

DOCKET: 70-143

LICENSEE: NUCLEAR FUEL SERVICES, INC.

SUBJECT: SAFETY EVALUATION REPORT: APPROVAL OF UPDATED  
DECOMMISSIONING COST ESTIMATE

## 1.0 BACKGROUND

Nuclear facilities licensed under Title 10 of the *Code of Federal Regulations* (10 CFR), Part 70, are required to provide adequate financial assurance for decommissioning, decontamination and reclamation pursuant to 10 CFR Section 70.25, "Financial Assurance and Recordkeeping for Decommissioning." Nuclear Fuel Service, Inc. (NFS or the licensee) is a holder of Special Nuclear Material (SNM) License, SNM-124. Pursuant to 10 CFR Paragraph 70.25(e)(2), NFS is required to submit a decommissioning cost estimate (DCE) and financial assurance at least every 3 years for U.S. Nuclear Regulatory Commission (NRC) review and approval.

By letter dated November 30, 2015, as supplemented by letters dated May 31, 2016, and August 30, 2016, NFS submitted an updated DCE.

The NRC utilized NUREG-1757, Vol. 3, Rev. 1, "Consolidated Decommissioning Guidance Financial Assurance, Recordkeeping, and Timeliness" as guidance to evaluate DCEs submitted by 10 CFR 70 licensees.

## 2.0 REGULATORY REQUIREMENTS

The licensee remains responsible for the current status and future decommissioning of the licensed site and facility; will continue to abide by all commitments and representations previously made to the NRC; and will continue to abide by all constraints, conditions, requirements, representations, and commitments identified in the license. As required by 10 CFR 70.25(e)(2), NFS must continue to submit an updated cost estimate for decommissioning for NRC's review at intervals not to exceed 3 years. After approval of the estimate, NFS will submit, as necessary, the revised financial instruments reflecting an amount sufficient to cover the cost. The licensee remains liable for any decommissioning costs not covered by the financial instruments submitted.

## 3.0 STAFF EVALUATION

The DCE submitted by NFS documents the total cost of decommissioning as \$414,160,000 including a 25 percent contingency factor of \$82,832,000.

The licensee previously submitted a DCE dated November 30, 2012, which was approved on June 11, 2013. The subject DCE was submitted by letter dated November 30, 2015. The DCE was updated at an interval that did not exceed 3 years. Therefore, the NRC concludes the triennial update to the DCE is timely.

Enclosure

The NRC accepted the DCE for a detailed technical review. In response to NRC requests, additional information was submitted by letters dated May 31, 2016 and August 30, 2016. Upon review of the revised 2015 DCE, NRC found the DCE acceptable as it meets the regulatory requirements of 10 CFR 70.25(e). Specifically, NFS submitted a detailed cost estimate for decommissioning within 3 years of its last approved estimate and the new submittal: 1) reflects the cost of an independent contractor to perform decommissioning activities; 2) is based primarily on unrestricted use; 3) includes an adequate contingency factor; and 4) identifies and provides justification for key assumptions.

Further, the DCE addresses the following topics:

1. Spills of radioactive material.

The licensee has stated in the subject Decommissioning Funding Plan, "Remediation of spills and leaks is conducted promptly after detection in order to minimize spread of contaminants through the subsurface to the environment." A search of the Nuclear Material Events Database found no reports of significant spills or releases to the environment since the last cost estimate update in 2012.

2. Waste inventory increases.

The record of revisions in the updated cost estimate listed numerous changes to equipment and structures along with volume of waste associated with each change. Changes since the last update in 2012 caused the total volume of waste to increase by 78,000 cubic feet.

3. Waste disposal costs increases.

The revised cost estimate includes updated labor and expense rates which include disposal costs.

4. Facility modifications.

In addition to the changes listed in the record of revisions, the update notes that NFS completed excavation of the North Site burial ground and remediation of three surface impoundments. Removal of these tasks resulted in a cost reduction that off-set increases in the cost of other tasks.

5. Changes in authorized possession limits.

There have been no changes in the authorized possession limits since the last update in 2012.

6. Actual remediation costs that exceed the previous cost estimate.

As noted above, completing decommissioning work in the North Site off-set increases in the cost of other tasks. The total cost of decommissioning declined slightly from \$415 million to \$414 million.

7. Onsite disposal.

As noted above, the former burial ground has been remediated and there are no plans for on-site burial of waste in the future.

8. Use of a settling pond.

As noted above, three former surface impoundments have been remediated. Settling ponds are no longer used at the site.

#### 4.0 ENVIRONMENTAL REVIEW

Approval of the DCE is subject to the categorical exclusion provided in 10 CFR 51.22(c)(10). The NRC has previously found, as stated in 10 CFR 51.22(a), that this is a category of action that does not individually or cumulatively have a significant effect on the human environment. Therefore, in accordance with 10 CFR 51.22(b), neither an Environmental Assessment nor an Environmental Impact Statement is required for the proposed action.

#### 5.0 CONCLUSION

Based on the review of the November 30, 2015, DCE submittal and the licensee's responses to the NRC's requests for additional information, the NRC finds the submitted DCE is based on reasonable and documented assumptions, and that it reasonably estimates the cost, at this time, to decommission the facility. Accordingly, the NRC considers NFS's 2015 DCE satisfies the requirements of 10 CFR 70.25(e) and is generally consistent with NUREG-1757, Volume 3, Rev. 1. Therefore, the NRC concludes that NFS's 2015 DCE of \$414,160,000 is acceptable. The licensee shall, as necessary, revise its financial assurance mechanisms and Certification of Financial Assurance and submit them for NRC review within 60 days from the NRC's approval date of the 2015 DCE.

The NRC concludes there is reasonable assurance the proposed 2015 DCE would continue to provide adequate protection of public health, safety, safeguards, security, and the protection of the environment. Therefore, NRC finds the proposed update is acceptable and meets the regulatory requirements to provide financial assurance, as set forth in 10 CFR 70.25(e). The licensee remains liable for any costs not covered by the financial instrument(s).

#### 6.0 PRINCIPAL CONTRIBUTORS

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