

c. Conclusions

Two SL IV violations and one Open Item were identified and documented. One Severity Level IV, NCV of 10 CFR 50.48(f) was identified, one SL IV, NCV of 10 CFR 20.1906(d)(2) was identified, and one Open Item for Review of Decommissioning Trust Fund Withdrawals was initiated.

3.0 Independent Spent Fuel Storage Installation (ISFSI)

3.1 Preoperational Testing of an ISFSI (Inspection Procedure 60854)

a. Inspection Scope

The inspectors evaluated HDI's performance during NRC-observed preoperational dry run activities. These activities were performed in order to fulfill requirements in the NRC-issued Certificate of Compliance (CoC) No. 1014, Amendment 15. The inspectors observed HDI's dry run activities at IPEC related to dry cask loading and transport operations.

The inspectors attended select HDI pre-job briefings to assess HDI's ability to identify critical steps of the evolution, potential failure scenarios, and human performance tools to prevent errors. The inspectors reviewed multipurpose canister (MPC) loading and lifting procedures to determine if they contained commitments and requirements specified in the CoC, technical specifications (TSs), Updated Final Safety Analysis Report, and Title 10 CFR Part 72.

The inspectors reviewed RP procedures and RWP's associated with the proposed ISFSI loading campaign. The inspectors also reviewed the radiological controls which would be established during an MPC loading campaign and also reviewed corrective action reports associated with preparations for the ISFSI loading campaign to ensure that issues were being properly identified, prioritized, and evaluated commensurate with their safety significance.

b. Observations and Findings:

On June 12-15, 2023, the inspectors observed cask movement and loading activities to determine whether the licensee had developed the capability to properly move the MPC and HI-TRAC into the SFP via the HI-LIFT autonomous cask translocation crane. The inspectors observed: (1) preoperational checks of the HI-LIFT; (2) the rigging and lifting of the MPC/HI-TRAC from the ground level of the FSB over the SFP wall; (3) lowering of the MPC/HI-TRAC into the SFP; (4) removal of the lift yoke and subsequent loading of the MPC/HI-TRAC with dummy fuel assemblies; (5) rigging of the MPC lid and installation of the drain line to the bottom of the MPC lid at the ground level of the FSB; (6) lifting of the MPC lid over SFP wall; (7) lowering of the MPC lid into the SFP and placement of the lid on top of the MPC/HI-TRAC.

Through direct observations and independent evaluation, the inspectors verified the licensee's development, implementation, and preoperational testing activities to safely transfer the loaded dry cask storage system to the ISFSI pad.

c. Conclusions:

No violations of more than minor safety significance were identified.

3.2 Operation of an ISFSI (Inspection Procedure 60855)

a. Inspection Scope:
The inspectors conducted direct observations and performed independent evaluations to determine if the licensee was operating the ISFSI in conformance with their 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 HDI'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.

b. Observations and Findings:

On June 19-23, the inspectors observed dry cask operations for the 1st canister (MPC S/N 889, HI-STORM S/N 1746) loaded during the Unit 3 continuous offload campaign. The activities observed included: (1) MPC/HI-TRAC heavy lift out of SFP; (2) decontamination of the HI-TRAC; (3) installation of shield ring; (4) MPC lid welding and non-destructive examinations; (5) forced helium dehydration; (6) MPC/HI-TRAC movement to CTP (7) HI-STORM lid installation; (8) HI-STORM movement and placement on ISFSI pad; (9) survey and decontamination activities, and (10) licensee periodic inspection of the strand jack. 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 RP technicians 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 (FSAR).

c. Conclusions:

No violations of more than minor safety significance were identified.

3.3 Onsite Fabrication of Components and Construction of an ISFSI (Inspection Procedure 60853)

a. Inspection Scope

During the inspection period, inspectors reviewed activities associated with installation and testing of the HI-LIFT crane located in the IP-3 FSB. The crane's purpose is to safely transfer canisters loaded with spent fuel bundles from the IP-3 SFP to the truck bay. The canisters will be subsequently moved to the onsite dry cask storage facility. The HI-LIFT crane is designed to have a 100-ton capacity and be single failure proof. The licensee requested NRC approval of the HI-LIFT crane in a license amendment request, dated March 24, 2020, which described the crane design, crane and building structural analyses, crane load test requirements, applicable regulatory requirements, and quality assurance standards. The NRC staff approved the incorporation of the HI-LIFT crane into the IP-3 current licensing basis in IP-3 License Amendment 272 dated February 28, 2022 (ML21091A305). An NRC Safety Evaluation was also provided.

The inspectors interviewed licensee personnel and contractors, reviewed work orders, procedures, testing plans, fabrication procedures, electrical drawings, and design calculations, and observed crane test activities. Specifically, on a sampling basis:

- Inspectors observed a 100% load test of the crane following installation at Indian Point.
- Inspectors observed functional testing of the crane control system, swing arm detection system (SADS), and the seismic detection systems credited to ensure the crane would remain within configuration limits established in the design documents.
- Inspectors observed implementation of procedures for manual operation of the crane credited to place the crane in a safe position following postulated hydraulic failures.
- Inspectors reviewed evaluations of crane components that were used to commercially dedicate procured components to determine if design requirements were met as described in the license amendment request and Failure Modes and Effects Evaluation.

b. Observations

The inspectors completed their review on a sampling basis of the manufacture, construction, installation, and testing of HI-LIFT crane structure, mechanical, hydraulic, and control systems. The inspectors' review found that HDI staff design documents, procurement documents, and test results met the design and licensing requirements described in the license amendment request and NRC Safety Evaluation Report (SER).

Violation

The inspectors identified one SL IV NCV of 10 CFR 72.146 Design Control regarding the crane swing arm hydraulic system counterbalance valves. Design control measures for these components did not ensure that appropriate quality standards were specified and included in design documents to ensure the suitability of application of these valves during postulated seismic conditions which are essential to the function of the crane and therefore important to safety. Specifically, HDI staff did not ensure through procurement or engineering evaluations that the swing arm hydraulic counterbalance valves were qualified

to change position during postulated seismic conditions to isolate hydraulic cylinder fluid and terminate crane movement. Inspectors identified that HDI staff had not performed actions to seismically qualify the valves as part of their procurement process.

The inspectors' review of the design basis for the crane found that the counterbalance valves were credited to reposition to the closed position, isolating the hydraulic cylinders, in order to stop crane movement during a seismic event. HDI stated in NL-20-021:

> *In addition, each cylinder is equipped with counter-balance valves that "lock up" the cylinder in the event of a hydraulic failure or pump malfunction, or cessation of flow resulting from an emergency stop application, limit switch activation, or seismic switch activation.*

The inspectors requested the supporting testing or analysis that determined the counterbalance valves were seismically qualified. HDI staff provided the commercial dedication package and informed the inspectors that the counterbalance valves were not procured as seismically qualified, and the commercial grade dedication plan did not include actions to seismically qualify the valves.

Subsequently, HDI staff took steps to seismically qualify the valves. HDI staff determined the licensing basis for the IPEC decommissioning facility allowed for seismic qualification of active mechanical components to be performed using the Seismic Qualification Utility Group (SQUG) Generic Implementation Procedure (GIP). HDI staff performed an engineering evaluation using the GIP and seismically qualified the valves. The inspectors, with support from technical experts in the NRC Office of Nuclear Reactor Regulation (NRR), determined the analysis met the GIP guidance.

Title 10 CFR 72.146, Design Control, requires, in part, that measures shall be established to ensure that applicable regulatory requirements and the design basis, as specified in the license or CoC application for those SSCs to which this section applies, are correctly translated into specifications, drawings, procedures, and instructions. These measures must include provisions to ensure that appropriate quality standards are specified and included in design documents and that deviations from standards are controlled. Measures must be established for the selection and review for suitability of application of materials, parts, equipment, and processes that are essential to the functions of the SSCs which are important to safety.

Contrary to the above, prior to April 6, 2023, HDI did not ensure the suitability of application of materials, parts, equipment, and processes that are essential to the functions of the SSCs which are important to safety. Specifically, HDI did not ensure that the swing arm hydraulic counterbalance valves were seismically qualified to ensure their proper operation during postulated design basis events.

The inspectors informed their decision making in the evaluation of this violation by utilizing IMC-0613 Power Reactor Construction Inspection Reports, Appendix E, "Examples of Minor Construction Issues," dated November 4, 2020. Example 11 characterized an issue as not minor if "failing to meet the acceptance limit could have rendered the SSC unacceptable or indeterminate and required substantive engineering evaluation to verify the installed configuration was acceptable." Based on this example the inspectors concluded the issue was more than minor. The inspectors further determined the violation to be of very low safety significance because the counterbalance valve seismic qualification was established by the performance of an acceptable engineering evaluation based on SQUG seismic qualification guidance and, therefore, the issue involved a design deficiency that did not result in modifications to the crane.

This violation was evaluated using Section 6.5.d of the NRC Enforcement Policy, dated January 13, 2023, to be a Severity Level IV NCV.

Because this violation was determined to be of relatively inappreciable (very low) potential safety consequences, was entered into the licensee's CAP as IP3-01202, and was not willful or repetitive, the violation was treated as a non-cited violation, consistent with Section 2.3.2.a of the Enforcement Policy **(NCV 05000286/2023002-02, Failure to Verify HI-LIFT Crane Component Seismic Qualification)**.

c. Conclusions

One Severity Level IV, NCV of 10 CFR 72.146, "Design Control," was identified.

3.4 Review of 10 CFR 72.212(b) Evaluations (Inspection Procedure 60856)

a. Inspection Scope (IP 60856)

The inspectors reviewed documents and interviewed staff to evaluate the licensee's compliance with the requirements of 10 CFR 72.212. The inspectors reviewed the licensee's written evaluations to determine if they were in accordance with 10 CFR 72.212(b)(5), 10 CFR 72.104 and if the conditions set forth in the CoC had been met prior to use. Revision 14 of the Indian Point 72.212 Report reflects discussion on loading spent fuel directly from IP Unit 3 to the ISFSI pads. The inspectors reviewed changes made to the Indian Point 72.212 report to determine if applicable reactor site parameters, such as fire and explosions, tornadoes, wind-generated missile impacts, seismic qualifications, lightning, flooding, and temperature, had been evaluated for acceptability with bounding values as specified in the FSAR and the NRC SER.

b. Observations and Findings

During the inspection period, the licensee was utilizing the HI-STORM 100 dry fuel storage system for the storage of spent fuel at the onsite ISFSI. The review of the HI-STORM 100 Cask System was based on NRC-issued CoC No. 1014, Amendment 15, and its associated SER, and HI-STORM 100 FSAR Revision 23. The review of the Part 50 facility site-specific parameters utilized the Defueled Safety Analysis Report and other applicable plant specific design and licensing basis information.

The inspectors verified that the licensee's written evaluations were in accordance with 10 CFR 72.212(b)(5), and confirmed the conditions set forth in the CoC, and 72.104 had

been met prior to use. The inspectors verified that applicable reactor site parameters, had been evaluated for acceptability with bounding values specified in the FSAR and the NRC SER.

c. Conclusions

No violations of more than minor safety significance were identified.

4.0 Exit Meeting Summary

On July 11, 2023, the inspectors presented the inspection results to Richard Burroni, Site Vice President, and other members of the IPEC organization. No proprietary information was documented in this report.

SUPPLEMENTARY INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

R. Burroni, Site Vice President
F. Spagnuolo, Decommissioning Manager
J. Fleming, Vice President of Licensing, Regulatory and Probabilistic Safety Analysis
B. Noval, HDI Director Regulatory Affairs
M. Johnson, Regulatory Assurance Manager
W. Wittich, Senior Licensing Specialist
B. Murray, Senior Project Manager
R. Whitley, Decommissioning Project Manager
W. O'Brien, Radiation Protection Superintendent
R. Fucheck, Chemistry and Radiation Protection Manager
C. Bohren, Operations Manager
D. Quinn, Radiological Supervisor
R. Passalugo, Waste Controls Specialist Representative
K. Elliott, Mechanical Engineer
S. Vefosse, Superintendent Strand Jack Assembly

ITEMS OPEN, CLOSED, AND DISCUSSED

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

PARTIAL LIST OF DOCUMENTS REVIEWED

Process Applicability Determinations and Engineering Changes
IPC-2023-093, Fire Protection Engineering Evaluation for Fire Door 237
IP-RPT-23-01, Evaluation of Fire Resistance Capability / Requirements for Fire Door 237 During Decommissioning
EC IPC-2023-088, Draining U2 Spent Fuel Pit, Revision 0
EC IPC-2023-089, Reclassification of U2 Spent Fuel Pit and Storage Rack Removal, Revision 0

Procedures
AP-64.1, Fire Protection/Systems and Components Governed by TRM and TS, Revision 10
DSP-RA-001, Corrective Actions Program, Revision 1
EN-DC-127, Control of Hot Work and Ignition Sources, Revision 21
EN-DC-128, Fire Protection Impact Reviews, Revision 14
IP-EN-DC-161, Control of Combustibles, Revision 0
SAO-703, Fire Protection Impairment Criteria and Surveillance, Revision 36
EN-LI-108, Event Notification and Reporting, Revision 18
IP-EN-RP-121-01, Receipt of Radioactive Material, Revision 0
HPP-2880-0024, HI-LIFT Strand Jack Inspection Procedure, Revision 0 draft
HPP-2880-0045, HI-LIFT Operating Instructions, Revision 4
HPP-2880-0451, HI-LIFT Phase I SAT: Function Test Procedure, Rev. 2
HPP-2880-0452, HI-LIFT Phase II SAT: 100% Load Test Procedure. Rev. 2
HPP-2880-0453, HI-LIFT Phase III SAT: 125% Load Test Procedure. Rev. 1
HPP-2880-0454, HI-LIFT Phase IV SAT: Manual Lowering Procedure, Rev. X

HPP-2880-0201 – MPC Loading at IPEC Unit 3, Revision 0 draft
HPP-2880-0301 – MPC Sealing, Drying, and Backfilling at IPEC Unit 3, Revision 0 draft
HPP-2880-0401 – MPC Stack-up and Transfer using J&R VCT at IPEC Unit 3, Revision 0 draft
HPP-2880-0402 – MPC Stack-up and Transfer using HI-TRAN at IPEC Unit 3, Revision 0 draft
HPP-2880-0501 – HI-STORM Operations and Transport using J&R VCT at IPEC Unit 3, Revision 0 draft
HPP-2880-0504, MPC Closure Welding at IPEC, Revision 4
HPP-2880-0601 – Unloading Procedure at IPEC for HI-STORM Version E1 for Unit 3, Revision 0
HPP-2880-0701 – HI-LIFT Abnormal Conditions Procedure, Revision 1
HPP-2880-0800 Ambient Temperature Monitoring at IPEC, Revision 5

Issue Reports Reviewed (IR-)

IP2-00243	IP2-00655	IP3-00885
IP2-00255	IP2-00649	IP3-00905
IP2-00318	IP2-00679	IP3-00944
IP2-00321	IP2-00687	IP3-00964
IP2-00325	IP2-00709	IP3-00996
IP2-00326	IP2-00719	IP3-01059
IP2-00408	IP2-00751	IP3-01079
IP2-00438	IP2-00791	IP3-01090
IP2-00469	IP2-00799	IP3-01180
IP2-00470	IP2-00833	IP3-01181
IP2-00583	IP3-00629	IP3-01262
IP2-00602	IP3-00673	IP3-01268
IP2-00613	IP3-00840	IP3-01271
IP2-00641	IP3-00841	

Issue Reports Generated from Inspection (IR-)
IP2-00847
IP2-00871
IP2-00889
IP2-00890
IP2-00892
IP3-00178
IP3-01157
IP3-01175
IP3-01202
IP3-01261
IP3-01271

Licensing Bases Documents
Indian Point 2 Technical Specifications, May 10, 2021
Indian Point 3 Technical Specifications, May 17, 2021
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
Indian Point Energy Center Units 1, 2 & 3 10 CFR 72.212 Report, Revision 14

Safety Evaluation by the Office of Nuclear Reactor Regulation Related to Amendment No. 272 to Renewed Facility License No. DPR-64 Holtec Decommissioning International, LLC and Holtec Indian Point 3, LLC, dated February 28, 2022
HI-STORM 100 FSAR HI-2002444
Certificate of Compliance No. 1014, Amendment 15

Work Orders
IP2-WR-00602
IP2-WR-00833
50065627-01-01-0010, TST-2-PT-Q77-3M TS FUNCT R-54 (WED), January 23, 2023

Miscellaneous
Report on Status of Decommissioning Funding for Reactors and Independent Spent Fuel Storage Installations- Holtec Decommissioning International. LLC, May 31, 2023
RH3-23-444, OCGS Radiological Survey Wet Hood Alignment Fixture Survey, February 17, 2023
SEP-FPP-FP-001, Fire Protection Program Plan, Revision 9
IP-EN-RP-143, Attachment 4, Sealed Source Leak Test Worksheet, 11-2022 and 6-2023
PFP-352, Cable Spread Room and Battery Rooms - Control Building
PFP-351, 480V Switchgear Room - Control Building
PFP-355, Lower Electrical Tunnel
PFP-356, Lower Electrical Penetration Area
PFP-357, Upper Electrical Tunnel
PFP-307, General Floor Plan, Primary Auxiliary Building
PFP-315, Fuel Storage Bay Area, Fuel Storage Building
IP2-RPT-03-00015, Indian Point 2 Fire Hazards Analysis, Revision 9
IP3-ANAL-FP-02143, Indian Point 3 Fire Hazards Analysis, Revision 6
Audit 2022-I-02, Internal Audit Report, Fire Protection Program
IPEC-RPT-23-005, Ion Chamber Beta Factor and Conversion Factor for Smear Counting
Work Group Evaluation (WGE) - Evaluation of Procedural Compliance and Reporting Timeliness
FCX-00570-00, Evaluation of Holtec Transporter IP2 and IP3 Haul Paths, Revision 0
HI-2094405, Dose Versus Distance from a HI-STORM Containing the MPC-32, Revision 27
HI-2135647, Structural Qualification of 415 Kip VCT, Revision 5
HI-2210216, HI-TRAN 225 Structural Evaluation, Revision 3
HI-2210394, Structural Analysis of ISFSI Pad II, Revision 2
HI-2210420, Analysis of Stack-Up in Canister Transfer Pit (CTP), Revision 5
HI-2210423, Comparative Evaluation Between HI-STORM 100S Version B and HI-STORM 100S Version E Cask at IPEC Unit 2, Revision 4
HI-2220226, Seismic and Structural Qualification of HI-TRAC on Unit 3 Truck Bay Floor, Revision 2
HI-2220315, IPEC FSB Rail System Structural Evaluation, Revision 1
HI-2220497, Thermal Evaluation of Onsite Transporter Fires for HI-TRAC MS at Indian Point NPP, Revision 0
HI-2230010, Indian Point Energy Center Unit 3 Hazards Report, Revision 0
IPEC-RPT-23-001R0, Determination of IPEC Dose to the Public from the Independent Spent Fuel Storage Installation for 2022 (Oct 2021 – Oct 2022)
RRTI-2880-0019, IPEC Tornado Missile Evaluations, Revision 0
A207621, Revision 13
A207622, Revision 3
HI-2210873, Failure Modes and Effects Analysis (FMEA) for IP3 HI-LIFT Mechanical and Control Systems, Rev. 1

HI-2188625, Structural Evaluation of Hi-Lift Device and Spent Fuel Building Walls at Indian Point Unit 3, Rev. 5
HI-2188549, IPEC Unit 3 HI-LIFT Specification, Rev. 3
NL-20-021, Proposed License Amendment to Revise the Indian Point Nuclear Generating Unit No. 3 Licensing Basis to Incorporate the Installation and Use of a New Auxiliary Lifting Device, dated March 24, 2020
Accident, Incident, Near Miss Investigation Statements, various, June 15, 2023
Hot Work Permit, 46' IP2 VC 5299, signed May 31, 2023 and reauthorized June 15, 2023
Email from Michael Kempski to Walter Wittich, May 1, 2023
Report 23-401-R-288, Indian Point Energy Center Unit 2 Fuel Pool Project Summary Report Final, April 2023
L-2-2023-147, Liquid Permit Post-Release Data, April 10, 2023
L-2-2023-148, Liquid Permit Post-Release Data, April 11, 2023
RWP 20232028, Unit 2 Non Fuel Waste Container and associated work, Revision 1
Unit 2 FSB NFWC Surveys, various
Radiological Survey 023-2-2273, Incoming Shipment Number OC-23-0208, May 3, 2023 16:15
Radiological Survey 023-2-2281, Alignment Plate for BFA (Package Survey), May 4, 2023 10:00
NRC Headquarters Operations Center Report, Event #56503, Notify Date/Time 2023-05-04 12:25 (EDT)
OCGS Radiological Survey RH3-23-444, February 17, 2023
OCGS Radiological Survey, YLA-23-907, April 28, 2023
Radioactive Material Manifest Shipping Papers, HDI Oyster Creek NGS to Indian Point Nuclear Generating Unit 3, May 3, 2023
Work Group Evaluation, IP3-01181 Evaluation of Procedural Compliance and Reporting Timeliness, IR date May 4, 2023
ALARA Plan for IPEC Unit 3 Dry Cask Campaign
RWP 20233030 Unit 3 Dry Cask Storage and Associated Work
Calculation No. FCX-00570-00, Evaluation of Holtec Transporter IP2 and IP3 Haul Path

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access Management System
ALARA	As Low As Reasonably Achievable
CAP	Corrective Action Program
CFR	Code of Federal Regulations
CoC	Certificate of Compliance
CTP	Cask Transfer Pit
DECON	Actively Decommissioning
DSAR	Defueled Safety Analysis Report
Entergy	Entergy Nuclear Operations, Inc.
EC	Engineering Change
FSB	Fuel Storage Building
GIP	Generic Implementation Procedure
GTCC	Greater than Class C
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
ISFSI	Independent Spent Fuel Storage Installation
MPC	Multipurpose canister
MRC	Management Review Committee
NCV	Non-cited Violation
NFWC	Non-Fuel Waste Canister
NRC	Nuclear Regulatory Commission
NRR	Nuclear Reactor Regulation
OC	Oyster Creek
RP	Radiation Protection
RWP	Radiation Work Permits
SADS	Swing Arm Detection System
SER	Safety Evaluation Report
SQUG	Seismic Qualification Utility Group
SSCs	Structures, Systems, and Components
SFP	Spent Fuel Pool/Pit
TEDE	Total Effective Dose Equivalent
TS	Technical Specifications
VC	Vapor Containment
VCT	Vertical Cask Transporter