

July 13, 1999

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-ISFSI
)	
(Independent Spent Fuel)	
Storage Installation))	

NRC STAFF'S FIRST SUPPLEMENTAL RESPONSE
TO "THE STATE OF UTAH'S FIRST SET OF
DISCOVERY REQUESTS DIRECTED TO THE NRC STAFF"

INTRODUCTION

On June 10, 1999, the State of Utah ("State") filed the "State of Utah's First Set of Discovery Requests Directed to the NRC Staff" ("Request"), concerning the application for an Independent Spent Fuel Storage Installation ("ISFSI") filed by Private Fuel Storage, L.L.C. ("PFS" or "Applicant"). In its Request, the State filed (a) five general interrogatories and three document requests concerning all contentions that have been admitted for litigation in this proceeding; and (b) various specific requests for admission, interrogatories, and document requests concerning five particular contentions -- Utah Contentions B, C, H, R, and Security C.

On June 24, 1999, the Staff filed its initial objections and responses to that discovery request.¹ Therein, the Staff responded to each of the State's discovery requests and, in particular, provided responses to the State's discovery requests concerning the specific contentions identified

¹ See "NRC Staff's Initial Objections and Responses to 'The State of Utah's First Set of Discovery Requests Directed to the NRC Staff'" ("Initial Response"), dated June 24, 1999.

therein -- *i.e.*, Utah Contentions B, C, H, R, and Security-C. Subsequently, the State of Utah requested that the Staff supplement its responses to the State's discovery requests by providing, in response to interrogatories seeking to discover the basis for the Staff's denials of the State's requests for admission, a more detailed explanation of the basis for each of the Staff's denials. In accordance with the State's request, the Staff hereby files this supplemental response to the State's Request.

OBJECTIONS

The Staff hereby reiterates and renews each of its objections to the State's discovery requests, set forth in the Staff's Initial Response of June 24, 1999, as if set forth at length herein. Notwithstanding these objections to the State's Request, and without waiving these objections or its right to interpose these or other objections in the future, the Staff hereby voluntarily provides the following supplemental responses to the State's Request.²

A. UTAH CONTENTION B (License Needed for Intermodal Transfer Facility)

INTERROGATORY NO. 1. To the extent that NRC does not admit any or all request for admissions No. 1 through No. 22 above, please provide the basis for any and all denials.

STAFF RESPONSE. To the extent that the Staff denies or does not admit any of Requests for Admission 1-22 above, the Staff is not aware of information that would support the requested admission and/or denies that the requested admission is correct.

² For ease of reference, the State's interrogatories and requests for admission are reproduced below, followed by (a) the Staff's initial responses of June 24, 1999 ("Staff Response"), and (b) the Staff's supplemental response which is being provided at this time.

SUPPLEMENTAL RESPONSE. The following supplemental responses are provided with respect to each of the Staff's denials of the State's requests for admission.

Requests for Admission - Contention B

REQUEST FOR ADMISSION NO. 1. Do you admit that NRC has no detailed design plans, blueprints or drawings of: the gantry crane, the building that will house the gantry crane, a security system, and other functional aspects (such as the septic tank system) associated with the Intermodal Transfer Facility ("ITF").

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: Yes, except as provided in the Applicant's revised Safety Analysis Report.

SUPPLEMENTAL RESPONSE. No supplemental response is required.

REQUEST FOR ADMISSION NO. 2. Do you admit that the design of the ITF requires PFS to use the Union Pacific Rail Line right-of-way for the construction and operation of rail sidings at the ITF.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff lacks information concerning the design of the ITF, except as provided in the Applicant's SAR. Further, the Staff lacks sufficient information to conclude that PFS could not adopt a design that does not require use of the Union Pacific right-of-way for the construction and operation of the ITF.

REQUEST FOR ADMISSION NO. 3. Do you admit that NRC has no details of agreements or arrangements, if any, between PFS and the Union Pacific Rail Line ("UP") for the Applicant to use UP's right-of-way on the south side of the main line at the ITF.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: Yes.

SUPPLEMENTAL RESPONSE. No supplemental response is required.

REQUEST FOR ADMISSION NO. 4. Do you admit that NRC will require, as a license condition, that all casks shipped to the ITF be sent by dedicated or single use train.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff has not determined that it will impose a license condition or requirement as described in this Request.

REQUEST FOR ADMISSION NO. 5. Do you admit that sending casks to the ITF via mixed freight versus single use or dedicated train will affect the routine operation of the ITF.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to admit or deny the truth of the requested admission.

REQUEST FOR ADMISSION NO. 6. Do you admit that sending casks by mixed freight shipment to the ITF will create uncertainty as to the timing of shipments terminating at the ITF.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead

to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to admit or deny the truth of the requested admission.

REQUEST FOR ADMISSION NO. 7. Do you admit that a shipment of casks sent by mixed freight to the ITF will require the cars containing the casks to be segregated from the non-cask freight cars (*i.e.* the shipment will need to be reconfigured), either at the ITF or at a rail yard in Salt Lake City.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to admit or deny the truth of the requested admission.

REQUEST FOR ADMISSION NO. 8. Do you admit that the design of the ITF will only accommodate a maximum shipment of two locomotives, four spacer cars, three cask cars and a security car.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to admit or deny the truth of the requested admission.

REQUEST FOR ADMISSION NO. 9. Do you admit the following are some of the facts required to determine whether the ITF is a de facto interim storage facility: (a) the number of casks per shipment that will come into the ITF; (b) the frequency and timing of shipments that will come into the ITF; (c) the sequencing of casks that will come into the ITF; (c) the ability to move a cask from the ITF

to the ISFSI; and (d) the timing of the movement of a cask from the ITF to the ISFSI.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff further objects to this Request on the grounds that it calls for a legal conclusion. Notwithstanding this objection, however, the Staff denies that any of the statements made in this Request are relevant to a determination as to whether the ITF is a "de facto interim storage facility."

REQUEST FOR ADMISSION NO. 10. Do you admit that there is no analysis of the number of casks that will come into Rowley Junction for intermodal transfer to the proposed PFS facility other than the arithmetic of a 20 year license initial term or 40 year initial and renewal terms divided by the maximum number of casks allowed under the proposed NRC Part 72 license (*i.e.*, 4,000 casks divided by 20 years would yield 200 casks per year; or if divided by 40 years, then 100 casks per year).

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to admit or deny the truth of the requested admission.

REQUEST FOR ADMISSION NO. 11. Do you admit that, with respect to cask shipments to the ITF, NRC has made no analysis of the number of casks per shipment, the frequency and timing of shipments or the Applicant's ability to move the casks from the ITF to the ISFSI.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead

to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: Yes.

SUPPLEMENTAL RESPONSE. No supplemental response is required.

REQUEST FOR ADMISSION NO. 12. Do you admit that the Applicant will own the buildings, sidings, gantry crane and any other fixtures at the ITF.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to admit or deny the truth of the requested admission.

REQUEST FOR ADMISSION NO. 13. Do you admit operation of the ITF will (a) be under the Applicant's supervision and control, or (b) if under contract, be operated according to procedures and training requirements established by the Applicant.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to admit or deny the truth of the requested admission.

REQUEST FOR ADMISSION NO. 14. Do you admit that the Applicant will be in possession of casks once a cask shipment has reached the terminus at the ITF.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff further objects to this Request on the grounds that (a) it calls for a legal conclusion, and (b) it incorrectly states that the "terminus" is located at the ITF. Notwithstanding these objections, however, the Staff states that the carrier and/or shipper is expected to be in possession of the casks at the ITF.

REQUEST FOR ADMISSION NO. 15. Do you admit that the Applicant will (a) provide security for all casks at the ITF; (b) security for each cask en route to the ISFSI; and (c) security for each cask once it arrives at the ISFSI.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to admit or deny the truth of the requested admission. Further, the Staff notes that responsibility for physical protection of the casks in transportation (including times at which they are present at the ITF) rests with the shipper and/or carrier, pursuant to 10 C.F.R. §§ 70.20a and 73.37. PFS would be responsible for physical protection of the casks, as a Part 72 licensee, upon its receipt and acceptance of the casks from the shipper and/or carrier at its ISFSI site.

REQUEST FOR ADMISSION NO. 16. Do you admit that the Applicant will rely on ISFSI personnel to respond to emergencies (*e.g.*, breach of security, unexpected release of radiation, fires, etc.) at the ITF.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to admit or deny the truth of the requested admission. Further, the Staff notes that responsibility for an emergency

response during transportation (including times at which the casks are present at the ITF) rests with the shipper and/or carrier under 10 C.F.R. Part 71 and DOT regulations.

REQUEST FOR ADMISSION NO. 17. Do you admit that NRC has no information, from the Applicant or otherwise, that accurately estimates the response time from the ISFSI to the ITF (in both fair and adverse weather conditions).

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: Yes.

SUPPLEMENTAL RESPONSE. No supplemental response is required.

REQUEST FOR ADMISSION NO. 18. Do you admit that the ITF will not be adequately protected by the Applicant's reliance on ISFSI staffing to respond to emergencies (*e.g.*, breach of security, unexpected release of radiation, fires, etc.) at the ITF.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff further objects to this request on the grounds that it constitutes a compound question. Without waiving these objections, the Staff states that it lacks sufficient information to conclude that the statements made in this Request are correct. Further, the Staff notes that an ISFSI licensee is not responsible for the safety or physical protection of casks in transportation to its facility. *See* Supplemental Responses to Requests 15 and 16, *supra*.

REQUEST FOR ADMISSION NO. 19. Do you admit that the Applicant will have a maximum of two heavy haul tractor trailers for the movement of casks from the ITF to the ISFSI.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to admit or deny the truth of the requested admission.

REQUEST FOR ADMISSION NO. 20. Do you admit that the Applicant will own the two heavy haul tractor trailers.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to admit or deny the truth of the requested admission.

REQUEST FOR ADMISSION NO. 21. Do you admit that a heavy haul tractor trailer loaded with a cask, tie downs, stabilizers, etc. will clear the I-80 underpass at Rowley Junction by (a) less than twelve inches; (b) less than six inches; or (c) less than two inches.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to admit or deny the truth of the requested admission.

REQUEST FOR ADMISSION NO. 22. Do you admit that the a loaded cask may not clear the I-80 underpass at Rowley Junction during snow conditions or if some of the 100 tires on the heavy haul tractor/trailer are over inflated.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to admit or deny the truth of the requested admission.

C. UTAH CONTENTION H- Thermal Design

INTERROGATORY NO. 1. To the extent that NRC does not admit any or all Request for Admissions No. 1 through No. 3 above, please provide the basis for any and all denials.

STAFF RESPONSE. To the extent that the Staff denies or does not admit any of Requests for Admission 1-11 above, the Staff is not aware of information that would support the requested admission and/or denies that the requested admission is correct.

SUPPLEMENTAL RESPONSE. The following supplemental responses are provided with respect to each of the Staff's denials of the State's requests for admission.

Requests for Admission - Contention H

REQUEST FOR ADMISSION NO. 1. Do you admit that the NRC staff has not conducted an independent thermal analysis of casks at the PFS facility taking into account the thermal interaction of the casks and the concrete pad.

STAFF RESPONSE. Yes.

SUPPLEMENTAL RESPONSE. No supplemental response is required. The Staff notes, however, that it performed independent confirmatory calculations during its review of the HI-STAR Safety Analysis Report, using the ANSYS computer program; the HI-STAR and

HI-STORM cask systems utilize the same multipurpose canister (MPC), which has been reviewed and found to be acceptable during the Staff's HI-STAR review.

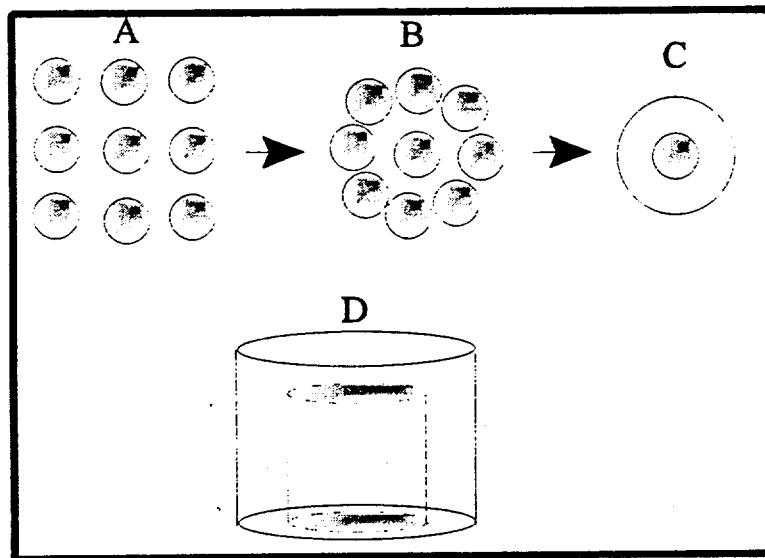
REQUEST FOR ADMISSION NO. 2. Do you admit that the NRC Staff has not confirmed the Applicant's EHT model calculations.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. The Staff has reviewed the analytic assumptions used in the EHT calculation and found them to be bounding. In addition, the Staff reviewed the analytic methods used in the EHT calculation and found them to be acceptable.

The Staff reviewed Holtec International's assumptions or input used in the EHT analysis when modeling the Holtec spent fuel canister. The input was reviewed in detail for the 100 degree F ambient temperature case. The Staff then reviewed changes to those input, as they relate to the 125 degree F analysis. The Staff found those input to be bounding and appropriate. For example, as illustrated in the following figure, Holtec simulated the impact of neighboring casks by a hypothetical shell surrounding the cask. The impact of neighboring casks (*e.g.*, Array A, below), can be bounded by circulating the neighboring casks around the center cask (Array B, below). This can be further simplified by simulating the contribution of the neighboring casks with an equivalent cylinder, as illustrated in Array C, below. Array D provides a side view representation of the calculation performed by Holtec. The inside surface of the hypothetical shell is modeled as a reflecting boundary which simulates the radiant energy input from the surrounding casks. In addition, the hypothetical cylinder does not permit air to flow from the radial direction (through the walls of the cylinder). This requires the ambient air to enter from above, traveling down the annulus formed by the HI-STORM overpack and the hypothetical cylinder. The Staff

questioned Holtec on the method used to calculate the distance between the outer surface of the overpack and the inner shell of the hypothetical cylinder. For this arrangement, one would assume the use of an equivalent hydraulic diameter. Holtec agreed that an accurate thermal-hydraulic representation of the hypothetical cylinder diameter is derived by using four times the area divided by the wetted or heated perimeter. With the use of bounding assumptions, the equivalent diameter used in Holtec's evaluation was significantly less than would be obtained using the equivalent hydraulic diameter. This assumption provides greater resistance for air circulation and increases the temperature of the ambient air as it travels toward the bottom of the overpack. The Staff found Holtec's assumption to be acceptable.



At the Staff's request, the Applicant performed a sensitivity study that assumed no sunset (i.e., the sun was assumed to shine on the overpack 24 hours per day). With this bounding assumption, the peak cladding temperature remained below the fuel design short-term temperature limit.

REQUEST FOR ADMISSION NO. 3. Do you admit that the NRC Staff has not run the FLUENT code employed by the Applicant.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. FLUENT is a recognized industry computer code for performing heat transfer-related computations, and is used by the Staff to perform thermal analyses and to address regulatory issues. The Staff has verified HOLTEC's ability to use the FLUENT code, in benchmark calculations performed with a full scale spent fuel cask experiment at the Idaho National Engineering and Environmental Laboratory. The Staff has not run the FLUENT code on the Holtec cask design.

D. UTAH CONTENTION R (Emergency Planning)

INTERROGATORY NO. 1. To the extent that NRC does not admit any or all Requests for Admissions No. 1 through No. 11 above, please provide the basis for any and all denials.

STAFF RESPONSE. To the extent that the Staff denies or does not admit any of Requests for Admission 1-11 above, the Staff is not aware of information that would support the requested admission and/or denies that the requested admission is correct.

SUPPLEMENTAL RESPONSE. The following supplemental responses are provided with respect to each of the Staff's denials of the State's requests for admission.

Requests for Admission - Contention R

REQUEST FOR ADMISSION NO. 1. Do you admit that PFS has not determined the number of persons per shift it will have on-site at the ISFSI.

STAFF RESPONSE. The Staff objects to this request on the grounds that it is irrelevant to the litigation of this contention and is not reasonably calculated to lead to the discovery of relevant information. Notwithstanding this objection, however, the following response is provided: No.

SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to admit or deny the truth of the requested admission.

REQUEST FOR ADMISSION NO. 2. Do you admit that PFS will not have a full-time fire brigade stationed on site.

STAFF RESPONSE. Yes.

SUPPLEMENTAL RESPONSE. No supplemental response is required.

REQUEST FOR ADMISSION NO. 3. Do you admit that the duties of the five member PFS fire brigade will be additional to the team members' normal duties.

STAFF RESPONSE. Yes.

SUPPLEMENTAL RESPONSE. No supplemental response is required.

REQUEST FOR ADMISSION NO. 4. Do you admit that PFS has not determined what the "normal" duties of fire brigade members will entail.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. PFS has identified the duties of its facility personnel.

PFS has not stated which of its facility personnel will serve as members of the fire brigade.

REQUEST FOR ADMISSION NO. 5. Do you admit that it will take up to 90 minutes for off-duty fire brigade members to be called back to the ISFSI site.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to admit or deny the truth of the requested admission.

REQUEST FOR ADMISSION NO. 6. Do you admit that during a wild land fire that may threaten the ISFSI site, PFS fire brigade staff members may not be able to abandon their "normal" duties for fire duties.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. The Staff further objects to this request on the grounds that it constitutes a compound question. Without waiving this objection, the Staff does not agree that a wild land fire may "threaten" the ISFSI site. See Supplemental Response to Requests for Admission Nos. 7 and 11. Further, in the event that a fire response is deemed appropriate, PFS facility staff members should be able to secure their duty stations, discontinue their normal duties, and respond to any wild land fires near the facility without such fires posing a "threat" to the site.

REQUEST FOR ADMISSION NO. 7. Do you admit that a wild land fire may require all personnel to evacuate the ISFSI site.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. The Staff denies that the statement made in this Request is correct. Based on information and belief, wild land fires in the vicinity of the PFS site are not likely to require all personnel to evacuate the site due to the design and layout of the facility, local vegetation, site geography, and the Applicant's proposed establishment of a buffer zone around the facility.

REQUEST FOR ADMISSION NO. 8. Do you admit that evacuation of all personnel from the ISFSI site leaves the casks vulnerable to saboteurs.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. The Staff further objects to this request on the grounds that it exceeds the proper scope of the contention. Notwithstanding this objection, the Staff denies that the statement made in this request is correct. Based on information and belief, the evacuation

of all personnel from the site is unlikely to occur; further, compensatory measures for physical protection may be implemented in the improbable event that a site evacuation is necessary. In addition, protection of the casks is provided by compliance with 10 C.F.R. Part 72 design standards, which reduce their vulnerability to sabotage.

REQUEST FOR ADMISSION NO. 9. Do you admit that wild land fires may cause the power supply to the PFS facility to be interrupted for hours or days.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. The Applicant's design includes an uninterruptible power source (UPS), and emergency backup power provided by a 480-volt diesel generator with sufficient fuel to provide continuous power for a minimum 24-hour period. See SAR § 4.3.2.

REQUEST FOR ADMISSION NO. 10. Do you admit that during a wild land fire PFS may not be able to use its diesel-powered emergency generating system.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to conclude that the statement made in this Request is correct. To the contrary, the Staff is not aware of any information that would indicate that operation of the Applicant's diesel-powered emergency generating system would be limited due to a wild land fire such as may occur at the PFS site.

REQUEST FOR ADMISSION NO. 11. Do you admit that PFS does not have adequate support capability to fight fires onsite.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. The Applicant has provided adequate fire safety capability in its design of the facility and fire barriers, fire detection and suppression systems, and

administrative controls. Fire fighting capability in the form of a fire brigade provides additional defense in depth, but is not necessary to assure nuclear safety at the PFS facility.

E. UTAH CONTENTION SECURITY C (Local Law Enforcement)

INTERROGATORY NO. 1. To the extent that NRC does not admit any or all Requests for Admissions No. 1 through No. 10 above, please provide the basis for any and all denials.

STAFF RESPONSE. To the extent that the Staff denies or does not admit any of Requests for Admission 1-10 above, the Staff is not aware of information that would support the requested admission and/or denies that the requested admission is correct.

SUPPLEMENTAL RESPONSE. The following supplemental responses are provided with respect to each of the Staff's denials of the State's requests for admission.

Requests for Admission - Contention Security-C

REQUEST FOR ADMISSION NO. 1. Do you admit the proposed PFS ISFSI site is located on a sovereign Indian reservation.

STAFF RESPONSE. Yes.

SUPPLEMENTAL RESPONSE. No supplemental response is required.

REQUEST FOR ADMISSION NO. 2. Do you admit that, absent a written arrangement to the contrary, the State or local law enforcement agencies ("LLEA") are not obligated to provide law enforcement services to a sovereign Indian nation.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. The Staff further objects to this request on the grounds that (a) it calls for a legal conclusion, and (b) is irrelevant and is not reasonably designed to lead to the discovery of admissible evidence in this proceeding, in light of the existing Cooperative Law Enforcement Agreement between the Tooele County sheriff's office, the U.S. Bureau of

Indian Affairs and the Skull Valley Band of Goshute Indians. Further, and without waiving these objections, the Staff denies that the statement contained in this request is correct.

REQUEST FOR ADMISSION NO. 3. Do you admit that it is the responsibility of the U.S. Bureau of Indian Affairs ("BIA") to provide law enforcement services to sovereign Indian nations.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. The Staff further objects to this request on the grounds that (a) it calls for a legal conclusion, and (b) to the extent that information is available to the Staff, it is publicly available as well to the State of Utah. Further, and without waiving these objections, the Staff states that it lacks sufficient information to admit or deny the truth of the requested admission.

REQUEST FOR ADMISSION NO. 4. Do you admit the BIA Office responsible for managing the Skull Valley Indian reservation is located in Fort Duchesne, Utah.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. The Staff further objects to this request on the grounds that (a) it calls for a legal conclusion, (b) to the extent that information is available to the Staff, it is publicly available as well to the State of Utah, and (c) the request is vague and ambiguous in its use of the term "managing." Further, and without waiving these objections, the Staff denies that any BIA Office is responsible for "managing" the Skull Valley Reservation; the Staff admits, however, on information and belief, that the Skull Valley Reservation is within the administrative jurisdiction of the Fort Duchesne office of BIA.

REQUEST FOR ADMISSION NO. 5. Do you admit that the distance, by road, from Fort Duchesne to the Skull Valley Indian reservation is at least 175 miles.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. The Staff further objects to this request on the grounds that, to the extent that information is available to the Staff, it is publicly available as well to the State of Utah. Further, and without waiving this objection, the Staff states that it lacks sufficient information to admit or deny the truth of the requested admission.

REQUEST FOR ADMISSION NO. 6. Do you admit that the Applicant has provided no documentation of any formal or written arrangements or agreements with any local law enforcement agency to provide response or support services for incidents that may require law enforcement assistance at the proposed ISFSI site.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. The Applicant has provided documents showing that a Cooperative Law Enforcement Agreement has been approved by Tooele County, providing the Tooele County sheriff's office with law enforcement authority on the Skull Valley Band reservation.

REQUEST FOR ADMISSION NO. 7. Do you admit that the Applicant has provided no documentation of any formal or written arrangements or agreements with Tooele County, or its subdivisions, for the Tooele County Sheriff's Office to provide response or support services for incidents that may require law enforcement assistance at the proposed ISFSI site.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. The Applicant has provided documents showing that a Cooperative Law Enforcement Agreement has been approved by Tooele County, providing the

Tooele County sheriff's office with law enforcement authority on the Skull Valley Band reservation.

REQUEST FOR ADMISSION NO. 8. Do you admit that the Applicant is relying entirely on a cooperative agreement between Tooele County, the BIA and the Skull Valley Band of Goshutes, dated June 3, 1997, as satisfying the requirement to document liaison for LLEA assistance at the proposed ISFSI site.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. The Applicant has documented the existence of an August 1998 Cooperative Law Enforcement Agreement between the Tooele County sheriff's office, BIA, and the Skull Valley Band of Goshute Indians.

REQUEST FOR ADMISSION NO. 9. Do you admit the Tooele County Attorney has stated that under the June 3, 1997 cooperative agreement, referred to in Request for Admission No. 8, Tooele County is not obligated to provide law enforcement protection to the proposed ISFSI site.

STAFF RESPONSE. No.

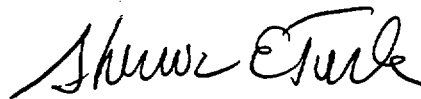
SUPPLEMENTAL RESPONSE. The Staff lacks sufficient information to admit or deny the truth of the requested admission. Further, to the extent that this request concerns a letter written by the Tooele County Attorney, dated December 2, 1998, the Staff objects to this request on the grounds that (a) the request does not accurately characterize that document, and (b) the document speaks for itself.

REQUEST FOR ADMISSION NO. 10. Do you admit that the Applicant has not determined, documented or provided NRC with information relating to the response time for a local law enforcement agency to respond to an incident at the proposed ISFSI site.

STAFF RESPONSE. No.

SUPPLEMENTAL RESPONSE. The Applicant has provided information to the Staff relating to the response time for the local law enforcement agency to respond to an incident at the proposed ISFSI site.

Respectfully submitted,

A handwritten signature in cursive script, appearing to read "Sherwin E. Turk".

Sherwin E. Turk
Counsel for NRC Staff

Dated at Rockville, Maryland
this 13th day of July 1999

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-ISFSI
)
(Independent Spent Fuel)
Storage Installation))

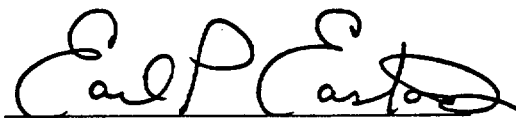
SUPPLEMENTAL AFFIDAVIT OF EARL P. EASTON

COUNTY OF MONTGOMERY)
) SS:
STATE OF MARYLAND)

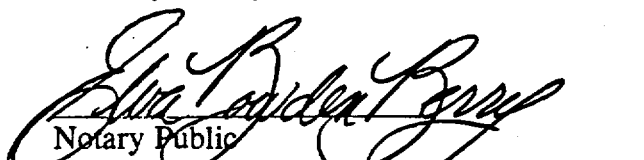
Earl P. Easton, having first been duly sworn, does hereby state as follows:

1. I am employed as Section Chief, Technical Review Section A in the Spent Fuel Project Office, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, in Washington, D.C. A statement of my professional qualifications is attached hereto.

2. I have reviewed the foregoing "First Supplemental Response" of the NRC Staff to the "State of Utah's First Set of Discovery Requests Directed to the NRC Staff," as they pertain to Utah Contention B (Intermodal Transfer Point), and verify that they are true and correct to the best of my information and belief.


Earl P. Easton

Sworn to before me this
13th day of July 1999


Notary Public
My commission expires
ELVA BOWDEN BERRY
NOTARY PUBLIC STATE OF MARYLAND
My Commission Expires December 1, 1999

Earl P. Easton
Section Chief, Technical Section A
Spent Fuel Project Office
U.S. Nuclear Regulatory Commission

Education: B.S. Chemical Engineering, University of Maryland, 1974

Experience:

1999-Present Section Chief, Technical Review Section A

Manages technical review section for certification of spent fuel transportation and storage packages, and spent fuel storage facilities. Assures that the technical reviews of transportation and storage casks are adequate to demonstrate that casks meet the applicable safety requirements of NRC's regulations in 10 C.F.R. Parts 71 and 72. Responsible for resolving technical issues for spent fuel storage and transportation.

1990-1999 Section Chief, Transportation and Storage Safety Section

Responsible for conducting risk studies of spent fuel storage facilities and transportation, of radioactive materials, rulemaking for 10 C.F.R. Parts 71 and 72, and incident response. Served as chief NRC liaison to U.S. Department of Transportation. Represented the United States as a Delegate at International Atomic Energy Agency (IAEA) technical committee meetings in the development of international transport regulations.

1982-1990 Senior Technical Reviewer, Transportation Package Certification Branch

Senior technical reviewer and project manager for NRC review and approval of spent fuel transportation casks. Responsible as project manager for assuring that spent fuel casks met NRC's regulations under 10 C.F.R. Part 71. Conducted thermal and containment reviews.

1980-1981 Chemical Engineer, U.S. Department of Energy, Synthetic Fuels Program

Project manager for coal gasification and liquefaction pilot plants. Responsible for overseeing research and development of coal conversion technologies.

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-ISFSI
)
(Independent Spent Fuel)
Storage Installation))

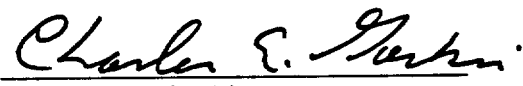
SUPPLEMENTAL AFFIDAVIT OF CHARLES E. GASKIN

COUNTY OF MONTGOMERY)
) SS:
STATE OF MARYLAND)

Charles E. Gaskin, having first been duly sworn, does hereby state as follows:

1. I am employed as a Senior Safeguards Project Manager in the Fuel Cycle Safety and Safeguards Division, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, in Washington, D.C. A statement of my professional qualifications is attached hereto.

2. I have reviewed the foregoing "First Supplemental Response" of the NRC Staff to the "State of Utah's First Set of Discovery Requests Directed to the NRC Staff," as they pertain to Utah Contention Security C (Local Law Enforcement), and verify that they are true and correct to the best of my information and belief.


Charles E. Gaskin

Sworn to before me this
13th day of July 1999


Notary Public

My commission expires: _____

ELVA BOWDEN BERRY
NOTARY PUBLIC STATE OF MARYLAND
My Commission Expires December 1, 1999

Charles E. Gaskin
Senior Safeguards Project Manager
Division of Fuel Cycle Safety and Safeguards
Office of Nuclear Material Safety and Safeguards
U.S. Nuclear Regulatory Commission

I am a Senior Safeguards Project Manager in the Division of Fuel Cycle Safety and Safeguards. My 38 years have included service in the security and law enforcement fields with the U. S. Navy, the Central Intelligence Agency, the Department of Justice, and the Nuclear Regulatory Commission (NRC). In the capacity of a Senior Safeguards Project Manager, I review of the physical protection programs at NRC-licensed Category I facilities. I also have worked as a Plant Protection Analyst for the NRC with respect to nuclear power reactors licensed under 10 C.F.R. Part 50. In that capacity, I performed reviews and assessments of the adequacy of reactor site physical security plans developed to protect against radiological sabotage and theft. I was responsible for the 10 C.F.R. § 73.55 review for various reactors, including Diablo Canyon, Shoreham, Seabrook, and Clinch River.

Prior to commencing employment at the NRC, I provided technical operational surveillance support in law enforcement for the Drug Enforcement Administration (DEA). While in the position of project manager with that organization, I gained experience in the positive operational side of security. I developed specific surveillance equipment of various operations, conducted hardware feasibility studies, tested surveillance equipment, developed equipment for air and surface vehicles and worked with the international community in the application of technology to law enforcement. Also, I participated in establishing security regulations for the DEA. In addition, I processed wiretap evidence for court presentation, and testified in many drug cases where technical surveillance equipment was deployed.

While at the Central Intelligence Agency, I served as technical security officer with overseas experience in both physical and technical security. I developed and implemented security systems and programs. During this time I worked in many areas of the world.

While in the U.S. Navy, I was with the Naval Security Group and was involved in communications security.

I am a member of the Institute of Electrical and Electronic Engineers and participate in the writing of engineering standards for the industry. I am also a member of the American Society for Industrial Security and the American Standard Testing and Materials.

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-ISFSI
)
(Independent Spent Fuel)
Storage Installation))

SUPPLEMENTAL AFFIDAVIT OF JACK GUTTMANN

COUNTY OF MONTGOMERY)
) SS:
STATE OF MARYLAND)

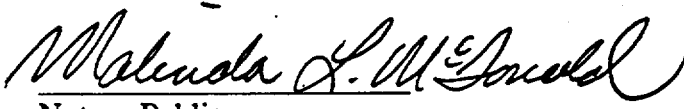
Jack Guttman, having first been duly sworn, does hereby state as follows:

1. I am employed as a Senior Nuclear Engineer in the Spent Fuel Project Office, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, in Washington, D.C. A statement of my professional qualifications is attached hereto.

2. I have reviewed the foregoing "First Supplemental Response" of the NRC Staff to the "State of Utah's First Set of Discovery Requests Directed to the NRC Staff," as they pertain to Utah Contention H (Thermal Design), and verify that they are true and correct to the best of my information and belief.


Jack Guttman

Sworn to before me this
9th day of July 1999


Notary Public

My commission expires: 12/1/2001

Jack Guttman
Senior Nuclear Engineer
Spent Fuel Project Office
Office of Nuclear Material Safety and Safeguards (NMSS)
U. S. Nuclear Regulatory Commission

B.S. in Mechanical Engineering, Michigan Technological University, 1973
M.S. Nuclear Engineering, University of Michigan, 1974

Mr. Guttman has experience in nuclear engineering related to thermal-hydraulic and mechanical engineering analysis. Mr. Guttman worked at the Idaho National Engineering Laboratory as a contractor to the NRC in the area of thermal-hydraulic computer code validation and analysis. He performed analyses that quantified the conservatism between the accident analysis requirements for licensing nuclear power plants (10 C.F.R. Part 50, Appendix K), validated the computer code RELAP for regulatory application by the NRC, and performed independent confirmatory transient and accident analyses of operating reactor events and safety issues defined by the NRC.

While working at the NRC, Mr. Guttman was responsible for reviewing and approving the computer codes used by the nuclear industry for transient and accident analysis. He was the Office of Nuclear Reactor Regulation (NRR) representative on the Advanced Code Review Committee, the Loss of Fluid Test Facility, and the Semiscale Test Facility. Mr. Guttman performed independent analyses of plant operating events, including regulatory responses to the TMI event. He was a member of the BWR Bulletins and Orders Task Force that reviewed the ramifications of the TMI-2 events for boiling water reactors. He reviewed and approved emergency operator procedures for PWR designs and performed quality assurance inspections. Mr. Guttman developed standard review plans for analyzing reactor transient and accident events, developed regulatory guidance and NUREG documents for implementing Risk-Informed In-Service Testing of Piping, and was on the task force for developing Risk-Informed regulatory guidance documents.

With respect to policy development, Mr. Guttman served as a technical assistant to Commissioner Forrest J. Remick. He advised Commissioner Remick on policy development of advanced nuclear power plants, operating reactor issues, research needs, and represented the Commission as an observer on INPO inspections.

Mr. Guttman is currently performing thermal and containment evaluations of spent nuclear fuel transportation and storage casks. His work includes the evaluation of normal, off-normal and accident dose analyses, and the adequacy of the thermal design of spent nuclear fuel casks.

PROFESSIONAL CHRONOLOGY: Jr. Engineer, Detroit Edison Co., Enrico Fermi Atomic Power Plant-I, 1972-73; Research Engineer, Idaho National Engineering Laboratory, 1975-1976; Nuclear Engineer, Office of Nuclear Reactor Regulation, NRC, 1976-1985; Technical Coordinator, Office of the Secretary, NRC, 1985-1990; Technical Assistant, Office of the Commission, NRC, 1990-1994; Sr. Reliability and Risk Assessment Engineer, Office of Nuclear Regulatory Research, NRC, 1994-1999; Sr. Nuclear Engineer, Office of Nuclear Material Safety and Safeguards, NRC, 1999-present.

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-ISFSI
)
(Independent Spent Fuel)
Storage Installation))

AFFIDAVIT OF PAUL W. LAIN

COUNTY OF MONTGOMERY)
) SS:
STATE OF MARYLAND)

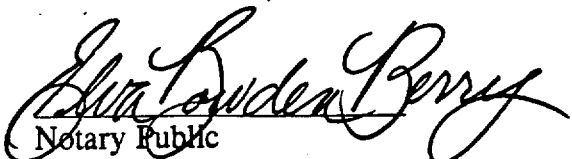
Paul W. Lain, having first been duly sworn, does hereby state as follows:

1. I am employed as a Fire Protection Engineer in the Fuel Cycle Licensing Branch, Division of Fuel Cycle Safety and Safeguards, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, in Washington, D.C. A statement of my professional qualifications is attached hereto.

2. I have reviewed the foregoing "First Supplemental Response" of the NRC Staff to the "State of Utah's First Set of Discovery Requests Directed to the NRC Staff," as they pertain to Utah Contention R (Emergency Planning), and verify that they are true and correct to the best of my information and belief.


Paul W. Lain

Sworn to before me this
13th day of July 1999


Notary Public

My commission expires: _____

ELVA BOWDEN BERRY
NOTARY PUBLIC STATE OF MARYLAND
My Commission Expires December 1, 1999

Paul W. Lain, P.E.
Statement of Professional Qualifications

Mr. Lain is a board certified professional engineer with more than 15 years of experience in fire protection engineering. He has held technical and project management positions for the U.S. Navy, Department of Energy (DOE), and the Nuclear Regulatory Commission (NRC). He has conducted inspections on aircraft carriers, battleships, plutonium and uranium manufacturing facilities, and a nuclear waste storage facility. He has conducted over 100 shipboard fire tests to test the effectiveness of smoke control systems onboard naval vessels. He was the fire protection expert on multiple Operational Readiness Reviews for DOE nuclear facilities. Mr. Lain authored the Fire Protection Chapter of the Standard Review Plan for NRC fuel cycle facilities, and conducted the fire protection review for the re-licensing of the Nuclear Fuel Services facility in Tennessee. Currently, Mr. Lain currently conducts all fire protection licensing reviews for fuel fabrication facilities licensed by the NRC.

EDUCATION

Bachelor of Science in Fire Protection Engineering from the University of Maryland, 1983
Master of Science in Fire Protection Engineering from Worcester Polytechnic Institute, 1996

PROFESSIONAL EXPERIENCE

From 1983 to 1991, Mr. Lain was a fire protection engineer for the Fire Protection Systems Branch of the Naval Sea Systems Command. He was the project manager for many research projects pertaining to fire protection onboard U.S. naval ships and submarines. He conducted over 100 large scale fire tests onboard the navy's test vessel USSX Shadwell, to determine the feasibility of active smoke control utilizing the existing shipboard ventilation system. He performed fire protection inspections and design reviews on a variety of naval vessels.

From 1991 to 1997, Mr. Lain was a fire protection engineer for the Division of Nuclear Material and Facility Stabilization at DOE. Mr. Lain was the fire protection subject matter expert for reviews of Safety Analysis Reports (SARs) at Rocky Flats Environmental Technology Site and Idaho National Engineering Laboratory, for Operational Readiness Reviews of F-Canyon, FB-Line, and the Inter Tank Processing facilities at the Savannah River Site, and the Fire Protection Vulnerability Review of Y12 and K25 facilities at Oak Ridge.

Since May of 1997, Mr. Lain has been a fire protection engineer for the NRC Office of Nuclear Materials Safety and Safeguards, in the Licensing and International Safeguards Branch. He conducts fire safety reviews for fuel cycle facilities licensed by the NRC and is the NRC project manager for the Siemens Power Corporation facility in Richland, Washington. Additional duties have included the development of the Fire Safety Chapter of the Standard Review Plan for fuel cycle facilities, inspection of Oak Ridge National Laboratory's Research and Engineering Development Center for the DOE Pilot Study, and inspection of the Gaseous Diffusion Plant at Paducah, KY.

MEMBERSHIPS

Mr. Lain is a member of the National Fire Protection Association (NFPA) and has served on several standards committees of the NFPA. He is a licensed professional engineer in the State of Maryland.

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-ISFSI

(Independent Spent Fuel
Storage Installation))

SUPPLEMENTAL AFFIDAVIT OF RANDOLPH L. SULLIVAN

COUNTY OF MONTGOMERY)

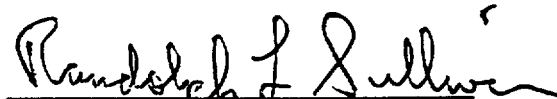
SS:

STATE OF MARYLAND)

Randolph L. Sullivan, having first been duly sworn, does hereby state as follows:

1. I am employed as an Emergency Preparedness Specialist, in the Operator Licensing, Human Performance, and Plant Support Branch, Division of Inspection Program Management, Office of Nuclear Reactor Regulation, U.S. Nuclear Regulatory Commission, in Washington, D.C. A statement of my professional qualifications is attached hereto.

2. I have reviewed the foregoing "First Supplemental Response" of the NRC Staff to the "State of Utah's First Set of Discovery Requests Directed to the NRC Staff," as they pertain to Utah Contention R (Emergency Planning), and verify that they are true and correct to the best of my information and belief.


Randolph L. Sullivan

Sworn to before me this
13th day of July 1999


Notary Public

My commission expires:
ELVA BOWDEN BERRY
NOTARY PUBLIC STATE OF MARYLAND
My Commission Expires December 1, 1999

Randolph L. Sullivan
Statement of Professional Qualifications

Mr. Sullivan is a board certified health physicist with more than 25 years of experience in emergency preparedness and radiological protection. He has held senior technical and managerial positions within the commercial nuclear industry and the Federal Government. His expertise includes health physics, technical hazards assessment, engineering and emergency preparedness. He has provided consulting assistance to more than 12 commercial nuclear utilities and several private firms. He has performed on projects for Department of Energy prime contractors. His experience in private industry has included responsible management and technical staff positions. He managed a full-scope nuclear power plant emergency preparedness program and was the Project Manager on the startup of an emergency preparedness program. As a Radiation Specialist at the Nuclear Regulatory Commission, he inspected commercial nuclear power plants, large byproduct-material licensees, a waste disposal site, and a fuel fabrication facility. Mr. Sullivan currently is an Emergency Preparedness Specialist with the Nuclear Regulatory Commission.

EDUCATION

B.S. Engineering Science, Illinois Institute of Technology
U.S. Atomic Energy Commission, Reactor Health Physics Training Courses

BACKGROUND

At U. S. Nuclear Regulatory Commission, he is an Emergency Preparedness Specialist, performing licensing activities for nuclear licensees.

At Advanced Technologies and Laboratories, Inc. he was a consultant to DOE, supporting the Office of Environmental Management in the assessment of LLW disposal site radiological capacity, the Office of Environment, Safety and Health (ES&H) in the development of professional level Radiation Protection training programs and the Office of Emergency Management in the assessment of demonstration exercises and the development of performance measurements. He assisted the Waste Isolation Pilot Plant site in the conduct of emergency management exercises during their Operational Readiness Review and in the mentoring of Emergency Preparedness staff.

At Program Management Inc., Mr. Sullivan provided technical support to DOE's Office of Environment, Safety and Health in radiation protection standards and policy development. He supported the development of an Environmental Assessment for amendments to 10 C.F.R. Part 835 "Occupational Radiation Protection" and finalization of Revision 2 to the DOE Radiological Control Manual.

At Natural and Technical Hazards Management Inc.(NTHMC), Mr. Sullivan developed emergency action levels for the Power Burst Facility and the Test Area North at Idaho National Engineering Laboratory. This included detailed efforts to assess radiological and toxic chemical hazards.

At mbs Consulting Partners, Mr. Sullivan was the Chief Partner of this consulting group, which provided custom dose projection software to seven nuclear power plant sites. The software

implemented the new 10 C.F.R. Part 20 and EPA 400 regulations. mbs was also the American distributor for the Safe Training System, a chemical and radiological contamination simulation system.

At GPU Nuclear, Mr. Sullivan was the Oyster Creek Nuclear Generating Station Emergency Preparedness Manager, responsible for a full scope Emergency Preparedness (EP) program and a staff of senior technical personnel. He implemented numerous improvement projects leading to the only NRC rating of SALP-1 at this site for several reporting periods. He established a "state of the art" Technical Support Center including automated data projection systems and an online dose projection system. He upgraded and standardized training programs to minimize student time while maximizing training impact by the use of case studies and hands on testing. He developed numerous drill/ exercise scenarios, conducted the associated critiques and assigned corrective actions. Mr. Sullivan critiqued over 20 actual emergency events, assigning corrective actions where appropriate and presenting findings to Management and NRC. He was responsible for extensive interface with State and local officials in the implementation of supportive emergency plans as well as conducting media briefings and responding to media inquiries. He was responsible for all NRC interface for emergency preparedness. He participated in Institute for Nuclear Power Operations EP assessments at nuclear plant sites and was requested to critique several exercises at neighboring power plants. Mr. Sullivan was selected as Secretary of the Site Management Team, a senior level committee created to foster a culture of excellence. He managed engineering, technical and craft personnel during the 15R outage as the Turbine Building Manager.

At Hydro Nuclear Services, Mr. Sullivan provided health physics audit and consulting services to Nuclear Pharmacy Inc., a large byproduct-material licensee. He supported several emergency preparedness and health physics projects for nuclear power plants.

At Impell Corporation, Mr. Sullivan was Project Manager for an emergency preparedness startup and licensing effort at a nuclear power plant. He managed a group responsible for the development of a unique simulator-based training and drill program. He trained and coached executive and senior management personnel through a successful first exercise.

At Allen Nuclear Associates, Mr. Sullivan was part of a technical staff performing the start-up of a full scope nuclear plant health physics program. He assisted in the development of the emergency preparedness program and the ALARA program. He performed management analysis for the selection of appropriate staff for senior emergency plan positions.

At Quadrex Corporation, Mr. Sullivan was Manager of Health Physics Services, responsible for multiple projects including preparation of emergency plans and procedures, nuclear plant decommissioning, accident analysis, diffusion modeling, environmental monitoring, and the Systematic Evaluation Program for two power plants. He participated in the assessment of the General Atomic Fusion Reactor and supported the Hanford Tank Farm remediation project. He performed a hazards assessment in support of the startup of the Loss of Flow Test Facility at INEL.

While with the NRC (in the 1970s), Mr. Sullivan was responsible for the regulation and inspection of Health Physics and Emergency Preparedness programs at nuclear plants, research reactors, a fuel fabrication facility, hospitals, universities, and large industrial byproduct-material licensees.

As a Health Physics Technician at the University of Illinois, Mr. Sullivan routinely inspected over 100 medical research labs, developed procedures, shipped rad-waste, implemented a TLD system, and supported radiation therapy dosimetry.

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-ISFSI
)	
(Independent Spent)	
Fuel Storage Installation))	

CERTIFICATE OF SERVICE

I hereby certify that copies of "NRC STAFF'S FIRST SUPPLEMENTAL RESPONSE TO 'THE STATE OF UTAH'S FIRST SET OF DISCOVERY REQUESTS DIRECTED TO THE NRC STAFF'" in the above captioned proceeding have been served on the following through deposit in the Nuclear Regulatory Commission's internal mail system, or by deposit in the United States mail, first class, as indicated by an asterisk, with copies by electronic mail as indicated, this 13th day of July, 1999:

G. Paul Bollwerk, III, Chairman
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555
(E-mail copy to GPB@NRC.GOV)

Dr. Jerry R. Kline
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555
(E-mail copy to JRK2@NRC.GOV)

Dr. Peter S. Lam
Administrative Judge
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555
(E-mail copy to PSL@NRC.GOV)

Atomic Safety and Licensing Board Panel
U.S. Nuclear Regulatory Commission
Washington, DC 20555

Office of the Secretary
ATTN: Rulemakings and Adjudications Staff
U.S. Nuclear Regulatory Commission
Washington, DC 20555
(E-mail copy to:
HEARINGDOCKET@NRC.GOV)

Office of the Commission Appellate
Adjudication
Mail Stop: 16-C-1 OWFN
U.S. Nuclear Regulatory Commission
Washington, DC 20555

James M. Cutchin, V
Atomic Safety and Licensing Board
U.S. Nuclear Regulatory Commission
Washington, DC 20555
(by E-mail to JMC3@NRC.GOV)

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Salt Lake City, UT 84101
(E-mail copy to quintana@Xmission.com)

Jay E. Silberg, Esq.*
Ernest Blake, Esq.*
Paul A. Gaukler, Esq.*
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& Eisenberg, L.L. P.
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Richard E. Condit, Esq.*
Land and Water Fund of the Rockies
2260 Baseline Road, Suite 200
Boulder, CO 80302
(E-mail copy to rcondit@lawfund.org)



Sherwin E. Turk
Counsel for NRC Staff