



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

November 16, 2021

Mr. 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.
05000219/2021003**

Dear Mr. Trice:

On September 30, 2021, 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). On-site inspections were performed on July 12-14, 2021, August 11-12, 2021, and September 22-23, 2021. Additional inspection activities (in office reviews) were conducted remotely as a consequence of the COVID-19 public health emergency (PHE) during the inspection period. 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 plant walk-downs by the inspectors, interviews with site personnel, and a review of procedures and records. The results of this inspection were discussed with Mr. Jeffrey Dostal, Site Vice President, and other members of the Oyster Creek staff on October 18, 2021 and are described in the enclosed report.

Within the scope of this inspection, no violations were identified.

In accordance with 10 Code of Federal Regulations (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

K. Trice

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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 Elizabeth Andrews at 610-337-5117 if you have any questions regarding this matter.

Sincerely,

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 05000219/2021003
w/Attachment

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HOLTEC DECOMMISSIONING INTERNATIONAL, LLC, OYSTER CREEK NUCLEAR GENERATING STATION - NRC INSPECTION REPORT NO. 05000219/2021003, DATED NOVEMBER 16, 2021.

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SUNSI Review Complete: EAndrews

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DATE	11/1/21		11/16/21					

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U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

Docket No: 050-00219

License No: DPR-16

Report No: 05000219/2021003

Licensee: Holtec Decommissioning International, LLC

Facility: Oyster Creek Nuclear Generating Station

Location: Forked River, New Jersey

Dates: July 1, 2021 – September 30, 2021

Inspectors: E. Andrews, Health Physicist
B. DeBoer, Health Physicist

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
Oyster Creek Nuclear Generating Station
NRC Inspection Report No. 05000219/2021003

An announced decommissioning inspection was completed at Oyster Creek Nuclear Generating Station (Oyster Creek) on September 30, 2021. Additional inspection activities were conducted remotely during the inspection period as a consequence of the COVID-19 public health emergency (PHE). The inspection included a review of safety reviews, design changes and modifications at permanently shutdown reactors; problem identification and resolution at permanently shutdown reactors; the fire protection program at permanently shutdown reactors; decommissioning performance and status reviews; and occupational radiation exposure at permanently shutdown reactors. The inspection consisted of observations by the inspectors, interviews with site personnel, a review of procedures and records, and plant walk-downs. The U.S. Nuclear Regulatory Commission's (NRC's) program for overseeing the safe decommissioning of a shut-down nuclear power reactor is described in Inspection Manual Chapter (IMC) 2561, "Decommissioning Power Reactor Inspection Program."

Based on the results of this inspection, no violations 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 Code of Federal Regulations (CFR) 50.82(a)(1)(i) and 50.82(a)(1)(ii). On October 1, 2018, the NRC notified Oyster Creek 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). Oyster Creek is currently in the “Actively Decommissioning, Fuel in the Spent Fuel Pool” phase of decommissioning as described in IMC 2561.

2.0 Active Decommissioning Performance and Status Review

2.1 Inspection Procedures 37801, 40801, 64704, 71801, 83750

a. Inspection Scope

In-office reviews of information supplied by Oyster Creek were performed during the inspection period. The inspectors performed on-site inspections on July 12-15, 2021, August 11-12, 2021, and September 22-23, 2021. The inspection consisted of observations by the inspectors, interviews with site personnel, a review of procedures and records, and plant walk-downs.

The inspectors conducted document reviews and interviews with plant personnel to determine if Holtec implemented procedures and processes in accordance with the regulations and guidance associated with 10 CFR 50.59, “Changes, tests and experiments.” The inspectors reviewed a selection of modifications, design changes, and 10 CFR 50.59 screenings to determine if the modifications and design changes would need prior NRC approval prior to implementation of the activity. The inspectors reviewed a sample of modification, design changes and 10 CFR 50.59 screenings associated with abnormal operating procedure revisions, equipment abandonment packages, greater-than-class C waste on the independent spent fuel storage installation (ISFSI) pad, site fire panels in preparation to the site’s transition to the “ISFSI Island” security posture, and an update to the defueled safety analysis report to support the ISFSI Only Technical Specifications. The inspectors interviewed personnel and reviewed the engineering change and modification packages, condition reports, and plant drawings to determine if the modification met the requirements of the technical specifications.

The inspectors reviewed documents and interviewed site personnel to determine if HDI performed audits and self-assessment and ensured issues were identified and corrected in accordance with the site’s corrective action program (CAP). The inspectors interviewed a representative selection of CAP documents and attended CAP-related meetings to determine if a sufficiently low threshold for problem identification existed, follow-up evaluations were of sufficient quality and HDI assigned timely and appropriate prioritization for issue resolution commensurate with the significance of the issue.

The inspectors reviewed the status of the fire protection program to determine if the program was maintained in a state of operational readiness and whether changes made to the program continued to meet commitments, the NRC requirements, and had not negatively impacted the overall state of the program. The inspectors reviewed fire brigade training and training with off-site responders. Additionally, the inspectors performed a walkdown of the firefighting equipment storage areas, active plant detection and suppression systems, and fire barriers to ensure material condition was maintained.

The inspectors reviewed the status of activities related to the site decommissioning to determine if activities were in accordance with licensed requirements. The inspectors observed a sample of ongoing decommissioning activities, including the demolition of the augmented offgas building. The inspectors reviewed the decommissioning schedule to determine if the schedule was consistent with the post shutdown decommissioning activities report (PSDAR).

The inspectors also reviewed the occupational radiation exposure program to determine if it met regulatory requirements and observed a sample of radiation protection job coverage of work activities, toured the radiologically controlled areas, and interviewed radiation workers. The inspectors reviewed dose records for 2020 and 2021, radiation surveys, as low as reasonably achievable (ALARA) plans, radiation work permits, and radiation protection procedures. The inspectors also reviewed training and qualifications of radiation protection staff.

b. Observations and Findings

The inspectors verified that the selection of modifications, design changes, and 10 CFR 50.59 screenings followed established procedures, and the individuals performing the reviews were trained and qualified. The inspectors assessed the details of the evaluations, evaluated that the licensee's judgments were appropriate, and determined that key considerations were effectively evaluated to maintain plant safety. The 10 CFR 50.59 screening for the defueled safety analysis report to support the ISFSI Only Technical Specifications appropriately determined that a license amendment was required. The NRC subsequently reviewed and approved Oyster Creek License Amendment 299 (ML21119A064) to transition the site to ISFSI Only Technical Specifications, which took effect on July 24, 2021.

The inspectors determined that issues had been 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 verified that audits and self-assessments were performed by qualified individuals independent of the organization being audited, and management reviewed the audits and associated corrective actions.

The inspectors verified the fire protection program was maintained within NRC requirements and the fire protection plan. The inspectors reviewed the updated fire protection plan and a sample of the fire protection program implementation procedures and verified compliance with the current fire protection program, ensured that they reflected the current decommissioning status of the facility, and verified they were implemented, as appropriate. The inspectors also reviewed fire response training and observed a continuous fire watch put in place due to a fire water system leak.

The inspectors noted the next main decommissioning activities include building demolition and reactor segmentation, which were in progress at the time of the exit meeting of this inspection period. The inspectors determined the activities were performed safely and in accordance with work plans. The inspectors also verified the activities and schedule were consistent with the September 18, 2018, notification by HDI revising the PSDAR for Oyster Creek.

The inspectors determined that the radiation protection staff effectively controlled work activities, that survey records were clear and complete, and radiation protection technicians used appropriate instruments for surveys. The inspectors also verified technician training and qualifications were complete and up to date, and that ALARA plans were performed as needed and were effective in limiting worker exposure, and occupational dose was acceptable for the scope of the radiological activities performed.

c. Conclusions

Based on the results of this inspection, no violations were identified.

3.0 Exit Meeting

On October 18, 2021, the inspectors presented the inspection results to Mr. Jeffrey Dostal, Site Vice President, and other members of the Oyster Creek staff who acknowledged the inspection results. No proprietary information was retained by the inspectors or documented in this report.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Oyster Creek Personnel

K. Trice, HDI President
A. Sterdis, HDI Vice President Regulatory and Environmental Affairs
J. Dostal, HDI Oyster Creek Site Vice President
L. Berlinski, Oversight Assessor
M. Carlson, Engineer
R. Fitts, Corrective Action Process Manager
M. Hassler, Decommissioning Manager
S. Johnson, Site Licensing Manager
K. Leonard, Waste Removal Manager
T. Prosser, Fire Marshal
J. Sisak, Decommissioning Facility Manager
H. Tritt, Site Engineering Manager
K. Wolf, Radiation Protection, Chemistry, and Environmental Manager

ITEMS OPENED, CLOSED, AND DISCUSSED

None

LIST OF DOCUMENTS REVIEWED

2.1 Inspection Procedures 37801, 40801, 64704, 71801, 83750

Procedures

101.2, Oyster Creek Site Fire Protection Program, Revision 77
645.2.027, Fire Pump Diesel Quarterly Battery Surveillance, Revision 14
645.6.013, Fire Suppression System Halon Functional Test, Revision 47
ABN-29, Plant Fires, Revision 35
CC-AA-501-1027, Hot Work Precautions and Safety Practices, Revision 1
OP-AA-201-009, Control of Transient Combustible Material, Revision 23
OP-DC-201-007, Fire Protection System Impairment Control, Revision 1
RP-AA-700-1002, Determination of Correction Factors for Radiation Protection Neutron Instrumentation, Revision 1

Condition Reports

OYS-00568	OYS-00750	OYS-01318	OYS-01619	OYS-01642
OYS-01675	OYS-01683	OYS-01853	OYS-01940	OYS-01977
OYS-01978	OYS-01979	OYS-01980	OYS-01981	OYS-02000
OYS-02018	OYS-02021	OYS-02050	OYS-02056	OYS-02077
OYS-02088	OYS-02110	OYS-02117	OYS-02132	OYS-02137
OYS-02163	OYS-02169	OYS-02170	OYS-02183	OYS-02191
OYS-02195	OYS-02200	OYS-02206	OYS-02207	OYS-02216
OYS-02219	OYS-02221	OYS-02222	OYS-02223	OYS-02243
OYS-02246	OYS-02251			

Miscellaneous

50.59 Review for ABN-16, Loss of Fuel Pool Cooling, Revision 0
50.59 Review for DSAR Update to IOTS (ISFSI ONLY Technical Specifications), Revision 1
20-906, ISFSI Campaign Utilizing HI-STORM FW System ALARA Plan, dated
February 23, 2021
21-905A, Reactor Segmentation, dated April 1, 2021
ALARA Work-In-Progress Review, dated April 5, 2021
ALARA Work-In-Progress Review, dated May 10, 2021
Annual Station ALARA Committee Meeting Minutes, dated December 8, 2020
AUDIT 2020-110, Internal Audit Report: Fire Protection
DC-AA-420-2020-002, New Radwaste Building Abandonment
DSP-EN-001-2021-002, South Flex Storage Area
DPS-EN-001-2021-009, Heating Boiler Houses
N-AN-SA-FIREWATCH-PRAC, Fire Extinguisher (Fire Watch) Practical
N-OC-SA-FB-Ct-QRT, Quarterly Fire Brigade Requal
OC-2021-EC-0002, Fire Panel Monitoring Modification, Revision 0
OC-2021-EC-0003, HI-SAFE FW GTCC Waste Storage West of ISFSI Pad, Revision 0
Oyster Creek Nuclear Generating Station Fire Hazards Analysis Report, Revision 21
Oyster Creek Part 37 & ISFSI Only Plant Access Training
Oyster Creek Reactor Vessel/Reactor Vessel Internal Segmentation Project, Revision 1
Radiation Worker Training
Work Package 000070B, Demo CST, Revision 0

Radiological Surveys

CAA-21-2150, Condensate Storage Tank, dated July 19, 2021
CAA-21-2196, Condensate Storage Tank, dated July 22, 2021
CAA-21-2397, Condensate Storage Tank, dated August 9, 2021
PPA-21-2027, NRW Pump Room, dated June 29, 2021
PSB-21-2214, ORW Control Room & Precoat Room, dated July 24, 2021
PTP-21-2217, ORW Operating Aisle/Storage Area, dated July 24, 2021
PUU-21-2107, ORW Inside Tank Room, dated July 8, 2021
RCT-21-2293, Reactor Building 23', dated August 3, 2021
REY-21-2294, Reactor Building 51', dated August 3, 2021
RFQ-21-2283, Reactor Building 75', dated August 2, 2021
RGU-21-2282, Reactor Building 95', dated August 2, 2021
RH3-21-2222, Reactor Building 119', dated July 26, 2021
UAB-21-2405, ORW West Tanks, dated August 10, 2021
WAA-21-1380, Low Level Rad Waste Storage Facility, dated May 12, 2021
WAA-21-1958, Low Level Rad Waste Storage Facility, dated June 24, 2021

Radiological Work Permits

OC-1-21-00301, Condensate Storage Tank, Clean, Paint – Remove Tank, Revision 0
OC-1-21-00905, RB 119' – Reactor Building Segmentation and Packaging, Revision 1
OC-1-21-00906, ISFSI & GTCC Campaign and Support Activities, Revision 5

Surveillances and Work Orders

1-OYC-OP-OP-0019699301-2125
1-OYC-OP-OP-0019845601-2109
1-OYC-OP-OP-0019845602-2124
1-OYC-OP-OP-0023978601012129
1-OYC-OP-OP-0025214902-2107
1-OYC-OP-OP-0025215201-2107
1-OYC-OP-OP-0025216901-2044

LIST OF ACRONYMS USED

ADAMS	Agencywide Document Access and Management System
ALARA	as low as reasonably achievable
CAP	corrective action program
CFR	Code of Federal Regulations
HDI	Holtec Decommissioning International, LLC
IMC	inspection manual chapter
ISFSI	independent spent fuel storage installation
NRC	U.S. Nuclear Regulatory Commission
Oyster Creek	Oyster Creek Nuclear Generating Station
PHE	public health emergency
PSDAR	post shutdown decommissioning activities report