

UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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In the Matter of:

) Docket No. 72-22-ISFSI  
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PRIVATE FUEL STORAGE, LLC  
(Independent Spent Fuel  
Storage Installation)

) ASLBP No. 97-732-02-ISFSI  
)

) April 14, 1999  
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**STATE OF UTAH'S RESPONSES AND OBJECTIONS TO  
APPLICANT'S FIRST SET OF FORMAL DISCOVERY REQUESTS**

The State of Utah files this response to the Applicant's First Set of Formal Discovery Requests ("Applicant's Discovery Requests"), an electronic copy of which was served on the State after the close of business on Friday, April 2, 1999. The State and the Applicant have agreed that the party responding to Requests for Admissions and Interrogatories, during the formal discovery period, may have eight working days in which to timely file a response.

**GENERAL OBJECTIONS**

These objections apply to the State of Utah's responses to all of the Applicant's First Set of Formal Discovery Requests.

1. The State of Utah objects to the Applicant's instructions and definitions on the grounds and to the extent that they request or purport to impose upon the State any obligation to respond in manner or scope beyond the requirements set forth in 10 CFR §§ 2.740, 2.741 and 2.742.

2. The State of Utah objects to Applicant's Request for Production of Documents to the extent that it requests discovery of information or documents protected under the attorney-client privilege, the attorney work-product doctrine and limitations on discovery of trial preparation materials and experts' knowledge or opinions set forth in 10 CFR § 2.740 or other protection provided by law. The State has provided PFS with a Privilege Log which identifies all documents subject to these privileges and protections and which the State reserves the right to supplement.

3. The State is in the process of reviewing and evaluating many thousands of pages of discovery materials produced by PFS, and also anticipates that it will obtain more relevant information through discovery against PFS. Therefore, the State anticipates that it will need to supplement its responses to these Discovery Requests. The State hereby reserves its right to rely upon any and all additional documents and information as might be discovered prior to any hearings, and to supplement or modify its responses to the Applicant's Discovery Requests to incorporate such additional information or documents as required by 10 CFR § 2.740(e).

#### **DEFINITIONS**

**Denied On Information And Belief.** Whenever a response to a Discovery Request reads "denied on information and belief," such denial shall mean that after making reasonable inquiry into the subject of the discovery, the State lacks sufficient information or belief on the subject or subjects therein embraced, on which to either

deny or admit the request, and therefore, the request is denied. The State notes in this context that it will continue discovery and further investigations and once complete, will supplement responses, as appropriate, in accordance with 10 CFR § 2.740(e).

## **I. GENERAL INTERROGATORIES**

### **STATE'S RESPONSE TO GENERAL INTERROGATORIES**

**GENERAL INTERROGATORY NO. 1.** State the name, business address, and job title of each person who was consulted and/or who supplied information for responding to interrogatories, requests for admissions and requests for the production of documents. Specifically note for which interrogatories, requests for admissions and requests for production each such person was consulted and/or supplied information.

If the information or opinions of anyone who was consulted in connection with your response to an interrogatory or request for admission differs from your written answer to the discovery request, please describe in detail the differing information or opinions, and indicate why such differing information or opinions are not your official position as expressed in your written answer to the request.

### **STATE'S RESPONSE TO GENERAL INTERROGATORY NO. 1.**

Attorneys Denise Chancellor, Fred G Nelson, Connie Nakahara, Diane Curran, Daniel Moquin, and John Paul Kennedy (Contention K, wildfires only) whose addresses are on file in this action, assisted in responding to the Applicant's Discovery Request. In addition, the following persons were consulted and/or supplied information in assisting the State in its response:

David B. Cole  
Senior Engineer  
State of Utah, Department of Natural Resources  
Division of Water Resources  
1595 West North Temple  
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Utah Contentions: M and N

Martin Gray  
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State of Utah, Department of Environmental Quality  
Division of Solid and Hazardous Waste  
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Utah Contention: K

Bronson W. Hawley, Ph.D.  
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Utah Contention: K

David Larsen  
Environmental Scientist, Geologist  
State of Utah, Department of Environmental Quality  
Division of Solid and Hazardous Waste  
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Utah Contention: K

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State of Utah, Department of Environmental Quality  
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Utah Contention: K

John L. Matthews, Major General USAF (Ret)  
Military Advisor to Governor of Utah  
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116 State Capitol  
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Utah Contention: K

Marvin Resnikoff, Ph.D.  
Senior Associate  
Radioactive Waste Management Associates  
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Utah Contentions: B, C, F & P, G, K

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State of Utah, Department of Natural Resources  
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Utah Contentions: K and R

William M. Wallner  
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Utah Contention: K

In response to whether the information or opinions of anyone who was consulted in connection with the State's response to an interrogatory or request for admission differs from the State's written answer to the discovery request, the State is unaware of any such difference among those consulted.

**GENERAL INTERROGATORY NO. 2.** To the extent that the State has not previously produced documents relevant to any Utah admitted contention, identify all such documents not previously produced. The State may respond to this request by notifying PFS that relevant documents are available for its review and/or copying.

**STATE'S RESPONSE TO GENERAL INTERROGATORY NO. 2.**

As jointly agreed to by the State and PFS as to the scope of "relevance," the State will notify PFS that relevant documents are available for its review and/or copying.

**GENERAL INTERROGATORY NO. 3.** For each admitted Utah contention, give the name, address, profession, employer, area of professional expertise, and educational and scientific experience of each person whom the State expects to call as a witness at the hearing. For purposes of answering this interrogatory, the educational and scientific experience of expected witnesses may be provided by a resume of the person attached to the response.

**STATE'S RESPONSE TO GENERAL INTERROGATORY NO. 3.**

The State has not yet identified expert witnesses whom the State expects to call at the hearing. In addition, the State has already provided the Applicant with copies of resumes for Marvin Resnikoff, PhD (*see* Exhibit 2 to State's Contentions (dated November 23, 1997)), David B. Cole, Bronson W. Hawley, Ph.D., William M. Wallner, John L. Matthews, Major General USAF (Ret), David C. Schen, and Donald C. Cobb, some of whom may be witnesses for the State with respect to Group I Utah Contentions. The State will supplement this response in accordance with 10 CFR § 2.740(e).

**GENERAL INTERROGATORY NO. 4.** For each admitted Utah contention, identify the qualifications of each expert witness whom the State expects to call at the hearing, including but not limited to a list of all publications authored by the witness within the preceding ten years and a listing of any other cases in which the witness has testified as an expert at a trial, hearing or by deposition within the preceding four years.

**STATE'S RESPONSE TO GENERAL INTERROGATORY NO. 4.**

See response to General Interrogatory No. 3.

**GENERAL INTERROGATORY NO. 5.** For each admitted Utah Contention, describe the subject matter on which each of the witnesses is expected to testify at the hearing, describe the facts and opinions to which each witness is expected to testify, including a summary of the grounds for each opinion, and identify the documents (including all pertinent pages or parts thereof), data or other information which each witness has reviewed and considered, or is expected to consider or to rely on for his or her testimony.

**STATE'S RESPONSE TO GENERAL INTERROGATORY NO. 5.**

See response to General Interrogatory No. 3.

**II. BOARD CONTENTION 1 (UTAH B) LICENSE NEEDED FOR INTERMODAL TRANSFER FACILITY**

**A. DOCUMENT REQUESTS - UTAH B**

The Applicant requests the State of Utah and/or the Confederated Tribes to produce the following documents directly or indirectly within its possession, custody or control to the extent not previously produced by the State during informal discovery:

**DOCUMENT REQUEST NO. 1 - UTAH B.** All documents related to the claims raised by the State, as admitted by the Board, in Contention B.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 1 - UTAH B:**

The State has produced all relevant documents not privileged to PFS during informal discovery and will continue to identify all such documents not previously produced. See Response to General Interrogatory No. 2.

**DOCUMENT REQUEST NO. 2 - UTAH B.** All documents, data or other

information reviewed, considered or relied upon by Marvin Resnikoff or any other expert or consultant assisting the State with respect to Utah Contention B.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 2 - UTAH B:**

See Response to Document Request No. 1 above.

**III. BOARD CONTENTION 2 (UTAH C) FAILURE TO DEMONSTRATE COMPLIANCE WITH NRC DOSE LIMITS**

**A. DOCUMENT REQUESTS - UTAH C**

The Applicant requests the State of Utah to produce the following documents directly or indirectly within its possession, custody or control to the extent not previously produced by the State during informal discovery:

**DOCUMENT REQUEST NO. 1 - UTAH C.** All documents related to the claims raised by the State, as admitted by the Board, in Contention C.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 1 - UTAH C:**

The following documents are related to the claims raised by the State in Contention C, and were not produced in informal discovery. These documents are publicly available from the NRC, EPA, and ICRP.

Oztunali, OI and GW Roles, "Update of Part 61, Impacts Analysis Methodology," NUREG/CR-4370, January 1986.

U.S. EPA (1993). *External Exposures to Radionuclides in Air, Water and Soil*, Federal Guidance Report No. 12, EPA 402-R-93-081, Sept. 1993.

Yu, C., et al, *Data Collection Handbook to Support Modeling the Impacts of Radioactive Material in Soil*, Argonne National Laboratory, ANL/EAIS-8, April 1993.

Yu, C., et al, *Manual for Implementing Residual Radioactive Material Guidelines Using RESRAD*, Version 5.0, Argonne National Laboratory, ANL/EAD/LD-2, September 1993, Appendix C.



Stanek, J and Calabrese, EJ, "Estimates of Soil Ingestion in Children," *Environmental Health Perspectives*, March 1995, pp. 276.

Eckerman, KF, AB Wolbarst and ACB Richardson (1988). *Limiting Values of Radionuclide Intake and Air Concentration and Dose Conversion Factors for Inhalation, Submersion, and Ingestion*. Federal Guidance Report No. 11, EPA-520-1-88-020 (Oak Ridge National Laboratory, Oak Ridge, TN). U.S. EPA, Washington, D.C.

ICRP, "Age-dependent Doses to Members of the Public from Intake of Radionuclides: Part 5, Compilation of Ingestion and Inhalation Dose Coefficients," ICRP 72, Pergamon Press (1996).

ICRP, "1990 Recommendations of the International Commission on Radiological Protection," ICRP 60, Pergamon Press (1991).

Regulatory Guide 1.109, "Calculation of Annual Doses to Man from Routine Releases of Reactor Effluents for the Purpose of Evaluating Compliance with 10 CFR Part 50, Appendix I," October 1977.

Regulatory Guide 1.111, "Methods for Estimating Atmospheric Transport and Dispersion of Gaseous Effluents in Routine Releases from Light-Water-Cooled Reactors," July 1977.

NRC Memo from S. Shankman, Deputy Director, Spent Fuel Project Office, NMSS, to WF Kane, Director, Spent Fuel Project Office, NMSS, re. Issuance of Interim Staff Guidance, September 28, 1998.

DOCUMENT REQUEST NO. 2 - UTAH C. All documents, data and information reviewed, considered or relied upon by Marvin Resnikoff or any other expert or consultant assisting the State with respect to Utah Contention C.

STATE'S RESPONSE TO DOCUMENT REQUEST NO. 2 - UTAH C:

See Response to Document Request No. 1 above.

IV. BOARD CONTENTION 4 (UTAH F & P) - TRAINING AND CERTIFICATION

A. INTERROGATORIES - UTAH F & P

**INTERROGATORY NO. 1 - UTAH F & P.** Identify and fully explain each respect in which the State contends that PFS has not "explicitly defined a training and certification program" as required by the NRC regulations.

**STATE'S RESPONSE TO INTERROGATORY NO. 1 - UTAH F & P:**

See the basis of Contention F. In addition, the State asserts that the training and certification materials submitted by PFS to the NRC are inadequate because they merely constitute restatements of the regulatory requirements, rather than detailing the actual training and certification required of employees. For example, the SAR states that "the mechanics will become licensed locomotive operators." SAR, Section 9.3. The specific requirements and training for a licensed locomotive engineer appears in U.S. Department of Transportation ("DOT") regulations, 49 CFR Part 240. None of the qualifications, physical and certification requirements and training for a licensed locomotive engineer are described in Section 9.3 of the SAR. No conditions for a revocation of a locomotive engineers license appear in Section 9.3.

**INTERROGATORY NO. 2 - UTAH F & P.** Identify and fully explain each respect in which the State contends that PFS has not shown that its personnel qualifications are sufficient to assure that the PFS ISFSI will be operated safely.

**STATE'S RESPONSE TO INTERROGATORY NO. 2 - UTAH F & P:**

See the basis of Contention F. In addition, the State asserts that other than education, the Applicant has not indicated the personnel qualifications of its employees. For example, the locomotive engineer should be able to distinguish red from green. The Applicant should have skill requirements that relate to the job.

**INTERROGATORY NO. 3 - UTAH F & P.** Identify and fully explain each respect in which the State contends that the qualifications of the PFSF General Manager and the PFSF Operators will be inadequate.

**STATE'S RESPONSE TO INTERROGATORY NO. 3 - UTAH F & P:**

See the basis of Contention F.

**INTERROGATORY NO. 4 - UTAH F & P.** Identify and fully explain each respect in which the State contends that PFS has not laid out its instruction course or training program in sufficient detail.

**STATE'S RESPONSE TO INTERROGATORY NO. 4 - UTAH F & P:**

PFS does not have a testing and certification program, as required by 10 CFR § 72.192. The testing and certification program should have been filed with the license application.

**INTERROGATORY NO. 5 - UTAH F & P.** Identify and fully explain each respect in which the State contends that PFS's testing and certification program is inadequate.

**STATE'S RESPONSE TO INTERROGATORY NO. 5 - UTAH F & P:**

See Response to Interrogatory No. 4 above.

**INTERROGATORY NO. 6 - UTAH F & P.** Identify and fully explain each respect in which the State contends that PFS's certifications standards are inadequate.

**STATE'S RESPONSE TO INTERROGATORY NO. 6 - UTAH F & P:**

PFS has not stated any certification standards. At the very least, PFS should provide standards that include an example of the type of test, a discussion of how the test would qualify the person for the certified position, and the minimum passing

grade.

**INTERROGATORY NO. 7 - UTAH F & P.** Identify and fully explain each respect in which the State contends that PFS has not adequately described a training program that ensures that all PFS personnel who will direct activities or work with radioactive materials will be capable of evaluating the significance of radiation doses.

**STATE'S RESPONSE TO INTERROGATORY NO. 7 - UTAH F & P:**

Several standard radiation protection programs exist. Appendix B of *Transportation of Hazardous Materials: State and Local Activities*, prepared by the Office of Technology Assessment (March 1986), has a list of such training programs. The license application does not identify any program, nor indicate that potential operators would be required to attend such programs.

**INTERROGATORY NO. 8 - UTAH F & P.** Identify each regulatory basis on which the State bases its claims as set forth above.

**STATE'S RESPONSE TO INTERROGATORY NO. 8 - UTAH F & P:**

The State bases its claim on NRC regulations at 10 CFR §§ 72.192 and 72.194, and DOT requirements in 49 CFR Part 240.

**B. DOCUMENT REQUESTS - UTAH F & P**

The Applicant requests the State of Utah to produce the following documents directly or indirectly within its possession, custody or control to the extent not previously produced by the State during informal discovery:

**DOCUMENT REQUEST NO. 1 - UTAH F & P.** All documents related to the claims raised by the State, as admitted by the Board, in Contentions F and P.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 1 - UTAH F &**

P:

In addition to any documents previously produced by the State, the State intends to rely on training programs developed by the Federal Railway Administration and its contractors. Appendix B of *Transportation of Hazardous Materials: State and Local Activities*, prepared by the Office of Technology Assessment (March 1986), contains a listing of industry, associations, university, government and private training firms. The DOT has produced an excellent introduction to transportation guidance, DOT/RSPA/MTB-81/4, *Radioactive Materials Transportation Information and Incident Guidance* (1981). The DOE has produced a similarly helpful guide, "Emergency Preparedness for Transportation Incidents Involving Radioactive Materials" (May 1989). These materials provide guidance for radiation protection in transportation and handling of radioactive waste, and are publicly available from the DOE.

DOCUMENT REQUEST NO. 2 - UTAH F & P. All documents, data or other information reviewed, considered or relied upon by Marvin Resnikoff or any other expert or consultant assisting the State with respect to Utah Contentions F and P.

STATE'S RESPONSE TO DOCUMENT REQUEST NO. 2 - UTAH F &

P:

See Response to Document Request No. 1 above.

V. BOARD CONTENTION 5 (UTAH G) - QUALITY ASSURANCE

A. INTERROGATORIES - UTAH G

INTERROGATORY NO. 1 - UTAH G. Identify and fully explain each respect in which the State claims that the QA program "is completely inadequate to provide sufficient detail to enable staff to determine its adequacy."

## STATE'S RESPONSE TO INTERROGATORY NO. 1 - UTAH G.

See the basis to Contention G. In addition, the State asserts that the Applicant has not provided sufficient quality assurance design or operational information. Chapter 3 of the SAR details the design requirements for SSCs (structures, systems, and components) relating to regulatory and industry code requirements (such as NUREG-0612 and ANSI N 14.6 for load path requirements). Yet, Chapter 4 of the SAR on the design to meet the requirements does not provide sufficient design information to permit verification of compliance with requirements. In fact, regarding the Canister Transfer Building (SAR at 4.7-3), the document states that the detailed design of the Canister Transfer Building will be performed later, during the unspecified design phase of the proposed project. Licensing under Part 72 is a one step process and will require detailed design information to support a licensing decision. In addition, descriptions of system operating interfaces, identifying specific device mating areas and specifications, are missing; and clarification and description of working space available in receiving and transfer, along with area crane coverage (and headroom) over the canister handling path, is not specified (e.g., in SAR Figures 3.3-3, 3.3-4, and 4.7-1). This leaves open operational practice questions and associated occupational dose exposure. For example, Figure 4.1-1 of the SAR depicts the possibility of three transfer cells within the Canister Transfer Building. Based on physical crane positioning (and associated headroom, floor loading limits, etc.) utilizing both cranes (the 200-ton

overhead gantry crane and the 150-ton semi-gantry crane), how many unloading operations can take place simultaneously? Since annual receipt of 200 rail packages is anticipated, and each package is estimated to require an approximate 20-hour turnaround time (to receipt, inspect, transfer, and store), operational interfaces and pathways will have to be specified to meet throughput requirements. Figures 5.1-1 and 5.1-3 of the SAR describe the sequence of a single transfer within the canister transfer operation, but not the facility-wide operational throughput design considerations, nor the canister pathway limitations.

Experience with Sierra Nuclear's storage cask technology has revealed that some of the welds on existing storage casks are inadequate. This raises serious questions regarding both the adequacy of the cask fabrication Quality Assurance Program and the design basis for the welds themselves, under expected environmental conditions and length of service. See NRC Container Supplier Inspection Program, Inspection Report No. 721007/92-01, May 6, 1992.

Recent events at the Palisades reactor in Michigan also bring into question poor quality control procedures in fabricating the Multi-Assembly Sealed Baskets ("MSB"). NRC inspectors found problems with the welding procedures during the fabrication of these metal casks. As a result, Consumers Power will be required to unload cask #4, which has a faulty weld that was discovered after the cask was loaded. PSC staff should compare the track record of this vendor with others and incorporate quality

assurance measures that address this problem.

While the NRC inspection team found the Quality Assurance (QA) program "satisfactory,"<sup>1</sup> the staff identified 14 items of nonconformance, several of which likely led to the need to unload cask #4 one and one half years later. The inspection team noted that there was a turnover of the QA Manager at SNC and also that the QA qualification records were not available from the previous QA manager. Additionally, Sierra Nuclear was not regularly auditing its prime fabricator, Richmond Enterprises.<sup>2</sup> Changes in the VSC design were made by Sierra Nuclear that were not reviewed under the QA program. The fabricator, Richmond Enterprises "remembered" that sheet metal was purchased from Jorgensen Steel and Aluminum, Oakland, California, but whether the material for each cask satisfied the fabrication requirements could not be determined from the poor documentation.

Most disturbing, and a problem that should have been a warning sign to Consumers Power, the radiographer had no criteria for passing or failing a weld. According to the NRC, "there is no procedure which identifies specific radiographic parameters for the radiographic examination of the Multi-Assembly Sealed Baskets."<sup>3</sup>

The inspection report also indicated how superficially NRC staff oversees

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<sup>1</sup> NRC Container Supplier Inspection Program, Inspection Report No. 721007/92-01, May 6, 1992.

<sup>2</sup> Id.

<sup>3</sup> Id. at 8.



crucial manufacturing processes. An unapproved cask shell was on the assembly line, but was not identified by the NRC inspectors, and Consumers Power was not cited for violating NRC regulations. Under NRC regulations, storage casks cannot be constructed until the Certificate of Compliance has been issued. Because of the urgent need to unload fuel from the Palisades reactor pool, Consumers Power was granted an exemption for the construction of three MSB's. Yet cask #4 was on the production line at Richmond Enterprises and the NRC did not flag this violation of the exemption. This same cask, #4, was later found to have a welding defect.

Quality assurance program implementation and adequate early verification in the fabrication process of a quality assurance program were the subject of discussion at an August 25, 1994 meeting between Consumers Power and the NRC in Rockville, Md.. In their review of lessons learned, the NRC noted that Consumers Power failed to ensure effective self-assessment and quality oversight, and to implement an effective corrective action program. These troubling QA problems at Sierra Nuclear and its subcontractors indicate the clear need for a comprehensive and detailed quality assurance program for PFS.

**INTERROGATORY NO. 2 - UTAH G.** Identify and fully explain each respect in which the State claims that the QA program "fails to demonstrate the independence of the QA organization."

**STATE'S RESPONSE TO INTERROGATORY NO. 2 - UTAH G.**

See basis 4 for Contention G. In addition, the State asserts that the PFS project

consists of a large number of independent utilities handling one half of the nation's spent nuclear power plant fuel. The project presents a major problem with respect to verifying the construction of each of the 4,000 casks. In addition, PFS must verify the integrity of the irradiated fuel that is put inside the cask, the loading of the fuel, and the welding of the canister. Despite the magnitude and safety importance of this problem, the SAR has no mention of the independent verification capabilities of PFS.

**INTERROGATORY NO. 3 - UTAH G.** Identify each regulatory basis on which the State bases its claims as set forth above.

**STATE'S RESPONSE TO INTERROGATORY NO. 3 - UTAH G.**

The State relies on Subpart G of 10 C.F.R. Part 72.

**B. DOCUMENT REQUESTS - UTAH G**

The Applicant requests the State of Utah to produce the following documents directly or indirectly within its possession, custody or control to the extent not previously produced by the State during informal discovery:

**DOCUMENT REQUEST NO. 1 - UTAH G:** All documents related to the claims raised by the State, as admitted by the Board, in Contention G.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 1 - UTAH G:**

See documents identified in Response to Interrogatory No. 1 above.

**DOCUMENT REQUEST NO. 2 - UTAH G:** All documents, data or other information reviewed, considered or relied upon by Marvin Resnikoff or any other expert or consultant assisting the State with respect to Utah Contention G.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 2- UTAH G:**

See Response to Document Production Request No. 1 above.

**VI. BOARD CONTENTION 5 (UTAH K/CONFEDERATED TRIBES B) -  
INADEQUATE CONSIDERATION OF CREDIBLE ACCIDENTS**

These requests are directed to both the State and Confederated Tribes as appropriate. The term "no significant hazard" is defined to mean that the potential impact of the activity or material on the PFS ISFSI and/or Intermodal Transfer Point ("ITP") located 1.8 miles west of Rowley Junction would not to be a licensing issue with respect to the PFS ISFSI and/or the ITP. The term "significant hazard" in turn is defined to mean that the potential impact of the activity or material on the PFS ISFSI and/or the ITP would be a licensing issue with respect to the PFS ISFSI and/or the ITP.

**QUALIFICATIONS TO RESPONSES TO CONTENTION K:**

The State of Utah responds to these Discovery Requests with the following two qualifications. First, the State has not completed the review that is necessary to fully establish its position in this litigation. The State is in the process of reviewing many thousands of documents produced by PFS, and is also making further inquiry and analysis regarding those documents. The State also anticipates that it will obtain additional documents and information through discovery against PFS. Accordingly, the State of Utah hereby reserves its right to rely upon any and all additional documents and information as it might obtain and review, and to supplement or modify its responses to the Requests to incorporate such additional information or documents as required by NRC discovery regulations.

Second, a number of the Applicant's Discovery Requests seek an Admission or information from the State concerning future activities or materials at, or emanating from, various military installations over which the State does not have control. For

example, the mission of Dugway Proving Ground and the Utah Test and Training Range is to respond to the current needs of the federal Armed Services and the United States Government. The specific materials, tests, training, and other activities and their projected impacts are dependent on a number of factors including the technology of both allies and adversaries existing at the time of the activity. In addition, the existing significant hazard posed on the PFS ISFSI or ITP is unknown due to the potential for buried chemical, biological, or conventional agents or munitions at unknown on or off military installation locations.

**A. REQUESTS FOR ADMISSIONS - UTAH K/CONFEDERATED TRIBES B**  
**GENERAL OBJECTION TO REQUESTS FOR ADMISSIONS**

The State of Utah objects to the Requests for Admission that a specified activity or activities would pose no significant hazard on the PFS ISFSI or ITP, to the extent that it seeks to require the State to provide information and/or risk analysis that PFS is responsible for preparing in support of its license application. PFS, not the State, bears the burden of proof in this proceeding. Thus, PFS has the burden to describe the products or materials stored or transported and the activities conducted at the surrounding industrial and military facilities, and assess the site specific, identify specific risks, probability, and impacts to the proposed PFS ISFSI, ITP, and transportation routes. However, PFS has not provided the State with any written documentation supported by standard scientific theories and calculations, beyond mere

conclusory dismissal.

### **Tekoi Rocket Engine Test Facility**

**REQUEST FOR ADMISSION NO. 1 - UTAH K:** Do you admit that activities or materials at, or emanating from, the Tekoi Rocket Engine Test facility, other than potential rocket engine explosions or rocket engines potentially escaping their moorings while being fired, would pose no significant hazard to the PFS ISFSI or the ITP?

#### **STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 1 - UTAH**

**K:**

Notwithstanding the general objection stated on pages 19-20, the State objects to the phrase "activities or materials at, or emanating from" on the grounds that it is vague, over broad, and does not state with reasonable particularity the Admission sought. Notwithstanding these objections and the qualifications described in the introduction above, Admission No. 1 is denied based on information and belief.

**REQUEST FOR ADMISSION NO. 2 - UTAH K:** Do you admit that potential explosions of the rocket engines tested at the Tekoi Rocket Engine Test facility, assuming that the rocket engines did not escape their moorings while being fired, would pose no significant hazard to the PFS ISFSI or the ITP?

#### **STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 2 - UTAH**

**K:**

Notwithstanding the general objection stated on pages 19-20, Admission No 2 is denied on information and belief.

**REQUEST FOR ADMISSION NO. 3 - UTAH K:** Do you admit that activities or materials at, or emanating from, the Tekoi Rocket Engine Test facility would pose no significant hazard to the PFS ISFSI or the ITP?

#### **STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 3 - UTAH**

**K:**

Notwithstanding the general objection stated on pages 19-20, the State objects to this Request for Admission on the grounds that it is repetitive of Request for Admission Nos. 1 and 2 and is unduly burdensome. Notwithstanding these objections, the State denies the request on information and belief.

#### **Dugway Proving Ground**

**REQUEST FOR ADMISSION NO. 4 - UTAH K:** Do you admit that the storage and/or disposal of chemical and other ordnance, including the open burning and open detonation of such ordnance, conducted at Dugway Proving Ground would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 4 - UTAH K:**

In addition to the general objection stated on pages 19-20, the State objects to this Request on the ground that it is over broad. Notwithstanding these objections, Admission No. 4 is denied, except with respect to the following statement. The State of Utah admits storage of chemical and other ordnance would not pose a significant hazard to the PFS ISFSI or ITP provided that: a) the chemical or other ordnance is a hazardous waste as defined in §19-6-102(9) Utah Code Ann., b) the hazardous waste is stored at a Dugway Proving Ground storage area permitted by the State of Utah, and c) storage is conducted in accordance with the procedures authorized by §19-6-108(3)(a) Utah Code Ann.

**REQUEST FOR ADMISSION NO. 5 - UTAH K:** Do you admit that the testing, handling, analysis, and disposal of biological agents conducted at Dugway Proving Ground would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 5 - UTAH**

**K:**

In addition to the general objection stated on pages 19-20, the State objects to this Request on the ground that it is over broad. Notwithstanding these objections, Admission No 5 is denied, except with respect to the following statement. The State admits that the testing, handling, analysis, and disposal of biological agents conducted at the Dugway Proving Ground Life Sciences Laboratory would not present significant hazard to the PFS ISFSI or the ITP provided that the testing, handling, analysis, and disposal are conducted in accordance with the information, test procedures, and protocol provided to the Governor of the State of Utah's Technical Review Committee for Dugway Proving Ground.

**REQUEST FOR ADMISSION NO. 6 - UTAH K:** Do you admit that the testing, handling, analysis, and disposal of chemical and other non-biological agents conducted at Dugway Proving Ground would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 6 - UTAH**

**K:**

In addition to the general objection stated on pages 19-20, the State objects to this Request on the ground that it is over broad. Notwithstanding these objections, Admission No. 6 is denied on information and belief.

**REQUEST FOR ADMISSION NO. 7 - UTAH K:** Do you admit that the weapons and munitions testing conducted at Dugway Proving Ground, other than testing of air-launched or aircraft-delivered weapons or munitions, would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 7 - UTAH**

**K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 7 is denied on information and belief.

**REQUEST FOR ADMISSION NO. 8 - UTAH K:** Do you admit that the testing of air-launched or aircraft-delivered weapons or munitions, to the extent conducted at Dugway Proving Ground, would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 8 - UTAH**

**K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 8 is denied on information and belief.

**REQUEST FOR ADMISSION NO. 9 - UTAH K:** Do you admit that training exercises conducted by military units (active, National Guard, or reserve) at Dugway Proving Ground, except for the portions of the training or exercises that may involve military aircraft flying over, taking off from, or landing at Dugway Proving Ground, would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 9 - UTAH**

**K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 9 is denied on information and belief.

**REQUEST FOR ADMISSION NO. 10 - UTAH K:** Do you admit that the firing of live munitions during training exercises conducted by military units (active, National Guard, or reserve) at Dugway Proving Ground is directed to the South and/or the West and would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 10 - UTAH K:**



Notwithstanding the general objection stated on pages 19-20, Admission No. 10 is denied on information and belief.

**REQUEST FOR ADMISSION NO. 11 - UTAH K:** Do you admit that military aircraft flying over, taking off from, or landing at Dugway Proving Ground would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 11 - UTAH K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 11 is denied on information and belief.

**REQUEST FOR ADMISSION NO. 12 - UTAH K:** Do you admit that military aircraft flying over, taking off from, or landing at Dugway Proving Ground, other than aircraft carrying missiles, bombs, or rockets with live warheads, would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 12 - UTAH K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 12 is denied on information and belief.

**REQUEST FOR ADMISSION NO. 13 - UTAH K:** Do you admit that the detonation of hung bombs at Dugway Proving Ground (done pursuant to an emergency RCRA permit issued by the State) would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 13 - UTAH K:**

In addition to the general objection stated on pages 19-20, the State objects to this Requests on the ground that it is over broad. Notwithstanding these objections Admission No. 13 is denied except with respect to the following statement. The State

admits the detonation of hung bombs would not pose a significant hazard to the PFS ISFSI or the ITP provided that: a) the bomb is a hazardous waste as defined in Utah Code Ann. §19-6-102(9), b) the hazardous waste bomb is treated at the Dugway Proving Ground open burning/open detonation area permitted by the State of Utah, and c) the treatment is conducted in accordance with the procedures authorized by Utah Code Ann. §19-6-108(3)(a).

**REQUEST FOR ADMISSION NO. 14 - UTAH K:** Do you admit that - as set forth at page 4-100 of the FEIS for the X-33 space plane - the planned flight paths for the X-33 do not cross over Skull Valley?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 14 - UTAH K:**

The State of Utah neither admits nor denies this Request for Admission. The document speaks for itself.

**REQUEST FOR ADMISSION NO. 15 - UTAH K:** Do you admit that - as set forth at page 4-87 of the FEIS for the X-33 space plane - the X-33 will make no more than approximately seven landings at Michael Army Airfield over the course of the program?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 15 - UTAH K:**

The State of Utah neither admits nor denies this Request for Admission. The document speaks for itself.

**REQUEST FOR ADMISSION NO. 16 - UTAH K:** Do you admit that - as set forth at page 4-101 of the FEIS for the X-33 space plane - the seven flights for the X-33 to Michael Army Airfield are scheduled to be completed by mid-1999.

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 16 -**

**UTAH K:**

The State of Utah neither admits nor denies this Request for Admission. The document speaks for itself.

**REQUEST FOR ADMISSION NO. 17 - UTAH K:** Do you admit that the operations of the X-33 aircraft would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 17 - UTAH K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 17 is denied on information and belief.

**REQUEST FOR ADMISSION NO. 18 - UTAH K:** Do you admit that activities or materials at, or emanating from, Dugway Proving Ground would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 18 - UTAH K:**

In addition to the general objection stated on pages 19-20, the State objects to this Request on the grounds that it is unduly burdensome and is repetitive of Requests for Admissions No. 4 through 17. Notwithstanding its objections, the State of Utah denies this Request for Admission on the grounds described in its Responses to the Requests for Admissions No. 4 through 17.

**Hill Air Force Base and the Utah Test and Training Range**

**REQUEST FOR ADMISSION NO. 19 - UTAH K:** Do you admit that activities or materials at, or emanating from, Hill Air Force Base and the North part of the Utah Test and Training Range ("UTTR"), other than military aircraft from Hill Air Force Base flying to or from the UTTR South range, would pose no significant

hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 19 -  
UTAH K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 19 is denied, except with respect to the following statement. The State admits hazardous waste treatment activities or hazardous waste, as defined in Utah Code Ann. §19-6-102(9), at, or emanating from, the Utah Test and Training Range North Range pose no significant hazard with respect to the PFS ISFSI or the ITP provided that: a) the hazardous waste is treated in a Utah Test and Training Range North Range area permitted by the State of Utah and b) the treatment is conducted in accordance with the procedures authorized by Utah Code Ann. §19-6-108(3)(a).

**REQUEST FOR ADMISSION NO. 20 - UTAH K:** Do you admit that military aircraft flying to, from or over the UTTR South range would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 20 -  
UTAH K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 20 is denied on information and belief.

**REQUEST FOR ADMISSION NO. 21 - UTAH K:** Do you admit that military aircraft flying to, from, or over the UTTR South range, other than aircraft carrying missiles, bombs, or rockets with live warheads, would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 21 -  
UTAH K:**

In addition to general objection stated on pages 19-20, the State objects to this Request on the grounds that it is unduly burdensome and is repetitive of Request for Admission No. 20. Notwithstanding these objections, Admission No. 21 is denied on information and belief.

**REQUEST FOR ADMISSION NO. 22 - UTAH K:** Do you admit that the testing and training involving military aircraft bombing, cannon, gunnery and related activities that occur at the UTTR South range would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 22 - UTAH K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 22 is denied on information and belief.

**REQUEST FOR ADMISSION NO. 23 - UTAH K:** Do you admit that military aircraft engaged in testing and/or training at the UTTR South range with hung bombs would proceed directly from the test and training range to Michael Army Airfield on Dugway, over Military reservation, without flying over Skull Valley?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 23 - UTAH K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 23 is denied on information and belief.

**REQUEST FOR ADMISSION NO. 24 - UTAH K:** Do you admit that activities or materials at, or emanating from, Hill Air Force Base and the UTTR would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 24 - UTAH K:**

In addition to general objection stated on pages 19-20, the State of Utah objects

to this Request on the grounds that it is unduly burdensome and is repetitive of Request for Admission Nos. 19 and 20. The State denies and admits, in part, Admission No 24 to the same extent as its response to Requests for Admissions Nos. 19 and 20.

### **Salt Lake City International Airport**

**REQUEST FOR ADMISSION NO. 25 - UTAH K:** Do you admit that activities at or emanating from Salt Lake City International Airport, other than aircraft flying to or from the airport, would pose no significant hazard to the PFS ISFSI or the ITP?

#### **STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 25 - UTAH K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 25 is denied on information and belief.

**REQUEST FOR ADMISSION NO. 26 - UTAH K:** Do you admit that the PFS ISFSI site is more than five miles from the edge of the nearest federal airway, which runs north to south on the east side of the Stansbury Mountains?

#### **STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 26 - UTAH K:**

The State of Utah neither admits nor denies this Request for Admission on the basis that Exhibit 9 to the Utah Contentions filed November 24, 1997, page 5-100, identifies federal airways. The document speaks for itself.

**REQUEST FOR ADMISSION NO. 27 - UTAH K:** Do you admit that aircraft flying to or from Salt Lake City International Airport, including commercial aviation aircraft and general aviation aircraft, would pose no significant hazard to the PFS ISFSI?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 27 -  
UTAH K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 27 is denied on information and belief.

**REQUEST FOR ADMISSION NO. 28 - UTAH K:** Do you admit that activities at or emanating from Salt Lake City International Airport would pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 28 -  
UTAH K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 28 is denied on information and belief.

**Laidlaw Aptus Hazardous Waste Incinerator**

**REQUEST FOR ADMISSION NO. 29 - UTAH K:** Do you admit that the transportation of hazardous materials (i.e., waste) to or from the Laidlaw Aptus hazardous waste incinerator would pose no significant hazard to the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 29 -  
UTAH K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 29 is denied on information and belief.

**Envirocare Low-Level Radioactive and Mixed Waste Landfill**

**REQUEST FOR ADMISSION NO. 30 - UTAH K:** Do you admit that the transportation of hazardous materials (i.e., waste) to or from the Envirocare low-level radioactive waste and mixed waste landfill would pose no significant hazard to the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 30 -  
UTAH K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 30 is denied on information and belief.

**Laidlaw Clive Hazardous Waste Incinerator**

**REQUEST FOR ADMISSION NO. 31 - UTAH K:** Do you admit that the transportation of hazardous materials (i.e., waste) to or from the Laidlaw Clive hazardous waste incinerator would pose no significant hazard to the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 31 - UTAH K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 31 is denied on information and belief.

**Laidlaw Grassy Mountain Hazardous Waste Landfill**

**REQUEST FOR ADMISSION NO. 32 - UTAH K:** Do you admit that the transportation of hazardous materials (i.e., waste) to or from the Laidlaw Grassy Mountain hazardous waste landfill would pose no significant hazard to the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 32 - UTAH K:**

Notwithstanding the general objection stated on pages 19-20, Admission No. 32 is denied on information and belief.

**Wildfires**

**REQUEST FOR ADMISSION NO. 33 - UTAH K:** Do you admit that maximum temperature that wildfires could reach in the vicinity of the PFS ISFSI or the ITP would be less than 1475 degrees F?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 33 - UTAH K:**

The Admission is denied on information and belief.



**REQUEST FOR ADMISSION NO. 34 - UTAH K:** Do you admit that the time for which the 90 acre restricted area at the PFS ISFSI would be subject to temperatures resulting from a wildfire in excess of 500 degrees F (assuming no fire break) would be less than fifteen minutes?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 34 - UTAH K:**

The Admission is denied on information and belief.

**REQUEST FOR ADMISSION NO. 35 - UTAH K:** Do you admit that the time for which the ITP would be subject to temperatures resulting from a wildfire in excess of 500 degrees F (assuming no fire break) would be less than fifteen minutes?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 35 - UTAH K:**

The Admission is denied on information and belief.

**REQUEST FOR ADMISSION NO. 36 - UTAH K:** Do you admit that a fire break of 100 feet or more would protect non-combustible equipment and/or structures from heat damage resulting from a wildfire?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 36 - UTAH K:**

The State objects to this Admission as over broad. Notwithstanding this objection, the Admission is denied on information and belief. Further PFS does not specify what it means by "non-combustible equipment and/or structures."

**REQUEST FOR ADMISSION NO. 37 - UTAH K:** Do you admit that such a fire break exists to protect the restricted area of the PFS ISFSI where the storage casks and the canister transfer building are located?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 37 - UTAH K:**

The State objects to this Admission as ambiguous. Notwithstanding this

objection, the Admission is denied on information and belief. To the best of the State's knowledge no fire break currently exists at the ISFSI site. Furthermore, PFS has not described with specificity how the fire break will be constructed and maintained.

**REQUEST FOR ADMISSION NO. 38 - UTAH K:** Do you admit that wildfires pose no significant hazard to the PFS ISFSI or the ITP?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 38 -**

**UTAH K:**

The State objects to this Admission as over broad. Notwithstanding this objection, the Admission is denied on information and belief.

**B. INTERROGATORIES - UTAH K/CONFEDERATED TRIBES B**

**INTERROGATORY NO. 1 - UTAH K.** To the extent the State does not admit admissions 3, 18, 24, and 28 above, identify the specific activities or materials (specific type and quantity) at, or emanating from, the Tekoi Rocket Engine Test facility, Dugway Proving Ground, Salt Lake City National Airport, Hill Air Force Base and the Utah Test and Training Range that the State claims would pose a significant hazard to the PFS ISFSI and/or the ITP.

**STATE'S RESPONSE TO INTERROGATORY NO. 1 - UTAH K:**

Without waiving its right to supplement or modify its response, the State responds that the following incidents may pose a significant threat:

a) Incidents related to air-to-air, air-to-ground, and ground-to-ground combat training with varying quantities of inert and live ordnance at, emanating from, or en route to the Utah Test and Training Range and Dugway Proving Ground. Examples

include the accidental bombing of the ISFSI or ITP with live or inert weapons, including missiles and bombs, the intentional release of a fuel tank during an emergency, or flying debris traveling in excess of 126 miles per hour.

b) Incidents related to the testing and training of air-launched weapons, including cruise missiles and side winder missiles, at, emanating from, or en route to the Utah Test and Training Range and Dugway Proving Ground which strike the ISFSI or ITP.

c) Incidents related to air traffic, including military (e.g., attack Black Hawk and Apache helicopters, B-1 bombers, F-16, Falcon jets, etc.), commercial jets flying along commercial corridors or over military airspace, private jets and planes, and aerospace (e.g., X-33 space plane, space shuttle), at, emanating from, en route to, flying over, or landing at Skull Valley, the Utah Test and Training Range, Dugway Proving Ground, Tooele Valley, and the I-80 corridor in which the air craft directly crash into the ISFSI or ITP, or flying debris, including jet engines, strike the casks at a speed in excess of 126 miles per hour.

d) Incidents related to the unauthorized treatment, storage, or disposal of hazardous waste at or emanating from Dugway Proving Ground, the Utah Test and Training Range, or elsewhere in the vicinity of the PFS ISFSI or ITP.

e) Incidents related to the testing of military weapons or rocket motors at or emanating from the Dugway Proving Ground, Utah Test and Training Range, or the

Alliant Systems Tekoi Rocket Test Facility such as accidental explosions or detonations of propellant, explosives, or rocket motors, a misfired weapon hitting the ISFSI of ITP, or potential electrical problems created by smoke and particulate from a rocket motor test fire.

f) Incidents related to currently unknown former activities with hazardous, radioactive, or toxic waste or materials at or emanating from the Dugway Proving Ground, Utah Test and Training range or elsewhere in the vicinity of the PFS ISFSI or ITP, (e.g., incidents that may cause harm to PFS employees or cause the ISFSI or ITP to be evacuated, leaving the facility unsecured or confounding the radiation detection monitors).

g) Incidents related to future unknown military activities at or emanating from the Dugway Proving Ground, Utah Test and Training Range, Hill Air Force Base, or other military operations which will utilize the Dugway Proving Ground or Utah Test and Training Range;

h) incidents related to the transportation of chemical agents, biological agents, explosives, propellants, hazardous, radioactive, and toxic wastes, hazardous materials along Skull Valley Road, Interstate 80, and the rail spur that parallels Interstate 80 from or en route to Dugway Proving Ground, Utah Test and Training Range, or Alliant Systems Tekoi Rocket Test Facility in quantities which may detonate or explode or when released or spilled may harm ISFSI or ITP employees, and cause the

evacuation of the ISFSI or ITP, or close transportation routes.

**INTERROGATORY NO. 2 - UTAH K.** To the extent the State does not admit admissions 29-32 above, identity the transportation of hazardous materials (i.e., specific quantities and type of waste) to or from the Laidlaw Aptus hazardous waste incinerator, the Envirocare low-level radioactive and mixed waste landfill, the Laidlaw Clive Hazardous Waste Facility, and the Laidlaw Grassy Mountain hazardous waste landfill that the State claims would pose a significant hazard to the ITP.

**STATE'S RESPONSE TO INTERROGATORY NO. 2 - UTAH K:**

Without waiving its right to supplement or modify its response, the State responds that any hazardous, radioactive, or toxic waste or hazardous materials in a quantity which may a) explode or when released or spilled may harm ITP employees, b) cause the evacuation of the ITP, c) close transportation routes, or d) confine the radiation monitoring equipment at the ITP would have a significant impact on the ITP. In addition, any hazardous, radioactive, or toxic waste or hazardous material in a quantity when transportation is halted in an area due to congestion with spent fuel shipments may increase the potential risks to personnel transporting spent fuel or operating the ITP or ISFSI.

**INTERROGATORY NO. 3 - UTAH K.** Identify and fully explain the scientific, technical, statistical and/or other bases on which the State claims that each of the activities and/or materials identified in response to interrogatories 1 and 2 above would pose a significant hazard to the PFS ISFSI and/or ITP.

**STATE'S RESPONSE TO INTERROGATORY NO. 3 - UTAH K:**

The State of Utah objects to Interrogatory No. 3 as over broad.

Notwithstanding this objection and without waiving its objections or its right to

modify or supplement its response, the State is not in a position to fully respond to this Interrogatory because it is still investigating and analyzing high hazard activities which may occur in the vicinity of the proposed PFS ISFSI or ITP. However, the State is analyzing significant hazards on the following general bases. The State intends to: a) identify high hazard activities and materials, including occurrence rates, handling methodologies, and quantities; b) identify potential incidents which could occur as a result of the high hazard activities or materials; c) identify whether the incident has actually occurred; d) identify the consequences of the incident, including the range, severity, receptor, and concentration materials; e) estimate the probability of an incident; f) identify potential impacts on the PFS ISFSI or ITP; and g) identify the increased accumulative risks imposed by the proposed PFS ISFSI or ITP operations.

**INTERROGATORY NO. 4 - UTAH K.** To the extent the State does not admit admissions 29-32 above, identify any and all specific accidents that have occurred involving the transportation of hazardous materials to or from the Laidlaw Aptus hazardous waste incinerator, the Envirocare low-level radioactive and mixed waste landfill, the Laidlaw Clive Hazardous Waste Facility, and the Laidlaw Grassy Mountain hazardous waste landfill which the State claims would have posed a significant hazard to the ITP had they occurred at or near the ITP.

**STATE'S RESPONSE TO INTERROGATORY NO. 4 - UTAH K:**

The State of Utah objects to Interrogatory No. 4 as over broad.

Notwithstanding this objection and without waiving its objections or its right to modify or supplement its response, the State is not in a position to fully respond to this Interrogatory because it is still investigating and analyzing transportation of

hazardous, toxic or radioactive waste, or hazardous materials to the Envirocare, Laidlaw Aptus, Laidlaw Clive, and Laidlaw Grassy Mountain facilities. However, it should be noted that past incidents which may have posed a significant hazard to the PFS ISFSI or the ITP had it been constructed and operating at the time of accident may not have been documented because of the lack of an actual receptor.

**INTERROGATORY NO. 5 - UTAH K.** To the extent the State does not admit admissions 3, 18, 24, and 28 above, identify any and all specific accidents involving activities or materials at, or emanating from, the Tekoi Rocket Engine Test facility, Dugway Proving Ground, Salt Lake City National Airport, Hill Air Force Base and the Utah Test and Training Range that the State claims would have posed a significant hazard to the PFS ISFSI or the ITP had they been constructed and operating at the time of the accident.

**STATE'S RESPONSE TO INTERROGATORY NO. 5 - UTAH K:**

Without waiving its right to supplement or modify its response, the State is not in a position to fully respond to this Interrogatory because it is still investigating and analyzing incidents which have occurred in the vicinity of the proposed PFS ISFSI and ITP. However, it should be noted that incidents which may have posed a significant hazard to the PFS ISFSI or the ITP had it been constructed and operating at the time of accident may not have been documented because of the lack of an actual receptor.

**INTERROGATORY NO. 6 - UTAH K.** Identify and fully explain the scientific, technical and/or other bases on which the State claims that each of the accidents identified in response to interrogatories 4 and 5 above would have posed a significant hazard to the PFS ISFSI or the ITP.

**STATE'S RESPONSE TO INTERROGATORY NO. 6 - UTAH K:**

The State of Utah objects to Interrogatory No. 6 as over broad.

Notwithstanding this objection and without waiving its objections or its right to modify or supplement its response, the State is not in a position to fully respond to this Interrogatory because the historical military practices in the area have not been fully documented or identified at this time. Various chemical and biological agents and chemical, biological, or conventional munitions will likely continue to be discovered. In addition, the specific types of chemical, conventional, and biological-related storage, treatment, disposal, testing, handling, and analysis conducted at Dugway Proving Ground is dependent upon the current needs of the U.S. government and the armed services. Thus, both past and future activities and materials at or emanating from Dugway Proving Ground could realistically pose a significant hazard on the PFS ISFSI, but those activities cannot currently be assessed today. However, general types of impacts can be reasonably speculated, for example the need to evacuate the PFS ISFSI in the event of a chemical or biological agent release.

**INTERROGATORY NO. 7 - UTAH K.** To the extent the State does not admit admission 38 above, identify and fully explain the scientific, technical, statistical and/or other bases on which the State and/or the Confederated Tribes claim that wildfires would pose a significant hazard to spent nuclear fuel in storage or transportation casks at the PFS ISFSI and/or the ITP or to any other aspect of the PFS ISFSI and/or the ITP.

**STATE'S RESPONSE TO INTERROGATORY NO. 7 - UTAH K:**

The State objects to Interrogatory No. 7 as over broad. Notwithstanding this objection, the State will continue discovery and further investigations and once complete will supplement this response in accordance with 10 CFR § 2.740(e). For



example, the State intends to investigate further PFS's Response to RAI No. 2, EP-7, ¶(b), which states: "Based on the response to SAR RAI 8-3 it is not necessary for the fire brigade to respond to a wild fire in order to protect the facility or canisters within the Restricted Area (RA)." Response to RAI No 2, SAR 8-3 refers to an attached report prepared by Professor Carlton Britton for PFS that addresses annual fire probability and fire magnitude. If PFS does not plan to use its fire brigade to respond to wildfires in the RA, then other consequences from wildfires, such as breach of security protection; problems with electrical, computer and monitoring systems; and evacuation of the facility may occur. Moreover, even if PFS uses its fire brigade to fight wildfires, PFS may not have an adequate and available water source or persons sufficiently trained in wild land fire tactics to protect personnel and the ISFSI site. *See also infra* State's Responses to Board Contention 9 (Utah R) Emergency Planning, Request for Admissions No. 1 through 4, and Interrogatories 1 and 4.

**INTERROGATORY NO. 8 - UTAH K.** Identify those persons knowledgeable of the bases set forth in response to interrogatories 3, 6 and 7 above.

**STATE'S RESPONSE TO INTERROGATORY NO. 8 - UTAH K:**

*See* Response to General Interrogatory No.1.

**C. DOCUMENT REQUESTS - UTAH K/CONFEDERATED TRIBES B**

The Applicant requests the State of Utah and/or Confederated Tribes to produce the following documents directly or indirectly within their possession, custody or control to the extent not previously produced during informal discovery:

**DOCUMENT REQUEST NO. 1 - UTAH K.** To the extent the State does

not admit admissions 3, 18, 24, 28-32 and 38 above, all documents related to the claims, as admitted by the Board, raised by the State and/or the Confederated Tribes in Utah K/Confederated Tribes B.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 1 - UTAH K:**

The State has produced all relevant documents not privileged to PFS during informal discovery and will continue to identify all such documents not previously produced. See Response to General Interrogatory No. 2.

**DOCUMENT REQUEST NO. 2 - UTAH K.** To the extent the State does not admit admissions 3, 18, 24, 28-32 and 38 above, all documents, data or other information reviewed, considered or relied upon by Marvin Resnikoff or any other expert or consultant assisting the State/Confederated Tribes with respect to Utah K/Confederated Tribes B.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 2 - UTAH K:**

See Response to Document Request No. 1.

**DOCUMENT REQUEST NO. 3 - UTAH K.** To the extent the State does not admit admissions 3, 18, 24, and 28 above, all calculations, studies, evaluations, analyses or other documents relating to risks to persons or property (including the proposed PFS ISFSI or the ITP) from activities or materials at, or emanating from, the Tekoi Rocket Engine Test facility, Dugway Proving Ground, Salt Lake City National Airport, Hill Air Force Base and the Utah Test and Training Range.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 3 - UTAH K:**

See Response to Document Request No. 1.

**DOCUMENT REQUEST NO. 4 - UTAH K.** To the extent the State does not admit admissions 29-32 above, all calculations, studies, evaluations, analyses or other documents relating to risks to persons or property (including the proposed ITP) from the transportation of hazardous materials to or from the Laidlaw Aptus hazardous waste incinerator, the Envirocare low-level radioactive and mixed waste landfill, the Laidlaw Clive Hazardous Waste Facility, and the Laidlaw Grassy Mountain hazardous waste landfill.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 4 - UTAH K:**

*See Response to Document Request No. 1.*

**DOCUMENT REQUEST NO. 5 - UTAH K.** To the extent the State does not admit admissions 3, 18, 24, and 28 above, all documents relating to specific accidents that have occurred involving activities or materials at, or emanating from, the Tekoi Rocket Engine Test facility, Dugway Proving Ground, Salt Lake City National Airport, Hill Air Force Base and the Utah Test and Training Range which the State claims would have posed a significant hazard to the PFS ISFSI or the ITP had they been constructed and operating at the time of the accident.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 5 - UTAH K:**

*See Response to Document Request No. 1.*

**DOCUMENT REQUEST NO. 6 - UTAH K.** To the extent the State does not admit admissions 3, 18, 24, and 28 above, all documents relating to potential accidents that the State claims could occur involving activities or materials at, or emanating from, the Tekoi Rocket Engine Test facility, Dugway Proving Ground, Salt Lake City National Airport, Hill Air Force Base and the Utah Test and Training Range that the State claims would pose a significant hazard to the PFS ISFSI or the ITP.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 6 - UTAH K:**

*See Response to Document Request No. 1.*

**DOCUMENT REQUEST NO. 7 - UTAH K.** To the extent the State does not admit admissions 29-32 above, all documents relating to specific accidents that have occurred involving the transportation of hazardous materials to or from the Laidlaw Aptus hazardous waste incinerator, the Envirocare low-level radioactive and mixed waste landfill, the Laidlaw Clive Hazardous Waste Facility, and the Laidlaw Grassy Mountain hazardous waste landfill that the State claims would have posed a significant hazard to the ITP had they occurred at or near the ITP.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 7 - UTAH K:**

*See Response to Document Request No. 1.*

**DOCUMENT REQUEST NO. 8 - UTAH K.** To the extent the State does not admit admissions 29-32 above, all documents relating to specific accidents that the State claims could occur involving the transportation of hazardous materials to or from the Laidlaw Aptus hazardous waste incinerator, the Envirocare low-level radioactive and mixed waste landfill, the Laidlaw Clive Hazardous Waste Facility, and the Laidlaw Grassy Mountain hazardous waste landfill that the State claims would pose a significant hazard to the ITP if they were to occur at or near the ITP.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 8 - UTAH K:**

See Response to Document Request No. 1.

**DOCUMENT REQUEST NO. 9 - UTAH K.** To the extent the State does not admit admission 3 above, all documents relating to the alleged incident of a rocket motor escaping the test harness at the previous Alliant test facility at Magna, and all documents relating to any other accidents occurring during the testing of rocket motors at that facility or any other similar facility, that the State claims could pose a significant hazard to the PFS ISFSI or the ITP if they were to occur at the Tekoi Rocket Test Engine facility.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 9 - UTAH K:**

See Response to Document Request No. 1.

**DOCUMENT REQUEST NO. 10 - UTAH K.** To the extent the State does not admit admission 38 above, all documents related to the large wildfire(s) that the State asserts burned throughout Skull Valley approximately 20 years ago.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 10 - UTAH K:**

See Response to Document Request No. 1.

**VII. BOARD CONTENTION 9 (UTAH M) - PROBABLE MAXIMUM FLOOD**

**A. Requests for Admissions - Utah M**

**REQUEST FOR ADMISSION NO. 1 - UTAH M.** Do you admit that the 270 square mile drainage area used to calculate flooding in PFS's response to RAI

Question 2-3 is an appropriate drainage area for calculating the potential for flooding at the PFS ISFSI?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 1 - UTAH**

**M:**

Denied on information and belief. The State has not had sufficient time to fully evaluate the recent calculations supplied by PFS with its response to RAI Question 2-3. Additionally, the State needs to obtain supplemental data from PFS to complete its evaluation. The State will supplement this response in accordance with 10 CFR § 2.740(e).

**REQUEST FOR ADMISSION NO. 2 - UTAH M.** Do you admit that the Utah Division of Water Resources calculated the 100 Year Flood elevation in the area of the PFS site (calculations of David Cole, UT-05585) to be 4451.55 ft.?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 2 - UTAH**

**M:**

Admit that David Cole made such a calculation; however, if the State adopts PFS's 270 square mile drainage area, it will have to recalculate the One Hundred Year Flood evaluation because it differs from the State's drainage area. Additionally, if the State uses the Hathaway Equation for Time of Concentration along with the proper vegetation parameters, it may increase the maximum flood elevation of 4451.55 feet. PFS's model assumes that the drainage area is covered with trees and pasture to calculate the Time of Concentration; however, a model using sparse trees and bare-picked soil may be more appropriate.

**REQUEST FOR ADMISSION NO. 3 - UTAH M.** Do you admit that the Utah Division of Water Resources calculated the Probable Maximum Flood elevation in the region of the PFS site (calculations of David Cole, UT-05582) to be

4455.2 ft.?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 3 - UTAH**

**M:**

Admit that David Cole made such a calculation; however, for the reasons stated in Response to Admission No. 2, the Probable Maximum Flood calculation may change.

**REQUEST FOR ADMISSION NO. 4 - UTAH M.** Do you admit that the lowest elevation of the PFS site as identified in the PFS Environmental Report at 2.5-3 and Response to RAI Question 2-3 at 3 is 4460 ft.?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 4 - UTAH**

**M:**

Denied on information and belief. The State does not have access to the ISFSI site and, thus, has not conducted a ground survey to verify that 4460 ft. is in fact the lowest elevation at the PFS site.

**REQUEST FOR ADMISSION NO. 5 - UTAH M.** Do you admit that the Utah Division of Water Resources calculated the time of concentration of the flood waters using an empirical formula for "Drainage Area for Mountain Watershed[s] in Utah" (calculations of David Cole, UT-05564)?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 5 - UTAH**

**M:**

Admit.

**REQUEST FOR ADMISSION NO. 6 - UTAH M.** Do you admit that use of this empirical formula results in higher flood volume, and therefore flood elevation, than more commonly used formulas such as the Corps of Engineers equation or the Hathaway equation?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 6 - UTAH**

**M:**

Deny. The State recalculated its data using the Corps of Engineers equation

and actually obtained a higher flood volume using the Corps of Engineers equation than using the State's empirical formula. Additionally, as discussed in Response to Admission No. 2, the Hathaway Equation may result in a higher flood volume depending on the appropriate vegetation parameters. The State needs time to calculate and compare the results and will supplement this response in accordance with 10 CFR § 2.740(e).

**REQUEST FOR ADMISSION NO. 7 - UTAH M.** Do you admit that the mountain watersheds from which this formula was derived have different characteristics than Skull Valley?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 7 - UTAH M:**

Admit to the extent that both the Army Corps of Engineers and the Hathaway models were also developed using data from areas having very different characteristics from the Skull Valley and thus have similar problems as other derivative models.

**B. INTERROGATORIES - UTAH CONTENTION M**

**INTERROGATORY NO. 1 - UTAH M.** Identify and fully explain each respect in which the State claims that PFS failed "to accurately estimate the Probable Maximum Flood (PMF) as required by 10 CFR § 72.98" or the 100 Year Flood for the PFS ISFSI, taking into account PFS's response to RAI Question 2-3 as supplemented.

**STATE'S RESPONSE TO INTERROGATORY NO. 1 - UTAH M:**

Taking into account PFS' response to RAI question 2-3, the State is now reevaluating the use of pasture as ground cover in selecting the  $n$  coefficient in the Hathaway Formula because using a heavier ground cover results in an overestimate of

the concentration time which results in a lower flood peak. The State will supplement this response in accordance with 10 CFR § 2.740(e).

**INTERROGATORY NO. 2 – UTAH M.** Identify and fully explain each respect in which the State claims that the facility's design does not adequately protect the access road or the site against adverse consequences from potential flooding as calculated by the State.

**STATE'S RESPONSE TO INTERROGATORY NO. 2 - UTAH M:**

Under the State's present calculation the access road may be flooded or washed out, preventing necessary operations, personnel or emergency service providers access to the site. Hence the Applicant would not be able to cope with emergencies as required by 10 CFR 72.24(k). Moreover, taking into account the Applicant's recent response to RAI question 2-3, the State is in the process of recalculating flooding using the Hathaway formula with the correct  $n$  coefficient and will supplement this response in accordance with 10 CFR § 2.740(e).

**INTERROGATORY NO. 3 – UTAH M.** Identify and fully explain each respect in which the State claims that the access road may be adversely impacted by potential flooding as calculated by the State and any resulting adverse safety consequences to the PFS ISFSI.

**STATE'S RESPONSE TO INTERROGATORY NO. 3 - UTAH M:**

The State's present calculation shows that flooding would be approximately 6.5 feet deep where it crosses the access road. As stated in Response to Interrogatory No. 2, this would result in preventing necessary operations, personnel or emergency service providers access to the site. Additionally, the recalculated flood may be deeper than



the State's original calculations and potentially result in more damage to the road.

**INTERROGATORY NO. 4 - UTAH M.** Identify and fully explain each respect in which the State claims that "consequences important to safety may occur because of flooding or an inadequate berm construction and location," based on potential flooding as calculated by the State.

**STATE'S RESPONSE TO INTERROGATORY NO. 4 - UTAH M:**

Taking into account PFS' response to RAI question 2-3, the State is unable to respond to this question until it has recalculated flooding using the correct concentration time and drainage area. The State will supplement this response in accordance with 10 CFR § 2.740(e).

**INTERROGATORY NO. 5 - UTAH M.** Identify and fully explain each other respect in which the State claims that the PFS ISFSI site may be adversely impacted by potential flooding as calculated by the State and the resulting adverse safety consequences of such impacts.

**STATE'S RESPONSE TO INTERROGATORY NO. 5 - UTAH M:**

See Response to Interrogatory No. 4.

**INTERROGATORY NO. 6 - UTAH M.** If the State continues to claim an adverse impact from potential flooding as calculated by the State on the "operation, maintenance of the ISFSI," the "washing out" of the access road, the "translation motion of the storage pad and building foundations," and the "transport [of] onsite chemical and radiological contaminants to offsite soils and ground and surface waters," identify and fully explain the scientific, technical, engineering and/or other bases on which the State bases these claims and any other claims of adverse impact and/or safety consequences identified in response to interrogatories 3 through 5 above.

**STATE'S RESPONSE TO INTERROGATORY NO. 6 - UTAH M:**

See Response to Interrogatory No. 4.

**INTERROGATORY NO. 7 - UTAH M.** Identify any peer review or use outside of the Utah Division of Water Resources of the empirical formula for "Drainage Area[s] for Mountain Watersheds in Utah" used by the State to calculate the time of concentration in its flood calculation for the PFS ISFSI site.

**STATE'S RESPONSE TO INTERROGATORY NO. 7 - UTAH M:**

There has been no peer review of the empirical formula for "Time of Concentration vs. Drainage Area for Mountain Watersheds in Utah."

**INTERROGATORY NO. 8 - UTAH M.** Identify any use of this empirical formula to calculate the flooding of valleys other than that occurring within a mountain watershed.

**STATE'S RESPONSE TO INTERROGATORY NO. 8 - UTAH M:**

The State has not used this empirical formula to calculate the flooding of valleys other than that occurring within a mountain watershed.

**C. DOCUMENT REQUESTS - UTAH M**

The Applicant requests the State of Utah to produce the following documents directly or indirectly within its possession, custody or control to the extent not previously produced by the State during informal discovery:

**DOCUMENT REQUEST NO. 1 - UTAH M.** All documents related to the claims raised by the State in Contention M.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 1 - UTAH M:**

The State has produced to PFS during informal discovery all relevant documents not privileged and will continue to identify all such documents not previously produced. See Response to General Interrogatory No. 2.

**DOCUMENT REQUEST NO. 2 - UTAH M.** All documents and calculations relating to flooding within Skull Valley and/or at the PFS ISFSI site and

access road.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 2 - UTAH M:**

See Response to Document Request No. 1.

**DOCUMENT REQUEST NO. 3 - UTAH M.** All documents relating to the State's claims of adverse impacts and/or safety consequences due to flooding of the PFS ISFSI site and/or access road, including but not limited to the States' claim of adverse impact on the "operation, maintenance of the ISFSI," the "washing out" of the access road, the "translation motion of the storage pad and building foundations," and the "transport [of] onsite chemical and radiological contaminants to offsite soils and ground and surface waters."

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 3 - UTAH M:**

See Response to Document Request No. 1.

**DOCUMENT REQUEST NO. 4 - UTAH M.** All documents relating to conditions that have occurred in Skull Valley in much wetter than average years, such as the winter and spring of 1983-84, referred to in paragraph 7 of Mr. Cole's affidavit filed in support of Utah M.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 4 - UTAH M:**

See Response to Document Request No. 1.

**DOCUMENT REQUEST NO. 5 - UTAH M.** All documents identifying or documenting the elevation of flooding that has occurred in the Skull Valley region.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 5 - UTAH M:**

See Response to Document Request No. 1.

**DOCUMENT REQUEST NO. 6 - UTAH M.** All documents and supporting data, including the characteristics of the watersheds, relating to the development and calculation of the empirical formula for the time of concentration in "Drainage Area[s] for Mountain Watersheds in Utah."

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 6 - UTAH M:**

See Response to Document Request No. 1.

**DOCUMENT REQUEST NO. 7 - UTAH M.** All documents in which this empirical formula has been used to calculate flooding other than that occurring within a mountain watershed.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 7 - UTAH M:**

See Response to Document Request No. 1.

**DOCUMENT REQUEST NO. 8 - UTAH M.** All documents in which this empirical formula has been used to calculate flooding in valleys with characteristics similar to Skull Valley.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 8 - UTAH M:**

See Response to Document Request No. 1.

**DOCUMENT REQUEST NO. 9 - UTAH M.** All documents, data or other information reviewed, considered or relied upon by Mr. Cole or any other expert or consultant assisting the State with respect to Contention M.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 9 - UTAH M:**

See Response to Document Request No. 1.

**DOCUMENT REQUEST NO. 10 - UTAH M.** All documents related to the State's review and evaluation of potential flooding at other facilities located within Tooele County, such as RCRA facilities at Dugway Proving Ground and the Tooele County Chemical Demilitarization Facility, the Envirocare facility, and other similar such facilities in Tooele County.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 10 - UTAH M:**

See Response to Document Request No. 1.

**VIII. BOARD CONTENTION 9 (UTAH N) FLOODING**

**A. REQUESTS FOR ADMISSION - UTAH N**

**REQUEST FOR ADMISSION NO. 1 - UTAH N.** Do you admit that the elevation of the new location of the Intermodal Transfer Point ("ITP") 1.8 miles to the west of Rowley Junction is no lower than that of the previous location of the ITP at Rowley Junction?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 1 - UTAH**

**N:**

Denied on information and belief, and based on the following grounds:

a) PFS has not provided elevation figures for this new location of the Intermodal Transfer Point in any of its submissions to the NRC, *i.e.*, not in its amended License Application dated August 8, 1998, not in its responses to NRC Staff's RAIs, not in its application to the Bureau of Land Management ("BLM") for a right-of-way and amendments thereto, nor in documents made available during informal discovery. Similarly, PFS did not provide elevation figures for its previous location of the ITP at Rowley Junction.

b) Further, PFS has not provided a way to identify the exact location for its new ITP. The Preliminary Plan of Development for its Right-of-Way Application U-76986, Attachment 1-3(b) submitted on February 18, 1999 as response to EIS RAI 1-3, furnished a property description (on page 2) as follows: "within the N1/2 of the SE1/4 of the SE1/4 of the SE1/4 of Section 12, Township T1S, Range R8W." This property description appears to locate the ITP on mudflats south of Interstate 80, in conflict with the general location PFS shows on its various maps of the new ITP. *See, e.g.*, Figure 3.2-1 of PFS License Amendment Application dated August 28, 1998. Accordingly, the State has no accurate means for comparing the elevation of these two

ITP locations.

**REQUEST FOR ADMISSION NO. 2 - UTAH N.** Do you admit that the elevation of the ITP at its new location is at least seven feet higher than the Great Salt Lake's historic high?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 2 - UTAH N:**

Denied on information and belief. See response to Request for Admission No. 1 above.

**B. INTERROGATORIES - UTAH N**

**INTERROGATORY NO. 1 - UTAH N.** Specify the height of flooding of the Great Salt Lake at the new location of the ITP that the State claims could result "in very wet years."

**STATE'S RESPONSE TO INTERROGATORY NO. 1 - UTAH N:**

As more fully described in Response to Request for Admission No. 1, the State has insufficient and conflicting information to fully respond to Interrogatory No. 1. Notwithstanding this objection, the State has stated that the historic high elevation of the Great Salt Lake was "4211.85 feet, which occurred in 1986 following several wetter than average years." State's Contentions (dated November 23, 1997) at 98, State's Contention N (flooding).

**INTERROGATORY NO. 2 - UTAH N.** Specify the height of the "water waves generated by wind" and the resulting "swamping" by such water waves of the ITP at its new location that the State claims could result "in very wet years."

**STATE'S RESPONSE TO INTERROGATORY NO. 2 - UTAH N:**

As more fully described in Response to Request for Admission No. 1, the State

has insufficient and conflicting information to fully respond to Interrogatory No. 2.

Notwithstanding this objection, the State will continue its discovery investigation and, once complete, will supplement this response in accordance with 10 CFR § 2.740(e).

**INTERROGATORY NO. 3 - UTAH N.** Specify the height of flooding and/or "water waves . . . generated by earthquake or landslide events," and the resulting swamping by such water waves, of the ITP at its new location that the State claims could result from earthquake or landslide events.

**STATE'S RESPONSE TO INTERROGATORY NO. 3 - UTAH N:**

See Response to Interrogatory No. 2.

**INTERROGATORY NO. 4 - UTAH N.** Identify and fully explain the scientific, technical, statistical and any other bases for the flooding and/or swamping by water waves of the ITP, as set forth in response to interrogatories 1, 2 and 3 above, fully accounting for any difference between the elevation of the ITP and the Great Salt Lake's historic high.

**STATE'S RESPONSE TO INTERROGATORY NO. 4 - UTAH N:**

See Response to Interrogatory No. 2.

**INTERROGATORY NO. 5 - UTAH N.** Identify and fully explain any adverse impacts and/or safety consequences that the State claims would occur with respect to the ITP as a result of the flooding and/or swamping by water waves of the ITP site, as set forth in response to interrogatories 1, 2 and 3 above, fully accounting for any difference between the elevation of the ITP and the Great Salt Lake's historic high.

**STATE'S RESPONSE TO INTERROGATORY NO. 5 - UTAH N:**

See Response to Interrogatory No. 2.

**INTERROGATORY NO. 6 - UTAH N.** Identify and fully explain the scientific, technical, engineering and any other bases for the adverse impacts and/or safety consequences set forth in response to interrogatory 5 above, fully accounting for any difference between the elevation of the ITP and the Great Salt Lake's historic high.

**STATE'S RESPONSE TO INTERROGATORY NO. 6 - UTAH N:**

See Response to Interrogatory No. 2.

**C. DOCUMENT REQUESTS - UTAH N**

The Applicant requests the State of Utah to produce the following documents directly or indirectly within its possession, custody or control to the extent not previously produced by the State during informal discovery:

**DOCUMENT REQUEST NO. 1 - UTAH N.** All documents related to the claims raised by the State in Utah N.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 1 - UTAH N:**

The State has produced to PFS during informal discovery all relevant documents not privileged and will continue to identify all such documents not previously produced. See Response to General Interrogatory No. 2.

**DOCUMENT REQUEST NO. 2 - UTAH N.** All documents and calculations relating to potential flooding at the ITP, including swamping by water waves generated by wind, earthquake or landslide.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 2 - UTAH N:**

See Response to Document Request No. 1.

**DOCUMENT REQUEST NO. 3 - UTAH N..** All documents identifying or documenting the height of water waves generated by wind and the resulting flooding along the shores of the Great Salt Lake.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 3 - UTAH N:**

See Response to Document Request No. 1.

**DOCUMENT REQUEST NO. 4 - UTAH N.** All documents relied upon by the State to support the proposition that floods and water waves have been generated by earthquakes or landslide events along the shores of the Great Salt Lake.



**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 4 - UTAH N:**

*See Response to Document Request No. 1.*

**DOCUMENT REQUEST NO. 5 - UTAH N.** All documents identifying or documenting the height of water waves and resulting flooding along the shores of the Great Salt Lake generated by earthquakes or landslide events.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 5 - UTAH N:**

*See Response to Document Request No. 1.*

**DOCUMENT REQUEST NO. 6 - UTAH N.** All documents relied upon to support the assertion that Rowley Junction and/or the new location of the ITP has been impacted by extensive flooding events in the recent past due to the rise in elevation of the Great Salt Lake.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 6 - UTAH N:**

*See Response to Document Request No. 1.*

**DOCUMENT REQUEST NO. 7 - UTAH N.** All documents, data or other information reviewed, considered or relied upon by Mr. Cole or any other expert or consultant assisting the State with respect to Contention N.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 7 - UTAH N:**

*See Response to Document Request No. 1.*

**IX. BOARD CONTENTION 9 (UTAH R) EMERGENCY PLANNING**

**A. REQUESTS FOR ADMISSION - UTAH R.**

**REQUEST FOR ADMISSION NO. 1 - UTAH R.** Do you admit that PFS will have an adequate number of personnel trained (as identified in PFS's responses to RAI 9-14; RAI EP-7; RAI EP-21) to fight fires on site at the PFS ISFSI?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 1 - UTAH**

**R:**

Denied on information and belief. In RAI Response EP-7, the Applicant maintains that its fire brigade will consist of a minimum of five persons. The RAI response suggests that these persons would not be on site during "off normal hours" and that it will take 90 minutes to call personnel during off normal hours.

Furthermore, the RAI does not state whether the five fire brigade members will have other duties, and if so, what those duties may be.

**REQUEST FOR ADMISSION NO. 2 - UTAH R.** Do you admit that PFS will have sufficient capability to summon staff members (as identified in PFS's response to RAI 9-14) to fight fires at the PFS ISFSI during off hours if necessary?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 2 - UTAH**

**R:**

Denial on information and belief. PFS may be able to summon staff but PFS has not demonstrated that they can be summoned in a timely manner.

**REQUEST FOR ADMISSION NO. 3 - UTAH R.** Do you admit that PFS will have access to sufficient equipment (as identified in PFS's response to RAI EP-7) to fight fires at the PFS ISFSI?

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 3 - UTAH**

**R:**

Denial on information and belief. The Applicant's response to RAI EP-7 omits important details necessary to evaluate what equipment will be on site and available for fire suppression, for example, the location and availability of breathing apparatus and other fire fighting supplies, such as foam for electrical fires. Furthermore, different types of fires require different types of equipment and fire suppression methods. In addition, the Applicant has failed to describe the equipment that will be on board the

fire "truck" and has also failed to describe whether the fire truck will be a Type I Engine or a Type VII Engine.

**REQUEST FOR ADMISSION NO. 4 - UTAH R.** Do you admit that PFS will have sufficient water on site (as identified in PFS's response to RAI EP-7) to fight fires at the PFS ISFSP

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 4 - UTAH**

**R:**

The State objects to this Admission as being ambiguous because water is not the only medium or strategy used to fight fires. Notwithstanding this objection, the Admission is denied on information and belief. The Applicant has failed to demonstrate whether a licensed well driller would be able to meet the legal requirements to drill water wells on behalf of PFS. See Utah Administrative Code R655-4 (Water Well Drillers). The Applicant's response to RAI EP-7 mentions the quantity of water it believes will be available on site, however, the Applicant has not shown that it has the legal authority to obtain water sufficient to fill two 200,000 gallon capacity water tanks, initially after the tanks have been constructed, during the full course of a year, or during the 20-year license term. Furthermore, is it unclear where the tanks will be located, how they will be plumbed, and whether the effects of wildland fires will result in a loss of access to a water supply.

**REQUEST FOR ADMISSION NO. 5 - UTAH R.** Do you admit that PFS will have sufficient capability to fight fires onsite at the PFS ISFSI.

**STATE'S RESPONSE TO REQUEST FOR ADMISSION NO. 5 - UTAH**

**R:**

The State objects to this Admission as over broad. Notwithstanding this

objection, the Admission is denied on information and belief.

**B. INTERROGATORIES - UTAH R**

**INTERROGATORY NO. 1 - UTAH R.** To the extent the State does not admit admission 5 above, identify and fully explain each respect in which the State contends that PFS's capability to fight fires onsite at the PFS ISFSI, as described in its responses to the RAIs, is inadequate.

**STATE'S RESPONSE TO INTERROGATORY NO. 1 - UTAH R.**

The State objects to Interrogatory No. 1 on the ground that it is unreasonably broad. Notwithstanding this objection, the State responds that five full time, properly trained fire brigade members, located on site 24 hours a day, with access to proper equipment and supplies, may be adequate to respond to fires at the proposed ISFSI. However, the Applicant has not described how it will guard against loss of access to its water supply from the effects of wildland fires. For example, a wildland fire could cut off the power supply making water pumps inoperative, or cut off fire truck access to the water supply. Furthermore, off-site fire crews may be denied access to the PFS facility due to security fencing or other security measures. As described in the State's Response to the above Admissions, the Applicant has provided insufficient information in the RAI responses for the State to adequately and accurately respond to this Interrogatory. Information such as the quantity, location, and type of flammable and toxic materials present on site, the type of building materials used for the construction of buildings and their interiors, the availability of breathing apparatus and other fire fighting supplies, such as foam for electrical fires, is information in the

control of the Applicant, that the State requires in order to evaluate the Applicant's ability to fight on site fires. Moreover, the Applicant has not adequately described the qualifications and standards to which fire brigade members will be trained and certified and whether the fire brigade member will be taking on fire duties as collateral duties. Furthermore, the Applicant has not described where the water tanks will be located, how they will be plumbed, and whether the Applicant will have adequate access to its water source during a fire event.

**INTERROGATORY NO. 2 - UTAH R.** To the extent the State does not admit admission 5 above, identify the capabilities (e.g., equipment and personnel) that the State contends would be required to adequately fight fires at the PFS ISFSI.

**STATE'S RESPONSE TO INTERROGATORY NO. 2 - UTAH R.**

See Response to Interrogatory No. 1 above.

**INTERROGATORY NO. 3 - UTAH R.** To the extent the State does not admit admission 5 above, explain fully the professional, technical and any other bases for State's position that the capabilities set forth in response to interrogatory 2 above would be required to adequately fight fires at the PFS ISFSI.

**STATE'S RESPONSE TO INTERROGATORY NO. 3 - UTAH R.**

See Response to Interrogatory No. 1 above.

**INTERROGATORY NO. 4 - UTAH R.** To the extent the State does not admit admission 5 above, identify any accident falling within the scope of 10 C.F.R. 72.32(a)(5) that the State claims would occur as a result of inadequate capability to fight fires at the PFS ISFSI.

**STATE'S RESPONSE TO INTERROGATORY NO. 4 - UTAH R.**

The State objects to Interrogatory No. 1 on the ground that it is unreasonably

broad. Notwithstanding this objection, the State responds that the Applicant has not demonstrated how it will mitigate the consequences of arcing or shorting caused by fire smoke and particulate on the electrical, computer, security and monitoring systems at the ISFSI. Nor has the Applicant demonstrated its ability to fight fires while at the same time having sufficient personnel to provide required security for the site, especially during off-normal hours. Furthermore, the result of having inadequately trained personnel responsible for fire suppression on site could be personal injury and fatalities.

**INTERROGATORY NO. 5 - UTAH R.** To the extent the State does not admit admission 5 above, explain fully the scientific, technical and any other bases for any accidents identified in response to interrogatory 4 above.

**STATE'S RESPONSE TO INTERROGATORY NO. 5 - UTAH R.**

PFS has provided insufficient information to respond to this Interrogatory. See Response to Interrogatory No. 1.

**C. DOCUMENT REQUESTS - UTAH R**

To the extent the State does not admit admission 5 above, the Applicant requests the State of Utah to produce the following documents directly or indirectly within its possession, custody or control to the extent not previously produced by the State during informal discovery:

**DOCUMENT REQUEST NO. 1 - UTAH R.** All documents related to the claims raised by the State, as admitted by the Board, in Contention R.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 1 - UTAH R:**

The State has produced all relevant documents not privileged to PFS during informal discovery and will continue to identify all such documents not previously

produced. See Response to General Interrogatory No. 2.

**DOCUMENT REQUEST NO. 2 - UTAH R.** All documents, data or other information reviewed, considered or relied upon by any expert or consultant assisting the State with respect to Utah Contention R.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 2 - UTAH R:**

See Response to Document Request No. 1 above.

**DOCUMENT REQUEST NO. 3 - UTAH R.** All documents relied upon by the State to support its position that PFS's capability to fight fires onsite at the PFS ISFSI, as described in its responses to the RAIs, is inadequate.

**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 3 - UTAH R:**

See Response to Document Request No. 1 above.

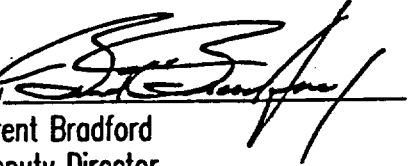
**DOCUMENT REQUEST NO. 4 - UTAH R.** All documents relied upon by the State to support its position that an accident falling within the scope of 10 C.F.R. 72.32(a)(5) would occur as a result of inadequate capability to fight fires at the PFS ISFSI.

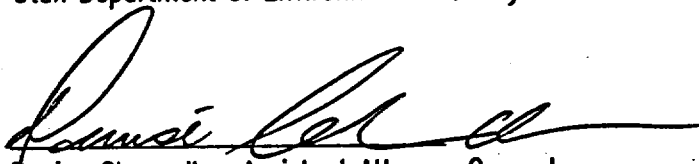
**STATE'S RESPONSE TO DOCUMENT REQUEST NO. 4 - UTAH R:**

See Response to Document Request No. 1 above.

DATED this 14th day of April, 1999.

Respectfully submitted,  
STATE OF UTAH

By   
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Deputy Director  
Utah Department of Environmental Quality

  
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## CERTIFICATE OF SERVICE

I hereby certify that a copy of STATE OF UTAH'S RESPONSES AND OBJECTIONS TO APPLICANT'S FIRST SET OF FORMAL DISCOVERY REQUESTS was served on the persons listed below by electronic mail (unless otherwise noted) with conforming copies by United States mail first class, this 14th day of April, 1999:

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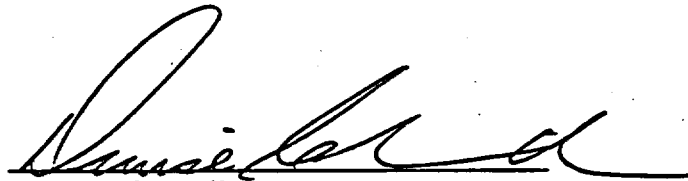
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Denise Chancellor  
Assistant Attorney General  
State of Utah