



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

August 19, 2020

Andrea L. Sterdis
Vice President Regulatory
and Environmental Affairs
Holtec Decommissioning
International, LLC
Krishna P. Singh Technology Campus
1 Holtec Blvd.
Camden, NJ 08104

SUBJECT: OYSTER CREEK NUCLEAR GENERATION STATION – REQUEST FOR
EXEMPTION FROM 10 CFR 50.54(w)(1), CONCERNING ON-SITE PROPERTY
DAMAGE INSURANCE - ACCEPTANCE REVIEW (L-2020-LLE-0107)

Dear Ms. Sterdis:

By letter dated June 22, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20174A561), Holtec Decommissioning International, LLC (HDI) submitted to the U.S. Nuclear Regulatory Commission (NRC) an exemption request for Oyster Creek Nuclear Generating Station (Oyster Creek). Specifically, HDI is requesting an exemption to Title 10 of the *Code of Federal Regulations* (10 CFR) Section 50.54(w)(1) to reduce the minimum coverage limit of 10 CFR 50.54(w)(1) from \$50 million to \$10 million for the Oyster Creek on-site insurance coverage.

The NRC staff performed an acceptance review of the exemption request to determine whether it contains sufficient technical information to allow the NRC staff to conduct further technical review. Based on this acceptance review, the NRC staff has determined that additional technical information is needed to proceed with its detailed technical review. As such, the NRC staff is declining to accept the submittal until it receives HDI's responses to the request for supplemental information (RSI) discussed below describing the specific information that is needed for the NRC staff to proceed with its detailed technical review.

The regulation at 10 CFR 50.12, "Specific exemptions," states, in part, that the NRC will not consider granting an exemption unless special circumstances are present. Special circumstances are present when, among other things, application of the regulation in the particular circumstances is not necessary to achieve the underlying purposes of the rule. Based on its statements of consideration, the NRC staff understands the underlying purpose of 10 CFR 50.54(w) to be to ensure that the licensee has adequate resources to stabilize the site and control radioactivity release following an unlikely event involving significant damage to fission product barriers (49 FR 44645). As evident from the accidents discussed in the statements of consideration, the staff also interprets that this unlikely event is not limited to design basis accidents (DBAs) and would include beyond DBAs.

On June 12, 2019 (ADAMS Accession No. ML19129A102), the NRC granted an exemption from the requirements of 10 CFR 50.54(w)(1) to Oyster Creek to reduce the onsite insurance

requirement from \$1.06 billion to \$50 million, which became effective on June 29, 2019. This exemption was based on SECY-96-256, "Changes to Financial Protection Requirements for Permanently Shutdown Nuclear Power Reactors, 10 CFR 50.54(w)(1) and 10 CFR 140.11," which refers to calculations in NUREG/CR-6451, "A Safety and Regulatory Assessment of Generic BWR and PWR Permanently Shutdown Nuclear Power Plants." NUREG/CR-6451 limited accidents involving fuel to the DBA fuel handling accident analysis of Regulatory Guide 1.25¹, with modifications that a single assembly is dropped in the spent fuel pool, resulting in damage to 100 percent of the rods in the affected assembly. In its June 22, 2020 exemption request, HDI states that a worst-case contaminated liquid storage tank (i.e., condensate storage tank (CST)) rupture or fuel handling accident would cost well less than \$10 million to clean up. However, to be consistent with the underlying purpose of 10 CFR 50.54(w), the staff requests that beyond DBAs involving onsite stored fuel be considered for the appropriate insurance value for Oyster Creek. For example, a cask drop accident in the truck bay would be a beyond DBA with the potential for significant decontamination requirements. With a single-failure-proof handling system as at Oyster Creek, this event has a frequency comparable to that of a significant core damage event.

If HDI determines that the CST rupture bounds all the credible accidents including beyond DBAs, then the NRC staff also request that HDI justify the assumptions used to estimate the disposal cost of less than \$10 million:

- HDI assumed a disposal operation facility pricing of one sixth of that used in NUREG/CR-6451 based on 1995 pricing. HDI should show evidence that the assumed pricing will be maintained during decommissioning operations with contracts in place, including adjustments for inflation.
- HDI assumed the radioactivity of liquid CST based on latest measurements. However, if components with high radioactivity (e.g., steam dryer and reactor pressure vessel), are to be cut during decommissioning operations, activity of isotopes such as ⁶⁰Co may increase. HDI should conservatively assume the highest levels of activity that is expected in the CST during decommissioning operations.
- HDI assumed that soil density, porosity, hydraulic conductivity and gradient, soil thickness, and radionuclide mobility and concentration to be constant throughout the contaminated zone. HDI should justify that the assumed values for these parameters bound the conditions that exist at the Oyster Creek site.

The response to the RSI should be provided within 30 business days from the date of this letter. The NRC staff held a teleconference on August 18, 2020 to discuss the RSI and ensure mutual understanding. After we receive a response to the RSIs, we will provide an anticipated completion date and work hours estimate for our formal review.

In accordance with Title 10 of the *Code of Federal Regulations*, Section 2.390 of the NRC's "Agency Rules of Practice and Procedure," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records component of NRC's ADAMS. The ADAMS database is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

¹ On December 12, 2016, NRC withdrew Regulatory Guide (RG) 1.25 because the guidance contained in it had been superseded and was then incorporated into RG 1.183, "Alternative Radiological Source Terms for Evaluating Design Basis Accidents at Nuclear Power Reactors," and RG 1.195, "Methods and Assumptions for Evaluating Radiological Consequences of Design Basis Accidents at Light-Water Nuclear Power Reactors." (See 81 FR 89510, 12/12/2016 (<https://www.nrc.gov/docs/ML1634/ML16348A537.pdf>))

If you have any questions, please contact me at (301) 415-3808 or via e-mail at Zahira.Cruz@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read 'Zahira Cruz', with a stylized, cursive script.

Zahira Cruz, Project Manager
Reactor Decommissioning Branch
Division of Decommissioning, Uranium Recovery
and Waste Programs
Office of Nuclear Material Safety
and Safeguards

Docket No. 50-219

cc: Listserv
P. Oneid
P. Cowan

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ADAMS Accession No.: ML20219A577***via email**

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