March 30, 2010

Mr. David C. Ward, Interim Director
Safety and Regulatory
Nuclear Fuel Services, Inc.
P.O. Box 337, MS 123
Erwin, TN 37650

SUBJECT: NUCLEAR FUEL SERVICES, INC. – AGREEMENT WITH 70.38 EVALUATION OF BUILDING 234 SOIL EXCAVATION AND GROUNDWATER TREATMENT PROJECT

Dear Mr. Ward:

We have completed our review of the information provided in the briefing conducted for us on November 24, 2009, and the additional information provided by your letter dated February 3, 2010. We agree with your conclusion that no decommissioning plan is required for the proposed work at the former Building 234 site under the provisions of Title 10 of the *Code of Federal Regulations* 70.38(g)(1). Our agreement is based on the following findings:

1) Regarding techniques not applied routinely during operations, the details vary (plutonium versus uranium), but 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 HEPA-filtered ventilation systems.
   e) NFS routinely excavates soil.
   f) NFS routinely pumps and treats groundwater.
   g) NFS routinely packages 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 the plutonium contamination levels in the soil fall below the “significant” threshold. NFS worked with much higher plutonium contamination levels when the building was decommissioned and demolished. In addition, NFS routinely works with high-enriched uranium, which poses similar hazards.

3) Regarding procedures resulting in significantly greater airborne concentrations, we find that the plan to make the soil damp, if it is not already damp, makes significantly greater airborne concentrations unlikely.

4) Regarding significantly greater releases to the environment, we find the longstanding containment measures already in place combined the additional controls that will be used during excavation make 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 with concrete 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 the soil excavation project. 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 "Rules of Practice," 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) 492-3123 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
and Safeguards
Office of Nuclear Material Safety
and Safeguards

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

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