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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF THE SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:)	Docket No. 72-22-ISFSI
)	
PRIVATE FUEL STORAGE, LLC)	ASLBP No. 97-732-02-ISFSI
(Independent Spent Fuel)	
Storage Installation))	January 30, 2001

**DECLARATION OF LT. COLONEL HUGH L. HORSTMAN, AIR FORCE
(RETIRED) IN SUPPORT OF THE STATE OF UTAH'S RESPONSE TO PFS'S
MOTION FOR SUMMARY DISPOSITION OF CONTENTION UTAH K
AND CONFEDERATED TRIBES B.**

I, LT. COLONEL HUGH L. HORSTMAN, U.S. AIR FORCE (RETIRED), hereby declare under penalty of perjury and pursuant to 28 U.S.C. § 1746, that:

1. I am currently a Boeing 737 pilot for Southwest Airlines as well as an Adjunct Professor at Embry Riddle Aeronautical University where I instruct master's degree candidate students in aviation. I also taught masters level aeronautical courses to Air Force officers for Embry Riddle Aeronautical University while I was in the Air Force.
2. I have over 20 years experience as a pilot in the U.S. Air Force. I have extensive experience flying F-16 fighters and F-111s. I was an instructor pilot for both the F-16 and F-111. Additionally, I have over 1,000 hours flying as a navigator and instructor navigator for the U.S. Air Force.
3. From October 1997 through June 1999, I served as Deputy Commander, 388th Operations Groups, Hill Air Force Base, Utah. In this position, I commanded the F-16 Operations Group and 1,500 personnel. The Operations Group was responsible for the administration of all 388th Fighter Wing flying activity, managing the Utah Test and Training Range air space, and three fighter squadrons. In addition, I was responsible for all flying and maintenance of 60 F-16C aircraft.
4. From June 1993 through September 1997, I was stationed at Spangdahlem AB, Germany. I served as Deputy Commander of the 52nd Support Group, Chief of the

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54. Contrary to PFS's assessment, it is reasonable that the events of September 19, 1990, July 31, 1992, September 16, 1997, and May 13, 1998 could occur under

Skull Valley Type Events. Thus, F-16 accidents caused by events that occur in Skull Valley in which a pilot could avoid the proposed PFS facility do not range between 97 and 100 percent as PFS claims. See Tab H at 20. Based on the accident reports I reviewed, approximately 86 percent of accidents during the last ten years which could occur as a Skull Valley Type Event may have left the pilot in control of his/her aircraft to avoid a built up area. However, to eliminate over-accounting for weather because I account for weather in paragraph 77 below, when the accidents where clouds would not allow the pilot to see the facility are excluded, the estimate is 91 percent.¹⁵

55. Contrary to PFS's assessment, the reports dated ~~September 19, 1990~~, February 20, 1991, June 8, 1991, July 31, 1992, September 16, 1997, and January 29, 1997 should be classified as normal flight. The frequency distribution for the combined normal flight and Skull Valley Type Events over the last ten years which may have left the pilot in control of his/her aircraft to avoid a built up area is 73 percent. However, to eliminate over-accounting for weather because I account for weather in paragraph 77 below, the estimate is 77 percent.¹⁶
56. Contrary to PFS's assessment, reports dated ~~September 19, 1990, February 20, 1991, June 8, 1991, July 31, 1992, September 16, 1997, and May 13, 1998~~ ^{type 2 was} should be classified as Skull Valley Conditions. The frequency distribution for the combined Skull Valley Conditions¹⁷, Normal Flight, and Skull Valley Type Events over the last ten years which may have left the pilot in control of his/her aircraft to avoid a built up area is 56%. However, to eliminate over-accounting for weather because I account for weather in paragraph 77 below, the estimate is 62.5 percent.^{18,19}

¹⁵This estimate is not conservative because it does not account for 16 lost Class A accident reports that occurred in the last ten years.

¹⁶This estimate is not conservative because it does not account for 16 lost Class A accident reports that occurred in the last ten years.

¹⁷Modified Sevier B MOA Conditions to account for actual flight conditions above and in the Sevier B MOA.

¹⁸This estimate is not conservative because it does not account for 16 lost Class A accident reports that occurred in the last ten years.

¹⁹Due to an earlier calculation error, Dr. Resnikoff used a less conservative percent of 64.7 percent in his calculations.

57. The Skull Valley ^{type events} Conditions category, as modified to reflect actual conditions that F-16 pilots encounter in Skull Valley and not merely Sevier B MOA conditions, is the category most applicable to accidents that could occur in Skull Valley. Thus, at a maximum, PFS could only assume that 62.5% of pilots could avoid the proposed PFS facility. Although, I disagreed with PFS's assessment of the June 8, 1991 accident, I did not include that and several other accidents in my calculations because later I address the likelihood that pilots will not be able to avoid the proposed PFS facility due to cloud cover.²⁰ Thus, weather factors were not double counted. Moreover, as discussed throughout my declaration, an estimate based solely on past accidents does not project the future probability and is not conservative.
58. Additionally, the Skull Valley Type Event category incorrectly included engine failures which occurred during special flight or high stress, aggressive maneuvers. Tab H at 15 and n.14. As I discussed above, because engine failures are more frequent during special flight, the Skull Valley Type Event accidents do not reflect what has occurred under conditions similar to those encountered in Skull Valley. See ¶ 38 supra. Thus, the frequency distribution for Skull Valley Type Events are not applicable.
59. The use of F-16 Class A and B crash rate is not conservative. See ¶ 33 supra. Again, even if only Class A Mishaps with destroyed aircraft are considered, PFS did not account for the 16 Class A missing accident reports. See ¶ 37 supra. Aircraft Crash, Tab H at 4.

Ability to Avoid the Proposed PFS Facility

60. Most importantly, whether a pilot can control an aircraft and guide it away from a built up area is dependent upon adequate time and circumstances. See also, Aircraft Crash Hazard Report at 17. I agree that any pilot, given adequate time and circumstances would steer his/her aircraft away from a built-up or population area. However, in order to steer his/her aircraft away from the proposed PFS facility, the pilot must have adequate time and be able to see the proposed facility.
61. When a pilot experiences an incident, the pilot first determines whether he/she has control of the aircraft. The pilot may be forced to immediately eject even if he/she

²⁰I also excluded the February 19, 1993 and March 19, 1991 accidents from the Skull Valley Type Event calculation due to weather.

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Docet No. _____ Official Ex. No. 83
In the matter of _____
Staff _____ IDENTIFIED
Applicant RECEIVED _____
Intervenor _____ REJECTED _____
Other _____ WITHDRAWN _____
DATE 4-13-02 Witness _____
Clerk D. Kent