

RAS 4862

September 17, 2002

DOCKETED
USNRC

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION
Before the Atomic Safety and Licensing Board

September 24, 2002 (3:11PM)

OFFICE OF SECRETARY
RULEMAKINGS AND
ADJUDICATIONS STAFF

In the Matter of)

PRIVATE FUEL STORAGE L.L.C.)

(Private Fuel Storage Facility))

Docket No. 72-22-ISFSI

**FILING OF APPENDICES A AND B AND ERRATA TO
APPLICANT'S PROPOSED FINDINGS OF FACT AND CONCLUSIONS
OF LAW ON CONTENTION UTAH K/CONFEDERATED TRIBES B**

In its Proposed Findings of Fact and Conclusions of Law on Contention Utah K/Confederated Tribes B filed August 30, 2002, Applicant Private Fuel Storage, L.L.C. ("Applicant" or "PFS") stated that it would later file an Appendix A to its Proposed Findings showing the location in the hearing transcript at which each of the pre-filed testimonies were admitted by the Board and an Appendix B listing the parties' exhibits that had been marked and identified for contention Utah K and the transcript location of the Board's ruling on their admission into evidence. See PFS Utah K Proposed Findings at 3-4, notes 3 and 4. PFS is today filing these appendices, which are attached hereto.¹ In addition, PFS is filing an errata to its Proposed Utah K Findings to correct some record

¹ In preparing Appendix B, PFS could not identify any ruling by the Board admitting State Exhibit 154. Therefore, this Exhibit should be added to the Table of exhibits requiring Board action set forth on page 2 of the Joint Report on Status of Utah Contention K Exhibits and Other Open items from Hearing Concerning Utah Contention K filed August 21, 2002. Counsel for PFS has conferred with counsel for the NRC Staff and neither PFS nor the Staff have any objection to the admission of this exhibit.

Template=SECY-057

SECY-02

citations and cross-references within its Findings and to correct several typographical, grammatical and punctuation errors that affect the readability of the document in certain places.

Respectfully submitted,

A handwritten signature in black ink, reading "Paul Gaukler", written over a horizontal line.

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September 17, 2002

**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
)	
(Private Fuel Storage Facility))	ASLBP No. 97-732-02-ISFSI

CERTIFICATE OF SERVICE

I hereby certify that copies of the Filing of Appendices A and B and Errata to Applicant's Proposed Findings Of Fact And Conclusions of Law On Contention Utah K/Confederated Tribes B were served on the persons listed below (unless otherwise noted) by e-mail with conforming copies by U.S. mail, first class, postage prepaid, this 17th day of September, 2002.

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*Office of Commission Appellate
Adjudication
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001
Attention: Rulemakings and Adjudications
Staff
e-mail: hearingdocket@nrc.gov
(Original and two copies)

* Adjudicatory File
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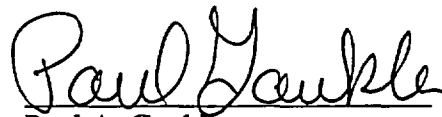
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Paul A. Gaukler

Errata Sheet for Applicant's Proposed of Fact and Conclusions of Law on Contention Utah K/Confederated Tribes B

Pg	¶	Ln	Correction
2		16	In 1999, pursuant to a PFS summary disposition motion, of the Board
12		Fn 13, Ln 2	See Finding-187 <u>189</u> , <u>infra</u> .
24		9-10	(55 in control and <u>out</u> of a population of 61, or $55/61 = 90.2\%$)
33		14-17	PFS selected <u>a</u> 10-year average to minimize the effect of year-to-year statistical fluctuations in the data and used the most recent 10 years of data, and hence the most relevant, at the time, the analysis was initially performed.
61	36	Fn 46	See note-38 <u>35</u> , <u>supra</u> .
66	47	Ln 7 w/in ¶47	Note-66 <u>49</u> , <u>supra</u> .
74	63	Ln 6 w/in ¶63	See Finding-43 <u>41</u> , <u>supra</u> .
77	68	Fn 65, Ln 3	See Finding-97 <u>94</u> , <u>infra</u> .
99	106	Ln 8 w/in ¶106	Tr. at 3529, 3767 (Cole), 3548 <u>8548</u>
111	127	Lns 7-8 w/in ¶127	Lt. Col. Horstman had to admit that his data and represented
115-116	135	Ln 7 on pg. 116	the site before ground impact would occurred
116	136	Fn 106, Lns 2-3	"both versions"
117-118	138	Ln 8 on pg. 118	Finding-98 <u>97</u> , <u>supra</u> .
121-122	145	Ln 6 on pg. 122	However, to accounting <u>account</u> for "unforeseen
122	145	Fn 109, Ln 2	take action to avoid or minimize or damage to
123-124	148	Ln 8 on pg. 124	hearing <u>heading</u> to a relatively unoccupied area on the ground.
125	148	Ln 14 on page 125	populated areas." PFS Exh. 158 at <u>3</u> (emphasis added); <u>see also</u> PFS

Errata Sheet for Applicant's Proposed of Fact and Conclusions of Law on Contention Utah K/Confederated Tribes B

126	148	Ln 1 on pg. 126	"No structures were nearby." PFS Exh. 179 at 2- <u>3</u>
129	151	Ln 1 w/in ¶151	the pilots maneuvering this <u>his</u> aircraft to
130	153	Ln 1 w/in ¶153	Finally the remaining 14 <u>13</u> accident reports
135	163	Ln 16 w/in ¶163	Finding 11 <u>152</u> above, we find the reports
137	166	Ln 7 w/in ¶166	Decided to eject." PFS Exh. 128 at 8 and 205 ;
142-143	178	Ln 9 on pg. 143	In that case the aircraft impacted in federal land 11 number miles from
144	183	Ln 2 w/in ¶183	Finding 14 <u>16</u> above are also not highly sensitive

**Appendix A Pre-Filed Testimony
Utah Contention K/Confederated Tribes B**

Witness	Testimony	Location in Transcript
James L. Cole, Jr. Wayne O. Jefferson, Jr. Ronald E. Fly	Testimony of James L. Cole, Jr., Wayne O. Jefferson, Jr., and Ronald E. Fly on Aircraft Crash Hazards at the PFSF – Contention Utah K/Confederated Tribes B	Tr. 3075-76, 3080*
Stephen Vigeant	Testimony of Stephen A. Vigeant on Aircraft Crash Hazards at the PFSF – Contention Utah K/Confederated Tribes B	Tr. 3090*
Jeffrey Johns	Applicant's Prefiled Testimony of Jeffrey Johns on Contention Utah K/Confederated Tribes B	Tr. 3204-07*
Kazimieras M. Campe Amitava Ghosh	NRC Staff Testimony of Kazimieras M. Campe and Amitava Ghosh Concerning Contention Utah K/Confederated Tribes B (Inadequate Consideration of Credible Accidents)	Tr. 4078*
Hugh Horstman	State of Utah's Prefiled Testimony of Lieutenant Colonel Hugh Horstman (U.S.A.F. Retired) for Contention Utah K/Confederated Tribes B	Tr. 4222-25*
Marvin Resnikoff	State of Utah's Prefiled Testimony of Dr. Marvin Resnikoff Regarding Contention Utah K/Confederated Tribes B	Tr. 8698

* Indicates that the Testimony was offered and accepted but not bound into the Transcript.

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
PFS Exhibit N Aircraft Crash Report dated 08/10/00	Tr. 3066	Tr. 3080
PFS Exhibit O Revised Addendum to Aircraft Crash Report dated 07/20/01	Tr. 3080	Tr. 3082
PFS Exhibit P Map of UTTR	Tr. 3082	Tr. 3083
PFS Exhibit Q Graphs of F-16 Flight Hours and Destroyed F-16 Aircraft	Tr. 3084-85	Tr. 3086
PFS Exhibit R Graphs of F-16A Flight Hours and Destroyed F-16A Aircraft	Tr. 3084-85	Tr. 3086
PFS Exhibit S Graphs of F-15A Flight Hours and Destroyed F-15A Aircraft	Tr. 3084-85	Tr. 3086
PFS Exhibit T Graphs of F-106 Flight Hours and Destroyed F-106 Aircraft	Tr. 3084-85	Tr. 3086
PFS Exhibit U Graphs of F-111 Flight Hours and Destroyed F-111 Aircraft	Tr. 3084-85	Tr. 3086
PFS Exhibit V Graphs of F-4 Flight Hours and Destroyed F-4 Aircraft	Tr. 3084-85	Tr. 3086
PFS Exhibit W UTTR Climate Conditions	Tr. 3084-85	Tr. 3086
PFS Exhibit X Table One of Tab H of Aircraft Crash Report as marked-up at 07/27/01 Deposition of Lt. Colonel Horstman	Tr. 3084-85	Tr. 3086
PFS Exhibit Y Excerpt from 07/27/01 Deposition Transcript of Lt. Colonel Hugh Horstman	Tr. 3084-85	Tr. 3086
PFS Exhibit Z Stone and Webster Calculation Re: Velocities Needed for F-16 Jet Engine to Penetrate HI-STORM Storage Cask Sidewall and Top Lid		Withdrawn in accordance with Board's Rulings on Motions in Limine See Tr. 3084
PFS Exhibit KKK Map of UTTR from Hill AFB down to Michael AAF	Tr. 3086-87	Tr. 3088-3089

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
PFS Exhibit LLL Map of Skull Valley	Tr. 3087-88	Tr. 3088-3089
PFS Exhibit MMM Drawing of Cockpit Arrangement from F-16-1 Pilot's Manual (Technical Order 1F-16C-1)	Tr. 3569	Tr. 3656
PFS Exhibit NNN Pages 1-133 and 1-134 from Technical Order 1F-16C-34-1-1	Tr. 3579	Tr. 3657
PFS Exhibit OOO Page 1-94 from F-16-1 Pilot's Manual (Technical Order 1F-16C-1)	Tr. 3579	Tr. 3657
PFS Exhibit PPP Pages 3-42 and 3-43 from F-16-1 Pilot's Manual (Technical Order 1F-16C-1)	Tr. 3603	Tr. 3657
PFS Exhibit QQQ Summary of Air Force Instruction 51-503 and Examples of Pilot Avoidance	Tr. 3628	Pending Board Determination ¹
PFS Exhibit RRR U.S. NRC Standard Review Plan NUREG-0800; Section 3.5.1.6: Aircraft Hazards	Tr. 3686	Tr. 3690
PFS Exhibit SSS Excerpts from DOE Standard 3014-96 Accident Analysis for Aircraft Crash into Hazardous Facilities	Tr. 3690	Not admitted and Exhibit withdrawn Tr. 3704
PFS Exhibit TTT U.K. Atomic Energy Authority, Safety and Reliability Directorate, "A Method for the Site-Specific Assessment of Aircraft Crash Hazards," July 1987	Tr. 3715	Tr. 3723
PFS Exhibit UUU F-16 Accident Statistics/100,000 Flight Hours	Tr. 3726	Tr. 3733
PFS Exhibit VVV F-16 Destroyed Aircraft Rates FY89-01	Tr. 3735	Tr. 3739
PFS Exhibit WWW Email from Walter Boyne to J. Cole dated 3/15/02	Tr. 3757	Pending Board Determination ¹
PFS Exhibit XXX Email from Gene Frank to Jack Cole dated 3/17/02	Tr. 3757	Pending Board Determination ¹

¹ See Joint Report on status of Utah Contention K Exhibits and other open items from Hearing concerning Utah Contention K (August 21, 2002) ("Utah K Joint Status Report"). The State objects to the Exhibit's admission.

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
PFS Exhibit YYY Email from Francis Woods to Walter Boyne dated 3/13/02	Tr. 3757	Pending Board Determination ²
PFS Exhibit ZZZ Email from Richard Noonan to Walter Boyne dated 3/11/02	Tr. 3757	Pending Board Determination ²
PFS Exhibit 79 21 April 1993 F-16 Accident Investigation Report	Tr. 3945	Pending Board Determination ³
PFS Exhibit 80 25 May 1990 F-16 Accident Investigation Report	Tr. 4259	Tr. 4262
PFS Exhibit 81 01/30/02 E-mail to Jack Cole from Paul Cormier re: FOIA Request	Tr. 4259	Tr. 4268
PFS Exhibit 82 U.S. Air Force Mishap Rate History, 1947-1998	Tr. 4396	Tr. 4407
PFS Exhibit 83 Excerpts from 01/30/01 Declaration of Lt. Col. Horstman, w/markings made during Lt. Col. Horstman's July 27, 2001 Deposition	Tr. 4410	Pending Board Determination ³
PFS Exhibit 97 21 June 2000 F-16 Accident Investigation Report	Tr. 8448	Tr. 8501
PFS Exhibit 98 17 October 2001 F-16 Accident Investigation Report	Tr. 8448	Tr. 8501
PFS Exhibit 99 Excerpts from December 11, 2000 Deposition Transcript of Lt. Col. Horstman	Tr. 8540	Tr. 8555
PFS Exhibit 100 Table of Skull Valley-Type Event Accidents in which pilot retained control	Tr. 8663	Tr. 8673
PFS Exhibit 100A Table of Skull Valley-Type Event Accidents with Hand-written Changes	Tr. 13009	Tr. 13011
PFS Exhibit 101 Excerpts from Data Development Technical Support Document for the Aircraft Crash Risk Analysis Methodology Standard, August 1, 1996	Tr. 8734	Not Admitted Tr. 8747

² See Utah K Joint Status Report. The State objects to the Exhibit's admission.

³ See Utah K Joint Status Report. No objection to the admission of the Exhibit.

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
PFS Exhibit 102 Graph entitled F-16 Class-A Mishap Rate Rank vs. Fiscal Yr. Rank	Tr. 8756	Pending Board Determination ⁴
PFS Exhibit 103 12 October 1988 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 104 05 December 1988 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 105 14 February 1989 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 106 13 March 1989 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 107 14 March 1989 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 108 28 June 1989 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 109 18 December 1989 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 110 3 April 1990 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 111 7 August 1990 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 112 9 August 1990 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 113 3 September 1990 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 114 19 September 1990 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 115 20 September 1990 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004

⁴ See Utah K Joint Status Report. The State objects to the Exhibit's admission.

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
PFS Exhibit 116 23 October 1990 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 117 1 December 1990 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 118 13 January 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 119 15 January 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 120 24 January 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 121 26 January 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 122 15 February 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 123 15 March 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 124 19 March 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 125 4 April 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 126 11 April 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 127 18 April 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 128 7 May 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 129 8 June 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 130 17 July 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 131 30 July 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
PFS Exhibit 132 14 November 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 133 27 November 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 134 13 January 1992 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 135 14 January 1992 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 136 3 March 1992 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 137 24 April 1992 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 138 5 May 1992 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 139 31 July 1992 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 140 31 August 1992 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 141 1 September 1992 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 142 8 September 1992 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 143 22 October 1992 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 144 27 October 1992 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 145 17 December 1992 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 146 18 February 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
PFS Exhibit 147 19 February 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 148 23 February 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 149 28 April 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 150 18 May 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 151 18 May 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 152 24 May 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 153 23 June 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 154 27 July 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 155 10 August 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 156 11 August 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 157 27 August 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 158 11 September 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 159 27 September 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 160 8 October 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 161 8 November 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 162 9 November 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
PFS Exhibit 163 29 November 1993 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 164 7 February 1994 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 165 14 February 1994 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 167⁵ 28 February 1994 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 168 23 March 1994 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 169 30 March 1994 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 170 6 May 1994 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibits 171 12 June 1994 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 172 1 July 1994 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 173 20 September 1994 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 174 25 October 1994 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 175 13 January 1995 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 176 26 January 1995 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 177 5 February 1995 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004

⁵ There is no PFS Exhibit 166.

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
PFS Exhibit 178 10 February 1995 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 179 15 May 1995 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 180 25 June 1995 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 181 13 July 1995 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 182 21 August 1995 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 183 21 December 1995 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 184 19 March 1996 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 185 3 August 1996 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 186 27 November 1996 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 187 7 January 1997 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 188 29 January 1997 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 189 4 February 1997 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 190 18 March 1997 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 191 21 April 1997 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 192 12 May 1997 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 193 20 June 1997 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
PFS Exhibit 194 22 August 1997 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 195 16 September 1997 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 196 6 November 1997 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 197 7 January 1998 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 198 8 January 1998 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 199 25 March 1998 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 200 22 April 1998 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 201 13 May 1998 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 202 19 June 1998 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 203 22 July 1998 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 204 24 July 1998 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 205 24 August 1998 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 206 1 September 1998 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 207 12 September 1998 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 208 23 January 1992 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 209 5 June 1990 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
PFS Exhibit 210 19 December 1991 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 211 14 April 1992 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 212 7 July 1992 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 213 26 January 1994 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 214 16 February 1994 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 215 18 October 1994 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 216 31 July 1996 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 217 22 October 1997 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 218 23 March 1998 F-16 Accident Investigation Report	Tr. 13004	Tr. 13004
PFS Exhibit 245 Salt Lake City 2001 Weather Observations	Tr. 13054	Tr. 13074
PFS Exhibit 246 Excerpts from F-16-1 Pilot's Manual (Technical Order 1F-16C-1)	Tr. 13555	Tr. 13678
State Exhibit 38 Resume of Lt. Col. Horstman	Tr. 4217	Tr. 4224
State Exhibit 39 12/30/00 Joint Declaration of Gen. Cole, Gen. Jefferson, and Col. Fly	Tr. 4217	Tr. 4224
State Exhibit 40 Partial Map of UTTR and Sevier B MOA	Tr. 4217	Tr. 4224
State Exhibit 41 Excerpt from UTTR Web-Site Information	Tr. 4217	Tr. 4224
State Exhibit 42 Usage report for Sevier B MOA, 11/30/98	Tr. 4218	Tr. 4224

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
State Exhibit 43 Portions of a low altitude flight map	Tr. 4218	Tr. 4224
State Exhibit 44 Usage Report for Sevier D MOA, 11/30/98	Tr. 4218	Tr. 4224
State Exhibit 45 Usage Reports for R-6402A, R-6402B, and R-6406, 11/30/98	Tr. 4218	Tr. 4224
State Exhibit 46 Excerpt from PFS Limited Appearance Statements		Withdrawn in accordance with Board Rulings on Motions in Limine See Tr. 4224
State Exhibit 47 Figure 1 of the PFS Aircraft Crash Report (Sevier B MOA: Cross Section at Latitude of PFSF)	Tr. 4218	Tr. 4224
State Exhibit 48 Overlay to Exhibit 47	Tr. 4218-19	Tr. 4224
State Exhibit 49 Undated news report re: 12 additional F-16s assigned to 388 th FW	Tr. 4219	Tr. 4224
State Exhibit 50 USAF F-16 Crash Statistics 1975-2000	Tr. 4219	Tr. 4224
State Exhibit 51 Excerpts from Data Development Technical Support Document for ACRAM 08/01/96	Tr. 4219	Tr. 4224
State's Exhibit 52 F-16 Crash History Graph 1975-2000	Tr. 4219	Tr. 4224
State Exhibit 53 News Article, Joint Strike Fighter program must stay on schedule 06/24/00	Tr. 4219	Tr. 4224
State Exhibit 54 News Release, JSF Contractor Award 10/26/01	Tr. 4219	Tr. 4224
State Exhibit 55 News Transcript, Interview of E. Aldridge 0/26/01	Tr. 4219	Tr. 4224
State Exhibit 56 Publication from Air Force Association, May 1999	Tr. 4220	Tr. 4224
State Exhibit 57 March 1996 ALSAFECOM re: Mutual Support During Emergencies and the Ejection Decision	Tr. 4220	Tr. 4224
State Exhibit 58 12/12/00 Deposition of Col. Ronald E. Fly		Withdrawn in accordance with Board's Rulings on Motions in Limine See Tr. 4224

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
State Exhibit 59 Internat'l Station Meteorological Climate Summary for Dugway Proving Ground	Tr. 4220	Tr. 4224
State Exhibit 60 AF Instruction 51-503: Aircraft, Missile, Nuclear, and Space Accident Investigations 04/05/00	Tr. 4220	Tr. 4224
State Exhibit 61 10/26/99 Mem. from Col. Ronald G. Oholendt re: Reply to FOIA request by James Cole	Tr. 4221	Tr. 4224
State Exhibit 62 12/28/00 Ltr. from Col. Lee C. Bauer re: Jettisoned Ordnance	Tr. 4221	Tr. 4224
State Exhibit 63 01/18/01 Ltr. from Denise L. King USAF re: FOIA request	Tr. 4221	Tr. 4224
State Exhibit 64 07/18/01 Mem. from AF Headquarters re: Title 14 Code of Fed. Reg. Part 91.209 Exemption Request	Tr. 4221	Tr. 4224
State Exhibit 65 01/30/01 Decl. Of Col. 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		Withdrawn in accordance with Board's Rulings on Motions in Limine <u>See</u> Tr. 4224
State Exhibit 66 Excerpt from AFI 51-503 Aircraft Accident Investigation Report for 05/13/98 Accident	Tr. 4221	Tr. 4224
State Exhibit 67 Excerpt from Handbook of North American Birds, Vols. 1 & 2	Tr. 4221	Tr. 4515, 4529
State Exhibit 68 01/26/01 Ltr. from J. Kimball, Dir. Utah Division of Wildlife Resources re: Waterbird Survey for Timpie Springs Waterfowl Management Area	Tr. 4221-22	Tr. 4515, 4529
State Exhibit 69 07/08/97 Notice from Air Force News Website, First No-Notice AEF deployment underway	Tr. 4222	Tr. 4224
State Exhibit 70 Dr. Marvin Resnikoff Curriculum Vitae	Tr. 8699	Tr. 8709
State Exhibit 71 U.S. NRC filings and other documents relating to Determination of Probability of Aircraft Crashes Reviewed by Dr. Resnikoff	Tr. 8699	Tr. 8709

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
State Exhibit 72 Table entitled Probability of an Aircraft Crash from F-16s transiting Skull Valley en route to the UTTR South Range	Tr. 8699	Tr. 8709
State Exhibit 73 NRC Staff Posthearing Memorandum Re: Aircraft Crash Probability Issue	Tr. 8699	Withdrawn in accordance with Board's Rulings on Motions in Limine <u>See Tr. 8703-07</u>
State Exhibit 74 Cover Sheet and Excerpt from U.S. Air Force Flying Safety Magazine	Tr. 8699-8700	Tr. 8709
State Exhibit 75 Information re: F-16 Crashes	Tr. 8700	Tr. 8709
State Exhibit 76 F-16 Crash Rate Calculations	Tr. 8700	Tr. 8709
State Exhibit 77 Table entitled Probability of Aircraft returning on Moser Recovery Route Crashing into the PFSF	Tr. 8700	Tr. 8709
State Exhibit 78 Tables entitled Probability of Aircraft Conducting Air-to-Air Combat Training at the UTTR South Area to Crash into PFSF	Tr. 8700	Tr. 8709
State Exhibit 79 Table entitled: Probability of Jettisoned Ordnance Striking the PFS Facility	Tr. 8700-8701	Tr. 8709
State Exhibit 80 Projectile Path and Impact Angle	Tr. 8701	Tr. 8709
State Exhibit 81 Table entitled: Cumulative Probability of an Aircraft Crash and Ordnance Striking the PFS Site	Tr. 8701	Tr. 8709
State Exhibit 82 Calculation of Minimum Velocity for Jettisoned Ordnance to penetrate a HI-STORM Cask	Tr. 8701-02	Withdrawn in accordance with Board's Rulings on Motions in Limine <u>See Tr. 8702</u>
State Exhibit 83 Summaries re: Cesium Release	Tr. 8702	Withdrawn in accordance with Board's Ruling on Motions in Limine <u>See Tr. 8702</u>
State Exhibit 84 Tables and Diagrams concerning Radiation Release Calculation	Tr. 8702	Withdrawn in accordance with Board's Ruling on Motions in Limine <u>See Tr. 8702</u>

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
State Exhibit 144 Photo of F-16	Tr. 3129	Tr. 3162
State Exhibit 145 Photo of AC-47D	Tr. 3161	Tr. 3164
State Exhibit 146 2-10-99 PFS RAI Response, RAI 2	Tr. 3169	Withdrawn Tr. 3182-83
State Exhibit 147 Formulas, NUREG and Modified	Tr. 3190	Tr. 3195
State Exhibit 148 Skull Valley F-16 Crash Probability	Tr. 3195	Tr. 3199
State Exhibit 149 “R” Factor Determination of .145	Tr. 3213	Tr. 3247
State Exhibit 150 Page 3-43, F-16-1 Pilot’s Manual (Technical Order 1F-16C-1)	Tr. 3247	Tr. 3254
State Exhibit 151 Excerpts from USAF Flying Safety Magazine, Sept. 2001	Tr. 3255	Pending Board Determination ⁶
State Exhibit 152 Chapter 17 from the U.S. Air Force Flight Surgeon’s Guide	Tr. 3299	Not Offered Tr. 3312
State Exhibit 153 Air Force News Release April 5, 1999	Tr. 3326	Not Offered Tr. 3345
State Exhibit 154 F-16 Mishap History 1975-2001	Tr. 3359, 3361	Pending Board Determination ⁷
State Exhibit 155 Class A Crash Rate, F95-FY01	Tr. 3384	Tr. 8858
State Exhibit 156 Sevier B MOA: Cross Section at PFSF Latitude (3000 to 4000 Feet AGL Cross-Section)	Tr. 3413	Not Admitted Tr. 3481
State Exhibit 156A Exhibit 156 with vertical and horizontal bar lines	Tr. 3492-93	Not Admitted Tr. 3493
State Exhibit 156-B Exhibit 156A, with 3,000 to 4,000 Feet AGL Cross-Section Extended	Tr. 3725	Tr. 3725

⁶ See Utah K Joint Status Report. No objection to the admission of the Exhibit.

⁷ See Filing of Appendices A and B and Errata to Applicant’s Proposed Findings of Fact and Conclusions of Law on Contention Utah/Confederated Tribes B (September 17, 2002) at note 1. No objection to the admission of the Exhibit.

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
State Exhibit 157 Preliminary Aircraft Crash Hazard Assessment at Proposed Yucca Mountain Repository	Tr. 4110	Pending Board Determination ⁸
State Exhibit 186 Sevier B MOA with Yellow Overlay	Tr. 8576	Tr. 8580
State Exhibit 187 Class A Crash Rate F95-FY01, w/lifetime crash rate	Tr. 8855	Tr. 8857
State Exhibit 220 Colonel Bernard Training Video	Tr. 13144	Tr. 13292-93
State Exhibit 221 Video of F-16 simulation	Tr. 13181	Tr. 13294-95
State Exhibit 222 Aerial photograph of Skull Valley	Tr. 13307-08	Tr. 13714
State Exhibit 223 State's Analysis of Mishap Reports Shown on Applicant's Exhibit 100	Tr. 13328	Tr. 13412
State Exhibit 224 Excerpts from F-16-1 Pilot's Manual (Technical Order 1F-16CG-1)	See Filing of State of Utah Exhibit 224, August 15, 2002	Pending Board Determination ⁹
Staff Exhibit D Graph of Skull Valley Elevation Profile at PFSF Latitude	Tr. 4079	Tr. 4079
Staff Exhibit KK Plot using Spearman Rank Correlation Analysis (F-16 Class A and Class B Mishaps)	Tr. 8888	Tr. 8893
Staff Exhibit LL F-16 Aircraft Class A and Class Mishaps, Linear Regression	Tr. 8902	Tr. 8903
NRC Staff Exhibit 65 Excerpts from The Great Book of Modern Warplanes	Tr. 13475	Tr. 13502
Joint Exhibit 1 26 December 1989 F-16 Accident Investigation Report	Tr. 3741	Tr. 3745
Joint Exhibit 2 16 March 1990 F-16 Accident Investigation Report	Tr. 3741	Tr. 3745

⁸ See Utah K Joint Status Report. No objection to the admission of the Exhibit.

⁹ See Utah K Joint Status Report.

APPENDIX B – EXHIBITS
Contention Utah K/Confederated Tribe B

Exhibit Number And Description	Transcript Location	
	Identification or Marking of Exhibit	Admission of Exhibit (Or Other Status if Noted)
Joint Exhibit 3 20 February 1991 F-16 Accident Investigation Report	Tr. 3741	Tr. 3745
Joint Exhibit 4 16 December 1991 F-16 Accident Investigation Report	Tr. 3741	Tr. 3745
Joint Exhibit 5 31 May 1992 F-16 Accident Investigation Report	Tr. 3741	Tr. 3745
Joint Exhibit 6 18 September 1992 F-16 Accident Investigation Report	Tr. 3741	Tr. 3745
Joint Exhibit 7 2 February 1994 F-16 Accident Investigation Report	Tr. 3741	Tr. 3745
Joint Exhibit 8 20 January 1996 F-16 Accident Investigation Report	Tr. 3741	Tr. 3745
Joint Exhibit 9 7 June 1996 Joint F-16 Accident Investigation Report	Tr. 3741	Tr. 3745
Joint Exhibit 10 11 July 1996 F-16 Accident Investigation Report	Tr. 3741	Tr. 3745
Joint Exhibit 11 21 November 1996 F-16 Accident Investigation Report	Tr. 3741	Tr. 3745
Joint Exhibit 12 15 December 1998 F-16 Accident Investigation Report	Tr. 3741	Tr. 3745
Joint Exhibit 13 7 January 1999 F-16 Accident Investigation Report	Tr. 3741	Tr. 3745
Joint Exhibit 14 12 July 1999 F-16 Aircraft Accident Investigation Report	Tr. 3741	Tr. 3745
Joint Exhibit 15 31 August 2000 F-16 Accident Investigation Report	Tr. 3741	Tr. 3745