



Private Fuel Storage, L.L.C.

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John L. Donnell, P.E., Project Director

February 11, 1999

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

**SUBMITTAL OF RAI CALCULATIONS/REPORTS
PRIVATE FUEL STORAGE FACILITY
DOCKET NO. 72-22 / TAC NO. L22462
PRIVATE FUEL STORAGE L.L.C.**

References: 1) PFSLLC Letter, Parkyn to Director, Office of Material Safety and Safeguards,
Responses to Request for Additional Information, dated February 10, 1999

Please find enclosed 1 original and 5 copies of the Private Fuel Storage calculations and reports
that support responses (Ref. 1) to NRC Requests for Additional Information.

If you have any questions regarding this response, please contact me at 303-741-7009.

Sincerely,

John L. Donnell

John L. Donnell
Project Director
Private Fuel Storage L.L.C.

*Limited
Distribution*

Encl
To: File Center
NRC POR

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Mr. Mark Delligatti
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Copy to: Mr. Asadul H. Chowdhury - CNWRA
Mr. Murray C. Wade - Oak Ridge National Laboratory
Ms. Denise Chancellor, Esq. - State of Utah
Mr. John Paul Kennedy, Esq. - Confederated Tribes of the Goshute Reservation
Mr. Joro Walker, Esq. - Land and Water Fund of the Rockies
Mr. Jay Silberg, Esq. - Shaw, Pittman, Potts & Trowbridge
Mr. John Donnell - Private Fuel Storage
Mr. John Parkyn - Private Fuel Storage
Mr. Scott Northard - Private Fuel Storage

ATTACHMENTS

RAI No.1

The following attachments support the response to RAI No. 1, SAR 2-5 and 2-7:

- Geomatrix, 1999; "Fault Evaluation Study and Seismic Hazard Assessment", Volume I, Volume II, and Volume III, Geomatrix, February, 1999
- Bay Geophysical Associates, Inc., 1999; "High Resolution Seismic Shear Wave Reflection Profiling for the Identification of Faults at the Private Fuel Storage Facility Skull Valley, Utah", Final Report, Bay Geophysical Associates, Inc. January 1999

The following attachments support the response to RAI No. 1, SAR 3-5 and 4-0:

- PFSF Calculation No. 05996.02 SC-3, Development of Artificial Time Histories, Revision 0, prepared by Stone & Webster.
- PFSF Calculation No. 05996.02 SC-4, Development of Soil Impedance Functions for Canister Transfer Building, Revision 0, prepared by Stone & Webster.
- PFSF Calculation No. 05996.02 SC-5, Seismic Analysis of Canister transfer Building, Revision 0, prepared by Stone & Webster.
- PFSF Calculation No. 05996.02 SC-6, Finite Element Analysis of Canister Transfer Building, Revision 0, prepared by Stone & Webster.
- PFSF Calculation No. 05996.02 SC-7, Design of Reinforcing Steel for Canister Transfer Building, Revision 0, prepared by Stone & Webster.
- PFSF Calculation No. 05996.02 G(C)-13, Allowable Bearing Capacity of the Canister Transfer Building Supported on a Mat Foundation, Revision 0, prepared by Stone & Webster.
- PFSF Calculation No. 05996.02 G(C)-14, Static Settlement of the Canister Transfer Building Supported on a Mat Foundation, Revision 0, prepared by Stone & Webster.

- PFSF Calculation No. 05996.02 SC-9, Stability of Canister Transfer Building, Revision 0, prepared by Stone & Webster.
- Canister Transfer building Drawings as listed below:
 - 05996.02-EC-2 A, Canister Transfer Building – Mat Foundation Plan
 - 05996.02-EC-3 A, Canister Transfer Building – Roof Plan – El. 130'-0"
 - 05996.02-EC-4 A, Canister Transfer Building – Roof Plan – El. 190'-0"
 - 05996.02-EC-5 A, Canister Transfer Building – Elevations – Sheet 1
 - 05996.02-EC-6 A, Canister Transfer Building – Elevations – Sheet 2
 - 05996.02-EC-7 A, Canister Transfer Building – Elevations – Sheet 3

The following attachments support the response to RAI No. 1, SAR 4-2:

The following design drawings and documents are provided for the Private Fuel Storage Facility **200/25 ton Overhead Bridge Crane**:

- Appendix B Supplement To Generic Topical Licensing Report Edr-1, Rev. 0, Facility Specific Crane Data, 200 Ton Bridge Crane
- Appendix C Supplement To Generic Topical Licensing Report Edr-1, Rev. 1, Summary Of Regulatory Positions, 200 Ton Bridge Crane
- Seismic Qualification Analysis, December 1998 (200 Ton Overhead Bridge Crane)
- Technical Description Of Hoist And Traverse Motion Electrical Controls System (150 & 200 Ton Cranes), Ederer Document Ea-37547, Rev. B
- Technical Description Of Radio Controls Systems (150 & 200 Ton Cranes) Ederer Document Ea-37548, Rev. A
- Ederer Drawing B-36951, Rev. A, Reeving Diagram Sixteen Parts (Main Hoist)
- Ederer Drawing B-36952, Rev. A, Reeving Diagram Eight Parts (Aux Hoist)
- Ederer Drawing B-37061, Rev. A, Main Hoist Block & Hook Dim (200 Ton Crane)
- Ederer Drawing B-37062, Rev. A, Aux Hoist Block & Hook (200 & 150 Ton Cranes)

- Ederer Drawing C-36975, Rev. A, Sister Hook 200 Ton (200 & 150 Ton Cranes)
- Ederer Drawing Pa-2189, Rev. C, Clearance Dwg. 200/25 Ton Bridge Crane
- Ederer Drawing D-36976, Rev. A, Bridge Arrangement 200/25 Ton Capacity
- Ederer Drawing B-36977, Rev. A, Trolley Arrangement 200/25 Ton Capacity

The following design drawings and documents, supplied by the crane manufacturer, are provided for the Private Fuel Storage Facility **150/25 ton Semi-Gantry Crane**:

- Appendix B Supplement To Generic Topical Licensing Report Edr-1, Rev. 1, Facility Specific Crane Data, 150 Ton Semi-Gantry Crane
- Appendix C Supplement To Generic Topical Licensing Report Edr-1, Rev. 1, Summary Of Regulatory Positions, 150 Ton Semi-Gantry Crane
- Seismic Qualification Analysis, December 1998 (150 Ton Semi-Gantry Crane)
- Ederer Drawing B-37063, Rev. A, Main Hoist Block & Hook Dim (150 Ton Crane)
- Ederer Drawing B-36953, Rev. A, Reeving Diagram Sixteen Parts (Main Hoist)
- Ederer Drawing B-36954, Rev. A, Reeving Diagram Eight Parts (Aux Hoist)
- Ederer Drawing Pa-2190, Rev. D, Clearance Dwg. 150/25 Ton Semi-Gantry Crane
- Ederer Drawing D-36978, Rev. A, Bridge Arrangement 150/25 Ton Semi-Gantry
- Ederer Drawing B-36979, Rev. B, Trolley Arrangement 150/25 Ton Capacity

SAFETY RAI No. 2

The following attachments support the response to Safety RAI No. 2, SAR 2-3:

- PFSF Calculation No. 05996.02 G(B)-12, PFSF Flood Analysis With Larger Drainage Basin, Revision 0, prepared by Stone & Webster.

The following attachments support the response to Safety RAI No. 2, SAR 4-2:

- "HI-STORM THERMAL ANALYSIS FOR PFS RAI", Holtec Report No: HI-992134, Original Revision, February 9, 1999. **(Proprietary- Submitted under separate cover)**

The following attachments support the response to Safety RAI No. 2, SAR 7-1:

- PFSF Calculation No. 05996.02 UR-009, Accident Dose Calculations at 500m and 3219m Downwind for Canister Leakage Under Hypothetical Accident Conditions for the Holtec MPC-68 and SNC TranStor Canistors, Revision 0, prepared by Dade Moeller & Associates and reviewed by Stone & Webster.
- PFSF Calculation No. 05996.02 UR-010, RESRAD Pathway Analysis Following Deposition of Radioactive Material from the Accident Plumes, Revision 0, prepared by Dade Moeller & Associates and reviewed by Stone & Webster.