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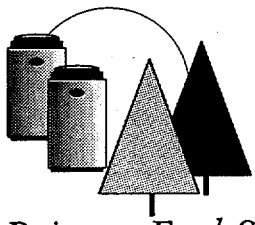

Private Fuel Storage, LLC

P.O. Box C4010, La Crosse, WI 54602-4010
John D. Parkyn, Chairman of the Board

December 22, 2000

Mr. Mark Delligatti
Senior Project Manager
Spent Fuel Project Office
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

GEOTECHNICAL CHARACTERIZATION OF PFSF SITE
DOCKET NO. 72-22 / TAC NO. L22462
PRIVATE FUEL STORAGE FACILITY
PRIVATE FUEL STORAGE L.L.C.

Reference: PFS Letter, Parkyn to Delligatti, Geotechnical Characterization of PFSF Site, dated December 11, 2000

PFS has completed the initial assessment of the implications of revisions to the geotechnical characterization of the PFSF site resulting from the inclusion of data not previously incorporated. We have determined that there will be an impact to the project licensing basis. An amendment to the License Application will be prepared to reflect the required changes in the PFSF design basis ground motion and dynamic stability analyses based on new shear and pressure wave velocity profiles being developed for the site. This amendment will update the following chapters/sections of the PFSF License Application:

1. Section 2.6.2.1 of the SAR, "Engineering Properties of Materials for Seismic Wave Propagation and Soil-Structure Interaction", will be revised to incorporate any changes that are made to the velocity profiles and resulting changes to the site response analyses and idealized soil profiles for use in soil-structure interaction analyses. Section 2.6.1.12 of the SAR, "Stability of Foundations for Structures and Embankments" will be updated, as necessary, to revise discussions of the results of dynamic stability analyses of the storage pads and the Canister Transfer Building resulting from changes to the PFSF site design basis ground motion. SAR Section 2.6.4.9, "Design Basis Ground Motion", will be updated, as necessary, to identify the

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new design basis ground motions. Changes to maintain consistency will also be made to other subsections of Section 2.6 of the SAR.

2. Section 3.2.10.1.1 of the SAR, "Design Response Spectra", will be revised to reflect the site-specific horizontal and vertical response spectra curves associated with the new design basis ground motion. Changes to maintain consistency will also be made to other subsections of Section 3.2.10 of the SAR.

3. Section 4.2.1.5.1(H) of the SAR, which evaluates the structural design of the storage cask under seismic conditions, will be updated to reflect the results of the HI-STORM storage cask stability analyses based on the new seismic response spectra. SAR Section 4.2.3.5.1, "Storage Pad Analysis", will be revised to reflect the dynamic analyses of the storage pads for the new design basis ground motion. SAR Sections 4.7.1, "Canister Transfer Building", and 4.7.2, "Canister Transfer Cranes", will be updated as necessary to incorporate changes resulting from the new seismic loads.

4. SAR Section 8.2.1, "Earthquake", will be revised to reflect the new design basis ground motion and the results of the HI-STORM storage cask stability analyses based on the new seismic response spectra. In addition, the discussion of the stability of a loaded cask transporter under seismic conditions (Section 8.2.6.2) will be updated for the new design basis ground motion.

5. Section 2.6 of the PFSF Environmental Report, which includes a summary of the geotechnical and seismic information in Chapter 2 of the SAR, will also be updated so that it is consistent with the information presented in the SAR. Section 2.6.5 of the ER, "Engineering Characteristics of Site Materials", will be revised to incorporate any changes that are made to the velocity profiles and resulting changes to the site response analyses and idealized soil profiles that were used in the soil-structure interaction analyses. ER Section 2.6.8, "Design Basis Ground Motions", will be updated, as necessary, to identify the new design basis ground motions. Changes to maintain consistency will also be made to other subsections of Section 2.6 of the ER. PFS does not anticipate that changes will be needed in the NRC's Environmental Impact Statement (EIS), since Section 4.1 of the Draft EIS, "Geology and Soils", states that "The adequacy of the proposed PFSF design to withstand earthquakes will be addressed in the NRC's final SER and is not addressed in this DEIS."

Several calculations, analyses, and reports must be revised to support the license amendment and will also be submitted to the NRC. The current target date for submittal of Amendment #20 to the License Application is March 2, 2001. If you have any questions regarding this response, please contact me at 608-787-1236 or Mr. John Donnell, Project Director, at 303-741-7009.

Sincerely,

John D. Parkyn, Chairman
Private Fuel Storage L.L.C.

cc:
John Donnell
Jay Silberg
Sherwin Turk
Asadul Chowdhury
Scott Northard
Denise Chancellor
Richard E. Condit
John Paul Kennedy
Joro Walker