

RELATED CORRESPONDENCE

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USNRC

February 28, 2002 (3:16PM)

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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 15, 2002

STATE OF UTAH'S TWENTIETH SET OF DISCOVERY REQUESTS
DIRECTED TO THE NRC STAFF

Pursuant to the Board's ruling on Contention Utah QQ, LBP-01-39, 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") answer the following interrogatories and admission requests separately, fully, in writing, and under oath within 10 days, and document requests within 15 days from the date of this request. All of these interrogatories, admission and document requests are necessary to a proper decision in this proceeding for Unified Contention Utah L/ QQ (Geotechnical), a contention into which Utah QQ has been consolidated.

As required by 10 CFR § 2.744(a), this discovery request is being served on the NRC Executive Director for Operations.

I. INSTRUCTIONS

A. Scope of Discovery. These interrogatories, admission and document requests are directed to NRC Staff and any of the Staff's contractors or agents (collectively "NRC" or "Staff"). The interrogatories, admission and document requests 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. Supplemental Responses. Each of the following interrogatories, admission and document 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 and documents, 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.

C. Objections. If you object to or refuse to answer any interrogatory, admission or document request 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.

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, 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, spreadsheets, working papers, computer tapes, computer printout sheets, information stored in computers or other

data storage or processing equipment, electronic mail, 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 (eg, 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 has not already answered the general interrogatories and general document requests in the State's previous discovery requests, please answer the following:

A. 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.

GENERAL INTERROGATORY NO. 2. To the extent that the Staff has not previously produced documents relevant to any Utah admitted contention, including without

limitation unified contention Utah L/ QQ, identify all such documents not previously produced.

GENERAL INTERROGATORY NO. 3. For each admitted Utah contention, including without limitation unified contention Utah L/ QQ, give the name, address, profession, employer, area of professional expertise, and educational and scientific experience of each person whom the 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, including without limitation unified contention Utah L/ QQ, identify the qualifications of each expert witness whom the 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, including without limitation unified contention Utah L/ QQ, 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.

B. GENERAL DOCUMENT REQUESTS

The State requests the Staff to produce the following documents directly or indirectly within its possession, custody or control to the extent not previously produced by the Staff during discovery:

REQUEST NO. 1. All documents in your possession, custody or control identified, referred to, relied on, or used in any way in (a) responding to the interrogatories and requests for admissions set forth in the State's previous sets of Formal Discovery Requests to the Staff, (b) responding to the following interrogatories and requests for admissions in this document, or (c) responding to any subsequent interrogatories and requests for admissions filed with respect to the State's Contentions as admitted by the Board.

REQUEST NO. 2. All documents (including experts' opinions, workpapers, affidavits, and other materials used to render such opinion) supporting or otherwise relating to testimony or evidence that you intend to use at the hearings on each Utah admitted contention, including without limitation unified contention Utah L/QQ.

**IV. DISCOVERY REQUESTS: CONTENTION UTAHQQ
(Utah QQ has not been consolidated into Unified Contention Utah L/QQ)**

A. Requests for Admissions

REQUEST FOR ADMISSION NO. 1. Do you admit that the Staff finds that the survivability and durability of the cement-treated soil that PFS intends to use for the redesigned Canister Transfer Building ("CTB") and storage pad foundation systems are acceptable?

REQUEST FOR ADMISSION NO. 2. Do you admit that PFS has not presented to the Staff any results of soil-cement testing, including durability, strength and dynamic

properties testing, for the storage pads and CTB areas?

REQUEST FOR ADMISSION NO. 3. Do you admit that PFS has not presented to the Staff any site-specific testing or soil-structure interaction analyses to show that cement-treated soil will provide resististance to dynamic seismic loadings for the CTB foundation?

REQUEST FOR ADMISSION NO. 4. Do you admit that PFS has not presented to the Staff any site-specific testing or soil-structure interaction analyses with respect to PFS's intended use of cement-treated soil under and around the storage pads?

REQUEST FOR ADMISSION NO. 5. Do you admit that PFS has not presented to the Staff evaluations or analyses of the long term behavior of cement-treated soil under operational loading (eg, cask transport vehicle) and environmental factors (eg, curing, shrinkage, frost, dessication, salt and sulfide attack) over the proposed 40 year life of the facility?

REQUEST FOR ADMISSION NO. 6. Do you admit that PFS has not presented to the Staff cone penetration test ("CPT") data from the ISFSI site?

B. Interrogatories

INTERROGATORY NO. 1: Describe with specificity whether or not the Staff finds acceptable PFS's application of its revised PSHA design basis ground motions to the Canister Transfer Building and its foundation and the basis thereof. *See e.g.* NRC Staff's Response to "State of Utah's Request for Admission of Late-Filed Contention Utah QQ (Seismic Stabilty)" dated May 30, 2001 at 6-7.

INTERROGATORY NO. 2: Describe with specificity whether or not the Staff

finds acceptable PFS's application of its revised PSHA design basis ground motions to the storage cask, storage pads and the foundations of the pads and the basis thereof. *See e.g., id.*

INTERROGATORY NO. 3: To the extent that the Staff admits Request for Admission No. 1, in whole or in part, explain in each and every respect the basis upon which the Staff finds acceptable the survivability and durability of cement-treated soil for the redesigned CTB and storage pad foundation systems. *See e.g. id.*

INTERROGATORY NO. 4: Describe with specificity the basis upon which the Staff finds acceptable PFS's use of CPT data to determine whether there is potential variability of shear strength in the pad emplacement area. *See Staff Response to Utah's 18th Set, Request for Admission No. 6.*

INTERROGATORY NO. 5: Describe with specificity the basis upon which the Staff finds acceptable PFS's demonstration of the stress-strain behavior of the native foundation soils under the range of cyclic strains imposed by the design basis earthquake. *See id.* Response to Request for Admission No. 7.

INTERROGATORY NO. 6: Describe with specificity the basis upon which the Staff finds acceptable the use of one set of time history in Holtec's non-linear analysis, HI-202540. *See id.* Response to Request for Admission No. 12.

INTERROGATORY NO. 7: Describe the appropriate safety margins the Staff finds acceptable for the factors of safety against overturning and sliding of the storage pads and the basis thereof. *See NUREG-0800, Section 3.8.5 at 3.8.5-3 to 4 (Rev. 1 - July 1981).*

INTERROGATORY NO. 8: Describe with specificity the technical basis upon which the Staff finds that the design of the pad foundation system meets the structural

acceptance criteria in NUREG-0800, Section 3.8.5.

INTERROGATORY NO. 9: Describe with specificity the basis upon which the Staff finds acceptable PFS's response contained in Commitment Resolution Letter # 38 to the NRC's questions and comments regarding the stability analysis performed by PFS for the cask storage pads. See Letter from John Donnell, PFS to NRC dated February 7, 2002.

INTERROGATORY NO. 10: Describe with specificity the basis upon which the Staff finds acceptable Holtec Report, *Multi Cask Response at the PFS ISFSI from 2000 Year Seismic Event*, HI-2012640, given that in HI-2012640 Holtec assumes that the storage pad will act as a rigid mat and that assumption of pad rigidity is contradicted by Calculation No. 05996.02 G(P017)-2, *Storage Pad Analysis and Design* by International Civil Engineering Consultants.

C. Document Requests:

Please produce the documents responsive to the following document requests:

DOCUMENT REQUEST NO. 1. All documents identified, used or referred to in responding to the above requests for admission and interrogatories.

DOCUMENT REQUEST NO. 2. All calculations, analyses, or other documents prepared by or for the Staff relating to testimony or evidence that the Staff may rely upon or otherwise use at the hearing on unified Contention Utah L/QQ.

DOCUMENT REQUEST NO. 3. Any soil-cement test data, relating to PFS's intended use of cement-treated soil at the ISFSI site, generated by the Staff, its representatives, or provided to the Staff by PFS.

DOCUMENT REQUEST NO. 4. Any soil-structure interaction analyses, relating to

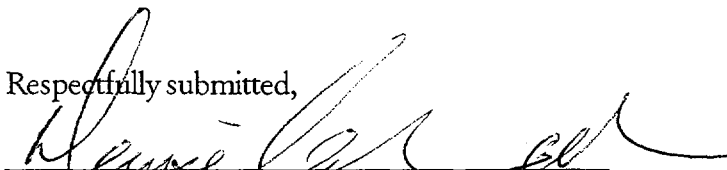
PFS's intended use of cement-treated soil under and around the storage pads, generated by the Staff, its representatives, or provided to the Staff by PFS.

DOCUMENT REQUEST NO. 6. Any analyses of the long term behavior of cement-treated soil under operational loading and environmental factors generated by the Staff, its representatives, or provided to the Staff by PFS.

DOCUMENT REQUEST NO. 5. Any CPT data from the PFS site that has been generated by the Staff, its representatives, or provided to the Staff by PFS.

DATED this 15th day of February, 2002.

Respectfully submitted,



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CERTIFICATE OF SERVICE

I hereby certify that a copy of STATE OF UTAH'S TWENTIETH SET OF DISCOVERY REQUESTS DIRECTED TO THE NRC STAFF was served on the persons listed below by electronic mail (unless otherwise noted) with conforming copies by United States mail first class, this 15th day of February, 2002:

Rulemaking & Adjudication Staff
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(original and two copies)

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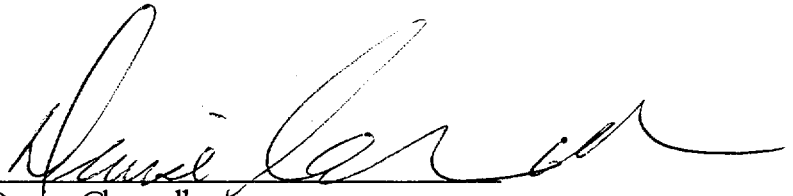
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Washington, DC 20555

A handwritten signature in black ink, appearing to read "Denise Chancellor", written over a horizontal line.

Denise Chancellor
Assistant Attorney General
State of Utah

STATE OF UTAH
OFFICE OF THE ATTORNEY GENERAL



MARK L. SHURTLEFF
ATTORNEY GENERAL

RAY HINTZE
Chief Deputy - Civil

RYAN MECHAM
Chief of Staff

KIRK TORGENSEN
Chief Deputy - Criminal

February 15, 2002

William D. Travers
Executive Director for Operations
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Re: In the Matter of Private Fuel Storage, LLC, Docket 72-22

Dear Mr. Travers;

Pursuant to 10 CFR § 2.744(a), enclosed is the State of Utah's Twentieth Set of Discovery Requests Directed to the NRC Staff, dated February 15, 2002.

Please contact me with any questions at (801) 366-0286. Thank you.

Sincerely,

A handwritten signature in cursive script, appearing to read "Denise Chancellor".

Denise Chancellor
Assistant Attorney General

Enclosure: as stated
cc: PFS Docket 72-22-ISFSI Service List