



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
REGION I
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July 22, 2025

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

SUBJECT: HOLTEC DECOMMISSIONING INTERNATIONAL, LLC, OYSTER CREEK
NUCLEAR GENERATING STATION – NRC INSPECTION REPORT NOS.
05000219/2025001; 07200015/2025401

Dear Kelly Trice:

On June 30, 2025, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at your Oyster Creek Nuclear Generating Station (Oyster Creek). The results of this inspection were discussed with Jeffrey Dostal, Site Vice President, and other members of your staff on July 15, 2025, and are described in the enclosed report.

No violations of more than minor safety significance were identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice and Procedures," a copy of this letter and its enclosure, and your response (if you choose to provide one) will be made available electronically for public inspection in the NRC Public Document Room and from the NRC's Agencywide Document Access and Management 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 or proprietary information so that it can be made available to the public without redaction.

Sincerely,

Elise Eve, Team Leader
Decommissioning Team
Decommissioning, ISFSI, and Reactor
Health Physics Branch
Division of Radiological Safety and Security

Docket No: 05000219 and 07200015
License No: DPR-16

K. Trice

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Enclosure:

Inspection Report No. 05000219/2025001;
07200015/2025401

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NUCLEAR GENERATING STATION – NRC INSPECTION REPORT NOS.
05000219/2025001; 07200015/2025401 DATED JULY 22, 2025

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U.S. NUCLEAR REGULATORY COMMISSION
Inspection Report

Docket No. 05000219

License No: DPR-16

Report No. 05000219/2025001; 07200015/2025401

Enterprise Identifier: I-2025-001-0100

Licensee: Holtec Decommissioning International, LLC (HDI)

Facility: Oyster Creek Nuclear Generating Station

Location: Forked River, New Jersey

Inspection Dates: January 1 – June 30, 2025

Inspectors:

A. Taverna, Health Physicist
Decommissioning, ISFSI and Reactor Health Physics Branch
Division of Radiological Safety and Security

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Security, Emergency Preparedness and
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Division of Radiological Safety and Security

Approved by: Elise Eve, Team Leader
Decommissioning Team
Decommissioning, ISFSI and Reactor Health Physics Branch
Division of Radiological Safety and Security

Enclosure

SUMMARY

A routine announced decommissioning inspection was completed on June 30, 2025, at the permanently shut down Oyster Creek. A combination of on-site and remote inspection activities was performed over the inspection period. On-site inspection activities were conducted on March 3 – 6, April 14 – 15, and June 9 – 12, 2025. The inspection problem identification and resolution; fire protection program; decommissioning performance and status reviews; occupational radiation exposure; and solid radioactive waste management and transportation of radioactive materials. 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) 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."

List of Violations

No violations of more than minor significance were identified.

Additional Tracking Items

None.

SITE STATUS

Oyster Creek was inspected under Category 3, "Decommissioning (DECON), No Fuel in the Spent Fuel Pool" as described in IMC 2561.

HDI completed water drain-down of the reactor cavity and the equipment storage pit (ESP) through the vessel. All water from the spent fuel pool, reactor cavity, and ESP were processed and discharged. The cavity and ESP were encapsulated with fixative on the walls and floor.

HDI continued to prepare the new radwaste building (NRW) for open-air demolition with internal demolition and concrete remediation work. HDI conducted preparations for vessel segmentation, beginning with severance cuts of the reactor vessel nozzles and pipes. HDI has completed cuts to the main steam lines, recirc discharge, and others.

INSPECTION SCOPES

Inspection Procedure 40801, Problem Identification and Resolution at Permanently Shutdown Reactors

Corrective Actions (IP Section 2.01)

The inspector assessed the implementation and effectiveness of HDI's corrective action program (CAP) by reviewing a sampling of issues, non-conformances and conditions adverse to quality. The reviews included:

- (1) Representative selection of CAP documents to determine if a sufficiently low threshold for problem identification existed, if follow-up evaluations were of sufficient quality, and if HDI assigned timely and appropriate prioritization for issue resolution commensurate with the significance of the issue.
- (2) Discussions with cognizant site personnel additional details and follow-up actions conducted on issues entered into the CAP.

Inspection Procedure 64704, Fire Protection Program at Permanently Shutdown Reactors

Fire Protection Program (IP Section 2.01)

The inspectors conducted walk-downs of fire areas to determine if fire hazards have been identified and physical fire protection features. Areas included:

- (1) Dry Well
- (2) Reactor Building (23', 51', 75', and 95')
- (3) Old Radwaste

The inspectors reviewed pre-fire plans, fire hazard analysis report, changes to the program, staffing, and procedures to determine if NRC and site requirements were being met. Additionally, to determine if changes to the fire protection program reduced the effectiveness of fire protection for facilities, systems, and equipment that could result in a radiological hazard, taking into account the decommissioning plant conditions and activities.

Fire Protection Systems and Equipment (IP Section 2.02)

The inspectors evaluated fire protection detection and suppression systems to determine if the systems were effectively maintained, surveillances performed and are capable of performing

their intended function. Additionally, inspectors assessed fire barrier components in the following areas:

- (1) Reactor Building (23', 51', 75', and 95')
- (2) Old Radwaste

The inspectors looked at storage areas to determine if personnel protective equipment were maintained and inspected. The inspectors looked at:

- (1) SCBA Respirators located at Warehouse

Control of Combustible Materials and Ignition Sources (IP Section 2.03)

The inspectors observed hot work in the dry well to determine if the work was being performed in accordance with the applicable fire protection program implementing procedures. Additionally, inspectors determined whether administrative controls were in place such as control of combustible materials and fire watches.

Organization (IP Section 2.04)

Inspectors reviewed documentation and interviewed the site's Fire Marshall related to staffing and training for the site's fire response and hot work/combustible material. Additionally, inspectors reviewed if requirements were met with the site's local offsite fire departments.

Inspection Procedure 71801, Decommissioning Performance and Status Reviews at Permanently Shutdown Reactors

Status of Decommissioning (IP Section 2.01)

The inspectors attended select management meetings, including station oversight committee and management review committee meetings. Inspectors reviewed documentation and met with Oyster Creek management to discuss training, status of decommissioning and upcoming activities to determine if HDI had conducted activities in accordance with regulatory requirements.

Decommissioning Operations (IP Section 2.02)

The inspectors performed several plant walk-downs to assess field conditions and decommissioning activities by evaluating material condition of structures, systems, and components; system configurations; and procedure use and adherence. These walk-downs included the new radwaste (NRW) building, turbine building, reactor building along with the dry well, and the radiologically controlled area (RCA) yard. The inspectors observed select pre-job briefings and associated work activities, including the reactor building 119' floor activities that involved clean-up of the reactor cavity and ESP, hot work in the dry well, cutting of E recirc nozzle in dry well, and decontamination to open-air demolition levels in NRW.

The inspectors discussed the status of NRW remediation and plans for demolition with licensee personnel.

Inspection Procedure 83750, "Occupational Radiation Exposure at Permanently Shutdown Reactors"

Radiological Work Planning and Observation (IP Section 2.02)

The inspectors reviewed radiation work permits (RWPs) and as low as reasonably achievable (ALARA) work plans to determine if radiation work activities were pre-planned effectively to limit worker exposure. Inspectors also attended various briefings where radiological and industrial safety for work activities were discussed. The inspectors observed the radiation protection (RP) coverage during the following activities: (1) 119' cavity clean-up activities, (2) hot work in dry well, (3) cutting of E recirc nozzle in dry well, (4) added shielding in areas of the dry well, (5) attempts to repackage neutron sources for shipping. Additionally, the inspectors observed staff donning and doffing protective clothing, using portal exit and monitors out of the RCA, survey and release of materials out of an RCA, and an RP technician taking smears.

Dosimetry (IP Section 2.03)

The inspectors reviewed aspects of HDI's program for internal dosimetry to evaluate the site's program and capabilities. The review included:

- (1) Calibration records for personnel contamination monitors
- (2) Calibration records for whole-body counter
- (3) Technical evaluation of sensitivity of portal monitors used for passive internal monitoring
- (4) In-vitro bioassay collection capabilities and procedure
- (5) Lapel air sampling results
- (6) Dose assessment procedure

The inspectors observed work involving exposure to neutron sources, including the use of neutron detection instruments and application of dose correction factors to account for neutron exposure.

Airborne and Contamination Controls (IP Section 2.04)

The inspectors reviewed the licensee's respiratory protection program and practices to determine if controls met NRC requirements. Additionally, inspectors reviewed respirator qualifications for the site, and total effective dose equivalent (TEDE) ALARA evaluations for NRW remediation and equipment removal. The inspectors observed the use of air sampling during work activities in the drywell and NRW.

The inspectors observed locations where the site monitors potentially contaminated material leaving the RCA. Additionally, inspectors observed site personnel exiting the RCA, performing contamination monitoring and performing surveys to determine if the site had sufficient control to prevent unintended release of radioactive materials from the site. These areas included the dry well and NRW.

The inspectors evaluated the accuracy and operability of radiation monitoring instruments that were used to monitor areas, materials, and workers. The inspectors reviewed instrument source check procedures, observed daily instrument checks, and observed an instrument calibration. Additionally, inspectors checked calibration and source check stickers on instruments used in the field in the drywell, reactor building, and NRW.

The inspectors walked down area radiation monitors and continuous air monitors in the reactor building, drywell, and NRW to determine if they were appropriately positioned relative to the radiation sources or areas they were intended to monitor. Additionally, the inspectors observed HEPA ventilation in use in the drywell to determine if they were appropriately configured to mitigate potential airborne activity.

The inspectors reviewed air sample results for NRW tank removal and other remediation/removal work of NRW that required respiratory protection. Additionally, the inspectors observed air sample analysis including alpha counting and gamma spec.

Inspection Procedure 86750, Solid Radioactive Waste Management and Transportation of Radioactive Materials

Radioactive Material Storage and Control (IP Section 2.01)

The inspectors looked at sealed sources at low level radwaste storage facility (LLRW) to determine if the site's 10 CFR 37 security plan adequately addressed the radioactive material. Additionally, the inspector evaluated if the sealed sources were accounted for and intact.

Radioactive Waste Processing (IP Section 2.02)

The inspectors walked down the accessible portions of the 1-12 sump and temporary tank south of the reactor building to evaluate system configuration and planned operations for capturing water from open-air demolition of NRW. Additionally, the inspectors walked down portions of drain-down pathway from the reactor cavity and ESP to processing and discharge.

INDEPENDENT SPENT FUEL STORAGE INSTALLATION (ISFSI)

Inspection Procedure 81311, Physical Security Requirements for Independent Spent Fuel Storage Installations

Reviews (IP Section 2.08)

The inspector evaluated the security actions, reportability, and corrective actions regarding the Jones Road fire event which occurred near the Oyster Creek ISFSI on April 22, 2025. The inspector reviewed records, issue reports, and conducted interviews with responsible security personnel and performed walk-downs of the property where the fire occurred.

The inspector conducted the following specific inspection activities: (a) review of the licensee supplied timeline of events summary; (b) issue reports OYS-04395, 04396, 04397, and 04410; (c) all completed and planned corrective actions as the result of the issue reports generated; (d) diesel generator repair report conducted by Schneider Electric, dated April 27, 2025; (e) all reportability determinations made to the NRC as the result of actions taken by security.

The inspectors reviewed four issue reports, return-to-service equipment testing records, daily patrol records, and compensatory measure implementation records.

INSPECTION RESULTS

No violations of more than minor significance were identified.

EXIT MEETING

On July 15, 2025, the inspectors presented the inspection results to Jeffrey Dostal, Site Vice President, and other members of the Oyster Creek staff. No proprietary information was retained by the inspectors or documented in this report.

DOCUMENTS REVIEWED

101.2, Oyster Creek Site Fire Protection Program, Rev. 83
Drywell Maintenance ALARA Plan
24-500, RP-AA-401, ALARA Work-In-Progress Review
Issue Report OYS-04469
Hot Work Permit CSS-2025-084
Champion Procedure 11.2 Welding, Burning & Brazing Procedure
Air Sample 25-1651, 25-1664, 25-1665, 25-1666
Radiological Survey IGA-25-830