

April 27, 2015

Mr. Richard J. Freudenberger, Director
Safety and Safeguards
Nuclear Fuel Services, Inc.
P.O. Box 337, MS 123
Erwin, TN 37650

SUBJECT: NUCLEAR FUEL SERVICES, INC. – AGREEMENT WITH 70.38 EVALUATION
OF DECOMMISSIONING THE BLENDED LOW ENRICHED URANIUM COMPLEX
(L33350)

Dear Mr. Freudenberger:

We have completed our review of the information provided in your letters dated October 10, 2014, and March 31, 2015. With regard to your intent to proceed with decommissioning the Blended Low Enriched Uranium (BLEU) Complex, we find your proposed schedule acceptable. Please inform us if there are any significant changes that would prevent you from completing the work by March 31, 2018.

In addition, we agree with your conclusion that no decommissioning plan is required for the decommissioning work at the BLEU Complex under the provisions of Title 10 of the *Code of Federal Regulations* (10CFR) 70.38(g)(1). Our agreement is based on the following findings:

- 1) Regarding techniques not applied routinely during operations, we make the following findings:
 - a) Nuclear Fuel Services, Inc. (NFS) routinely works in containment structures.
 - b) NFS routinely works in anti-contamination clothing.
 - c) NFS routinely implements a respiratory protection program.
 - d) NFS routinely operates High Efficiency Particulate Absorbing -filtered ventilation systems.
 - e) NFS routinely excavates soil.
 - f) NFS routinely pumps and treats liquid waste.
 - g) NFS routinely packages solid waste for shipment to disposal sites.
 - h) NFS routinely surveys for contamination and controls contamination.
- 2) Regarding workers entering areas where surface contamination and radiation levels are significantly higher than routine operations, we find that NFS routinely works with high-enriched uranium and plutonium contamination which poses contamination and radiation hazards greater than the hazards posed by the low-enriched uranium in the BLEU facility.
- 3) Regarding procedures resulting in significantly greater airborne concentrations, we find that NFS has extensive experience dismantling and decommissioning processing equipment in several other buildings. This experience along with well-established contamination control procedures makes significantly greater airborne concentrations unlikely.

- 4) Regarding significantly greater releases to the environment, we find that NFS has extensive experience with environmental protection while decommissioning other buildings and waste burial sites. This experience along with a robust environmental monitoring program makes significantly greater releases unlikely.

Despite our agreement that no decommissioning plan is required, we have a concern regarding ultimate decommissioning and release of the site. A dose assessment using acceptable methodology (i.e., RESRAD software, etc.) will be required to demonstrate that the site is suitable for unrestricted release. Backfilling any excavated areas with clean soil or other materials may make additional remediation difficult. It would be prudent for NFS to perform a dose assessment and submit it for the U.S. Nuclear Regulatory Commission's (NRC) review in parallel with any soil excavation. If the assessment fails to provide a basis for releasing the site, it will provide a basis for requesting additional resources to complete remediation.

In accordance to 10 CFR 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's Public Document Room or from the Agencywide Documents Access and Management System (ADAMS). ADAMS is accessible from the NRC's Web site at <http://www.nrc.gov/reading-rm/adams.html> (the Public Electronic Reading Room).

If you have any questions concerning this letter, please contact me at (301) 415-7506 or via e-mail to Kevin.Ramsey@nrc.gov.

Sincerely,

/RA/

Kevin M. Ramsey, Senior Project Manager
Fuel Manufacturing Branch
Fuel Facility Licensing Directorate
Division of Fuel Cycle Safety, Safeguards,
and Environmental Review
Office of Nuclear Material Safety
and Safeguards

Docket No.: 70-143
License No.: SNM-124

- 4) Regarding significantly greater releases to the environment, we find that NFS has extensive experience with environmental protection while decommissioning other buildings and waste burial sites. This experience along with a robust environmental monitoring program makes significantly greater releases unlikely.

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Kevin M. Ramsey, Senior Project Manager
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