

*Private Fuel Storage, LLC.*

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John L. Donnell, P.E., Project Director

U.S. Nuclear Regulatory Commission  
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Washington, D.C. 20555-0001

December 7, 1999

**EIS COMMITMENT RESOLUTION LETTER #3**  
**DOCKET NO. 72-22 / TAC NO. L22462**  
**PRIVATE FUEL STORAGE FACILITY**  
**PRIVATE FUEL STORAGE L.L.C.**

- References:
1. U.S.NRC letter, Flanders to Parkyn, Request For Additional Information For The Environmental Impact Statement (TAC No. L22462), dated August 19, 1999
  2. PFS letter, Parkyn to U.S. NRC, Responses To Second Round EIS Request For Additional Information, dated October 19, 1999
  3. PFS letter, Parkyn to U.S. NRC, Proprietary Response To Second Round EIS Request For Additional Information, dated October 19, 1999

During the November 30, 1999 phone call, between the NRC and Stone and Webster (S&W), the NRC requested clarification/additional information regarding two RAI responses provided by Private Fuel Storage (PFS) in Reference 2. The NRC requests/questions are documented below along with the PFS response.

**NRC Requests/Questions**

**EIS RAI No. 2, Question 4-7**

The NRC has reviewed the meteorological data provided with this RAI response. The wind speed data for the dates of 1/13/97 through 1/15/97, 1/30/97, 2/3/97, and 4/14/98 seems unusually constant in both speed and wind direction. Is this data correct or has there been a malfunction of the recording equipment?

RESPONSE: PFS has evaluated the persistent wind speeds for the periods 1/13-15/97, 1/30/97, 2/3/97, and 4/14/98. These conditions were noted when the data were originally reviewed, especially the 1/13-15/97 period, and the data were examined for behavior that might indicate some sort of instrument problem. In these cases, the winds for the periods in question (0.3 mph) are indicative of calm conditions caused by high pressure areas over the site region. The barometric pressures measured at the site and at other locations where concurrent data are available such as Dugway, Muskrat Springs, and Salt Lake

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City indicate high pressure for these time frames. Readings for the four periods were generally on the order of 1020, 1030, 1020, and 1010 millibars (adjusted to sea level), respectively. Available wind speed data from these other locations also indicate generally light or calm winds during these periods, for the most part, keeping in mind that site specific conditions can be somewhat different from these other locations.

PFS also examined surface maps for the 1/13-15/97 period and found persistent high pressure over the site that would lead to such calm conditions. Given the recent installation and calibration of the instruments and subsequent semi-annual calibrations indicating no problems, PFS believes that these calm winds reflect actual conditions and there is no reason to discredit the data.


EIS RAI No. 2, Question 4-21

The NRC stated that the proprietary response provided to this RAI (Reference 3) was adequate. However, the non-proprietary response provided (Reference 2) did not include enough information. PFS is requested to provide a qualitative assessment of doses at the Wyoming site and resubmit the non-proprietary response to question 4-21.

RESPONSE: A revised non-proprietary response to EIS RAI No. 2, question 4-21 is enclosed. This response supercedes the previous response provided in Reference 2.

If you have any questions regarding this response, please contact me at 303-741-7009.

Sincerely

  
John L. Donnell  
Project Director  
Private Fuel Storage L.L.C.

Enclosure

**Copy to (with enclosure):**

**Mark Delligatti  
Scott Flanders (8 copies)  
John Parkyn  
Jay Silberg  
Sherwin Turk  
Murray Wade  
Scott Northard  
Denise Chancellor  
Richard E. Condit  
John Paul Kennedy  
Joro Walker**

## **ENVIRONMENTAL IMPACT STATEMENT**

### **4. ENVIRONMENTAL CONSEQUENCES**

- 4-21** Provide an estimate of radiation dose from the storage casks to the nearest resident at the Wyoming site and person-rem estimates for the nearby population around the Wyoming site.

#### **RESPONSE**

The Wyoming site location is in the southeast quarter of Section 23, Township 38, Range 94. There are two residences nearest the site, at approximately the same distance from the site boundary. For comparison purposes, the distance to the nearest residences from the boundary of the Wyoming site is approximately 1/3 of the distance to the nearest residence from the Skull Valley PFSF. Based on dose rates vs. distance analyses performed for the PFSF cask storage area (SAR Section 7.3.3.5), the dose rate at the nearest residences to the Wyoming site is estimated to be more than an order of magnitude greater than that calculated for the residence nearest the Skull Valley PFSF. However, it is also estimated that the dose rate to individuals living in the nearest residences to the Wyoming site from a 4,000 cask array would be below the 25 mrem/yr limit of 10 CFR 72.104(a), assuming continuous occupancy.

The center of the town of Shoshoni is approximately 8,200 ft (2,500 meters) from the west boundary of the Wyoming site, and the 1990 population was 527, based on 1990 census data. The center of the town of Bonneville is approximately 7,100 ft (2,165 meters) from the north boundary of the Wyoming site, and it is estimated that approximately 60 people resided in Bonneville in 1990, based on a house count of 22 houses multiplied by a Fremont County persons per household factor of 2.74. In comparison with the PFSF located in Skull Valley Utah, there are no towns within 10 miles of the PFSF. The nearest town to the PFSF, Dugway, is a military town on the Dugway Proving Grounds with a population of approximately 1,700, located about 12 miles south of the PFSF. Terra, a small residential community of about 120 people, is located 10 miles east-southeast of the PFSF. As stated in PFSF ER Section 4.2.9, there are about 36 residents within the 5-mile study radius of the PFSF. Since all 36 residents are located 2 miles or greater from the PFSF, annual doses to these 36 residents would be essentially negligible. Based on dose rate vs. distance estimates from a 4,000 cask array, annual population exposures to the residents living within 2 miles of the Wyoming site, which includes the towns of Shoshoni and Bonneville, would be more than an order of magnitude higher than exposures to the population within 5 miles of the Skull Valley PFSF. Whereas 10 CFR 72.104(a) limits the annual dose equivalent to any real individual located beyond the ISFSI controlled area, regulations do not specify a limiting dose to the nearby population from an ISFSI.