

**NUCLEAR REGULATORY COMMISSION**

**Docket No. 50-219**

**Holtec Decommissioning International, LLC**

**Oyster Creek Nuclear Generating Station**

**Exemptions**

**I. Background.**

By letter dated February 14, 2018 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML18045A084), Exelon, the owner of Oyster Creek, submitted to the U.S. Nuclear Regulatory Commission (NRC) a certification in accordance with section 50.82(a)(1)(i) of Title 10 of the *Code of Federal Regulations* (10 CFR), stating its determination to permanently cease operations at Oyster Creek no later than October 31, 2018. By letter dated September 25, 2018 (ADAMS Accession No. ML18268A258), Exelon submitted to the NRC a certification in accordance with 10 CFR 50.82(a)(1)(ii), stating that Oyster Creek permanently ceased power operations on September 17, 2018, and that, as of September 25, 2018, all fuel had been permanently removed from the Oyster Creek reactor vessel. By letter dated December 30, 2014 (ADAMS Accession No. ML14365A067), Exelon submitted the Oyster Creek Irradiated Fuel Management Plan (IFMP) pursuant to 10 CFR 50.54(bb) and Preliminary Decommissioning Cost Estimate (DCE). The DCE was updated by letter dated March 30, 2016 (ADAMS Accession No. ML16090A067). By letter dated May 21, 2018 (ADAMS Accession No. ML18141A775), Exelon submitted a Post-Shutdown Decommissioning Activities Report (2018 PSDAR) and site-specific DCE for Oyster Creek.

On August 31, 2018, Exelon, Oyster Creek Environmental Protection, LLC (OCEP) and Holtec Decommissioning International, LLC (HDI) submitted a License Transfer Application (LTA) requesting NRC approval to transfer the Oyster Creek Renewed Facility Operating

License No. DPR-16 and the general license for the Oyster Creek independent spent fuel storage installation (ISFSI). Following the license transfer, the new licensees would be OCEP and HDI, with OCEP as the licensed owner and HDI as the licensed operator. In accordance with 10 CFR 50.82(a)(7), by letter dated September 28, 2018 (ADAMS Accession No. ML18275A116), HDI submitted a "Notification of Revised Post-Shutdown Decommissioning Activities Report and Revised Site-Specific Decommissioning Cost Estimate for Oyster Creek Nuclear Generating Station," (revised PSDAR) to notify the NRC of changes to accelerate the schedule for the prompt decommissioning (i.e., DECON) of Oyster Creek and unrestricted release of all portions of the site (excluding the ISFSI) within eight (8) years after license transfer.

## **II. Request/Action.**

By letter dated November 30, 2018 (ADAMS Accession No. ML18334A215), HDI submitted a request for exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv). HDI submitted a revised site-specific DCE by letter dated September 28, 2018, as part of the revised PSDAR. A similar exemption request from Exelon was approved by the NRC for Oyster Creek by letter dated October 19, 2018 (ADAMS Accession No. ML18227A025).

The requirements of 10 CFR 50.82(a)(8)(i)(A) restrict withdrawals from Decommissioning Trust Funds (DTF) to expenses for legitimate decommissioning activities consistent with the definition of decommission in 10 CFR 50.2. The definition of "decommission" in 10 CFR 50.2 is:

to remove a facility or site safely from service and reduce residual radioactivity to a level that permits-

- (1) Release of the property for unrestricted use and termination of the license; or
- (2) Release of the property under restricted conditions and termination of the license.

This definition does not include activities associated with irradiated fuel management and site restoration activities. Similarly, the requirements of 10 CFR 50.75(h)(1)(iv) restrict the use of decommissioning trust fund disbursements (other than for ordinary and incidental expenses) to decommissioning expenses until final decommissioning has been completed. Therefore, partial exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) are needed to allow HDI to use funds from Oyster Creek DTF for irradiated fuel management and site restoration activities in accordance with HDI's site-specific DCE.

The requirements of 10 CFR 50.75(h)(1)(iv) further provide that, except for decommissioning withdrawals being made under 10 CFR 50.82(a)(8) or for payments of ordinary administrative costs and other incidental expenses of the Trust, no disbursement may be made from the Trust until written notice of the intention to make a disbursement has been given to the NRC at least 30 working days in advance of the intended disbursement. Therefore, an exemption from 10 CFR 50.75(h)(1)(iv) is also needed to allow HDI to use funds from the Oyster Creek DTF for irradiated fuel management and site restoration activities at Oyster Creek without prior NRC notification, similar to withdrawals for decommissioning activities made in accordance with 10 CFR 50.82(a)(8).

As part of its November 30, 2018, exemption request, HDI provided Table 1, "Annual DECON Decommissioning Fund Cash Flow for Oyster Creek Nuclear Generating Station," that shows the annual DTF cash flow for Oyster Creek, while in DECON (immediate dismantling). Table 1 contains the projected withdrawals from the DTF needed to cover the estimated costs of radiological decommissioning, irradiated fuel management, and site restoration activities as projected on the day of the application. Subsequent to HDI's exemption request, Exelon provided the DTF balance as of December 31, 2018, for Oyster Creek in Attachment 21 to its April 1, 2019, annual report on the status of decommissioning funding for Oyster Creek (ADAMS Accession No. ML19091A140). The NRC staff (staff) considered each of these submittals in its review of the exemption request.

### **III. Discussion.**

Pursuant to 10 CFR 50.12, the Commission may, upon application by any interested person or upon its own initiative, grant exemptions from the requirements of 10 CFR part 50, (1) when the exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security; and (2) when any of the special circumstances listed in 10 CFR 50.12(a)(2) are present. These special circumstances include, among other things:

(a) Application of the regulation in the particular circumstances would not serve the underlying purpose of the rule or is not necessary to achieve the underlying purpose of the rule; and

(b) Compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated.

#### **A. The Exemptions are Authorized by Law**

The proposed exemptions from 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) would allow HDI to use the Oyster Creek DTF for irradiated fuel management and site restoration activities without prior notice to the NRC, in the same manner that withdrawals are made under 10 CFR 50.82(a)(8) for decommissioning activities. As stated above, 10 CFR 50.12 allows the NRC to grant exemptions from the requirements of 10 CFR part 50 when the exemptions are authorized by law. The staff has determined that granting the licensee's proposed exemptions will not result in a violation of the Atomic Energy Act of 1954, as amended, or the Commission's regulations. Therefore, the exemptions are authorized by law.

**B. The Exemptions Present No Undue Risk to the Public Health and Safety**

The underlying purpose of 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) is to provide reasonable assurance that adequate funds will be available for the radiological decommissioning of power reactors and license termination. Based on staff's review of HDI's revised site-specific DCE and the the staff's independent cash flow analysis provided as Attachment 1 to the NRC staff's Safety Evaluation for the associated LTA (ADAMS Accession No. ML19095A457), the NRC staff finds that the use of the Oyster Creek DTF for irradiated fuel management and site restoration activities at Oyster Creek will not adversely impact HDI's ability to terminate the Oyster Creek license (*i.e.*, complete radiological decommissioning) as planned, consistent with the schedule and costs contained in the revised PSDAR. Furthermore, an exemption from 10 CFR 50.75(h)(1)(iv) to allow the licensee to make withdrawals from the DTF for irradiated fuel management and site restoration activities without prior written notification to the NRC will not affect the sufficiency of funds in the DTF to accomplish radiological decommissioning because such withdrawals are still constrained by the provisions of 10 CFR 50.82(a)(8)(i)(B)-(C) and are reviewable under the annual reporting requirements of 10 CFR 50.82(a)(8)(v)-(vii).

According to the application, no new accident precursors are created by using the DTF in the proposed manner. Thus, the probability of postulated accidents is not increased. Also, based on the above, the consequences of postulated accidents are not increased. No changes are being made in the types or amounts of effluents that may be released offsite. There is no significant increase in occupational or public radiation exposure. This exemption does not diminish the effectiveness of other regulations that ensure available funding for decommissioning, including 10 CFR 50.82(a)(6) which prohibits licensees from performing any decommissioning activities that could foreclose release of the site for possible unrestricted use, result in significant environmental impacts not previously reviewed, or result in there no longer being reasonable assurance that adequate funds will be available for decommissioning.

Therefore, the requested exemptions will not present an undue risk to the public health and safety.

**C. The Exemptions are Consistent with the Common Defense and Security**

The requested exemptions would allow HDI to use funds from the Oyster Creek DTF for irradiated fuel management and site restoration activities at Oyster Creek. Irradiated fuel management under 10 CFR 50.54(bb) is an integral part of the planned HDI decommissioning and license termination process and will not adversely affect HDI's ability to physically secure the site or protect special nuclear material. These exemptions to enable the use of the Oyster Creek DTF for irradiated fuel management and site restoration activities has no relation to security issues. Therefore, the common defense and security is not impacted by the requested exemptions.

**D. Special Circumstances**

According to 10 CFR 50.12(a)(2), the NRC will not consider granting an exemption to its regulations unless special circumstances are present. Special circumstances, in accordance with 10 CFR 50.12(a)(2)(ii), are present whenever application of the regulation in the particular circumstances is not necessary to achieve the underlying purpose of the regulation.

The underlying purpose of 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv), which restrict withdrawals from DTFs to expenses for radiological decommissioning activities, is to provide reasonable assurance that adequate funds will be available for radiological decommissioning of power reactors and license termination. Strict application of these requirements would prohibit the withdrawal of funds from the Oyster Creek DTF for activities other than radiological decommissioning activities at Oyster Creek, such as for irradiated fuel management and site restoration activities, until final radiological decommissioning at Oyster Creek has been completed.

The Exelon April 1, 2019, annual report on the status of decommissioning funding for Oyster Creek reports a DTF balance of approximately \$959.8 million as of December 31, 2018.

After expected radiological decommissioning and irradiated fuel management costs to be paid by Exelon, the trust fund balance will be approximately \$848.6 million. The cash flow analysis in Table 1 of the November 30, 2018, application is based on a beginning DTF balance of \$848 million as of January 1, 2019. HDI stated that the beginning DTF balance reflects the fund value post-closure of the asset sale and that the value includes deduction for estimated Exelon pre-closure costs. Furthermore, the application states that the 2019 HDI costs include estimated pre-closure and post-closure costs. In the NRC staff's analysis provided in Attachment 1 of its Safety Evaluation for the LTA (ADAMS Accession No. ML19095A457), the staff used the lesser opening DTF balance of \$848 million as a conservative estimate that reflects less money available to cover radiological decommissioning, irradiated fuel management, and site restoration costs. The HDI analysis in the September 28, 2018 revised PSDAR, projects the total radiological decommissioning cost of Oyster Creek to be approximately \$618 million in 2018 dollars. The revised PSDAR estimated decommissioning costs are consistent with the estimated costs for radiological decommissioning, including ISFSI decommissioning costs, provided by HDI in the November 30, 2018, request for exemptions. The November 30, 2018, exemption request estimates the costs associated with irradiated fuel management at Oyster Creek to be \$225 million in 2018 dollars and estimates the costs associated with site restoration to be \$41 million in 2018 dollars. These estimates are also consistent with the projected costs provided in the September 28, 2018, revised PSDAR. The staff performed an independent cash flow analysis of the DTF over the proposed 17-year period leading up to license termination (assuming an annual real rate of return of 2 percent, as allowed by 10 CFR 50.75(e)(1)(ii)), which includes all phases of the decommissioning project,<sup>1</sup> and determined the projected earnings of the DTF. The staff confirmed that the current funds in the DTF and projected earnings provide reasonable assurance of adequate funding to complete

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<sup>1</sup> The 17-year period covers the 8-year decommissioning period as well as the period for irradiated fuel management and ISFSI decommissioning prior to license termination.

all NRC required radiological decommissioning activities, and also to fund irradiated fuel management and site restoration activities. Therefore, the staff finds that HDI has provided reasonable assurance that adequate funds will be available for the radiological decommissioning of Oyster Creek, even with the disbursement of funds from the DTF for irradiated fuel management and site restoration activities. Accordingly, the staff concludes that application of the requirements of 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv), that funds from the DTF only be used for radiological decommissioning activities and not for irradiated fuel management and site restoration activities, is not necessary to achieve the underlying purpose of the rule; thus, special circumstances are present supporting approval of the exemption request.

In its submittal, HDI also requested an exemption from the requirements of 10 CFR 50.75(h)(1)(iv) concerning prior written notification to the NRC of withdrawals from the DTF to fund activities other than radiological decommissioning. The underlying purpose of notifying the NRC prior to withdrawal of funds from the DTF is to provide opportunity for NRC intervention, when deemed necessary, if the withdrawals are for expenses other than those authorized by 10 CFR 50.75(h)(1)(iv) and 10 CFR 50.82(a)(8) that could result in there being insufficient funds in the DTF to accomplish radiological decommissioning.

By granting the exemptions to 10 CFR 50.75(h)(1)(iv) and 10 CFR 50.82(a)(8)(i)(A), the staff considers that withdrawals consistent with the licensee's submittal dated November 30, 2018, are authorized. As stated previously, the staff has determined that there are sufficient funds in the DTF to complete radiological decommissioning activities as well as to conduct irradiated fuel management and site restoration activities consistent with the revised PSDAR, DCE, IFMP, and the November 30, 2018, exemption request. Pursuant to the requirements in 10 CFR 50.82(a)(8)(v) and (vii), licensees are required to monitor and annually report to the NRC the status of the DTF and the licensee's funding for managing irradiated fuel. These reports provide the staff with awareness of, and the ability to take action on, any actual or



potential funding deficiencies. Additionally, 10 CFR 50.82(a)(8)(vi) requires that the annual financial assurance status report must include additional financial assurance to cover the estimated cost of completion if the sum of the balance of any remaining decommissioning funds, plus earnings on such funds calculated at not greater than a 2-percent real rate of return, together with the amount provided by other financial assurance methods being relied upon, does not cover the estimated cost to complete the decommissioning. The requested exemptions would not allow the withdrawal of funds from the DTF for any other purpose that is not currently authorized in the regulations without prior notification to the NRC. Therefore, the granting of this exemption to 10 CFR 50.75(h)(1)(iv) to allow the licensee to make withdrawals from the DTF to cover authorized expenses for irradiated fuel management and site restoration activities without prior written notification to the NRC will still meet the underlying purpose of the regulation.

Special circumstances, in accordance with 10 CFR 50.12(a)(2)(iii), are present whenever compliance would result in undue hardship or other costs that are significantly in excess of those contemplated when the regulation was adopted, or that are significantly in excess of those incurred by others similarly situated. The licensee states that the DTF contains funds in excess of the estimated costs of radiological decommissioning and that these excess funds are needed for irradiated fuel management and site restoration activities. The NRC does not preclude the use of funds from the decommissioning trust in excess of those needed for radiological decommissioning for other purposes, such as irradiated fuel management or site restoration.

The NRC has stated that funding for irradiated fuel management and site restoration activities may be commingled in the DTF, provided that the licensee is able to identify and account for the radiological decommissioning funds separately from the funds set aside for irradiated fuel management and site restoration activities (see NRC Regulatory Issue Summary 2001-07, Rev. 1, "10 CFR 50.75 Reporting and Recordkeeping for Decommissioning Planning,"

dated January 8, 2009 (ADAMS Accession No. ML083440158), and Regulatory Guide 1.184, Rev. 1, "Decommissioning of Nuclear Power Reactors," dated October 2013 (ADAMS Accession No. ML13144A840). To prevent access to those excess funds in the DTF because irradiated fuel management and site restoration activities are not associated with radiological decommissioning would create an unnecessary financial burden without any corresponding safety benefit.

The adequacy of the DTF to cover the cost of activities associated with irradiated fuel management and site restoration, in addition to radiological decommissioning, is supported by the site-specific decommissioning cost estimate. If the licensee cannot use its DTF for irradiated fuel management and site restoration activities, it would need to obtain additional funding that would not be recoverable from the DTF, or the licensee would have to modify its decommissioning approach and methods. The staff concludes that either outcome would impose an unnecessary and undue burden significantly in excess of that contemplated when 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) were adopted.

Since the underlying purposes of 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) would be achieved by allowing HDI to use a portion of the Oyster Creek DTF for irradiated fuel management and site restoration activities without prior NRC notification, and since compliance with the regulations would result in an undue hardship or other costs that are significantly in excess of those contemplated when the regulations were adopted, the special circumstances required by 10 CFR 50.12(a)(2)(ii) and 10 CFR 50.12(a)(2)(iii) exist and support the approval of the requested exemptions.

#### **E. Environmental Considerations**

In accordance with 10 CFR 51.31(a), the Commission has determined that the granting of the exemptions will not have a significant effect on the quality of the human environment (see Environmental Assessment and Finding of No Significant Impact published in the *Federal Register* on June 18, 2019 (84 FR 28357)).

#### **IV. Conclusions.**

In consideration of the above, the staff finds that the proposed exemptions confirm the adequacy of funding in the Oyster Creek DTF, considering growth, to complete radiological decommissioning of the site and to terminate the license and also to cover estimated irradiated fuel management and site restoration activities. The NRC staff also finds that there is reasonable assurance that adequate funds are available in the NDT to complete all activities associated with radiological decommissioning, license termination, irradiated fuel management activities, and site restoration within the scope of this exemption request.

Accordingly, the Commission has determined that, pursuant to 10 CFR 50.12(a), the exemptions are authorized by law, will not present an undue risk to the public health and safety, and are consistent with the common defense and security. Also, special circumstances are present. Therefore, the Commission hereby grants HDI exemptions from the requirements of 10 CFR 50.82(a)(8)(i)(A) and 10 CFR 50.75(h)(1)(iv) to allow use of a portion of the funds from the Oyster Creek DTF for irradiated fuel management and site restoration activities in accordance with the Oyster Creek revised PSDAR and DCE, dated September 28, 2018. Additionally, the Commission hereby grants HDI an exemption from the requirement of 10 CFR 50.75(h)(1)(iv) to allow such withdrawals without prior NRC notification.

These exemptions are effective upon the NRC's issuance of a conforming license amendment reflecting HDI and OCEP as the licensees for Oyster Creek, following NRC approval of the license transfer application and consummation of the transaction.

Dated at Rockville, Maryland, this 20 day of June, 2019.

For the Nuclear Regulatory Commission.

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John W. Lubinski, Director  
Office of Nuclear Material Safety  
and Safeguards