

Mr. John D. Parkyn
 Chairman of the Board
 Private Fuel Storage, L.L.C.
 P.O. Box C4010
 La Crosse, WI 54602-4010

December 18, 1998

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION (TAC NO. L22462)

Dear Mr. Parkyn:

The staff of the Nuclear Regulatory Commission (NRC) has reviewed Private Fuel Storage, L.L.C.'s (PFS's) environmental and safety analysis reports submitted in connection with your June 20, 1997, license application to construct and operate an independent spent fuel storage installation located on the reservation of the Skull Valley Band of Goshute Indians. As specified in 10 CFR 51.29, "Scoping - Environmental Impact Statement," the NRC staff performed an evaluation to determine the scope of the environmental impact statement (EIS) and identify the significant issues to be analyzed in depth. The scoping report was issued September 1998. Based on the staff's review of PFS's environmental and safety analysis reports and comments from the scoping process, additional information is needed for the preparation of a draft EIS.

The request for additional information (RAI) is enclosed. Our review schedule requires that you provide us the additional information within 60 days of the date of this letter. If you are unable to meet this schedule, please contact us as soon as possible. The NRC staff is also prepared to meet with PFS, either in person or via teleconference, to discuss this RAI.

If you have any comments questions regarding this request, please contact me at (301) 415-3207 or Mr. Mark Delligatti at (301) 415-8518.

Sincerely,

ORIGINAL SIGNED BY /s/

Francis Young, Senior Project Manager
 Licensing and Inspection Directorate
 Spent Fuel Project Office
 Office of Nuclear Material Safety
 and Safeguards

Docket No.: 72-22

Enclosure: Request for Additional Information

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Private Fuel Storage

cc:

Mr. John D. Parkyn
Chairman of the Board
Private Fuel Storage, L.L.C.
P. O. Box C4010
La Crosse, WI 54602-4010

Mr. Scott Northard
Project Manager
Private Fuel Storage, L.L.C.
c/o NSP, 414 Nicollet Mall, RS&
Minneapolis, MN 55401

The Honorable Michael O. Leavitt
Governor of Utah
Salt Lake City, UT 84114-0601

The Honorable Leon D. Bear, Chairman
Skull Valley Band of Goshute Indians
P. O. Box 150
Grantsville, UT 84029

Mr. Jack Gerard
McClure, Gerard and Neunschwander
201 Maryland Avenue, NE
Washington, DC 20002

Dr. Dianne R. Nielson, Executive Director
Department of Environmental Quality
State of Utah
168 North 1950 West
P. O. Box 144810
Salt Lake City, UT 84114-4810

Mr. G. William Lamb, State Director
Bureau of Land Management
United States Department of the Interior
Utah State Office
P.O. Box 45155
Salt Lake City, UT 84145-0155

Mr. David L. Allison, Superintendent
Bureau of Indian Affairs
Uintah and Ouray Agency
P.O. Box 130
Fort Duchesne, UT 84026

OGC LIST OF THIRD PARTIES FOR CERTIFICATE OF SERVICE

Jay E. Silberg, Esq.
Shaw, Pittman, Potts & Trowbridge
2300 N Street, NW
Washington, DC 20037-8007

Joro Walker, Esq.
Land and Water Fund of the Rockies
165 South Main, Suite 1
Salt Lake City, UT 84111

Clayton J. Parr, Esq.
Parr, Waddoups, Brown, Gee & Loveless
185 S. State St., Suite 1300
P.O. Box 11019
Salt Lake City, UT 84147-0019

Michael M. Later, Esq.
Parr, Waddoups, Brown, Gee & Loveless
185 S. State St., Suite 1300
P.O. Box 11019
Salt Lake City, UT 84147-0019

John Paul Kennedy, Sr., Esq.
1385 Yale Ave.
Salt Lake City, UT 84105

Danny Quintana, Esq.
Danny Quintana & Associates, P.C.
50 West Broadway
Fourth Floor
Salt Lake City, UT 84101

Denise Chancellor, Esq.
Fred G. Nelson, Esq.
160 East 300 South, 5th Floor
P.O. Box 140873
Salt Lake City, UT 84114-0873

Connie Nakahara, Esq.
Utah Dept. of Environmental Quality
168 North 1950 West
P.O. Box 144810
Salt Lake City, UT 84114-4810

Diane Curran, Esq.
Harmon, Curran & Spielberg
2001 "S" Street, NW
Suite 430
Washington, DC 20009

Professor Richard Wilson
Department of Physics
Harvard University
Cambridge, MA 02138

Martin Kaufman, Esq.
Atlantic Legal Foundation
205 E. 42nd Street, 9th Floor
New York, NY 10017

**REQUEST FOR ADDITIONAL INFORMATION SUPPORTING THE ENVIRONMENTAL
IMPACT STATEMENT FOR THE PROPOSED PRIVATE FUEL STORAGE, L.L.C.
FACILITY ON THE RESERVATION OF THE SKULL VALLEY BAND OF GOSHUTE INDIANS**

This document, titled Request for Additional Information (RAI) contains a compilation of additional information requirements identified to date by the U.S. Nuclear Regulatory Commission (NRC) staff, for preparing the Environmental Impact Statement (EIS) on the proposed Private Fuel Storage Facility (PFSF) on the Reservation of the Skull Valley Band of Goshute Indians located in Tooele County, Utah. The information requested is based on the general requirements for preparing an EIS in Section 102(2)(C) of the National Environmental Policy Act of 1969, as amended (NEPA), NRC's NEPA regulations (10 CFR Part 51), NRC regulations for licensing independent spent fuel storage installations (ISFSI) (10 CFR Part 72), and the Council on Environmental Quality Regulations for Implementing the Procedural Provisions of NEPA (40 CFR Parts 1500–1508). The requested information is needed in sufficient detail in order to support the staff's independent environmental impact analysis of the proposed project and alternatives.

Citations to relevant NRC regulatory requirements are included for each of the following sections. References to the Environmental Report (ER) and safety analysis report (SAR) are to those versions provided to NRC in June 1997. References to ER Revision 1 reflect the revised ER provided to NRC in September 1998.

1. TRANSPORTATION

The EIS must assess the potential transportation impacts. The following RAI items are identified in accordance with 10 CFR 51.41, 51.45, 51.61, 51.71, 51.80(b)(1), and 72.108.

- 1-1 Provide sufficient information to perform the RADTRAN analysis of the cumulative impacts of spent fuel transportation in the vicinity of the proposed facility during the entire license term, including shipments to and away from the facility. The response should include the following information:
- a. Discuss whether operators of individual reactors in the PFSF consortium will ship single or multiple casks and whether cask shipments will be grouped together in more than one shipment at various locations before arriving at Low or Timpie.
 - b. If shipments will be grouped together at various locations, describe in detail these operations and how they will affect the transportation analysis.
 - c. Describe Private Fuel Storage, L.L.C. (PFS's) plans for rail shipment to the PFSF to provide information for assessing the impacts of these shipments.
 1. Include in the discussion details of whether PFS will own a locomotive and operate trains over the rail spur into the PFSF or will contract with the Union Pacific (UP) or other carrier to operate over the spur and deliver casks to the site.

2. If UP or another carrier delivers cars to the PFSF, state whether or not the PFSF will have a mechanism (e.g., a small pusher vehicle) to move individual cars in their switching yard.
 3. Conversely, if heavy haul trucks are used, state whether or not a switch engine (or pusher) will be available at the intermodal transfer site to move and position rail cars.
- d. Quantify the average number of rail shipments (trains) per year to the PFSF.

Include the number of casks on any one train coming into Utah (if this varies, what is the average over the lifetime of the license term).
 - e. Describe all aspects of the rail shipments over the lifetime of the license term.
 - f. Provide the physical, chemical, and radiological descriptions for all the materials being shipped (e.g., the average curie levels of all significant radioactive isotopes in the spent fuel at the time of shipment).
 - g. Provide the average expected dose rate in mrem/hr at a distance of 1 m from the cask surface during the shipment. Also provide the rationale for the estimate.
 - h. Provide the burnup (in MWd/MT) of the spent fuel in the cask and average cooling time after discharge from the reactor at the time of shipment.
- 1-2 Describe the proposed rail and highway vehicles that would be used to transport the storage casks to the site.

Provide the number of these vehicles to be utilized, the turning radius of the vehicle, the parking location of the vehicle when not in use, and the location of the vehicle maintenance activities.
- 1-3 Provide a copy of PFS's comprehensive Plan of Development (POD) for the railroad spur and transfer site, requested by BLM to facilitate its review of PFS's rail spur right of way application.

2. UTILITIES AND INFRASTRUCTURE

The EIS must assess facility construction and operation impacts. The following information is needed on the utilities and infrastructure necessary to construct and operate the PFSF. These RAI items are identified in accordance with 10 CFR 51.41, 51.45, 51.61, 51.71, 51.80(b)(1), and 72.122(k).

- 2-1 Describe the site utility service (i.e., electric, gas, telephone, water, waste).
 - a. Include a discussion of electrical power distribution, power line construction, electric utility and telephone lines, switching stations, pipelines for water and natural gas, backup electric generation facilities, and sewage treatment facilities.

- b. Include figures/maps indicating the location of such lines and facilities.

This information is needed to complete the EIS assessment of the impacts of facility operation on local utilities and of construction impacts on the areas where these will be located.

- 2-2 Provide information on the anticipated average daily electricity consumption for the proposed facility.
- 2-3 Clarify information provided in Figure 2.1-2, "Site and Access Road Location Plan," that supports the EIS surface water hydrology analysis, as follows:

There are features shown in ER Figure 2.1-2 that are outside the security fences and perimeter road extending east and west from the retention basin to the north corners and south for 900 or more feet. It is not clear whether or not these features are berms or ditches. Describe what these features are and the function they serve.

- 2-4 Provide the locations, dimensions, emissions, and possible effects on the surrounding area of the concrete batch plant and the asphalt plant in sufficient detail to support the EIS.

3. DECOMMISSIONING

The EIS must assess the potential environmental impacts of decommissioning. The following RAI items are identified in accordance with 10 CFR 51.41, 51.45, 51.53(d), 51.60(a), 51.60(b)(4), 51.61, 51.71, 51.80(b)(1), 72.98(b), 72.100(a), and 72.130.

- 3-1
 - a. If the concrete pads are removed following the cessation of operations, provide the number of truckloads required to remove the concrete storage pads to a landfill, and the general location thereof.
 - b. Describe the future of the buildings associated with the PFSF.

The disposition of the facility after decommissioning is not specified, although it is suggested that the site might be retained for future industrial activities.

4. RESOURCES NEEDED FOR CONSTRUCTION

The EIS must assess the potential impacts of gathering the materials that would be used for the construction of the proposed PFSF. The following RAI items are identified in accordance with 10 CFR 51.41, 51.45, 51.61, 51.71, 51.80(b)(1), and 72.98.

- 4-1 Assess the potential off-site environmental impacts associated with obtaining aggregate and soil.

It is expected that the proposed facility would use large amounts of crushed aggregate. The assessment should include the sources and quantities needed and the plans for

excavated and excess soil (e.g., location placement on-site or off-site, the areas that would be covered by soil, and disturbed area restoration).

5. NEED FOR THE FACILITY

The EIS must clearly define the benefits, including the purpose of and need for, the proposed facility. The following RAI items are identified in accordance with 10 CFR 51, Appendix A to Subpart A—Format for Presentation of Material in Environmental Impact Statements, item 4.

- 5-1 Justify and describe in detail each PFS member utility's need for the PFSF based on the four reasons listed in ER Section 1.2.
- 5-2 For each of the PFS member utilities, provide the current and anticipated spent fuel storage data.
 - a. State the storage capacity needed or projected for the nuclear power plants owned by each of the eight member utilities.
 - b. If the estimated storage needs do not account for the total 40,000 metric tons of uranium of spent fuel capacity specified in the license application, provide a detailed rationale as to why the facility is being designed to accommodate 40,000 metric tons of storage.
 - c. Provide an estimate of the amount of mixed-oxide fuel to be stored at the PFSF, identify which utility owns this mixed-oxide fuel, and provide the utility's history of use and possession of this fuel.

6. ALTERNATIVES

The EIS must address reasonable alternatives to the proposed action. The applicant has discussed its site selection process in the ER, but additional information is needed to present an adequate analysis comparing the impacts of the alternatives. The following RAI items are identified in accordance with 10 CFR 51.45(b)(3), 51.70(b), 51.71(a), 51.71(d), and Appendix A to Subpart A-Format for Presentation of Material in Environmental Impact Statements, item 5.

- 6-1 a. Provide sufficient information to support the EIS alternatives analysis of building the facility on the adjacent Skull Valley Reservation site.

The ER identifies two alternative site locations for the PFSF on the Skull Valley Reservation. Because no site-specific information is provided for the alternate site, other than a general statement that the two sites are similar, provide a description of the characteristics of the alternative site.

- b. Include information on geology and soils, ecology, ground water, surface water, and any other subjects, as appropriate. In addition, provide a discussion on the differences between the preferred site and the alternate site, and why the preferred site was selected.

- 6-2
 - a. Provide sufficient information to evaluate the comparative environmental costs and benefits of the Fremont County site alternative.
 - b. Provide additional information on the Fremont County Site Alternative.

Include information on air quality, geology, ecology, ground water, surface water, socioeconomics and any other appropriate subjects to describe the site and develop a comparative assessment of impacts for this alternative.
 - c. Document the reasons why the Skull Valley site was selected over the Fremont County site. The level of detail of the response should correspond with the potential significance of the impacts.
- 6-3 Provide sufficient information to support the EIS alternatives analysis, including expanding storage at each of the PFS consortium members' reactor sites (including pool expansion or dry cask ISFSIs).
 - a. Provide a list of reactor sites indicating the amount of storage currently available and projections as to when the storage capacity would be exhausted.
 - b. Explain which of the PFS consortium members' reactors would need to shut down prior to the end of their useful life if the no-action alternative were selected.
 - c. Provide the PFS consortium members' rationale for storage at the PFS ISFSI rather than pursuing other spent fuel technologies (pool expansion or dry cask storage) at the reactor sites, including information on the costs/benefits, any differences compared to the proposed action in impacts to natural resources, differences in transportation, and any other relevant considerations.

7. AIR QUALITY

The EIS must assess the potential air quality impacts from constructing and operating the proposed facility. The following RAI items are identified in accordance with 10 CFR 51.41, 51.45, 51.61, 51.71, 51.80(a), 72.90(e), and 72.98(b).

- 7-1
 - a. Provide a list of assumptions, methods, and estimates of air quality impacts for construction of the rail spur.
 - b. State whether or not the locomotive mentioned on SAR page 3.3-9 would be dedicated to the facility to move on-site cars around.
 - c. Identify the fuel the locomotive would use.
 - d. Discuss the plans for limiting the locomotive fuel tank size to prevent the possibility of fires.
 - e. Discuss the emissions which would be expected from the locomotive.

- 7-2 Provide a list of assumptions, methods, and estimates of air quality impacts for the construction of the intermodal transfer building.

Assumptions would include information such as items a–d listed in RAI item 7-1.

The applicant must provide sufficient information to support the EIS air quality analysis for the truck transportation option.

- 7-3 Provide air quality data for the PFSF site, if available. Alternatively, explain why the use of data in Table 2.4-9 of the ER is appropriate for the PFSF site. To the extent that such data are not available or predictive of site air quality conditions, provide information for the generating facilities, including:

- a. The geographical coordinates and emissions rates of facilities that may contribute to air quality impacts in the affected area.
- b. Specifics of the releases from these facilities.

Include stack height, stack inside diameter, exit velocity, exit temperature, and dimensions of adjacent buildings if the stack is less than Good Engineering Practice stack height.

- 7-4. Provide an update to Table 6.1-2 of the ER to reflect meteorological data for a twelve month period. Describe the effect, if any, this data has on the meteorological discussion in Chapter 2 of the ER.

8. GEOLOGY AND HYDROLOGY

The EIS must assess the potential impacts on geology and hydrology from constructing and operating the proposed facility. The following RAI items are identified in accordance with 10 CFR 51.41, 51.45, 51.61, 51.71, 51.80(a), 72.90(b), (e), and (f), 72.98, 72.100, and 72.122.

- 8-1 a. Provide a quantitative estimate of the extent to which construction and operational groundwater use will affect the groundwater resources and off-site groundwater users (current and reasonably foreseeable future users) in the Skull Valley area, including Dugway Proving Grounds, surrounding ranches, etc.

The estimate should be based on the amount of water withdrawn on site, recharge capacity of the aquifer, locations and elevations of off-site wells, and water needs of other water users.

- b. Analyze the cumulative impacts of all users on the groundwater resources, which should be sufficient to support an EIS groundwater hydrology analysis.

- 8-2 Provide any additional information concerning seismic and hydrologic conditions of the site and its immediate vicinity available from the U.S. Geological Survey.

- 8-3
 - a. Explain why the probable maximum flood (PMF) calculation in the license application identifies a drainage area of 26 miles, rather than a larger area (e.g., 240 square miles) and discuss the potential effects of runoff.
 - b. Indicate where the proposed natural drainage system is located.
 - c. Provide the basis for the statement on page 4.5-1 that localized aquifer drawdown from facility water use "is not expected to have any effects on adjacent water users."

9. LAND AND WATER USE

The EIS must assess the potential impacts on land and water use from constructing and operating the proposed facility. The following RAI items are identified in accordance with 10 CFR 51.41, 51.45, 51.61, 51.71, 51.80(a), 72.90(e), and 72.98(c)(2).

- 9-1 Describe the current use of the proposed site and its immediate surroundings. The response should include the following information:
 - a. Estimated recreational use and visits to Skull Valley.
 - b. Estimated number of hiker and skier visits to Mount Deseret.
- 9-2
 - a. Provide local planning documents for the county and any specific land use plans for the area surrounding the proposed site and transportation corridor.

These plans should provide information that describe the existing environment and whether the proposed site and transportation corridor would be consistent with the area's planned development.
 - b. Provide any plans for economic development by the Skull Valley Band of Goshute Indians, as well as any other planning documents related to the county's future development, such as comprehensive plans and population projections. This information will support the EIS cumulative impact analysis concerning land use.

Information should be sufficient to support the EIS assessment of impacts of the proposed project on land use in general and on other developments currently being planned in the area.
- 9-3 Report the current zoning of the Low corridor rail spur and Intermodal Transfer Point properties and the zoning that would be needed for the proposed project alternatives (i.e., rail spur or intermodal options).

Paragraph one on page 9.4-1 of ER Revision 1, states that a zoning change will be required for the Low corridor rail spur or Intermodal Transfer Point.
- 9-4
 - a. Describe current water use and projections for new water use (e.g., irrigation and drinking water) in Skull Valley.

- b. Describe projected water use for all phases of the project, including construction, operation, and decommissioning.
- c. Support the conclusion in the ER that the area water supply would not be adversely impacted by the proposed project (include water use considerations for construction, operation, and decommissioning of the proposed facility).

10. ECOLOGICAL RESOURCES

The EIS must assess the potential impacts on ecological resources from constructing and operating the proposed facility. The following RAI items are identified in accordance with 10 CFR 51.41, 51.45, 51.61, 51.71, 51.80(a), 72.90(e), and 72.98(b).

- 10-1
- a. Provide a copy of the Stone & Webster Engineering Corporation 1997 reference, including the photographs and video tape taken during project site visits in June and October 1996 and February 1997.
 - b. Provide the written results and documentation from surveys performed either by or for the applicant in May and June 1998.
 - c. For Low, Utah, provide maps equivalent to those provided for the Rowley Junction site (e.g., ER Figures 2.3-8 and 2.3-9).

Context should include area beyond the 0.5 mile buffer zone, as was done in the maps in the ER for the corridors, by including information on the surrounding area (i.e., how they are situated relative to principal land features of the general area).

- d. Provide the additional ecological information on the Low corridor from the Utah Division of Wildlife Resources (UDWR) that is mentioned on page 2.3-31, last sentence of Section 2.3.3.
- e. Provide a map showing the locations of the springs listed in Section 2.3.2.3 of ER Revision 1.
- f. Regarding the Horseshoe Knolls overlook and campground located across the road from Horseshoe Springs, explain the extent to which this is a developed recreational area (include a discussion of how much the area is used).
- g. Provide survey results of the 1996 and 1997 United States Forest Service (USFS) surveys for spotted bats.

On the last paragraph of page 2.3-18 of ER Revision 1, there is mention of 1996 and 1997 surveys for spotted bats. Evidently, these surveys were planned to be carried out by the USFS. Provide the results of both the 1996 and 1997 surveys, if available.

- h. Provide the location and a map of the large mudflat at the base of the Stansbury Mountains.

In the last sentence of the second paragraph on page 2.6-3 of ER Revision 1, it is noted that a large mudflat fed by springs is present along the base of the Stansbury Mountains. Discuss whether animal species dependent on these mudflat areas may also use other surrounding parts of Skull Valley, including the project site and the railroad spur corridor.

- i. Provide the results of the comprehensive wildlife survey described in paragraph 4.4-3 of ER Revision 1. The survey should include the Skull Valley pocket gopher and other appropriate animals.

In the third paragraph on page 4.4-3 of ER Revision 1, it is stated that “a comprehensive wildlife survey *should* be conducted.”

- 10-2 a. Provide raptor data for Skull Valley.

Raptors (i.e., birds of prey including eagles, hawks, and owls) are one of the most important wildlife groups to be considered in the EIS ecological analysis.

- b. Provide the locations and a map of the nest locations of burrowing owls and Swainson’s, red-tailed, and ferruginous hawks in Skull Valley.

Table 2.3-3 of ER Revision 1, *Raptor Nest Site Locations*, lists nest sites. Some or all of these sites may be in proximity to the proposed railroad spur, the PFSF, Timpie, and the Skull Valley Reservation.

- 10-3 Provide any recent wildlife survey information from the Bureau of Land Management, Bureau of Indian Affairs, Utah Division of Wildlife Resources (UDWR), and the Skull Valley Band of Goshutes relevant to the proposed project. Include the information from UDWR which is listed as pending on page 2.3-31, Section 2.3.3, of ER Revision 1.

- 10-4 Provide information on all plant or animal species found in Skull Valley which are proposed candidate species for designation as either threatened or endangered pursuant to the Endangered Species Act (ESA), that have not already been discussed in the ER or referenced information.

The ER discusses at least one candidate bird species (the mountain plover) in Section 2.3.1.4.2, but there is no mention of candidate or proposed plant species in Section 2.3.1.4.1.

Candidate species are the pool of species from which future listings are normally drawn. Although only species listed by the U.S. Fish and Wildlife Service (FWS) as threatened or endangered receive the full protection of the ESA, the FWS encourages federal agencies to consider the presence of candidate species in planning proposed actions.

- 10-5 a. Provide information on protection measures recommended by the State of Utah for species that are identified by the state as “high interest.”

- b. Clarify the distinction between Utah's designations of "high interest" and "species of concern" in terms of whether they receive different levels of protection. Provide sufficient information to support the EIS analysis of state-listed species.

- 10-6 a. Support the statement on page 2.3-12 of ER Revision 1 (attributed to a letter A. Stephenson to S. Davis) that the Pohl's milkvetch "is endemic to Rush and Skull Valleys, although previously it has never been recorded."

Provide a map showing the nearest known locations of these species to the proposed PFSF site.

- b. Provide information for the big saltbrush in ER Table 2.3-2 similar to that provided for other species.

Big saltbrush is not included in Table 2.3-2 of ER Revision 1, although it is discussed in the text.

- c. Explain the reasons for not including small spring parsley in the survey for high interest species.

Page 4.1-4 of the ER indicated that a survey for high interest plant species before construction would include the small spring parsley. However, this plant is not mentioned in ER Revision 1, which only mentions surveys for Pohl's milkvetch.

This information is needed in sufficient detail to support the EIS rare plant analysis.

- 10-7 a. Describe the potential impact of promoting additional non-native vegetation over native vegetation in areas disturbed by construction and operation.
- b. Provide information and references on natural vs. active revegetation in the region after construction, as mentioned on page 4.1-3 of ER Revision 1.
- c. Provide an evaluation of the potential impacts to the native and non-native plant habitats in Skull Valley as the result of fires.

Since much non-native vegetation is found in the area (e.g., cheatgrass), allowing areas disturbed during construction and operation to revegetate "naturally" could result in an adverse impact of promoting additional non-native vegetation rather than native vegetation growing there. The probability of this occurring cannot be determined without more information on regional revegetation patterns after construction.

- 10-8 a. Analyze the extent to which the proposed facility would attract wildlife to the facility (e.g., use of buildings, light poles, or cask vents for perching or nesting, attraction of predators to the lights, attraction of wildlife to the vicinity of the casks during winter for warmth, or other wildlife uses of the facility).
- b. Document what the potential radiological doses to wildlife could be and discuss the potential impact of such doses to individuals and populations.

An issue raised during the scoping meeting concerned animals possibly being close to the casks for long periods of time and, thereby, being exposed to potentially unacceptable long-term doses of radiation. Provide sufficient information on which to base an EIS analysis of this potential ecological impact.

- 10-9 Provide information concerning potential impacts to wetlands due to the construction and operation of the proposed Intermodal Transfer Point.

After visual inspection of the proposed Intermodal Transfer Point at Timpie, Utah, it appears that the proposed location may be located in an area that is flooded periodically.

Information should be sufficient to support the EIS wetlands analysis.

11. SOCIOECONOMIC EFFECTS

The EIS must assess the potential impacts on socioeconomic resources from constructing and operating the proposed facility. The following RAI items are identified in accordance with 10 CFR 51.41, 51.45, 51.61, 51.71, 51.80(a), 72.90(e), and 72.98(b). In addition, 40 CFR 1508.8 requires that the staff assess cultural, economics and social effects, in addition to physical and biological effects. This regulation states that, "effects may also include those resulting from actions which may have both beneficial and detrimental effects, even if on balance the agency believes that the effect will be beneficial." The requests in this section are intended to support the staff's independent assessment of such effects for the proposed ISFSI at Skull Valley.

- 11-1 Assess the effects the lease payments would have on the community of Skull Valley Band members living on the reservation; on potential social, educational, and economic development of the reservation; and the welfare of the Band members who live in other communities.

This information is needed to complete the socioeconomic analysis for the EIS.

- 11-2 For the following items, include a discussion of significant differences, if any, between members who live on the reservation and those who live in communities off the reservation.

Describe the education, income levels, location, health, etc. of the Skull Valley Band, including any characteristics that would distinguish the Band members from the general population, including the following:

- a. Explain the extent to which Band members who live off the reservation return to the reservation for regular visits, cultural and/or religious activities, or have other connections to the reservation land.
- b. Explain whether those members living off the reservation would be likely to move to the reservation if there were equivalent or other economic opportunities on the reservation or whether residents of the reservation would be likely to leave if the

construction of the facility is approved. This information is needed to ascertain whether lease payments would be likely to result in inducing people to move onto the reservation or to leave it.

- c. Provide any available information on criteria or restrictions that the Band applies in deciding whether to allow persons to reside and/or operate a business on the reservation.

To perform its independent evaluation as required by 10 CFR 51.41, the staff needs specific information about the socioeconomic conditions of the Skull Valley Band of Goshutes.

- 11-3 Provide sufficient information to support the EIS assessment of impacts on local schools from the construction and operation workforce moving into the area.

- a. Describe the school systems (school by school) for Tooele County and for the English Village on Dugway Proving Grounds and any plans or need for future expansion to meet projected enrollments.
- b. Discuss which schools are likely to be affected by in-movers due to construction and operating labor force—for instance, the distribution of school children of other workers in the area (e.g., the rocket testing facility), and describe the nature and extent of those impacts.

- 11-4 Provide recent traffic counts for routes to and from the proposed facility.

The Average Daily Traffic count for Skull Valley Road is given in the ER (page 2.8-1). Additional traffic counts or other usage data should be provided for roads that could be used during construction and operation and commuting and trucking to and from the PFSF site, including I-80, SR 199, SR 138, SR 112, and SR 36.

- 11-5 Discuss provisions, if any, that would be implemented under the truck transport option to manage traffic flow and minimize risk of accidents.

The effects of construction and operation on traffic are addressed in ER Section 4.1.7. However, there is no discussion of the special problems posed by the truck transport option involving the possible use of 150-foot-long or other wide-turn radius vehicles that might be used to transport casks. Assess the potential traffic problems posed by truck transport of spent fuel to and from the facility.

- 11-6 Provide a map depicting the location of Eight Mile Spring Road, mentioned on ER page 4.4-8. Because this road is said to be used by many people, its location is important in assessing the potential traffic impacts of the proposed project.

- 11-7 Assess the social and economic impacts to the residents of Skull Valley who are not Band members.

- a. Describe and quantify the employment of (1) Band members and (2) non-Band members, in ranching and agricultural activities, at the Alliant Techsystems static

rocket engine test facility, the Pony Express store, and any other places of employment. Report the extent to which people employed in these and other enterprises in Skull Valley live in the valley or commute from other communities.

- b. Report the extent to which residents of Skull Valley are employed in other communities.

12. CULTURAL RESOURCES

The EIS must assess the potential impacts on cultural resources from constructing and operating the proposed facility. The following RAI items are identified in accordance with 10 CFR 51.41, 51.45, 51.61, 51.71, 51.80(a), 72.90(e), and 72.98(b). In addition, 40 CFR 1508.8 calls for an assessment of potential effects on historic, cultural, and aesthetic resources, whether direct, indirect, or cumulative; and 40 CFR 1508.27(b)(8) calls for examination of the extent to which an action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historic resources. Various Federal statutes may also require consideration of other specific Native American concerns.

- 12-1 Provide any documentation, including copies of communications (formal or informal), regarding cultural resources that have occurred between the applicant and the Utah State Historic Preservation Office and/or the Skull Valley Band of Goshutes, that was used to reach the conclusion in the ER that “no impact on known historic, architectural, or cultural features will occur as a result of facility construction.”

Sufficient documentation and/or consultation, pursuant to Section 106 of the National Historic Preservation Act, must be provided for the staff to determine whether all areas of potential effect (e.g., the project site, the Skull Valley road right-of-way that may be affected by road widening, the Intermodal Transfer Point at Timpie, and the rail spur from Low to the site) have been addressed.

- 12-2
 - a. Provide information contained in existing Class I, II, or III survey reports or generated from new site surveys pertaining to prehistoric and historic occupations and uses that have occurred in the area. Include information that identifies what prehistoric or historic sites and traditional properties remain from those occupations and uses.
 - b. Provide copies of any cultural resource surveys (Class I, II, or III) that have been made of the areas of potential effect (including the rail spur and Intermodal Transfer Point), and any areas within 10 miles of the site.
 - c. Provide the results of the Class III surveys for historic properties and traditional cultural properties.

If these surveys have not been completed, provide a schedule for completion of these surveys. All surveys should be completed in accordance with the guidelines of the Skull Valley Band of Goshutes, the Utah State Historic Preservation Office,

BIA, BLM, and, to the extent applicable, the National Park Service (NPS Cultural Resources Bulletin 38).

d. Clarify that a Class III survey will be conducted for the Low corridor rail spur.

12-3 Assess the effects of the proposed PFSF construction and operation on traditional Skull Valley Goshute practices.

a. Describe these traditional lifestyles and practices and the importance in maintaining these lifestyles for the Skull Valley Band.

b. Provide evidence that known traditional practitioners (or the traditional leaders of the Skull Valley Band) have been consulted to acquire this information.

The information should include types of plants that are used and the traditional gathering sites for these plants; animals that are hunted and the locations of traditional hunting sites; and ceremonies that are performed and the locations of traditional ceremonial sites. Other traditional practices (and the areas in which they occur) also should be identified.

13. ENVIRONMENTAL JUSTICE

The EIS must assess the impacts of constructing and operating the proposed facility as they relate to environmental justice issues in the affected region. The following RAI items are identified in accordance with 10 CFR 51.41, 51.45, 51.61, 51.71, 51.80(a), 72.90(e), and 72.98(b), and Executive Order 12898.

13-1. a. Describe the leadership and governance of the Skull Valley Band of Goshute Indians.

b. Explain how the reservation of the Skull Valley Band of Goshute Indians meets the screening factors described in the ER of the criteria for selection of candidate sites of a "willing jurisdiction," and "public acceptability." To the extent applicable, provide the response of the Skull Valley Band to the Site Selection Questionnaire (ER Table 8.1-2).

13-2 a. Describe the frequency with which the activities discussed in RAI item 12-3 occur and the extent to which men, women, and/or children participate in them.

b. Describe consumption rates of locally harvested plants and animals by Skull Valley Goshute men, women, and children.

Provide sufficient information to determine whether the proposed action in conjunction with traditional activities and/or food consumption patterns could lead to adverse health impacts to the residents of the reservation and other Skull Valley Band members.

13-3 Provide a copy of Land View III (Utah state disk).

14. AESTHETIC RESOURCES

The EIS must assess the potential impacts on aesthetic resources from constructing and operating the proposed facility. The following RAI items are identified in accordance with 10 CFR 51.41, 51.45, 51.61, 51.71, 51.80(a), 72.90(e), and 72.98(b).

- 14-1 a. Provide sketches or artist renderings of the facility at full development (i.e., 4000 casks) in the context of the site and its background, the railroad spur from Low to the reservation, and the truck routes from the UP Railroad.

These representations should include any associated development (e.g., railroad tracks, transfer point facilities, utility lines and poles, light poles, renderings of both Hi-Star and TranStor casks, the effects of site illumination, and access routes, as appropriate).

- b. Provide photographs of the site from vantage points where people are most likely to view the site and the proposed facility (e.g., the point where Skull Valley Road meets the site access road, the nearest point on Skull Valley Road where the facility would be in full view, locations in the Skull Valley Indian Reservation village, the top of Deseret Peak, a representative location in the Cedar Mountains, and nearby BLM land).
- 14-2 Analyze the visual impacts of the facility at night, identifying vantage points where the light from the site may be seen, the likelihood that people would be observing the site from those vantage points at night, and an assessment of the significance of such visual impacts on people at those vantage points.

Because the facility would be strongly lighted in an otherwise unlighted area, nighttime views from surrounding viewpoints may be more affected than daylight views. These are pertinent considerations for the EIS aesthetic analysis.

- 14-3 Describe, in detail, the lighting system that would be installed and the rationale behind its design.

The ER indicates that lighting for the restricted area (RA) of the facility would be provided by 1000-watt high-pressure sodium vapor lamps on 120-foot tall light poles (ER, Section 4.2-8). Indicate whether any shades will be placed on the lights or whether the lights will be directional so as to reduce their visibility from off-site locations. Provide a calculation of the luminous flux (lumens/m²) of the exterior surfaces of the facility that result from this artificial lighting which may be visible from pertinent off-site locations.

15. COST/BENEFIT ANALYSIS

To complete its assessment and recommendation regarding the proposed facility, the staff must weigh costs and benefits of the proposed facility and alternatives (10 CFR 51.71). The following RAI items are identified in accordance with 10 CFR 51.41, 51.45(c), 51.61, 51.71(d) and (e), 51.80(a), 72.90(e), and 72.98(b).

- 15-1 Provide detailed cost components and assumptions that have gone into the ER's cost/benefit assessment and affect the project's economic analysis.

The cost information and assumptions should include a breakdown of costs and avoided costs by current and/or alternative waste storage sites. They should also identify costs and avoided costs that have been included in the cost/benefit analysis in sufficient detail that the reasonableness of these costs and avoided costs can be determined.

- 15-2 a. Provide information on any reasonable cost-effective courses of action that PFS consortium members would pursue if they could not store their existing and future waste at the PFSF.

This information should include the reasonable individual costs and environmental effects that would likely result and the upper and lower range of potential effects, to illuminate the uncertainties associated with the analyses.

- b. In the event that the projected costs for non-member utilities which are expected to ship spent fuel to the PFSF site differ significantly from those of consortium members, provide that information.

- 15-3 Compare the costs for the proposed site with the costs of building and operating a similar facility at an alternative location. The comparison should include transportation costs and the costs of leasing land for the facility.

- 15-4 Provide information on the amount of income generated for the Skull Valley Band and/or its members by existing economic activities in Skull Valley, and the extent to which such income-producing activities may be lost if the PFS application is approved.

- 15-5 a. Provide details on what economic development projects, if any, could result from development of the rail spur.

- b. Clarify whether the rail spur would be used only by the PFSF or whether it would also be used by other entities.

In the third paragraph on page 7.2-3 of the ER, indirect benefits from the construction of the rail spur are mentioned, including further Band economic development projects.

16. ENVIRONMENTAL EFFECT OF ACCIDENTS

The EIS must assess the impacts of accidents associated with the proposed facility. The following RAI items are identified in accordance with 10 CFR 51.41, 51.45, 51.61, 51.71, and 51.80(a).

- 16-1 Assess the probabilities and consequences of an airplane crash at the PFSF (including meteorological considerations) and any appropriate mitigating measures that could minimize the likelihood of such an accident.

This information will support the EIS accident analysis.

17. ENVIRONMENTAL MONITORING

The EIS must assess appropriate environmental monitoring at the proposed facility. The following RAI items are identified in accordance with 10 CFR 51.41, 51.45, 51.50, 51.61, 51.71, 51.80(a), 72.90(e), 72.98(b), 72.122 (h)(4), and 72.126(c). In addition, 40 CFR 1505.2(c) and 1505.3 call for the adoption of monitoring and enforcement programs where applicable. The information requested below will assist the staff in determining the extent of any monitoring that should be required.

- 17-1 a. Explain what routine monitoring will be performed at the site during normal operation to verify that leakage of radionuclides from the casks to the atmosphere does not exceed expected values. If no monitoring is planned, provide the rationale and justification why such monitoring should not be required.
 - b. Explain what routine monitoring will be performed at the retention pond during normal operation to verify that concentrations of radiological and non-radiological contaminants do not exceed expected values. If no monitoring is planned, provide rationale and justification why such monitoring should not be required.
- 17-2 Provide current information on PFS's permit applications and their current approval status for those agencies other than NRC listed in ER Chapter 9. Include the dates of correspondence between PFS and the appropriate authorities and the timing for permit approvals.

This information will support the EIS analysis and/or recommendations concerning environmental monitoring and regulatory compliance.

Mr. John D. Parkyn
 Chairman of the Board
 Private Fuel Storage, L.L.C.
 P.O. Box C4010
 La Crosse, WI 54602-4010

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION (TAC NO. L22462)

Dear Mr. Parkyn:

The staff of the Nuclear Regulatory Commission (NRC) has reviewed Private Fuel Storage, L.L.C.'s (PFS's) environmental and safety analysis reports submitted in connection with your June 20, 1997, license application to construct and operate an independent spent fuel storage installation located on the reservation of the Skull Valley Band of Goshute Indians. As specified in 10 CFR 51.29, "Scoping - Environmental Impact Statement," the NRC staff performed an evaluation to determine the scope of the environmental impact statement (EIS) and identify the significant issues to be analyzed in depth. The scoping report was issued September 1998. Based on the staff's review of PFS's environmental and safety analysis reports and comments from the scoping process, additional information is needed for the preparation of a draft EIS.

The request for additional information (RAI) is enclosed. Our review schedule requires that you provide us the additional information within 60 days after receipt of this letter. If you are unable to meet this schedule, please contact us as soon as possible. The NRC staff is also prepared to meet with PFS, either in person or via teleconference, to discuss this RAI.

If you have any comments questions regarding this request, please contact me at (301) 415-3207 or Mr. Mark Delligatti at (301) 415-8518.

Sincerely,

Francis Young, Senior Project Manager
 Licensing and Inspection Directorate
 Spent Fuel Project Office
 Office of Nuclear Material Safety
 and Safeguards

Docket No.: 72-22

Enclosure: Request for Additional Information

cc: Service Lists

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