



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

May 14, 2024

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 NO.
05000219/2024001

Dear Kelly Trice:

On March 31, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection under Inspection Manual Chapter 2561, "Decommissioning Power Reactor Inspection Program," at the permanently shut down Oyster Creek Nuclear Generating Station (Oyster Creek). The inspection examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and the conditions of your license. The inspection consisted of observations by the inspectors, interviews with site personnel, a review of procedures and records, and plant walk-downs. The results of this inspection were discussed with Jeffrey Dostal, Site Vice President, and other members of your staff on April 11, 2024, and are described in the enclosed report.

Within the scope of this inspection, no violations of more than minor safety significance were identified.

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 and 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).

K. Trice

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No reply to this letter is required. Please contact Andrew Taverna of my staff at 610-337-5119 if you have any questions regarding this matter.

Sincerely,

ANTHONY
DIMITRIADIS

Digitally signed by
ANTHONY DIMITRIADIS
Date: 2024.05.14
16:37:24 -04'00'

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

Docket No: 05000219
License No: DPR-16

Enclosure: Inspection Report 05000219/2024001
w/Attachment

cc w/encl: Distribution via ListServ

SUBJECT: HOLTEC DECOMMISSIONING INTERNATIONAL, LLC, OYSTER CREEK
NUCLEAR GENERATING STATION – NRC INSPECTION REPORT NO.
05000219/2023002 DATED MAY 14, 2024

Distribution:

- P Krohn, DRSS, RI
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- C Hargest, DRSS, RI
- A Dimitriadis, DRSS, RI
- E Spangler, DRSS, RI

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SUNSI Review Complete: A. Taverna **ADAMS ACCESSION NO. ML24124A164**

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OFFICE	DRSS/RI	DRSS/RI	DRSS/RI	DRSS/RI
NAME	ATaverna	SHammann	SVeunephachan	ADimitriadis/ad
DATE	05/08/24	05/08/24	05/09/24	05/14/24

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**U.S. NUCLEAR REGULATORY COMMISSION
REGION I**

Docket No: 050-00219

License No: DPR-16

Report No: 05000219/2024001

Licensee: Holtec Decommissioning International, LLC

Facility: Oyster Creek Nuclear Generating Station

Location: Forked River, New Jersey

Dates: January 1, 2024 – March 31, 2024

Inspectors: A. Taverna, 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

S. Veunephachan, Health Physicist
Decommissioning, ISFSI and Reactor Health Physics Branch
Division of Radiological Safety and Security

C. Hargest, Health Physicist
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

Enclosure

EXECUTIVE SUMMARY

Holtec Decommissioning International, LLC (HDI)
Oyster Creek Nuclear Generating Station
NRC Inspection Report No. 05000219/2024001

A routine, announced decommissioning inspection was completed on March 31, 2024, at the permanently shut down Oyster Creek Nuclear Generating Station (Oyster Creek). A combination of on-site and remote inspection activities were performed over the inspection period. On-site inspection activities were performed January 22 – 25, February 21, and March 11 – 14, 2024. The inspection included safety reviews, design changes, and modifications at permanently shutdown reactors, problem identification and resolution, 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 (NRCs) 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."

Based on the results of this inspection, no violations of more than minor safety significance were identified.

REPORT DETAILS

1.0 Background

On September 25, 2018, Oyster Creek certified the permanent removal of fuel from the reactor vessel (Agencywide Document Access and Management System (ADAMS) Accession No. ML18268A258). This met the requirements of 10 CFR 50.82(a)(1)(i) and 50.82(a)(1)(ii). On October 1, 2018, the NRC notified the licensee that the Operating Reactor Assessment Program had ceased, and that implementation of the Decommissioning Power Reactor Inspection Program would begin on October 1, 2018 (ADAMS Accession No. ML18274A221). On July 1, 2019, an amended license was issued transferring the license from Exelon Generation Co., LLC to Holtec Decommissioning International, LLC (ADAMS Accession No. ML19164A157). OC is currently in the “Actively Decommissioning, No Fuel in the Spent Fuel Pool” (SFP) phase of decommissioning as described in IMC 2561.

2.0 Active Decommissioning Performance and Status Review

2.1 Inspection Procedures 40801, 64704, 71801, 83750, 86750

a. Inspection Scope

The inspectors performed onsite decommissioning inspection activities January 22 – 25, February 21, and March 11 – 14, 2024, supplemented by in-office reviews and periodic phone calls during the inspection period. The inspection consisted of observations by the inspectors, interviews with site personnel, a review of procedures and records, and plant walk-downs.

The inspectors attended Holtec meetings, interviewed Oyster Creek personnel, and reviewed a sampling of issues, non-conformances and conditions adverse to quality to assess the implementation and effectiveness of Holtec’s corrective action program (CAP). The inspectors reviewed a representative selection of CAP documents to determine if a sufficiently low threshold for problem identification existed, if follow-up evaluations were of sufficient quality, and if Holtec assigned timely and appropriate prioritization for issue resolution commensurate with the significance of the issue. The inspectors interviewed the Employee Concerns Representative to gain insights on the status of the licensee’s safety culture at Oyster Creek and verify that an appropriate process exists for the resolution of conditions brought to management’s attention, which may lead to or cause a violation of NRC regulations or unnecessary exposure to radiation.

The inspectors interviewed site personnel, reviewed documentation, and performed plant walk-downs to determine if Oyster Creek maintained a Fire Protection Program (FPP) to address the potential for fires that could cause the release or spread of radioactive materials. The inspectors reviewed the fire protection plan and a sample of the implementation procedures to assess compliance with the current plan, to determine if they reflected the current decommissioning status of the facility, and to determine if they were implemented, as appropriate. Additionally, documents reviewed included routine surveillances and corrective action documents. The inspectors reviewed recent changes to the fire protection program to determine whether the changes 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. Inspectors observed hot work being conducted in the NRW SLT-1-A-B Concentrated Liquid Waste Tank to determine if the work was being done in accordance with the applicable fire protection program implementing procedures. Additionally, the inspectors performed walk-downs of several fire areas to determine if they were as described in the site's pre-fire plans and walk-downs of the site's fire water supply system.

The inspectors attended select management meetings, including station oversight committee and management review committee meetings. Inspectors reviewed documentation and met with OC management to discuss staffing, training, status of decommissioning and upcoming activities to determine if HDI had conducted activities in accordance with regulatory requirements. The inspectors performed several plant walk-downs to assess field conditions and decommissioning activities by evaluating the material condition of structures, systems, and components; housekeeping; system configurations; and worker level of knowledge and procedure use and adherence. These walk-downs included the new radwaste building, reactor building, Low Level Rad Waste Storage Facility (LLRWSF), Old Rad Waste building (ORW), and the Radiologically Controlled Area (RCA). The inspectors conducted walk-downs of the 1-12 sump under the base of the stack and tunnel area to determine the site's ability to control excess water or rainwater intrusion, and characterization and chem labs to assess conditions and use of the labs. Additionally, the inspectors observed select pre-job briefings and associated work activities, including but not limited to NRW SLT-1-A-B Concentrated Liquid Waste Tank Demolition, NRW Acid Tank removal, and 119' Refuel floor Cavity clean-up activities that involved cutting and removal of In-Core Monitoring Housing (ICMH) tubes, water brooming and vacuuming, and use of an oil skimmer.

The inspectors observed activities, reviewed documentation, and interviewed personnel associated with occupational radiation exposure to evaluate the licensee's protection of worker health and safety as well as the staffing of the radiological protection department. The inspectors conducted site walk-downs, including radiologically controlled areas, to examine and verify radiological postings, and airborne and contamination controls. The inspectors reviewed radiation work permits (RWP's) 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 during work activities were discussed. The inspectors observed radiation protection (RP) staff perform work activities. The inspectors observed the RP coverage during the following work activities: (1) NRW SLT-1-A-B Concentrated Liquid Waste Tank Demolition, (2) 119' Cavity clean-up activities on the refuel floor, (3) Acid Tank removal, and (4) NRW decon/clean-up activities. Additionally, the inspectors observed staff donning and doffing protective clothing, using portal exit monitors out of the RCA, and a routine RP survey of the Turbine Count Room area. During the inspector's walk-down of the reactor building and new radwaste building, a sample of instruments was checked for their condition and calibration. Additionally, the inspectors entered Locked High Radiation Areas (LHRAs) to assess conditions in the dry well within the Reactor Building and the High Purity 1B tank in ORW to determine if the site had appropriate radiological controls, including postings and control points, and if ambient radiological conditions were consistent with radiological postings.

The inspectors performed walk-downs of radioactive material storage areas to assess the effectiveness of Oyster Creek's handling and storage of radioactive material and to assess conditions of the area. Additionally, inspectors discussed with site management shipper qualifications and training to determine if personnel were knowledgeable and qualified to appropriately implement the site radwaste and transportation program.

b. Observations and Findings

The inspectors verified the effectiveness of the CAP process at Oyster Creek. The inspectors determined that issues were being identified and entered into the CAP in a timely manner and the issues were effectively screened, prioritized and evaluated commensurate with their safety significance. The inspectors determined an appropriate process exists for the resolution of employee concerns and did not identify any safety conscious work environment concerns.

The inspectors determined that HDI maintained the fire protection program in accordance with 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 to minimize the potential for radiological releases in the event of a fire at the plant. The site's fire water supply system is maintained and capable of providing the maximum water flow needed to supply suppression systems and connections for manual firefighting. Deficiencies in the fire protection program were entered into the CAP and appropriately addressed. HDI maintained the leadership, staffing, and training of the on-site incipient fire brigade and maintained appropriate agreements with offsite responders.

The inspectors noted that during this inspection period, the site continued decommissioning and dismantlement activities in the new radwaste building and reactor building. The inspectors noted that for the areas of the plant toured, the material condition and housekeeping was adequate and that HDI conducted activities in accordance with the regulatory requirements. Additionally, the inspectors noted that workers were knowledgeable of and adhered to plant procedures and work plans, and pre-job briefings were thorough and highlighted specific safety concerns. The inspectors determined the site maintained adequate controls of excess water and rain intrusion. The inspectors also determined both the characterization lab and the chem lab were adequately maintained and used appropriately.

The inspectors verified that the RWPs, ALARA work plans, and micro-ALARA plans were implemented to limit worker exposure. The inspectors determined that RP staff effectively controlled work activities and used appropriate equipment during those work activities. Inspectors noted during observations, the RP personnel conducted continuous instrument dose rate measurements on the refuel floor in the reactor building, and work areas in NRW. RP had effective communication for individuals to move to low dose areas, to direct handling of radioactive materials/waste to maintain low general area dose rates and had proper controls such as postings were appropriate in identifying the magnitude and extent of the radiological hazard. The licensee plans for the work were commensurate with the risk of the work and associated hazards. The inspectors verified that selected instruments during walk-downs were in calibration and in working condition. The inspectors noted that LHRAs were appropriately determined, and the site had appropriate radiological controls, including postings and control points, and ambient radiological conditions were consistent with radiological postings.

The inspectors verified that solid radioactive waste was adequately stored, monitored, and the areas were appropriately maintained. Additionally, inspectors determined worker radwaste training and qualifications were up to date, and site personnel were knowledgeable of their duties and responsibilities.

c. Conclusions

No violations of more than minor safety significance were identified.

3.0 Exit Meeting

On April 11, 2024, 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.

ATTACHMENT: SUPPLEMENTARY INFORMATION

SUPPLEMENTARY INFORMATION

KEY POINTS OF CONTACT

Oyster Creek Personnel

J. Dostal, HDI Oyster Creek Site Vice President
S. Johnson, Site Licensing Manager
W. Straka, Project Manager
M. Hassler, Decommissioning Manager
K. Leonard, Waste Controls Manager
J. Sisak, Decommissioning Facility Manager
M. Carlson, Site Engineering Manager
E. O'Brian, Environmental Spec/Safety
K. Wolf, Radiation Protection, Chemistry, and Environmental Manager
F. Miranda, Shipping Specialist
K. Zadroga, Radiation Protection, Chemistry Supervisor

ITEMS OPENED, CLOSED, AND DISCUSSED

None

PARTIAL LIST OF DOCUMENTS REVIEWED

Condition Reports

OYS-03275, OYS-03318, OYS-03455, OYS-03554, OYS-03791, OYS-03792,
OYS-03793, OYS-03794, OYS-03795, OYS-03796, OYS-03797, OYS-03798,
OYS-03799, OYS-02697, OYS-02739, OYS-02755, OYS-02823, OYS-02831,
OYS-02877, OYS-02926, OYS-02931, OYS-02962, OYS-02977, OYS-02996,
OYS-03079, OYS-03080, OYS-03223, OYS-03270, OYS-03332, OYS-03390,
OYS-03618

Miscellaneous

Annual Bioassay Program Review, 2023
Apparent Cause Evaluation, OYS-03315
Root Cause Evaluation, OYS-03408
CD-020, Decommissioning Quality Assurance Program, Rev. 2
DSP-AA-001, Corrective Actions Program, Rev. 1
DSP-AA-002, Employee Concerns Procedure, Rev. 0
Oyster Creek Project Waterfall Schedule
101.2 R82 OC Site Fire Protection Program Surveillance Requirements Table
RWP Number OC-24-00607, ALARA Plan, RP-AA-401 Rev. 26
RPW Number OC-24-00905, ALARA Plan, RP-AA-401 Rev. 26
RWP Number OC-24-00607, Micro-ALARA Plan, RP-AA-401 Rev. 26
Routine Radwaste Processing Work Activities, RWP OC-1-24-00202 Rev. 1
RB 119' Reactor Vessel Segmentation and Demo, RWP OC-1-24-00905 Rev. 2
New Radwaste Demolition and Support, RWP OC-1-24-00607 Rev. 3
HEPA Units and Vacs in RCA
Oyster Creek Instrument Inventory as of 1/15/2024
Personnel Exposure Investigations, RP-AA-203-1001, Rev 12
Radiation Protections Stop Work Authority and RPM Event Notification, RP-AA-1004 Rev 10

Control and Use of Modesty Garments, RP-AA-4001 Rev 3
Memorandum, Designation of Staff Qualified for Transfer, Packaging, and Shipping of
Low-Level Radioactive Material, January 15, 2024
Job Hazard Risk Analysis, Form 9.2-B, Rig and remove acid tank from HX Bld

Air Samples

24-359, 24-364, 24-373, 24-315, 24-356, 24-316, 24-314, 24-290, 24-301, 24-302,
24-303, 24-281

Radiological Surveys

7EB-24-181, N3Y-24-134, N3Y-24-168, N3Y-24-164, N5A-24-194, N5A-24-170,
N5A-24-145, N5A-24-186, N5A-24-173

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access and Management System
ALARA	As Low As Reasonably Achievable
CAP	Corrective Action Program
CFR	<i>Code of Federal Regulations</i>
FPP	Fire Protection Program
GPO	Government Printing Office
HDI	Holtec Decommissioning International, LLC
ICMH	In-Core Monitoring Housing
IMC	Inspection Manual Chapter
LHRA	Locked High Radiation Area
LLRWSF	Low Level Rad Waste Storage Facility
NRC	U.S. Nuclear Regulatory Commission
ORW	Old Rad Waste building
Oyster Creek	Oyster Creek Nuclear Generating Station
RCA	Radiologically Controlled Area
RP	Radiation Protection
RWP	Radiation Work Permits
SFP	Spent Fuel Pool