

~~BEFORE~~ CORRESPONDENCE

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USNRC

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

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BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

OFFICE OF SECRETARY  
RULES AND PRACTICE  
ADJUDICATING STAFF

In the Matter of:	)	
	)	Docket No. 72-22-ISFSI
	)	
PRIVATE FUEL STORAGE, LLC	)	ASLBP No. 97-732-02-ISFSI
(Independent Spent Fuel	)	
Storage Installation)	)	February 4, 2000

**STATE OF UTAH'S SIXTH SET OF DISCOVERY REQUESTS  
DIRECTED TO THE NRC STAFF (UTAH CONTENTION L)**

Pursuant to the Board's Orders dated April 22, 1998 (LBP-98-7), June 29, 1998 and August 20, 1998, and 10 CFR §§ 2.720, 2.740, 2.742, and 2.744, Intervenor, State of Utah, hereby requests that the Staff of the Nuclear Regulatory Commission ("Staff" or "NRC") answer the following Interrogatories and Requests for Admissions separately, fully, in writing, and under oath within 10 days after service of this discovery request.

As required by 10 CFR § 2.744(a), this discovery request is being served on the NRC Executive Director for Operations. In addition, pursuant to § 2.720(h), the State submits that this discovery is necessary to a proper decision in this proceeding and that answers to the interrogatories are not reasonably obtainable through any other sources.

**I. INSTRUCTIONS**

A. Scope of Discovery. These interrogatories and requests for admissions are directed to NRC Staff and any of the Staff's contractors or agents (collectively "NRC" or "Staff"). The interrogatories cover all information in the possession, custody and

control of NRC Staff, including information in the possession of officers, employees, agents, servants, representatives, attorneys, or other persons directly or indirectly employed or retained by NRC Staff, or anyone else acting on their behalf or otherwise subject to NRC Staff's control.

B. Lack of Information. If you currently lack information to answer any Interrogatory completely, please state:

1. The responsive information currently available;
2. The responsive information currently unavailable;
3. Efforts which you intend to make to secure the information currently unavailable; and
4. When you anticipate receiving the information currently unavailable.

C. Supplemental Responses. Each of the following requests is a continuing one pursuant to 10 CFR § 2.740(e) and the State hereby demands that, in the event that at any later date NRC Staff obtains or discovers any additional information which is responsive to these interrogatories and request for admissions, NRC Staff shall supplement its responses to this request promptly and sufficiently in advance of the adjudicatory hearing.

Such supplementation shall include, but not be limited to:

1. The identity and location of persons having knowledge of discoverable matters;

2. The identity of each person expected to be called as an expert witness at any hearing, the subject matter on which she/he is expected to testify, and the substance of her/his testimony; and
3. New information which makes any response hereto incorrect.

D. Objections. If you object to or refuse to answer any interrogatory under a claim of privilege, immunity, or for any other reason, please indicate the basis for asserting the objection, privilege, immunity or other reason, the person on whose behalf the objection, privilege, immunity, or other reason is asserted, and describe the factual basis for asserting the objection, privilege, immunity, or other reason in sufficient detail so as to permit the administrative judges in this matter to ascertain the validity of such assertion.

E. Estimates. Interrogatories calling for numerical or chronological information shall be deemed, to the extent that precise figures or dates are not known, to call for estimates. In each instance that an estimate is given, it should be identified as such together with the source of information underlying the estimate.

## II. DEFINITIONS

Each of the following definitions, unless otherwise indicated, applies to and shall be a part of each interrogatory and request for admission which follows:

A. "NRC," "Staff," "you" and "your" refers to the officers, employees, agents, servants, representatives, attorneys, or other persons directly or indirectly employed or retained by the Staff of the U.S. Nuclear Regulatory Commission, or anyone

else acting on its behalf or otherwise subject to the Staff's control.

B. "PFS," or "Applicant," refers to Private Fuel Storage, LLC and the PFS members and their officers, employees, agents, servants, representatives, attorneys, or other persons directly or indirectly employed or retained by them, or anyone else acting on their behalf or otherwise subject to their control.

C. The term "documents" means the originals as well as copies of all written, printed, typed, recorded, graphic, photographic, and sound reproduction matter however produced or reproduced and wherever located, over which you have custody or control or over which you have the ultimate right to custody or control. By way of illustration, but not limited thereto, said term includes: records, correspondence, telegrams, telexes, wiring instructions, diaries, notes, interoffice and intraoffice communications, minutes of meetings, instructions, reports, demands, memoranda, data, schedules, notices, recordings, analyses, sketches, manuals, brochures, telephone minutes, calendars, accounting ledgers, invoices, charts, working papers, computer tapes, computer printout sheets, information stored in computers or other data storage or processing equipment, microfilm, microfiche, corporate minutes, blueprints, drawings, contracts and any other agreements, rough drafts, and all other writings and papers similar to any of the foregoing, however designated by you. If the document has been prepared and several copies or additional copies have been made that are not identical (or are no longer identical by reason of the subsequent addition of notations or other modifications), each non-identical copy is to be construed as a separate document.

D. "All documents referring or relating to" means all documents that in whole or in part constitute, contain, embody, reflect, identify, state, interpret, discuss, describe, explain, apply to, deal with, evidence, or are in any way pertinent to a given subject.

E. The words "describe" or "identify" shall have the following meanings:

1. In connection with a person, the words "describe" or "identify" mean to state the name, last known home and business address, last known home and business telephone number, and last known place of employment and job title;

2. In connection with a document, the words "describe" or "identify" mean to give a description of each document sufficient to uniquely identify it among all of the documents related to this matter, including, but not limited to, the name of the author of the document, the date, title, caption, or other style by which the document is headed, the name of each person and entity which is a signatory to the document, the date on which the document was prepared, signed, and/or executed, any relevant bates numbers on the document, the person or persons having possession and/or copies thereof, the person or persons to whom the document was sent, all persons who reviewed the document, the substance and nature of the document, the present custodian of the document, and any other information necessary to adequately identify the document;

3. In connection with an entity other than a natural person (*e.g.*, corporation, partnership, limited partnership, association, institution, etc.), the

words “describe” or “identify” mean to state the full name, address and telephone number of the principal place of business of such entity.

4. In connection with any activity, occurrence, or communication, the words “describe” or “identify” mean to describe the activity, occurrence, or communication, the date of its occurrence, the identify of each person alleged to have had any involvement with or knowledge of the activity, occurrence, or communication, and the identity of any document recording or documenting such activity, occurrence, or communication.

F. “Date” shall mean the exact day, month, and year, if ascertainable, or if not, the best approximation thereof (including by relationship to other events), and the basis for such approximation.

G. “ISFSI” shall mean the PFS proposed Independent Spent Fuel Storage Installation located in the northwest corner of the Skull Valley Goshute Indian reservation, Utah.

H. The word “discussion” shall mean communication of any kind, including but not limited to, any spoken, written, or signed form of communication.

I. The word “person” shall include any individual, association, corporation, partnership, joint venture, or any other business or legal entity.

J. Words herein of any gender include all other genders, and the singular form of words encompasses the plural.

K. The words “and” and “or” include the conjunctive “and” as well as the

disjunctive “or” and the words “and/or.”

L. The discovery sought by this request encompasses material contained in, or which might be derived or ascertained from, the personal files of NRC Staff employees, representatives, investigators, and agents.

### **III. GENERAL DISCOVERY**

To the extent that the Staff now has updated information for, or has not already answered the general interrogatories in the State’s first set of discovery requests, please answer or supplement the following:

#### **GENERAL INTERROGATORIES**

These general interrogatories apply to all Utah admitted contentions, are in addition to the ten interrogatories per contention allowed by the Board's Order dated April 22, 1998 (LBP-98-7), and are continuing in accordance with 10 CFR § 2.740(e).

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 and requests for admissions. Specifically note for which interrogatories and requests for admissions 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.

**GENERAL INTERROGATORY NO. 2.** Identify all documents relevant to any Utah admitted contention upon which NRC Staff intends to rely in litigating each Utah contention.

**GENERAL INTERROGATORY NO. 3.** For each admitted Utah contention, give the name, address, profession, employer, area of professional expertise, and educational and scientific experience of each person whom NRC Staff expects to call as a witness at the hearing. For purposes of answering this interrogatory, the educational and scientific experience of expected witnesses may be provided by a resume of the person attached to the response.

**GENERAL INTERROGATORY NO. 4.** For each admitted Utah contention, identify the qualifications of each expert witness whom NRC Staff expects to call at the hearing, including but not limited to a list of all publications authored by the witness within the preceding ten years and a listing of any other cases in which the witness has testified as an expert at a trial, hearing or by deposition within the preceding four years.

**GENERAL INTERROGATORY NO. 5.** For each admitted Utah contention, describe the subject matter on which each of the witnesses is expected to testify at the hearing, describe the facts and opinions to which each witness is expected to testify, including a summary of the grounds for each opinion, and identify the documents (including all pertinent pages or parts thereof), data or other information which each witness has reviewed and considered, or is expected to consider or to rely on for his or



her testimony.

#### **IV. DISCOVERY REQUESTS**

##### **CONTENTION L - GEOTECHNICAL**

###### **A. Requests for Admissions - Utah Contention L**

**REQUEST FOR ADMISSION NO. 1 - UTAH L.** Do you admit that the Deterministic Seismic Hazard Analysis (DSHA) performed by Geomatrix Consultants, Inc., and reported in Appendix 2D of the 1997 SAR deviated from established precedent in meeting requirements of 10 CFR 72.102(f)(1) and 10 CFR 100 Appendix A for assessing the maximum vibratory ground motion at the PFS site by incorporating uncertainty in the maximum magnitude, minimum source-to-site distance, and choice of ground-motion attenuation relationship in estimating the 84th-percentile ground motions?

**REQUEST FOR ADMISSION NO. 2 - UTAH L.** Do you admit that the updated DSHA performed by Geomatrix Consultants, Inc. and reported in the April 1999 "Update of Deterministic Ground Motion Assessments"(Commitment Resolution #3) also deviated from established precedent in meeting requirements of 10 CFR 72.102(f)(1) and 10 CFR 100 Appendix A for assessing the maximum vibratory ground motion at the PFS site by incorporating uncertainty in the maximum magnitude, minimum source-to-site distance, and choice of ground-motion attenuation relationship in estimating the 84th-percentile ground motions?

**REQUEST FOR ADMISSION NO. 3 - UTAH L.** Do you admit that

synchronous coseismic rupture of the Stansbury fault with the East and/or West faults could lead to larger vibratory ground motion than for independent rupture of the individual faults?

REQUEST FOR ADMISSION NO. 4 - UTAH L. Do you admit that there are inadequate data and information to establish that the Stansbury fault ruptures independently of the East and/or West faults?

REQUEST FOR ADMISSION NO. 5 - UTAH L. Do you admit that there is an NRC Rulemaking Plan (SECY-98-128) to amend certain sections in 10 CFR 72.102 and 72.212(b) relating to the geological and seismological characteristics for siting and design of dry cask ISFSIs?

REQUEST FOR ADMISSION NO. 6 - UTAH L. Do you admit that under SECY-98-128 there are only two types of design basis events: Frequency-Category-1 and Frequency-Category-2?

REQUEST FOR ADMISSION NO. 7 - UTAH L. Do you admit that SECY-98-128 defines Frequency-Category-1 seismic events as events with ground motions having a mean annual probability of exceedance of  $1 \times 10^{-3}$ , which corresponds to a 1,000-year return period?

REQUEST FOR ADMISSION NO. 8 - UTAH L. Do you admit that SECY-98-128 defines Frequency-Category-2 seismic events as events with ground motions having a mean annual probability of exceedance of  $1 \times 10^{-4}$ , which corresponds to a 10,000-year return period?

REQUEST FOR ADMISSION NO. 9 - UTAH L. Do you admit that the Staff rejected PFS's proposal to use a design earthquake with ground motions having a return period of 1,000 years, as determined by a probabilistic seismic hazard analysis?

REQUEST FOR ADMISSION NO. 10 - UTAH L. Do you admit that the Rulemaking Plan, SECY-98-128, does not include the use of design earthquakes with ground motions having a return period of 2,000 years for dry cask storage at an ISFSI site?

REQUEST FOR ADMISSION NO. 11 - UTAH L. Do you admit that the standard of using peak ground motion values that have a 90-percent probability of not being exceeded in 50 years for the seismic design of structures, as recommended by the Uniform Building Code and the National Earthquake Hazards Reduction Program (International Conference of Building Officials, 1994; Building Seismic Safety Council, 1995) (collectively "Building Codes") and as cited by the Staff in the SER at 2-45, has been superseded by more stringent standards in later and/or pending versions of those Building Codes?

REQUEST FOR ADMISSION NO. 12 - UTAH L. Do you admit that the building-code standards for seismic safety cited by the Staff in the SER at 2-45 are intended to provide minimum life-safety standards for buildings and structures occupied by humans and are not intended for high-level nuclear waste storage facilities?

REQUEST FOR ADMISSION NO. 13 - UTAH L. Do you admit that the occurrence of vibratory ground motions exceeding design basis ground motions with an

estimated average return period of 2,000 years should be considered a credible event?

REQUEST FOR ADMISSION NO. 14 - UTAH L. Do you admit that the occurrence of vibratory ground motions exceeding design basis ground motions with an estimated average return period of 10,000 years should be considered a credible event?

REQUEST FOR ADMISSION NO. 15 - UTAH L. Do you admit that the occurrence of vibratory ground motions exceeding design basis ground motions developed from 84th percentile deterministic ground motions should be considered a credible event?

REQUEST FOR ADMISSION NO. 16 - UTAH L. Do you admit that tipover of spent fuel storage casks at the proposed PFS ISFSI should be considered a credible event?

**B. Interrogatories - Utah Contention L**

INTERROGATORY NO. 1 - UTAH L. If 10 CFR 72.102(f)(1) and 10 CFR 100 Appendix A, as currently in effect, were to apply and require a deterministic assessment of the maximum vibratory ground motion at the PFS site for the design earthquake, please explain whether the Staff considers that the 1999 updated DSHA performed by Geomatrix Consultants, Inc., would fully meet the foregoing requirements, despite a probabilistic treatment of maximum magnitude, minimum source-to-site distance, and ground-motion attenuation relationships.

INTERROGATORY NO. 2 - UTAH L. Insofar as the seismic source characterization models used by Geomatrix Consultants, Inc., in both its updated "deterministic" and probabilistic seismic hazard analyses for vibratory ground motion at

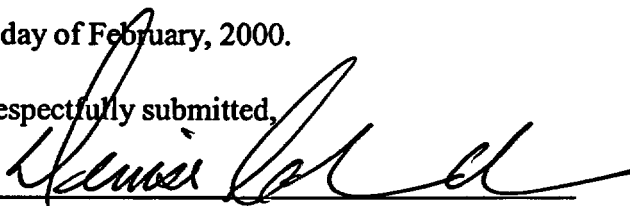
the PFS site do not include the scenario of synchronous coseismic rupture of the Stansbury fault with the East and/or West faults, please explain whether the Staff considers those analyses to be sufficiently conservative. The Staff's explanation should include the basis or rationale for its response.

INTERROGATORY NO. 3 - UTAH L. If Requests for Admissions 13, 14, or 15 is admitted, please describe what the Staff would consider to be acceptable means for determining, in the aftermath of a seismic event, whether or not the design basis ground motions had been exceeded.

INTERROGATORY NO. 4 - UTAH L. If Request for Admission No. 16 is admitted, please describe what the Staff would consider to be acceptable ways to mitigate the hazard of cask tipover.

DATED this 4th day of February, 2000.

Respectfully submitted,



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CERTIFICATE OF SERVICE

I hereby certify that a copy of STATE OF UTAH'S SIXTH SET OF  
DISCOVERY REQUESTS DIRECTED TO THE NRC STAFF (UTAH CONTENTION STAFF

OFFICE OF THE GENERAL COUNSEL  
PUBLIC AFFAIRS AND  
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L) was served on the persons listed below by electronic mail (unless otherwise noted)

with conforming copies by United States mail first class, this 4th day of February, 2000:

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