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January 19, 2000

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

Before the Atomic Safety and Licensing Board

In the Matter of	)	
	)	
PRIVATE FUEL STORAGE L.L.C.	)	Docket No. 72-22
	)	
(Private Fuel Storage Facility)	)	ASLBP No. 97-732-02-ISFSI

**APPLICANT'S FIFTH SET OF FORMAL DISCOVERY REQUESTS  
TO INTERVENORS STATE OF UTAH AND CONFEDERATED TRIBES**

Applicant Private Fuel Storage L.L.C. ("Applicant" or "PFS") hereby makes the following formal discovery requests of the State of Utah and the Confederated Tribes.

General Definitions and Instructions

1. The term "document" means the complete original or a true, correct, and complete copy and any non-identical copies, whether different by reason of any notation or otherwise, of any written or graphic matter of any kind, no matter how produced, recorded, stored, or reproduced (including electronic, mechanical or electrical records or representation of any kind) including, but not limited to, any writing, letter, telegram, meeting minute or note, memorandum, statement, book, record, survey, map, study, handwritten note, working paper, chart, tabulation, graph, tape, data sheet, data processing card, printout, microfilm or microfiche, index, diary entry, note of interview or communication, or any data compilation including all drafts of all such documents. The phrase "data compilation" includes, but is not limited to, any material stored on or

accessible through a computer or other information storage or retrieval system, including videotapes and tape recordings.

2. The "State of Utah" means any branch, department, agency, division or other organized entity, of the State of Utah, as well as any of its officials, directors, agents, employees, representatives, and its attorneys.

3. "Confederated Tribes" means the Confederated Tribes of the Goshute Reservation, any of its officials, directors, agents, employees, representatives, and its attorneys.

4. "Consultant" means any person who provides professional, scientific, or technical input, advice and/or opinion to the State or Confederated Tribes whether that person is employed specifically for this case or is a regular State or Confederated Tribes employee or official.

5. "PFSF" and "PFS ISFSI" means the Private Fuel Storage Facility.

## **I. GENERAL INTERROGATORIES**

GENERAL INTERROGATORY NO. 1. State the name, business address, and job title of each person who was consulted and/or who supplied information for responding to interrogatories, requests for admissions and requests for the production of documents. Specifically note for which interrogatories, requests for admissions and requests for production each such person was consulted and/or supplied information.

If the information or opinions of anyone who was consulted in connection with your response to an interrogatory or request for admission differs from your written answer to the discovery request, please describe in detail the differing information or opinions, and indicate why such differing information or opinions are not your official position as expressed in your written answer to the request.

## **II. BOARD CONTENTION 3 (UTAH E) FINANCIAL ASSURANCE**

### **A. Requests for Admission – Utah E**

1. Do you admit that there is reasonable assurance that a PFS customer that was a nuclear reactor licensee under 10 C.F.R. Part 50 would make the payments due PFS?
2. Do you admit that, for a customer from whom PFS had taken no spent fuel, if PFS refused to take any fuel from the customer because it had missed a payment to PFS, that there would be no potential for PFS to suffer harm from the customer failing to make that payment?
3. Do you admit that periodically examining PFS's customers' financial health would reduce the risk to PFS arising out of the potential for the customer to fail to make a payment due PFS?
4. Do you admit that requiring PFS's customers to meet creditworthiness standards would reduce the risk to PFS arising out of the potential for the customer to fail to make a payment due PFS?
5. Do you admit that if a PFS customer paid all its fees due PFS in advance that there would be no potential for PFS to suffer harm from the customer failing to make a payment?
6. Do you admit that requiring a customer to obtain a letter of credit to cover the amount the customer owed PFS in spent fuel storage fees would reduce the risk to PFS arising out of the potential for the customer to fail to make a payment due PFS?
7. Do you admit that requiring a third-party guarantee from a customer to cover the amount the customer owed PFS in spent fuel storage fees would reduce the risk to PFS arising out of the potential for the customer to fail to make a payment due PFS?
8. Do you admit that requiring a customer to post a bond to cover the amount the customer owed PFS in spent fuel storage fees would reduce the risk to PFS arising out of the potential for the customer to fail to make a payment due PFS?

## **III. BOARD CONTENTION 8 (UTAH L) GEOTECHNICAL**

The responses should take into account (i) the information contained in the License Application, as filed and amended through Amendment No 8, (ii) the information

contained in PFS's answers to the NRC Staff's Requests for Additional Information or Commitment Resolution Letters, (iii) the Bay Geophysical seismic surveys, (iv) the Geomatrix' February 1999 "Fault Evaluation Study and Seismic Hazard Assessment," ("Geomatrix study"), and (v) related documents which have been provided to the State.

**A. Requests for Admission – Utah L**

1. Do you admit that probabilistic seismic hazards assessments are, in general, an industry-accepted method for determining the design basis earthquake?
2. Do you admit that the State of Utah has approved the design of buildings and structures whose design basis earthquake was determined through a probabilistic seismic hazards assessment?
3. Do you admit that the State of Utah has approved the design of interstate highway bridges whose design basis earthquake was determined through a probabilistic seismic hazards assessment?
4. Do you admit that the probabilistic seismic hazards assessment performed by Geomatrix consultants for PFS meets industry standards?
5. Do you admit that the probabilistic seismic hazards assessment performed by Geomatrix consultants for PFS meets the State of Utah's standards?
6. Do you admit that the upper few feet of the PFS site consists of eolian silty soil deposits?
7. Do you admit that a silty clay/clayey silt layer underlies the eolian silty soil layer?
8. Do you admit that the underlying silty clay/clayey silt layer is competent for supporting the storage pads and cask transportation over the adjacent driveways?
9. Do you admit that the "competent soil layer" referred to by the State in Contention L, Request for Admission No. 1 of "State of Utah's Sixth Set of Discovery Requests," dated December 20, 1999, is the underlying silty clay/clayey silt layer?
10. Do you admit that PFS will replace the upper few feet of eolian silty soil deposits underlying the storage pads and adjacent driveways with a soil-cement mixture?

11. Do you admit that this soil-cement mixture will be stronger than the underlying silty clay/clayey silt layer?
12. Do you admit that the soil-cement mixture will be competent for supporting the storage pads and cask transportation over the adjacent driveways?
13. Do you admit that the eolian silty soil layer will be removed before the construction of the foundations of the Canister Transfer Building?
14. Do you admit that the foundations of the Canister Transfer Building will rest on the silty clay/clayey silt layer?
15. Do you admit that the silty clay/clayey silt layer is competent for supporting the foundations of the Canister Transfer Building?
16. Do you admit that impinging seismic waves will not approach the foundation at an angle significantly different from vertical?
17. Do you admit that the controlling seismic source for the ground motion hazard at the PFS site is the Stansbury fault?
18. Do you admit that the State of Utah has additional seismic reflection lines for Skull Valley beyond those utilized by PFS from the Geomatrix study?
19. Do you admit that the State of Utah has not identified any faults, in addition to those faults identified by Geomatrix Consultants, that would cause the ground motion for a 2,000-year return period earthquake, as determined using a probabilistic seismic hazards assessment, to exceed the design basis ground motion of 0.53g?
20. Do you admit that the faults identified by the State of Utah would not cause the ground motion for a 2,000-year return period earthquake, as determined using a probabilistic seismic hazards assessment, to exceed 0.67g?
21. Do you admit that the State of Utah has not identified any faults improperly correlated by Geomatrix Consultants that would cause the ground motion for a 2,000-year return period earthquake, as determined using a probabilistic seismic hazards assessment, to exceed the design basis ground motion of 0.53g?
22. Do you admit that the State of Utah has not identified any faults improperly correlated by Geomatrix Consultants that would cause the ground motion for a 2,000-year return period earthquake, as determined using a probabilistic seismic hazards assessment, to exceed the design basis ground motion of 0.67g?

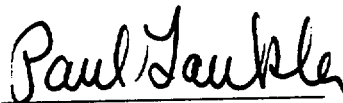
23. Do you admit that the "smoothing" is an accepted industry practice for the analysis of seismic data?
24. Do you admit that "smoothing" does not change the underlying data?
25. Do you admit that the State of Utah has not identified any examples where "smoothing" of the seismic data resulted in the incorrect recognition of geological features?
26. Do you admit that the "trimming" is an accepted industry practice for the analysis of seismic data?
27. Do you admit that the State has not identified any examples where "trimming" of the seismic data has resulted in the incorrect analysis of seismic data?
28. Do you admit that a fault displacement of less than 0.1cm is minor?
29. Do you admit that structures can be designed to accommodate minor fault displacements?
30. Do you admit that faults underlie Salt Lake City?
31. Do you admit that at least one of the faults underlying Salt Lake City could result in a displacement greater than 0.1cm?
32. Do you admit that the new Salt Palace Convention Center in Salt Lake City is being built directly over a fault?
33. Do you admit that the new Salt Palace Convention Center in Salt Lake City is being expand directly over displaced sediments?
34. Do you admit that the State of Utah approves of the expansion of Salt Palace Convention Center in Salt Lake City?
35. Do you admit that the State of Utah has no data to indicate that the offset on each fault in the PFS site area could represent an individual earthquake resulting in a large displacement rather than multiple events resulting in smaller displacements on one or more faults?
36. Do you admit that the State of Utah has not identified any active or capable faults under the most recent channel and fan deposits in the area southwest of shotpoint 1000 on seismic reflection line PFSF-98-B?
37. Do you admit that the depth to bedrock at the PFS site has been established?
38. Do you admit that coring of the bedrock at the PFS site is not necessary to determine the site's seismic properties?

39. Do you admit that coring of the bedrock at the PFS site is not necessary to determine the competency of the overlying soils?
40. Do you admit that the State of Utah has conducted Split Spoon sampling to estimate dynamic settling?
41. Do you admit that PFS has conducted additional undisturbed sampling of the site?
42. Do you admit that the values for soil parameters used in PFS's geotechnical calculations were more conservative than the corresponding average values determined from the geotechnical investigations?
43. Do you admit that PFS has conducted additional cone penetration tests at the PFS ISFSI site?
44. Do you admit that cone penetration testing is an accepted industry method for determining soil parameters?

**B. Interrogatories – Utah L**

1. Identify and fully explain in each and every respect all the public health and safety effects that the State claims would occur due to the alleged inadequacy of the site and subsurface investigations at the PFSF ISFSI, and the bases therefor.
2. Identify and fully explain in each and every respect any deficiencies claimed by the State in the probabilistic seismic hazards assessment for a 2,000-year return period earthquake conducted for the PFS facility by Geomatrix Consultants, including any deficiencies in the determination of horizontal and vertical ground acceleration, and ground displacement, and the bases therefor.

Respectfully submitted,



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Dated: January 19, 2000

**UNITED STATES OF AMERICA**  
**NUCLEAR REGULATORY COMMISSION**

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**CERTIFICATE OF SERVICE**

I hereby certify that copies of the "Applicant's Fifth Set of Formal Document Requests to Intervenor State of Utah and Confederated Tribes" were served on the persons listed below (unless otherwise noted) by e-mail with conforming copies by U.S. mail, first class, postage prepaid, this 19th day of January 2000.

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