

72-22



State of Utah

DEPARTMENT OF ENVIRONMENTAL QUALITY OFFICE OF THE EXECUTIVE DIRECTOR

Michael O. Leavitt
Governor
Dianne R. Nielson, Ph.D.
Executive Director
Brent C. Bradford
Deputy Director

168 North 1950 West
P.O. Box 144810
Salt Lake City, Utah 84114-4810
(801) 536-4400
(801) 536-0061 Fax
(801) 536-4414 T.D.D.
www.deq.state.ut.us Web

May 27, 1999

Scott C. Flanders
Sr. Environmental Project Manager
Licensing and Inspection Directorate
Spent Fuel Project Office
Office of Nuclear Material Safety & Safeguards
U.S. Nuclear Regulatory Commission
Washington DC 20555

Dear Mr. Flanders:

Re: U.S. Nuclear Regulatory Commission, Department of the Interior, Bureau of Indian Affairs, Bureau of Land Management, Docket No. 72-22; and Department of the Interior, Bureau of Land Management, Pony Express Resource Management Plan, Environmental Impact Statement Scoping Comments and BLM Resource Management Plan Amendment Scoping Comments.

Enclosed are the written comments for the state of Utah in response to the EIS Scoping regarding the above matter.

If you have any questions, please contact me.

Best regards,

Dianne R. Nielson, Ph.D.
Executive Director

NFOG 11

enclosure

9906070098 990527
PDR ADDCK 07200022
B PDR

U. S. NUCLEAR REGULATORY COMMISSION
DEPARTMENT OF THE INTERIOR
Bureau of Indian Affairs
Bureau of Land Management
DOCKET NO. 72-22
And
DEPARTMENT OF THE INTERIOR
Bureau of Land Management
PONY EXPRESS RESOURCE MANAGEMENT PLAN
ENVIRONMENTAL IMPACT STATEMENT
SCOPING COMMENTS
And
BLM RESOURCE MANAGEMENT PLAN AMENDMENT
SCOPING COMMENTS
SUBMITTED BY THE STATE OF UTAH
MAY 27, 1999

The following comments are provided by the State of Utah (State) in response to the March 31, 1999 Notice of Intent to Prepare Environmental Impact Statement (EIS) and Notice of Public Scoping Meeting issued by the U. S. Nuclear Regulatory Commission (NRC) and by the U.S. Department of Interior for the Bureau of Indian Affairs (BIA) and the Bureau of Land Management (BLM). These comments are also being provided in response to the BLM's separate Notice of Intent to Prepare a Plan Amendment to the Pony Express Resource Management Plan (RMP).

Because there are two agencies involved in this environmental decisionmaking process that were not involved at the time of the NRC's 1998 scoping process, it is important that these comments address matters that have already been considered by the NRC. For that reason, the EIS Scoping Comments submitted by the State of Utah on June 19, 1998 are hereby incorporated by reference. A copy of the Comments (not including the incorporated attachments) is included as Attachment A to this document.

The State's Contentions Relating to the Low Rail Spur Transportation License Amendment dated Sept. 29, 1998, developed in PFS's licensing proceeding before the NRC (NRC Docket No. 72-22) is also incorporated by reference and included as Attachment B to this document.

Comments are organized under topic headings for ease of consideration. However, issues are interrelated and commonly impact or encompass other issues under other topic headings. Issues should not be narrowly construed or evaluated, based on topic headings. If additional information or clarification is needed, please contact:

Comments from State of Utah
EIS Scoping, Docket No. 72-22
and Pony Express RMP
May 27, 1999
Page 2

Dianne R. Nielson, PhD.
Executive Director
Utah Department of Environment Quality
168 North 1950 West
Salt Lake City, UT 84116
Phone: 801-536-4402
Fax: 801-536-0061

Denise Chancellor, Esq.
Assistant Attorney General
Utah Attorney General's Office
Environment Division
160 East 300 South, 5th Floor
Salt Lake City, UT 84114-0873
Phone: 801-366-0286
Fax: 801-366-0292

A. THE PROPOSED ACTION

The NRC is considering Private Fuel Storage's (PFS's) license application for an Independent Spent Fuel Storage Installation (ISFSI) at the Skull Valley Reservation (NRC Docket No. 72-22). PFS is proposing to store up to 40,000 Metric Tons of Uranium at a storage facility on the Skull Valley Goshute Reservation. In addition, PFS has requested of BLM both a right-of-way to build a rail spur from the Union Pacific mainline paralleling I-80 south to the Reservation across BLM land and a right-of-way to use BLM land near Rowley Junction for an intermodal transfer station (ITS) to transfer the spent fuel to heavy haul trucks.

Thus, PFS is asking to transport potentially more than 80,000 Metric Tons of Uranium of high level nuclear waste on or across public lands, forty thousand metric tons to the storage area and, presumably, forty thousand metric tons from the storage area once a permanent repository is prepared. Forty thousand metric tons, the current total accumulation of the nation's commercial high-level nuclear waste, is an enormous amount. By comparison, Northern State's Power, one of the member utilities of PFS, only stores 7,000 metric tons in dry cask storage.

In addition, the proposed action includes the BIA's consideration of a proposed lease agreement between the Skull Valley Band of Goshute Indians and PFS. As a related but separate matter, the BLM is considering an amendment to its Resource Management Plan that would allow it to grant PFS's proposed right of way.

B. SCOPING IS PREMATURE

This issue is discussed in the State's June 19, 1998 Scoping Comments, included as Attachment A, at 1. Although additional information has been submitted since the time of those comments, there are still substantial gaps in the information available and necessary to complete an EIS. For example, PFS has still not provided any information about the frequency of truck or rail shipments through Skull Valley.

C. PURPOSE AND NEED FOR THE PROPOSED FACILITY

This issue is discussed in the State's June 19, 1998 Scoping Comments, included as Attachment A, at 2, and (separately by the Utah Trust Lands Administration) at 22. In addition, there are new developments in federal spent waste policy that necessitate a critical evaluation of the need for this facility must be carefully analyzed. See Part D.2 below.

D. ALTERNATIVE ACTIONS THAT MUST BE CONSIDERED IN THE EIS

An adequate EIS must consider all reasonable alternatives, including the "no action" alternative. 40 C.F.R. § 1502.14; and NRC regulations, 10 C.F.R. Part 51, Subpt A, App. A, Section 5 (incorporated through 10 C.F.R. 51.70(b)). See State's June 19, 1998 Scoping Comments, included as Attachment A, at 3 and (separately for the Utah Trust Lands Administration) at 23 for further discussion of the need for and range of alternatives that must be considered. The State also offers the following additional comments.

1. No Action Alternative

The EIS must address the no-action alternative, storing high level nuclear waste as it is currently being stored, under the control of the generator or operator, until a permanent repository is available. The license application amendment and the right of way application do not address the overall social costs or benefits that may occur from granting the right-of-way to build the rail spur and the intermodal transfer station. The no action alternative should evaluate the impacts and risks that could be avoided if the spent fuel continued to be stored at the existing reactor sites.

A no action alternative must be evaluated pursuant to the requirements of 40 C.F.R. § 1502.14(d).

2. DOE Proposed Interim Management Policy Must Be Considered as Alternative

No analysis of the environmental impacts of spent fuel storage can be complete without considering the management program preferred by the U.S. Department of Energy (DOE). Under that management program, DOE will take title to spent fuel while that fuel remains in on-site facilities associated with the reactors where the fuel was generated. On a case-by-case basis according to the preference of the utility, DOE would either undertake responsibility for managing these on-site storage facilities or would reimburse the utility for its management costs. See, e.g., March 12, 1999 testimony of Bill Richardson, Secretary of Energy, before the United

States House Subcommittee on Energy and Power of the Committee on Commerce, which is included as Attachment C.

DOE prefers this on-site storage option to a centralized DOE interim storage facility because it will postpone the costs and potential hazards of waste transport until a permanent repository site has been selected, thus avoiding any unnecessary transport in the event a site other than the proposed Yucca Mountain site is finally approved. *Id.* at 4. DOE also prefers this option because it avoids the additional costs associated with building a new, temporary DOE repository. *Id.* Both of these reasons apply to a privately-owned temporary repository as well. *Id.* See also the discussion of cost/benefit analysis below.

Federal regulations require consideration of reasonable alternatives even if they are not within the jurisdiction of the lead agency (Council on Environmental Quality (CEQ) regulations at 40 C.F.R. § 1502.14(c); and NRC regulations, 10 C.F.R. Part 51, Subpt A, App. A, Section 5 (incorporated through 10 C.F.R. 51.70(b)). It is also important to note that this is a new alternative, developed by DOE since the NRC's previous scoping process.

3. Alternatives for BLM Rights of Way

PFS has before the BLM requests for two rights of way, one for an ITS and one for the "Low Rail Spur" originating at Low, Utah. The BLM must therefore consider at least three alternatives: granting one or the other of the two proposed rights-of-way or granting both rights-of-way, or some other hybrid. Obviously, granting both rights-of-way would have significantly greater environmental impacts and other costs than granting just one. Further, since both rights-of-way serve identical functions, the benefit of granting both would be no greater than the benefit of granting just one right-of-way.

E. ANALYSIS OF PROPOSED ACTION AND ALTERNATIVES

The comparative analysis of the impacts of the proposed action and of alternatives to the proposed action is the "heart of the environmental impact statement." 40 C.F.R. § 1502.14, and 10 C.F.R. Part 51, Subpt A, App. A, Section 5. The completed EIS must present the environmental and other impacts of the proposed action and all reasonable alternatives, including the no action alternative, in a comparative form. *Id.* Other impacts that must be considered include economic and technical costs and benefits. 10 C.F.R. 51.45(c). The point of view of the State – which unequivocally opposes the proposed actions – must also be considered in this analysis. 10 C.F.R. 51.71(b).

The EIS must include a discussion of direct and indirect costs and impacts, including cumulative impacts associated with the construction and operation of the rail line. 40 C.F.R. § 1502.16, and 10 C.F.R. Part 51, Subpt A, App. A, Section 7.

Because the complete lease agreement between the Skull Valley Band of Goshutes and PFS is not available, the impacts of financial commitments governing the lease cannot be known. Without this information in the license, and absent additional financial information from the lease agreement, there is insufficient information for an adequate analysis of the costs and benefits of the proposal.

In addition, neither the license application nor the right-of-away application provide sufficient detail concerning the costs associated with constructing, operating, and closing the rail spur or the intermodal transfer station. For example, there is no performance or design specification information, such as whether the quality of the rail meets the minimum Class 2 track rating established by AAR Circular OT-55 for hazardous materials shipments, switching needs at interline connection and facilities, signaling capabilities, and travel grades. This lists only a few of the many missing details necessary for an adequate analysis of costs and benefits.

NEPA requires federal agencies to develop methods "which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decision making." Several of the impacts cited in Part F below are not quantifiable, e.g., many of the impacts on flora and fauna, but they must nevertheless be fairly considered in this process.

Finally, any complete EIS must also consider and compare the costs of alternatives to the proposed actions. The Department of Energy has concluded that the costs of a centralized DOE interim facility would be greater than the costs of on-site management of spent waste by \$1.5 billion. March 12, 1999 testimony of Secretary of Energy Bill Richardson, at 4. It is reasonable to assume that construction and use of an adequate private facility will cost a similar amount. The NRC, BLM, and BIA must also recognize as they conduct this analysis that monies expended by the private utilities will almost certainly have to be reimbursed by the federal government given recent case law that has given utilities the right to pursue contractual damages for DOE's failure to take title to the spent waste in January 1998. See Attachment E.

F. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES THAT MUST BE CONSIDERED IN THE EIS

An EIS must accurately describe the existing environment of the area(s) that would be affected by a proposed action, and must assess the potential impacts of the proposed action, and all

reasonable alternatives, on that environment. 40 C.F.R. §§ 1502.15 and 1502.16, and 10 C.F.R. Part 51, Subpt A, App. A, Sections 6 and 7. Although these are separate requirements, they are obviously related. For example, the EIS must consider the potential for seismic activity in the area, and must evaluate the impacts on the environment that may result from seismic activity if the proposed action is taken.

1. Cumulative Impacts Must be Considered

CEQ regulations require that an EIS consider cumulative impacts. 40 CFR 1508.25(c). "Cumulative impact" is defined in 40 CFR 1508.7 as the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other action. Some of the existing facilities that must be considered in this context are described in the State's June 19, 1998 Scoping Comments, included as Attachment A, at 7 and (separately for the Utah Trust Lands Administration) at 24.

The Low Rail Corridor is being constructed solely to move spent nuclear fuel casks from the Union Pacific mainline at the junction of Interstate 80 and Low across public lands to the Skull Valley Reservation. The rail corridor has no other independent utility other than to serve the PFSs ISFSI. Thus, the Low Rail Corridor is inextricably part of the PFSs ISFSI project and as such must be evaluated under the criteria in 10 CFR 72.100(b) and 51.54(c) and CEQ regulations.

2. Indirect Impacts Must be Considered

In addition to analyzing direct impacts of the proposed actions, the EIS must analyze indirect actions. 40 C.F.R. § 1502.16, and 10 C.F.R. Part 51, Subpt A, App. A, Section 7. The proposed facility would store 40,000 metric tons of the nation's commercial spent fuel. Since approval of the proposed actions would mean that almost all the spent fuel shipments to the PFS facility would pass through Salt Lake City, the environmental impacts of transporting spent fuel through Salt Lake City and Salt Lake County must also be considered. Many of the impacts discussed in Part F are equally predictable indirect impacts of approval of the proposed actions, and must therefore be analyzed in the EIS.

3. Impacts Should Not be Assumed to be Temporary

Although the ISFSI is proposed to be temporary, there is no guarantee that it will ever be removed. See State's June 19, 1998 Scoping Comments, included as Attachment A, at 5 and

(separately for the Utah Trust Lands Administration) at 22.

3. Risk Assessments Required for Analysis

Risk assessments are critical for an accurate evaluation of this facility. See State's June 19, 1998 Scoping Comments, included as Attachment A, at 6.

4. Transportation Impacts

Transportation impacts were discussed at length in previous Scoping comments submitted by the State. See State's June 19, 1998 Scoping Comments, included as Attachment A, at 8 and (separately for the Utah Trust Lands Administration) at 24. The EIS must address the cumulative transportation impacts to the proposed storage facility, similar to the cumulative transportation impacts considered for Clark County, Nevada in NUREG-1437. The EIS must evaluate the design and operational details of the proposed rail line. The EIS must spell out the State of Utah permits and requirements. The EIS must investigate the probability and consequences of sabotage to a fully-loaded transportation cask, particularly in an urban location like Salt Lake City. Finally, the EIS must address the economic impact of transportation accidents.

State Approval

Under Item 9 in the BLM application, PFS states that no State government approval is required. The PFS application is incorrect. PFS needs to obtain permission from Utah Department of Transportation (UDOT) and Utah Department of Environmental Quality regarding a number of design, construction, and operational requirements of their transportation proposal and approvals where vehicles exceed size and weight restrictions.

Intermodal Transfer Station (ITS)

PFS requested a right-of-way to build an ITS on BLM land 1.8 miles west of Rowley Junction. The new proposed ITS would still be located next to the Union Pacific mainline and in close proximity to Interstate 80, the industrial salt plant, and Timpie Springs Wildlife Management Area. Concerns identified during the initial scoping comments also apply to this new site.

Skull Valley Road

The proposed use of 24 miles of a public road (Skull Valley Road) for such movements appears to be rather unrealistic, given the operational burdens that would be placed on the road by 100 to 200 (per Section 1.4 of the SAR) annual round trip heavy haul movements (200 to 400 total one-way movements through Utah including return trips by empty casks). This could amount to more than one heavy haul movement per day. The movements would likely involve daily

disruptions of local traffic for significant periods of time (probably hours, given travel at the slow rate of speed usually associated with the weight and nature of the load), and excessive wear and tear on the road (given the greater than 200-ton weight of the loaded packages). Use of the road by oversize/overweight loads may require upgrading the road, which would require UDOT approval. Widening the road would require additional right-of-way, which would be the company's responsibility. The EIS should evaluate these operational considerations.

With regard to anticipated weight loads and clearance limits, the EIS should provide the specification of the existing "22 to 24-foot wide asphalt highway" (Environmental Report Section 2.1.2) beginning at Timpie and continuing south to the PFS access road. What are the weight tolerances for the anticipated 225-ton loaded heavy haul truck? What specifications has the road been built to? Will the road need to be rebuilt to carry the anticipated loads? Also Figures 2.1-2 (2 figures) are "silent" on the elevation, grade, and performance specifications of the PFS access road. The related discussions in Section 3.2.1.4 of the Environmental Report, although providing more information on the Skull Valley Road improvements, is silent on the improved road and performance specifications. Also it appears from the discussion that it is not yet certain whether improvements will be within existing road right-of-ways. If not, acquisition of right-of-ways may pose significant challenges.

Road crossings

UDOT approval is required for all public road crossings by a rail line.

The PFS 26-mile long north-south railroad along Skull Valley will impede recreational users and ranchers from their established ability to cross Skull Valley going east or west. While the Environmental Report (ER) mentions that the proposed rail line will cross several roads, it is unclear whether plans include constructed rail crossings for all roads, including dirt roads and trails. Moreover, the presence of the railroad disrupts recreational activities such as off-road vehicle use and hunting and it will also disrupt ranching activities. ER Rev. 1 at 4.4-8. Once again, the ER fails to quantify the costs or evaluate the cumulative impacts associated with the railroad -- this time as they relate to recreational users and ranchers.

Trailer Design

The design of the trailer, including carrying load of the axles, must similarly be approved by Utah DOT. Wheel loading, wheel spacing, time of movement, speed, escorts, gross weight, and other issues must also be addressed by heavy haulers in meeting State/local governmental requirements relevant to heavy haul movements. These problems are reflected in the cost of a move, since they impact on both the choice of equipment, as well as the actual operations. The EIS should address these issues.

Rail Line and Highway Design and Operation

The discussion of the rail alternative (described in Section 3.2.1.5) is deficient in that it provides no performance or design specification information, such as whether the quality of the rail meets the minimum Class 2 track rating established by AAR Circular OT-55 for hazardous materials shipments, switching needs at interline connection and facilities, signaling capabilities, and travel grades. UDOT has specific authority on approval of rail line as well as roadway design.

In addition, the EIS should address the rail line and highway weight limits and highway heavy haul requirements associated with the heavy rail casks. These include the bridges, trestles, switching, and secondary lines (rail), as well as the State bridges and arterial roads in the vicinity of the proposed site, and the feeder lines (rail) throughout the Salt Lake City, Ogden, and Provo interchanges.

The EIS should address the physical clearance limits (height, weight) of the package. The License Application is silent on whether the proposed spent fuel shipments will meet the "special train guidelines" established by Union Pacific for hazardous materials (or heavy loads) shipments (e.g., would the combined center of gravity [rail car and load] exceed the AAR interchange rules, thus warranting special train consideration, such as speed limits and train delays). Although the License Application (SAR Section 4.5.4.2) describes the proposed use of a six axle rail car carrying a 142-ton loaded rail cask, not all rail line segments can accommodate these weight loads (greater than 400,000 lbs.), nor the six axle flat car dimensional clearances.

Operational considerations. With increasing consolidation and abandonments of rail lines due to mergers, there have been increasing densities of traffic on the remaining lines. Key east-west and north-south interchanges have been experiencing severe traffic delays and congestion. This in turn directly affects the throughput of proposed spent fuel rail shipments. It also increases the statistical probability and severity of potential accidents (traffic density has been growing; traffic composition has been getting heavier; train lengths and speed on congested line segments have been increasing). For example, Union Pacific estimates significantly increased traffic densities on its east-west mainlines (200 trains/day by 2010), with increasing mainline speeds (60 mph for bulk shipments; 70 mph for heavy-haul intermodal shipments). This may lead to conflicts in dispatch as high speed, high density, high volume traffic competes for traffic space with low speed, relatively low volume, spent fuel traffic on the same corridors, generating bottlenecks at interchange points such as Ogden and Salt Lake City. The poor experience of Union Pacific in meeting (and mitigating) congestive bottlenecks suggests the need to significantly improve line haul capacity and supporting infrastructure in the corridor and destination travel lines, and institution of expensive operational improvements (such as in-transit rail welding and "maintenance on the fly"). These costs have generally been included directly through

contributions to transport infrastructure from shippers or have been included in higher rates. The License Application is silent on the proposed project's contribution to reducing such potential bottlenecks in the Salt Lake City metropolitan area, but this should be considered in the EIS. Historically, most heavy haul movements of commercial spent fuel have been either on the site of a commercial nuclear power plant, or off-site a relatively short distance to a nearby rail or barge facility. On-site heavy haul movements of spent fuel at licensed nuclear power plant facilities have generally not had to address the heavy-haul constraints recited above, including those associated with transporter design. Wheel spacing and load distribution requirements for a single-purpose, on-site and/or near-site road can be quite different from those for public highways and roads.

For off-site movements of spent fuel, as a general rule, the longer the heavy-hauling distance, the more difficult it is to implement such movements on a routine basis. Most heavy-haul movements of spent fuel have been over relatively short distances. Movements of up to 10 miles have been arranged without major issues arising, but beyond that, the impediments seem to mount exponentially. Given the associated logistical problems, some heavy haulers have stated categorically that hundreds or even dozens of repetitive movements of large spent fuel casks (the current proposal anticipates hundreds per year) over public roads would simply not be tolerated by most public highway officials.

5. Impacts from Sabotage and Accidents

Attention to the vulnerability of the shipping cask to intentional sabotage is merited and should be considered in the EIS. Recent experience with domestic terrorism mandates attention to this matter. The standard argument against considering such an analysis is 1) that better sabotage targets are possible, and 2) the likelihood of a sabotage event is unknown. In our opinion, nuclear targets are highly visible and have a very high publicity value. The NRC needs to address this issue and the impacts should be considered in the EIS. Prior NRC/DOE analyses of the impacts of explosive charges on spent fuel shipping casks are deficient and flawed, leaving open the question of just how serious an attack on a spent fuel shipment could be. NUREG-0170 does not address this issue, nor have any subsequent NRC or DOE analyses been instructive as to magnitude or probability. The shipping routes for many of the shipments to the proposed site will pass through many environmentally sensitive and urban areas, and especially when rail shipments are involved, many of which pass directly through highly populated areas.

Since the early 1980s, the NRC has relied on an outdated and poorly interpreted set of experiments carried out by Sandia and Battelle Columbus Laboratories. In one of the Sandia experiments, a GE IF-200 truck cask containing one unirradiated fuel assembly was attacked

with a M3A1, a military "shaped charge". Although the results "demonstrated that casks could indeed be breached by military explosives and that a considerable fraction of spent fuel could be released by such an attack,"¹ the NRC concluded that since only 2/1,000,000 of the total fuel weight was released in inhalable form, the "average radiological consequences of a release in a heavily populated urban area such as New York City would be no early fatalities and less than one (0.4) latent cancer fatality."² Halstead and Ballard recommend a 1% release because that is the percentage of unirradiated fuel released in the Sandia sabotage tests.³ We maintain that a design basis accident should not be the release of 2×10^{-5} of the cesium inventory, but 1%, based on the sabotage tests.

The EIS should consider the following sabotage scenarios:

The reference weapon should be portable anti-tank missiles for their ability to permeate the strong cask materials, their range and availability. Either the TOW-2 or MILAN anti-tank weapon could be considered.

A 10-year-cooled, medium burn-up, Westinghouse PWR assembly should be the reference spent fuel. "A NAC-TSC rail cask loaded with 26 assemblies of the reference fuel would represent a total radioactivity of about 5.5 million curies...a terrorist incident resulting in a one-percent release would have radiological consequences far greater than those assumed in the outdated DOE and NRC consequence assessments."⁴

The new assessment must employ "credible worst case assumptions about the timing and location of a potential attack, and weather conditions during and after the attack which are important for determining the fate of any releases."⁵

The following two scenarios, at a minimum should be considered: "an attack in which the cask is captured, penetrated by one or more explosive devices, and releases a significant amount (at least one percent) of its radioactive contents; and an attack in which the cask is perforated by one or more armor-piercing rockets or missiles and releases a significant amount (at least one

¹ Halstead, Robert J, and James David Ballard, "Nuclear Waste Transportation Security and Safety Issues; The Risk of Terrorism and Sabotage Against Repository Shipments," prepared for the Nevada Agency for Nuclear Projects, Carson City, Nevada, October, 1997, p.25.

² *Ibid.*, p. 26.

³ Sandoval, RP *et al*, An Assessment of the Safety of Spent Fuel Transportation in Urban Environs, SAND82-2365, prepared for DOE by Sandia Labs, June 1983.

⁴ *Ibid.*, p.xvii.

⁵ *Ibid.*, p. xv.

percent) of its radioactive contents."⁶

To bound the transportation impacts of the proposed storage facility, the EIS should estimate occupational and public exposures and economic costs under likely transportation scenarios.

Accident consequences, both generically and in the specific case of Salt Lake City, are understated by RADTRAN; the program needs to be critically examined.

The following RADTRAN issues need to be critically examined:

Accident severity fraction Under RADTRAN, the most severe accidents lead to a release of radioactivity. These severe accidents are also the least probable. In order to weight the likelihood of accidents by severity, RADTRAN employs accident severity fractions. These were developed from a very thin accident database, about 30 years old. Since many accident parameters have changed over the past 30 years, this database needs to be updated. For example, RADTRAN makes a large number of unrealistic assumptions about how long fuel could burn, the temperature of a fire, and how rapidly a fire department could extinguish a fire.

Locations of severe accidents The location of severe accidents needs to be more critically examined. Using "engineering judgment," the Commission assumed in NUREG-0170 (1977) that more severe accidents occurred in rural areas. Our review of 40 severe rail and highway accidents shows that more severe accidents occur in urban and suburban areas⁷ The table details 40 severe accidents we considered and their locations. This error understates accident consequences by a factor of 10.

Unrealistic accident scenarios RADTRAN assumes a host of unrealistic scenarios on how a radiological accident would play out. RADTRAN makes assumptions about how long a person may remain at an accident scene, how rapidly an area may be evacuated, whether the food supply may be interdicted and the time required to decontaminate an area. RADTRAN does not assume a long-term direct gamma dose, assuming the area would be evacuated and decontaminated.

Rail accident rates must be studied The newer model casks, holding 24 PWR or 68 BWR fuel assemblies, weigh more than 125 tons and require special rail cars. The Maxson-type flatbed, with two three-axle trolleys, have a higher accident rate, about double the standard rail-car accident rate. This accident rate for rail cars must be incorporated into the RADTRAN analysis.

All radionuclides not included In the calculations conducted by RADTRAN, radionuclides important to a thyroid dose, iodine-129 and chlorine-36, are generally not been included. Cobalt-

⁶ *Ibid.*, p. xiv.

⁷ Resnikoff, M, "Unresolved Safety Issues," paper presented at conference, Nuclear Waste Transportation and the Role of the Public, Las Vegas, Nevada, February 1, 1995.

60 crud, usually accounting for the greatest direct gamma dose, must also be included in the RADTRAN calculations.

Sabotage not evaluated The likelihood and consequences of a sabotage event have also not been evaluated. Anti-tank weapons, such as the TOW-2 and MILAN weapons, could easily penetrate a cask.⁸ These devices can penetrate one meter of steel, and therefore could easily penetrate 9 to 10 inches of a transportation cask. Studies undertaken by the NRC⁹ in 1981 demonstrates that at least 1% of the cask radioactive inventory could be released in an accident. This is far higher than the one part in 100,000 for particulates assumed by RADTRAN. The NRC should evaluate the consequences of a 1% release in a major city like Salt Lake City. The NRC could start this hard look by examining the consequences of a sabotage event in a city like Salt Lake City. If the consequences are high, the NRC should then proceed to estimate or bound the probability of a sabotage event.

Economic costs of accidents The economic impact of transportation accidents must be included in the EIS. The dollar figures fall directly out of the RADTRAN results. Realistic dollar figures for Salt Lake City must be incorporated, including the loss of income local businesses and the State due to an evacuation of the city. The long-term financial implications must also be evaluated. The further cost to the railroad of tying up the rail lines while restoration of the accident scene and decontamination takes place, must also be considered. The lost revenues alone are estimated by the American Association of Railroads at \$1 million an hour. The cost to decontaminate a major urban area such as Salt Lake City must also be evaluated, including decontamination of streets and buildings.

6. Impacts from Fire

The Environmental Report and the right-of-way application fail to give adequate consideration to the potential for fire hazards and the impediment to response to wild fires associated with constructing and operating the Applicant's proposed rail line. PFS's proposed movement of casks by locomotive in the Low rail line corridor presents a new wildfire ignition source. Construction, operation and activities associated with the rail line will introduce a new incidence fire source into an area that already has a high incidence for wildfires. Moreover, PFS's proposed rail line will create an impediment to fighting wild fires. Typically in this area responders use four-wheel drive vehicles and drive cross country to fight wild land fires. Hand crews may also

⁸ Halstead, RJ and JD Ballard, "Nuclear Waste Transportation Security and Safety Issues; The Risk of Terrorism and Sabotage Against Repository Shipments," prepared for the Nevada Agency for Nuclear Projects, October, 1997.

⁹ Schmidt, EW et al, *Shipping Cask Sabotage Source Term Investigation*, Battelle Columbus Laboratories, NUREG/CR-2472, December 1981.

be used but generally, heavy equipment is not used because of the damage it may cause to the fragile ecosystem. The four-wheel drive vehicles carry a water tank containing 200-300 gallons of water. The vehicles will have difficulty directly crossing the rail line. The presence of hazardous material such as spent nuclear fuel may further endanger responders as well as impede their fire fighting activities around such hazardous material because firefighters will be reluctant to pursue a wildfire in the vicinity of a train load of spent nuclear fuel casks.

7. Impacts on Flora and Fauna

There is the potential that endangered, threatened and candidate endangered species may be found in the Low Corridor, *e.g.*, Ute Ladies-Tresses, Least Chub, Spotted Frog, Peregrine Falcon, Bald Eagle and Mountain Plover. ER Rev. 1, Table 2.3-2. These species, other sensitive species, and their food base may be impacted by construction activities, noise levels and operation of the railroad.

The EIS must not only address impacts to endangered and threatened species, but candidate, sensitive, and high value species. Threatened species include bald eagles which are known to frequent Skull Valley and peregrine falcons which nest at Timpie Springs Wildlife Management Area, near the proposed intermodal transfer station. Furthermore, the RMP proposed to fully cooperate with the reintroduction of peregrine falcon into the Timpie Springs area and indicated that "surface disturbing activities on public lands adjacent to these areas would not be permitted to disturb birds or destroy important habitat."¹⁰

State listed sensitive bird species and other "high-interest" bird species in the area include the bobolink, burrowing owl, Caspian tern, common yellow throat, ferruginous hawk, long-billed curlew, short-eared owl, and Swainson's hawk. Moreover, the RMP indicates it will protect candidate species such as the ferruginous hawk and Swainson's hawk during critical nesting periods.¹¹

Furthermore, the EIS must address impacts from the proposed intermodal transfer facility and impacts from the transportation of high level nuclear waste to the storage site on the BLM Timpie Springs Wildlife Management Area and the Horseshoe Springs wetland areas. The State has great concern regarding damage to these wetlands, their associated species, and the Great

¹⁰Record of Decision for the Pony Express Resource Management Plan and Rangeland Program Summary for Utah County. Salt Lake District, Bureau of Land Management, U.S. Department of Interior. January 1990. At 37.

¹¹*Id.* at 36.

Salt Lake, into which these wetlands flow. Any resultant damage to the Great Salt Lake ecosystem could lead to the deaths of countless thousands of migratory birds.

In addition, the RMP designates Horseshoe Springs as an Area of Critical Environmental Concern and prescribes that transportation and utility corridors avoid the Horseshoe Springs area.¹² Skull Valley Road traverses through the Horseshoe Springs area. Although Skull Valley Road is an existing transportation and utility corridor, activities such as the intermodal transfer station, that would significantly increase the use of Skull Valley Road and substantially impact Horseshoe Springs should not be allowed.

The RMP designated specific lands as important wildlife habitat which must be managed in a manner that protects, improves and maintains the habitat. Some wildlife species will be permanently driven out of the area either because of destruction of habitat or from noise and other activities associated with construction, operation, and maintenance of the railroad. Noise levels from construction and operation of the railroad may also disrupt mating and breeding activities. The proposed rail spur will traverse the Cedar Mountains Wildlife Habitat Area and near the Horseshoe Springs Wildlife Habitat Area.¹³ Furthermore, the proposed rail spur area is the habitat for one of the only two wild horse herds in the Pony Express Resource Management Plan area. The railroad may act as an artificial barrier to the traditional range of some wildlife. For example, the railroad will probably cut off winter feeding range for wild horses and it may disrupt other established wildlife migration patterns for mule deer and pronghorn antelope.

The rail spur should not be allowed to disturb these areas that have already been designated as important wildlife habitat. At a minimum, BLM must ensure that the rail spur and transportation of high level nuclear waste is consistent with each of the specific Habitat Management Plans or the Pony Express RMP, Wildlife and Fisheries Program Decision must be amended.

In the event the right-of-ways are granted, construction and operation of the rail spur and the intermodal transfer facility should not occur within the wildlife sensitive seasonal periods identified in the current RMP¹⁴.

Clearing and grubbing activities prior to railroad construction will destroy as much as 776 acres of acres of vegetation. ER Rev. 1 at 4.4-3. This vegetation provides habitat for a variety of

¹²Id. at 51, 52.

¹³Id. at 34.

¹⁴Id. at 37.

wildlife species. Id. PFS claims it will be able to revegetate a significant amount (621 acres) of vegetation destroyed during construction, with a permanent loss of 155 acres of vegetation. Id. The area of habitat destruction is located in a sensitive, slow growing, xeric environment. Such areas, notoriously sensitive to environmental impacts, are difficult to restore. The ER is inadequate because it fails to demonstrate how the PFS plans to carry out revegetation of 621 acres in such an sensitive and slow growing environment. Any discussion of revegetation efforts must also show where and how the PFS will obtain access to needed water.

This matter was also addressed in the State's June 19, 1998 Scoping Comments, included as Attachment A, at 28.

8. Visual Impact on Proposed Wilderness Area

As has been raised by the Southern Utah Wilderness Alliance, no account has been taken of the visual impact the railroad will have on the nearby BLM Cedar Mountains Wilderness Study Area (WSA) or other locations in Skull Valley. The Cedar Mountains WSA is located parallel to and to the west of the PFS rail line. In some places, the WSA boundary is less than two miles from the railroad. Moreover, PFS has not quantified the costs associated with noise levels from construction activities and operation of the railroad on wilderness and recreational areas. The railroad will be visible from the WSA and other recreation areas in Skull Valley and noise from the operation of the rail line will be heard, thus destroying the solitary values associates with wilderness areas.

9. Groundwater and Surface Water Impacts

The EIS must address the nature and character of the watercourses present at the proposed intermodal transfer point and along the proposed rail spur route. A stream alteration permit must be obtained for any alteration of natural streams.

The EIS must also address the flood potential and method for managing any floods from the greater watershed along the proposed rail route and the intermodal transfer station. In the event a flood control impoundment is necessary, it may require plan approval by the State Engineer.

The EIS must address any water needs for the intermodal transfer facility and operation of the rail spur. The water needs assessment must also include water requirements for fighting wild fires created by the operation of the rail spur or industrial fires at the intermodal transfer station. Once the water needs are determined, the water rights and method for obtaining those rights must be disclosed. The EIS must identify points of diversion, interference with, or impairment of

existing water rights, and how will those water rights be made whole.

This matter was also addressed in the State's June 19, 1998 Scoping Comments, included as Attachment A, at 26-28, and 33.

10. Institutional Trust Land Impacts

The State submitted comments on the impact of NRC's proposed approval in the State's June 19, 1998 Scoping Comments, included as Attachment A, at 20. The State also submits the following additional comments.

Background

Through the Utah Enabling Act of 1894, Congress granted approximately 1/9th of the lands in Utah to the State for the support of public education ("trust lands"). The United States Supreme Court has referred to this Enabling Act land grant as a "solemn compact" between the United States and the State of Utah. The grant has also been held to constitute a perpetual trust to which standard trust principles apply, and thereby imposing fiduciary duties upon the State of Utah.

However, of significant importance is that this "solemn compact" imposes reciprocal duties upon the United States, as grantor of the trust. Consequently, the United States is bound to act "for the support of common schools" that were the beneficiaries of this trust.

Railroad Spur

It is critical that the Nuclear Regulatory Commission ("NRC"), the Bureau of Land Management ("BLM"), and the Bureau of Indian Affairs ("BIA") take into account the purpose of trust lands in the drafting of an environmental impact statement ("EIS") for, and ultimately in its consideration of whether to approve, the construction and operation of an independent spent fuel storage installation ("ISFSI") by Private Fuel Storage, L.L.C. ("PFS") on the Skull Valley Goshute Indian Reservation in Tooele County, Utah (the "Proposal"). The problem of addressing the handling of high level radioactive waste is fraught with uncertainties as a result of the complexity of technical issues, its novelty, its extraordinary time horizon, and the extreme difficulty in predicting with any confidence the numerous unknowns associated with high level radioactive waste. This has resulted in the American people being deeply apprehensive of high level radioactive waste.

The effect of the public's apprehension on the market value and revenue generating potential of trust lands surrounding the proposed transportation routes, including the railroad spur, are especially concerning to the Trust Lands Administration. It has been documented that property

values of lands near proposals involving high level radioactive waste have been diminished as a result of this apprehension. See City of Santa Fe v. Komis, 845 P.2d 753 (NM 1992) (plaintiff entitled to compensation for the loss of market value of its property as a result of the Waste Isolation Pilot Project, even if the loss is based on fears not founded on objective standards).

The proposed railroad spur has the potential of dramatically impacting trust lands, as the Trust Lands Administration administers approximately 31,500 acres of fee surface and mineral, and 25,000 acres of fee mineral near the proposed railroad spur. Without a doubt, the market value and revenue generating potential of these trust lands will be adversely affected if NRC accepts the amendment to PFS's application to allow for the proposed railroad spur.

Pursuant to the applicable rules and regulations implementing the National Environmental Policy Act ("NEPA") and NRC regulations, the EIS must evaluate both direct and indirect effects that are "caused by" the Proposal. Under 40 C.F.R. § 1508.8 and 10 C.F.R. § 51, Subpt. A, App. A, this evaluation requires an analysis of the present and future economic effects of the Proposal on surrounding trust lands. Furthermore, this economic analysis must account for all diminution in value to trust lands, including any impact to trust lands "caused by" the public's attitude towards the Proposal and its involvement with the handling, transportation and storage of high level radioactive waste.

Furthermore, NRC regulation 10 C.F.R. § 51, Subpt. A, App. A, provides that the EIS must identify possible conflicts between the Proposal and its alternatives and the objectives of federal and state policies. The fiduciary duties imposed upon the Trust Lands Administration constitute the basis for its policies outlining the management of trust lands. In upholding its fiduciary duties the Trust Lands Administration must manage the trust lands in the most prudent and profitable manner possible, and not for any purpose inconsistent with the best interest of the trust beneficiaries. Accordingly, the Trust Lands Administration must maximize the economic gain from trust land uses consistent with long-term support of the trust beneficiaries.

As previously indicated, the "solemn compact" creating trust lands imposes reciprocal duties upon the United States as grantor of the trust. Accordingly, the United States is bound to act "for the support of common schools" that were the beneficiaries of this trust. To the extent the Proposal hinders the ability of the Trust Lands Administration to effectively manage trust lands, or diminishes the market value or revenue generating potential of trust land, the Proposal is in conflict with the objectives of both the State and federal policies for trust lands. Accordingly, the EIS must identify and fully discuss the presence of this conflict.

11. Geologic Hazards

Potential for significant geological hazards should be analyzed to determine their nature and extent as they are crucial to the safe and responsible siting of a rail line carrying spent nuclear fuel rods. To date, these issues have not been satisfactorily addressed by Private Fuel Storage.

This matter was addressed in the State's June 19, 1998 Scoping Comments, included as Attachment A, at 26. In addition, the State provides the following comments.

Earthquake hazards

New data collected by Private Fuel Storage and provided to the State of Utah indicates that the railway may be subject to fault rupture of the surface during large earthquakes and subject to stronger ground shaking than expected. Either surface rupture or strong ground shaking could be sufficient to cause derailment of a train carrying nuclear materials.

The railway would cross at least two branches of the 'East' and 'West' capable faults, recently identified by PFS's consultants while investigating hazards at the proposed storage site. PFS's consultant's also identified at least 2 dozen other young faults under or adjacent to the storage site, the size and extent of which are as yet undetermined. The Utah Geological Survey is currently evaluating the PFS data and it appears that there are more faults present than those recognized by PFS's consultants.

The railway would cross the western extension of the Pass Canyon fault, labeled the 'Pass Canyon structure' by PFS. This geologic feature needs to be evaluated to determine if it is a capable fault.

Just south of Interstate highway 80, the proposed railway parallels segments of the Cedar Mountain fault. The size, extent, location, and nature of this fault is poorly known. We do not at present know how much of a hazard the Cedar Mountain fault presents to the railway.

We believe that a large earthquake on the nearby Stansbury Fault could trigger significant earthquakes on the shallow buried faults in the valley. Scientific studies have found that nearly two-thirds of all the historical earthquakes that ruptured the surface in the Basin and Range province (between Salt Lake City and Reno) occurred on faults that had no evidence of surface rupturing in the last 10,000 years.

Fault zones similar to that underlying the storage site exist in many areas of the world, including parts of the Wasatch Fault. In similar zones of multiple faults, history demonstrates that surface

fault rupture can occur on any of the fault strands or in rare cases may cause a new fault branch to be propagated and rupture the surface in a new location.

Therefore, we strongly encourage the EIS to consider the impacts of greater ground shaking than expected, and the possibility of a surface rupturing earthquake that might occur anywhere, at any time along the railway.

Expansive and collapsible soils

The railway crosses the piedmont slope on the eastern edge of the Cedar Mountains. The slope is underlain by Lake Bonneville and alluvial-fan deposits. These deposits may contain expansive and collapsible soils which may subject the rail bed to instability because of volumetric change.

Debris flows and floods

The alluvial fans were formed as sediment and debris were deposited by streams flowing from mountain canyons. Debris flows, debris floods, and stream floods emanate from canyon mouths and flow down the fans during periods of intense rainfall or rapid snowmelt. These processes are expected to continue and pose a hazard to the operation of a rail spur in their path.

12. Impacts on Mineral Resources

Mineral potential exists in southern Skull Valley for several types of ore deposits: skarn/porphyry copper deposits, vein/replacement lead-zinc-silver deposits, and disseminated gold-silver deposits. Potential exists on both BLM land and Skull Valley Reservation land. The better potential is on the west side of the valley near the proposed railway corridor.

Exploration for deposits buried beneath shallow valley fill has become increasingly important in recent years and has resulted in a number of sizable discoveries in Nevada, Arizona, and internationally.

Skarn/porphyry copper and disseminated gold-silver deposits are typically mined by open pit methods. Most open pits require relatively large areas for both the pits and waste dumps, often several square miles or more. Surface facilities such as railroads, warehouses, and transmission lines could encroach on the area required for development of the deposit and create access or development problems. If a deposit is found, building of the railway or other surface facilities over or near the deposit could negatively impact the mineral development of the resource. The EIS needs to consider the potential economic loss to the State and to the Skull Valley Band.

13. Impacts on Archeological Resources

Archeological artifacts have been encountered along the proposed railway, and more are likely to be found. The U.S. Bureau of Land Management studied artifacts from one Early/Mid-Fremont time period site near the railway, estimated to be from around 600-870 AD (Utah Archeology, vol.7, No.1, p.51-68). Additional archeological artifacts, of this age and more recent, are expected in the vicinity of the railway. A thorough inventory needs to be made of archeological resources that might be affected by the railway.

The ER states that the rail line will cross the Hastings Trail and Donner-Reed Trail. ER Rev. 1 at 2.9-3. Thus, two significant historical resources may be lost where the rail line crosses these two pioneer trails. The ER does not quantify or otherwise evaluate this loss as a cost of obtaining a license to store spent nuclear fuel on the Skull Valley reservation. Such an evaluation is required under NEPA.

14. Impacts on Emergency Management

Public safety and emergency response were discussed in the State's June 19, 1998 Scoping Comments, included as Attachment A, at 15. In addition, the Utah Department of Public Safety, Division of Comprehensive Emergency Management has submitted a letter directly to the Nuclear Regulatory Commission, voicing their scoping comments and concerns. A copy of that letter, dated May 4, 1999, is included as Attachment D and made a part of these comments from the State of Utah.

15. Socio-Economic Impacts

This matter was addressed in the State's June 19, 1998 Scoping Comments, included as Attachment A, at 30, 34 (Applicant's Financial and Corporate Structure), and 35 (Environmental Justice).

During the 1999 Session, the Utah Legislature and the Governor enacted law which revokes the statutory and common law grants of limited liability for any entity that arranges for or engages in the transportation, transfer or storage of high level nuclear waste in Utah. UCA 19-3-318et seq. Each officer, director and equity holder of Private Fuel Storage (PFS) and its parent organizations are now held individually, strictly, and jointly and severally liable for obligations incurred in Utah regarding PFS' actions and operations. The EIS should include consideration of this liability condition as part of the evaluation.

16. The effects of the proposal on the Utah Test and Training Range must be considered

The proposal to store high level nuclear waste in Skull Valley, and either method to get it there - rail/truck or rail spur - both constitute a threat to the vitality and mission of the Utah Test and Training Range, operated out of Hill Air Force Base. Hill Air Force Base is a major economic engine for the economy of the state of Utah. The Test Range is a key component of the vitality of the Base, and its ability to remain open in times of reductions in military force. The Test Range offers outstanding and unique opportunities for low level topographic flying, low-level helicopter training, and one of the only places where unmanned missiles can be flown. It is flown at all times of the year, in all types of weather, in order to train the pilots for all types of combat conditions. The need for this type of facility will only increase as the new generation of planes, missiles and helicopters is developed. Skull Valley is both within the restricted flight zone Military Operating Area, and an ingress route to the MOA. Ingress routes are limited both by nearby civilian commercial flight requirements, and the need for realistic tactical operational training of the military pilots.

The proposal threatens the operations of the Test Range in two ways. First, the threat of the accidental release of live ordnance or crash of aircraft with or without ordnance, the chance of which happening can never be realistically placed at zero. Secondly, the perception that the military may not be sensitive to this deadly material below their operations may cause restrictions on flight operations which reduce or eliminate the effectiveness of the training. These types of restrictions have happened at other flight ranges around the country for reasons related to recreational or other public uses. While the military may have accommodated those restrictions elsewhere, the reason for those restrictions was not concern about a material that has the potential to cause a catastrophic disaster in a large metropolitan area. The NRC and BLM cannot ignore or minimize the effects that movement and storage of high level, deadly, nuclear waste in the Skull Valley may have on the current and future uses of the Utah Test and Training Range and therefore on the viability of Hill Air Force Base.

G. ADDITIONAL COMMENTS ON BLM'S PROPOSAL TO AMEND THE RMP

In addition to the above comments on Docket No. 72-22 and the Pony Express RMP, when amending the Pony Express RMP, BLM is required to conform its planning process to the NEPA EIS planning process. 43 C.F.R. § 1610.2(a). For example, it is required to conform its planning process to the NEPA EIS planning process. 43 C.F.R. § 1610.2(a). For example, it is required to completely develop and consider all alternatives, including a no action alternative. In developing and considering such alternatives, consideration of each alternative's impact on local economies and uses of adjacent or nearby non-federal lands is required. Such consideration must include a

detailed estimate of the economic effects of implementing each alternative. See 43 C.F.R. §§ 1610.4-5 and 1610.4-6. In addition, 43 C.F.R. § 1610.4-7 provides that a preferred alternative shall be developed based upon an evaluation of the alternatives and the estimation of their effects, including their economic effects.

Because the analysis that must be done by BLM to comply with these requirements is very similar to the analysis that must be done for the EIS, the State's Scoping Comments, including all attachments, are also pertinent to this analysis and are hereby incorporated by reference.

1. Impacts on the Utah Trust Lands Administration

BLM regulation 43 C.F.R. § 1601.1-8 provides that any amendment to an RMP shall consider the impact on uses of adjacent or nearby non-federal lands. Accordingly, any plan amendment to the Pony Express RMP must take into account the impact of PFS's proposed railroad spur (the "ROW") on adjacent and nearby Utah Trust Lands.

In applying 43 C.F.R. §§ 1610.4-5 and 1610.4-6, the BLM must consider and include a detailed estimate of the economic effects of implementing each alternative. Accordingly, every alternative considered by BLM, including the proposed plan amendment for the railroad spur right-of-way, must estimate its economic impact upon the economic potential of trust lands.

In applying 43 C.F.R. § 1610.4-7, BLM should consider not only the adverse economic impacts the ROW will have on nearby trust lands, but also consider the fact that, pursuant to the BLM/State of Utah Memorandum of Understanding FOCUS LIST, the Trust Lands Administration has nominated BLM lands surrounding Timpie, Utah, for exchange of existing trust lands inholdings (see Attachment E, letter dated April 14, 1999). Currently, a significant amount of trust lands are contained within areas BLM has designated for protection (e.g., Desert Tortoise Habitat Conservation Plan). Certainly, BLM's priority, from both a practical standpoint and as grantor of the trust, should be focused on exchanging the trust lands inholding out of these protected areas rather than issuing the ROW to PFS.

As indicated in this agency's earlier scoping comment, notwithstanding the fact that no high level radioactive waste is generated as a result of the operation of nuclear power plants within the State of Utah, the school children of Utah should not be forced to suffer an economic loss as a result of the storage of high level radioactive waste pursuant to the Proposal. It is the hope of the Trust Lands Administration that NRC, BLM, and BIA fully consider the purpose of trust lands and the issues submitted above in the drafting of the EIS. And if the EIS determines that the Proposal will hinder the ability of the Trust Lands Administration to effectively manage trust

lands or adversely impact the economic value or revenue generating potential of trust lands, the United States, through NRC, BLM, and BIA, should honor its duty as grantor of the trust and either compensate the Trust Lands Administration fully or deny the licensing of the Proposal.

2. Improper Use of Federal Land

The RMP states "public land will not be made available for inappropriate uses such as storage or use of hazardous materials (munition, fuel, chemicals, etc.) and live artillery firing." this is an appropriate requirement that should not be changed by amending the RMP. The right-of-way requests to build and operate the rail spur and the intermodal transfer facility to transfer high level nuclear waste on BLM lands are inconsistent with this requirement and should therefore be rejected.

3. The Pony Express Resource Management Plan needs overall review

The Pony Express Resource Management Plan was adopted in 1988 - eleven years ago. Many changes are proposed for the area, especially the Skull Valley portion. A coordinated resource management plan is underway, studies of vegetation are being conducted, the I-80 corridor is a target of developmental interest, land values might increase in the area. The EIS review of the rail line cannot be limited to only a rail spur, but must consider all of these issues in a coordinated plan. Any proposed amendments to the RMP should be written as a coordinated amendment for all issues in the Skull Valley area.

4. The effects of the proposal on the Utah Test and Training Range must be considered

The proposal to store high level nuclear waste in Skull Valley, and either method to get it there - rail/truck or rail spur - both constitute a threat to the vitality and mission of the Utah Test and Training Range, operated out of Hill Air Force Base. Hill Air Force Base is a major economic engine for the economy of the state of Utah. The Test Range is a key component of the vitality of the Base, and its ability to remain open in times of reductions in military force. The Test Range offers outstanding and unique opportunities for low level topographic flying, low-level helicopter training, and one of the only places where unmanned missiles can be flown. It is flown at all times of the year, in all types of weather, in order to train the pilots for all types of combat conditions. The need for this type of facility will only increase as the new generation of planes, missiles and helicopters is developed. Skull Valley is both within the restricted flight zone Military Operating Area, and an ingress route to the MOA. Ingress routes are limited both by nearby civilian commercial flight requirements, and the need for realistic tactical operational training of the military pilots.

The proposal threatens the operations of the Test Range in two ways. First, the threat of the accidental release of live ordnance or crash of aircraft with or without ordnance, the chance of which happening can never be realistically placed at zero. Secondly, the perception that the military may not be sensitive to this deadly material below their operations may cause restrictions on flight operations which reduce or eliminate the effectiveness of the training. These types of restrictions have happened at other flight ranges around the country for reasons related to recreational or other public uses. While the military may have accommodated those restrictions elsewhere, the reason for those restrictions was not concern about a material that has the potential to cause a catastrophic disaster in a large metropolitan area. The BLM cannot ignore or minimize the effects that movement and storage of high level, deadly, nuclear waste in the Skull Valley may have on the current and future uses of the Utah Test and Training Range and therefore on the viability of Hill Air Force Base. These considerations must be made as part of the review of both proposed rights-of-way, as the considerations are directly related to the existence of both rights-of-way.

5. Coordination and Consistency Requirements

Under 43 C.F.R. 1610.3-1 (applicable through 43 C.F.R. 1610.5-5), the BLM is required to coordinate its proposed actions with the State, in part to determine whether the proposed actions are consistent with State purposes, plans, policies, and programs. In this case, the proposed action is fundamentally inconsistent with State purposes, plans, policies, and programs. See Part G.1, above. See also, e.g, House Concurrent Resolution 6, passed during the 1998 General Session of the Utah Legislature.

Comments from State of Utah
EIS Scoping, Docket No. 72-22
and Pony Express RMP
May 27, 1999
Page 26

ATTACHMENT A

EIS Scoping Comments submitted by the State of Utah
on June 19, 1998

ATTACHMENT B

The State's Contention HH, developed in PFS's licensing proceeding
before the NRC (NRC Docket No. 72-22)

ATTACHMENT C

March 12, 1999 Testimony of Bill Richardson, Secretary of Energy,
before the United States House Subcommittee on Energy and Power
of the Committee on Commerce

ATTACHMENT D

May 4, 1999 letter from the Utah Department of Public Safety, Division of
Comprehensive Emergency Management to the Nuclear Regulatory Commission,
which includes scoping comments and other concerns.

ATTACHMENT E

April 14, 1999 letter from the Utah Trust Lands Administration to BLM

U. S. NUCLEAR REGULATORY COMMISSION
DOCKET NO. 72-22
PRIVATE FUEL STORAGE LLC
PROPOSAL TO STORE HIGH LEVEL NUCLEAR WASTE ON THE
SKULL VALLEY RESERVATION

ENVIRONMENTAL IMPACT STATEMENT
SCOPING COMMENTS
SUBMITTED BY THE STATE OF UTAH
JUNE 19, 1998

The following comments are provided by the State of Utah (State) in response to the U.S. Nuclear Regulatory Commission (NRC) Docket No. 72-22, Private Fuel Storage LLC (PFS), Independent Spent Fuel Storage Installation (ISFSI), Skull Valley Reservation, Notice of Intent to Prepare an Environmental Impact Statement (EIS) and conduct a scoping process in accordance with the National Environmental Policy Act (NEPA). Comments are organized under topic headings for ease of consideration. However, issues are interrelated, and commonly impact or encompass other issues under other topic headings. Issues should not be narrowly construed or evaluated, based on topic headings. If additional information or clarification is needed, please contact:

Dianne R. Nielson, Ph.D.
Executive Director
Utah Department of Environmental Quality
168 North 1950 West
Salt Lake City, UT 84116
Phone: 801-536-4402
Fax: 801-536-0061

Denise Chancellor, Esq.
Assistant Attorney General
Utah Attorney General's Office
Environmental Division
160 East 300 South, 5th Floor
Salt Lake City, UT 84114-0873
Phone: 801-366-0286
Fax: 801-366-0292

EIS SCOPING IS PREMATURE

As defined by the NRC,¹ the purpose of the EIS scoping is to, in part:

- Define the scope of the proposed action which is to be the subject of the EIS,

¹ U. S. Nuclear Regulatory Commission, April 24, 1998, Notice of Intent to Prepare an Environmental Impact Statement and Conduct Scoping Process, Docket No. 72-22.

- Determine the scope of the EIS and identify the significant issues to be analyzed in depth, and
- Identify and eliminate from detailed study issues which are peripheral or are not significant.

However, because of substantial and significant omissions and inadequacies in the license application of PFS, the information necessary for defining the scope of the EIS, much less conducting evaluations for the EIS under NEPA, is not available. Some of those omissions and inadequacies in the application are apparent from the recent Request for Additional Information (RAI) relating to the Safety Evaluation Report that the NRC Staff addressed to the Applicant. The Applicant responded to some of the requests in May 1998, however, the Applicant will not respond to significant portions of the RAI until September and December, 1998. Some of these responses, especially with respect to seismicity, directly impact the scope of the EIS. Furthermore, the NRC Staff is yet to send the Applicant an RAI relating to the deficiencies in the Applicant's Environmental Report.

The Staff's RAIs and the Applicant's responses thereto are integral to the scope of the EIS. If scoping proceeds and public comment on the scoping is concluded on June 19, 1998, there will be information relevant to the licensing of the facility, and therefore preparation of the EIS, which will not be available for consideration in the EIS scoping or preparation.

NRC should consider:

- Is the license application complete, such that additional information will not need to be analyzed or evaluated at a later time as part of the EIS process?
- If more information will be provided later, how will it be included in the EIS scoping and evaluation?
- How will new data and information be made available to the public, and how will the public be provided an opportunity to submit additional comments and scoping questions during the EIS process?

If NRC cannot define a process which provides for scoping, analysis, and evaluation of all issues associated with a complete and technically adequate license application, then it should delay the EIS scoping and analysis until such time as the license application is complete and technically adequate and an environmental impact evaluation can be made as required under NEPA.

PURPOSE AND NEED FOR THE PROPOSED FACILITY

As part of the EIS, the NRC must determine if there is a need for the proposed facility. The Environmental Report isolates the need for the facility to a particular group -- operators of

Comments From The State of Utah
EIS Scoping, Docket No. 72-22
June 19, 1998
Page 3

nuclear power reactors -- and does not discuss any overall social costs or benefits that may be derived from this facility. The EIS must analyze the need for this facility in terms of overall societal costs and benefits. Furthermore, the NRC must look to federal statutes and policies when evaluating the need for this facility.

Under 10 CFR § 51.71(d) "draft environmental impact statements should also include consideration of the economic, technical, and other benefits and costs of the proposed action and alternatives and indicate what other interests and considerations of Federal policy, including factors not related to environmental quality if applicable, are relevant to the consideration of environmental effects of the proposed action identified pursuant to paragraph (a) of this section." Furthermore, NRC must comply with federal statutes and policies contained therein in drafting its EIS. In particular, the EIS must consider whether the need for a centralized national private ISFSI is a violation of the intent and the policies contained in the Nuclear Waste Policy Act, 42 USC §§ 10,101 to 10,270 (NWPA). Under the NWPA, the State in which a federally-owned interim disposal facility is located is guaranteed involvement in "all stages of planning, development, modification, expansion, operation, and closure of storage capacity at a site or facility within such State for the interim storage of spent fuel from civilian nuclear power reactors." 42 USC § 10,155(d)(2). The Governor and the State Legislature are involved in the site selection investigation. 42 USC § 10,155(d)(1). Cooperative agreements between the Department of Energy (DOE) and the State are available for State funding and involvement. 42 USC § 10,155(d)(3). Furthermore, equipment, funds and training are available to states along the transportation corridor routes as well as to the State in which the site is located.

The EIS must evaluate the environmental consequences that flow from PFS's proposal, which has none of the State participation and involvement contemplated by NWPA. In fact, the EIS must evaluate whether PFS's proposal is a deliberate effort to avoid the requirements of the NWPA.

The need for the facility and the "No Action" alternative are coextensive of each other. The No-Action alternative is discussed in the following section, Range of Alternatives.

RANGE OF ALTERNATIVES FOR CONSIDERATION IN EIS

NEPA requires federal agencies to consider whether they can carry out the proposed federal action in a less environmentally damaging manner and whether alternatives exist that make the action unnecessary. A discussion of the range of alternatives is considered the "heart" of an EIS. 40 CFR § 1502.14. The purpose of a discussion of alternatives is to "sharply defin[e] the issues and provid[e] a clear basis for choice among options by the decisionmaker and the public." *Id.* Yet, the Applicant presents only one option: a centralized national storage facility on the Skull

Valley Reservation.

The discussion of alternatives sites in the Applicant's Environmental Report (ER) is woefully deficient. The Environmental Report lists 38 potential sites. However, there appears no reason, other than a willing host, to substantiate why the Skull Valley Reservation was the only siting alternative discussed in any detail. ER § 8.1. The EIS must rigorously explore and objectively evaluate all the 38 potential sites listed in the ER. The fact that the 38 sites are listed in the Applicant's ER demonstrates that these sites are all reasonable alternatives to a site on the Skull Valley Reservation.

As part of the EIS scoping, the NRC should also determine if the socio-economic nature of the alternative sites suggests that the site identification process was prejudiced, in violation of the requirements of policy and law governing Environmental Justice.² See Environmental Justice discussion below.

One option that the EIS is compelled to explore is the "No Action" alternative, which is the flip side of the need for the facility. A careful evaluation of the "No Action" alternative is an absolute priority in this case. Existing nuclear power plant sites already have more than sufficient capacity to continue to store spent fuel rods.³ Before the NRC contemplates licensing the proposed PFS facility, it must carefully evaluate the unique risks and costs posed by transporting thousands of tons of high level nuclear waste across the country to a new, centralized facility, as compared to the risks and costs of maintaining the status quo, i.e., leaving the spent fuel at the sites of the nuclear power plants where it is generated and currently stored, pending the opening of a permanent, deep geologic repository.

The "No-Action" alternative should evaluate the impacts and risks that could be avoided if spent fuel were stored at existing nuclear power plant sites until a permanent repository becomes available. The PFS proposal doubles the number of times that fuel must be transferred from storage casks to shipping casks and from shipping casks to storage casks. It also increases the distance that the spent fuel must be shipped, and increases the time that spent fuel will be moving across the country, subject to accidents or sabotage. This consideration is particularly significant for two reasons:

- Some transportation corridors, including the I-80 - Union Pacific Railroad transportation corridor east-west through Tooele and Salt Lake Counties, are not designated

² Federal Executive Order No. 12898, February 11, 1994.

³ GAO Report to Congressional Requesters, September 1991, Nuclear Waste--Operation of Monitored Retrievable Storage Facility is Unlikely by 1998, GAO/RCED-91-194, p. 4.

transportation corridors for other shipments of high level nuclear waste; but for the pending proposal, these areas would not be subject to the risks of transportation of high level nuclear waste;

- This is particularly true for the shipments of high level nuclear waste from PFS member corporation Southern California Edison; if Yucca Mountain were the licensed permanent storage facility, there is no cost effective transportation route which would dictate transportation of high level nuclear waste from southern California, through northern Utah, and then back southwest to southern Nevada.

In fact, the Nuclear Waste Policy Act requires the federal government, when selecting interim storage sites, to "minimize the transportation of spent nuclear fuel." 42 USC § 10,155(a)(3). As part of the EIS, if the NRC determines that the proposed facility results in excess transportation of spent fuel rods, the EIS must recommend that the proposed ISFSI alternative is flawed and unacceptable under NEPA.

Another option the EIS must explore is how the proposed ISFSI fits into the overall federal scheme for disposing of high level nuclear waste. Recent proposed legislation to site a Monitored Retrievable Storage (MRS) facility is indicative that this alternative is within the range of reasonable alternatives the EIS must consider. Thus, the environmental effects, including transportation risks of Applicant's private centralized national storage facility must be evaluated against those same risks associated with an MRS. The effect that the Applicant's proposal will have on a comprehensive scheme to deal with the disposal of high level nuclear waste must also be addressed in the EIS.

Another reasonable proposal the EIS must explore is the development of private regional ISFSIs where the transportation distances and volume of fuel would be substantially less than those associated with the PFS proposal.

The EIS should also examine the alternative of providing a hot cell where damaged fuel can be retrieved, thereby avoiding the risks incurred in shipping the fuel back across the country to the originating nuclear power plant. The avoided risks that should be considered include the risk of accidents (which is enhanced by the loss of cladding effectiveness), and the risk of sabotage.

GUARANTEE THAT FACILITY WILL BE "TEMPORARY"

The "temporary" designation of this proposed facility is also within the purview of this EIS. The facility is being proposed and evaluated as a temporary storage facility. However, there is no way to ensure that spent fuel rods will ever be removed after they are shipped to the facility.

- There is no permanent repository, and Yucca Mountain remains under study. There is no

- permanent, deep geologic storage facility for the high level nuclear waste commercial spent fuel rods.
- Furthermore, the license application clearly states that one of the objectives for licensing this temporary facility is to enable fuel rods to be shipped off-site so the nuclear power plant can be decommissioned. Once all the fuel is transported from the power plant and the possession-only license (POL) is relinquished, fuel rods could not be returned to the power plant.
 - Because the PFS facility is proposed to be designated a "start clean, stay clean" facility, if there is an accident or problem during transportation or storage and a cask leaks, there is no hot cell, which would be needed to repair or repackage the rods or cask. If the cask were leaking, regulatory requirements and opposition from transportation corridor states would likely make it impossible to remove the material from the proposed "temporary" PFS facility.

The NEPA process requires an evaluation of the facility as proposed for operation, a *temporary* facility. If the facility cannot be demonstrated to be temporary, then the facility would operate beyond the scope of the license and beyond the scope of the EIS, irrespective of NRC Waste Confidence Decision.

QUANTITATIVE AND QUALITATIVE RISK ASSESSMENTS

Risk assessments, both quantitative and qualitative, are critical for the initial and ongoing evaluation of a facility for licensing, environmental impact analysis, and operations. The nuclear industry has conducted extensive work in these areas as part of the licensing of nuclear power plants. The techniques and information have evolved significantly, and regulatory agencies as well as the public and the industry have come to rely more heavily on these assessments, not only for initial evaluations of risk, but for quality, compliant, safe operations.

The Utah Department of Environmental Quality (DEQ) used both quantitative and qualitative (health/ecological) risk assessments as required components of the permit for the Tooele Chemical Agent Destruction Facility (TOCDF) at Deseret Chemical Depot in Tooele County. The health/ecological risk assessment is used to identify potential reasonable worst case contaminants, pathways, and impacts on public health and the environment. The original assessment is updated as needed to reflect changes in operations. DEQ works closely with the U.S. Environmental Protection Agency (EPA) in selecting and revising the model and procedures. The quantitative risk assessment identifies all human or mechanical errors, the impacts of errors, accident scenarios, and the statistical probability for each step in a process or function. Then risks, including injuries and fatalities, of each individual step, combined risks of the process, and the overall activity are determined.

Quantitative and qualitative (health/ecological) risk assessments have not been provided as part of the existing information in the PFS license application. Nor is there any indication when such risk assessments would be completed. This is information which is essential, not only to the evaluation of the construction and operation of the storage facility, transportation operations, transfer station, and related operations and facilities, but also to the impacts of such operations on public health and the environment.

When an ISFSI is licensed in conjunction with and located at an existing nuclear power plant, some portion of the impacts are potentially already included in existing health/ecological and quantitative risk assessments. However, where an ISFSI is constructed away from a nuclear power plant, the entire site- and operation-specific risk assessments must be designed and conducted. This has not been provided in the license application for the PFS proposed facilities and operations, and until it has been done, and a sufficient opportunity for public review is provided, it is impossible to evaluate the cumulative impacts of facility and transportation options on the public and the environment. And without such evaluation, the EIS is incomplete and unacceptable.

CUMULATIVE IMPACT ANALYSIS

The EIS must consider the cumulative impact of the proposed storage site and the numerous other facilities and activities in the West Desert. This area is already the storage site for 42 percent of the U. S. stockpile of chemical weapons. The malfunction and crash of a Cruise Missile on the adjacent Dugway Proving Grounds, as well as crashes of F-16s on maneuvers over the adjacent Utah Test and Training Range are well-documented. Within a 30 mile radius of the proposed site, there are two hazardous waste incinerators, one hazardous waste land disposal site, one NORM/Mixed waste/11(e)2 waste disposal facility, the single largest Toxic Release Inventory (TRI) air pollution source in the United States (Magnesium Corporation of America, Rowley, Utah facility), and operations for stockpile and destruction of conventional munitions. Dugway Proving Grounds is also the designated landing site for NASA's Stardust spacecraft and the MUSES-C Asteroid Mission, a Japanese mission with NASA participation.

These existing activities and operations must be considered in the EIS. The NRC has a responsibility under NEPA to know, to evaluate, and to mitigate the cumulative impacts of those activities, or to disapprove the proposed storage facility. Utah and the Skull Valley Reservation are not safe places to store radioactive waste fuel rods.

COST-BENEFIT ANALYSIS

A statutory requirement under NEPA is that all agencies of the federal government develop methods "which will insure that presently unquantified environmental amenities and values may be given appropriate consideration in decisionmaking." NEPA § 102(2)(B), 42 USC § 4332(2)(B). In addition, NRC regulations require a draft environmental impact statement "include consideration of the economic, technical and other benefits and costs of the proposed action and alternatives..." 10 CFR § 51.70(d). In Utah Contention CC, the State described the Applicant's inadequate balancing of costs and benefits in the Environmental Report. Contention CC, One-Sided Cost-Benefit Analysis, at 178-79, is incorporated by reference into these comments. Because the complete lease agreement between the Skull Valley Band of Goshutes and PFS is not available, the impacts of financial commitments governing the lease, which impact the total cost-benefit analysis, are also not available. Without this information in the license, and absent additional financial information from the lease agreement, there is insufficient information for a cost-benefit evaluation. The NRC secure that information and must objectively discuss, quantify and weigh the adverse socioeconomic and environmental consequences that flow from the Applicant's activities associated with the proposed ISFSI.

Decentralized at-reactor storage costs and benefits must be compared to PFS centralized storage and federal centralized storage at Yucca Mountain. For decentralized storage, the economic costs should include licensing a decentralized ISFSI, ISFSI construction, casks and staff (unless the federal government assumes the burden) until fuel is transported and the POL is relinquished. Under the PFS proposal, the economic costs should include the casks, staff, transportation, Rowley Junction facility costs, licensing and decommissioning the facility. Under federal interim storage, all transportation and storage costs would be paid out of the Federal Waste Management Fund. While the proposed ISFSI is only being considered for a twenty year license, a more reasonable projection is 60 years or more (if temporary).

The financial impacts on ratepayers of the member utilities of PFS should also be considered in the evaluation. Rate payers have already paid for the disposal of spent nuclear fuel by the federal government. By committing funds from public utilities to fund a second storage facility, the ratepayers are paying twice. This is particularly troublesome when existing capacity for temporary storage already exists at current nuclear power generating facility. See discussion under Range of Alternative for Consideration in EIS, above.

TRANSPORTATION IMPACTS

Before preparing the Draft EIS, the NRC staff must obtain more information from PFS regarding

the nature of the proposed action as it relates to transportation of the spent fuel. As PFS has acknowledged, its study of transportation alternatives is "ongoing." Letter from Jay E. Silberg, Counsel to Applicant, to Licensing Board Panel (June 8, 1998). Because PFS's study has not concluded, PFS's license application still lacks crucial information that is necessary for the evaluation of the proper scope of the EIS. For instance, PFS's application has not identified the originating locations of the spent fuel, the means and routes by which it will be shipped, or the manner in which it will be transferred to shipping vehicles. In addition, as PFS has acknowledged, it has not yet settled on the means for transporting the spent fuel from the main railroad line to the Private Fuel Storage facility. *Id.* Thus, to a significant degree, the "proposed action" which must be evaluated in the Draft EIS remains undefined. Therefore, it is not possible to fully evaluate the necessary scope of the EIS. *See, e.g., Sierra Club v. Watkins*, 808 F. Supp. 852 (D.C.D.C. 1991), in which an environmental assessment was remanded for failure to adequately identify and evaluate alternatives to the Port of Hampton Roads for receipt of fuel rod shipments. Here, it would be impossible to identify the scope of alternative shipping routes that should be considered, because there is no specific proposal with which to compare alternatives. Once the Applicant has made a more definite proposal, the NRC Staff should provide an additional opportunity for comments on the scope of the EIS. To the extent that it is possible to comment on the scope of the EIS based on information provided to date, the State does so below.

The EIS must address the impacts of all actions that are foreseeable as a result of the licensing of the activities proposed by PFS in its license application. Both impacts of normal operations and non-normal operations such as accidents and sabotage must be considered. The activities whose impacts must be evaluated include preparation of spent fuel for transportation to the ISFSI, actual transportation of spent fuel to the proposed ISFSI by rail and/or truck, transfer from rail to truck at the currently proposed Rowley Junction intermodal transfer site, transportation from Rowley Junction to the PFS facility by heavy-haul truck, and transfer from transportation casks to storage casks. The EIS must also consider transfer-related and transportation-related impacts incurred if and when spent fuel must be returned to the originating nuclear power plant site or another site if it is found to be improperly packaged or defective, and the impacts of transferring and transporting spent fuel to a final repository at the conclusion of the storage period at the PFS facility.

The EIS should take into account the following considerations relating to spent fuel transfer and transportation:

- *Transportation corridor impacts.* Major transportation corridors in the West are critical not only to the states and communities they connect, but to the economic viability of local, national, and international businesses and governments. Interstate 80 and the Union Pacific Railroad through Salt Lake and Tooele Counties comprise a critical east-west transportation corridor. This is the corridor PFS will use, whether it transports

nuclear fuel rods by truck or rail. Any accident resulting in the release of radioactive material would be devastating to public safety. But even an accident which blocks east-west transportation for hours or days could have significant impacts on commerce, business, and the public. There is no nearby, equivalent transportation corridor. When the Great Salt Lake threatened to flood this transportation corridor, the State of Utah spent more than \$50 million dollars on pumps to lower the Great Salt Lake and protect this critical transportation corridor. The EIS should evaluate whether and how the owners/operators of the proposed facility will provide the financial and procedural guarantees necessary to assure an equivalent level of protection based on impacts from their facility and transportation operations.

- *Impacts of normal transportation.* The EIS should consider all environmental impacts associated with normal transportation of spent fuel, including occupational radiation exposures and exposures to the public along highways and rail lines. In evaluating radiation exposures, the NRC should utilize the RADTRAN computer code, which is significantly more accurate and generally shows much higher radiological doses to the general public than methods used in the past by the NRC. See State of Utah's Contentions on the Construction and Operating License Application by PFS, LLC for an ISFSI, dated November 23, 1997 (hereinafter "State's Contentions") at 159-60. RADTRAN is consistently used by the Department of Energy in its environmental analyses of radioactive waste transportation, and there is no reason it cannot be used by the NRC.
- *Impacts of accidents.* The EIS should identify and evaluate the impacts of the range of foreseeable accidents that could occur during fuel transfer, transportation and storage. Accidents evaluated should include, but not be limited to, cask drop, collision during transportation, collapse of or fall from railroad trestle (including impacts of burial in sediment and water intrusion into cask), and major fires. See State's Contentions at 146-59. The EIS should also evaluate the risks of flooding of transportation corridors by the Great Salt Lake. In addition, the EIS should evaluate the likelihood of fuel cladding degradation due to pre-shipment dry cask storage, and its effects on the risk of accidental radiation releases. See State's Contentions at 157-58. Previous NRC environmental studies, which assume pre-shipment storage in spent fuel pools, are inadequate to address this phenomenon.
- *Impacts of sabotage.* The EIS should thoroughly evaluate the risks and impacts of sabotage during transportation and storage of spent fuel. Since the time when WASH-1238 was prepared, the threat of sabotage has become more real and the technology more sophisticated. The bombings at the World Trade Center and the Murrah Federal Building in Oklahoma City have vividly demonstrated the credibility of sabotage as a

very real threat. *See* State's Contentions at 152-54. The NRC's previous environmental studies are inadequate to address the increased sophistication and availability of weapons for sabotage purposes. Nor do currently available NRC studies address the particular circumstances of the proposed PFS facility and transportation scheme (to the extent they are known) which render them especially vulnerable to sabotage, such as the shipment of large quantities of fuel at low speeds on rail lines that are easily accessible to saboteurs, the increased vulnerability of transportation casks to sabotage during long layovers in rail yards, and the close proximity of Rowley Junction to I-80.

- *Impacts caused by human error and maximum credible accidents.* The EIS should consider the risk of accidental radiation exposure caused by human error in the design and construction of casks. *See* State's Contentions at 154-55. The EIS should also identify and evaluate a bounding accident, taking into account the maximum hazards and demographic conditions of the environment.
- *Characteristics of fuel.* The EIS should take into account the characteristics of the fuel shipments, such as the burn-up level of the fuel, and the weight of fuel shipments. For the reasons stated in Utah Contention V, *see* State's Contentions at 146-49, it is inappropriate to rely on Table S-4 of 10 C.F.R. Part 51 to evaluate these factors.
- *Rail and highway conditions.* PFS projects shipment of spent fuel at a large volume and frequency -- 100-200 rail shipments per year, with 4,000 casks to be shipped altogether. SAR at 1.4-2, License Application at 3-1. This amounts to approximately 8-17 rail shipments per month. Some fuel may also be shipped by truck. The EIS should take into account the contribution to the risks and impacts of spent fuel transportation caused by current and anticipated conditions on interstate highways and rail corridors. For instance, traffic congestion and highway speeds on interstate highways have significantly increased since the 1970s, when WASH-1238 was prepared. The use of railroad lines for freight traffic has also greatly increased in recent years, causing delays and bottlenecks in shipping. *See, e.g.,* New York Times: Weary Hands at the Throttle (April 26, 1998), attached hereto as Exhibit A. Such congestion increases the potential for accidental collisions, and also increases the potential for sabotage against unprotected railroad cars that are either moving very slowly or sitting on railroad sidings for extended periods of time. The EIS should also examine the potential bottlenecking effect of focusing a large number of spent fuel shipments, originating all over the United States, on a single geographic area.
- *Impacts of extended storage at Rowley Junction.* The large volume and frequency of proposed rail shipments by PFS creates the significant potential for backup of trains and casks at Rowley Junction. In addition, Union Pacific Railroad has a stated policy of

shipping spent fuel in dedicated trains at 35 miles per hour. Thus, it can be reasonably anticipated that five or more casks will arrive at Rowley Junction at the same time. Furthermore, the amount of time required to move a cask out of Rowley Junction is contingent on many factors: there is only one crane to unload casks at Rowley Junction; the cask must be transported 24 miles by a slow moving heavy haul truck from Rowley Junction to the ISFSI; once at the ISFSI the cask must be inspected and removed from the truck and shipping container to a transfer container then to a storage container-- an operation that could take anywhere from 11 to 22 hours. See SAR Table 5.1-2. Potentially only one cask per day could be moved out of Rowley Junction. Consequently, if casks have to be stored at Rowley Junction, both the radiation doses to workers and the public and the risk of accidents will increase. These impacts are not anticipated in previous NRC environmental analyses, and must be considered in the EIS for the PFS facility.

- *Demographic characteristics of transportation corridors.* In assessing normal and accident-related radiation exposures and risks, the NRC should evaluate the demographics of transportation corridors proposed for use by PFS. The State is concerned, for example, that large quantities of spent fuel will pass through Salt Lake City, a major population center. WASH-1238 is inadequate for purposes of assessing the impacts of spent fuel transportation on large population centers such as Salt Lake City.
- *Shipment to PFS from nuclear power plants not serviced by rail lines.* The EIS should evaluate the environmental impacts of shipping spent fuel to the proposed ISFSI from nuclear power plants not serviced by any rail lines. Although PFS states that all fuel will be shipped to the ISFSI by rail, some of the plants it serves have no rail access. Those with sufficient crane capability may transfer the casks to heavy haul trucks, and from thence to rail cars. However, there are some plants, such as Indian Point, which do not have sufficient crane capability to handle heavy shipping casks. The impacts of these transfers have not been assessed by PFS, nor have they been assessed in previous NRC environmental impact statements.
- *Accident costs.* The EIS should address the costs of accidents, which are likely to be significant. See State's Contentions at 155-56. Cost analyses should take into account the vital role played by rail lines and interstate highway 80 in the economic health and well-being of the State of Utah and the entire region.

The EIS should also address the issue of who will pay the cleanup costs, as well as the level of assurance that the costs will be paid. If cleanup costs cannot be paid promptly by responsible parties, the economic and health costs to the public are likely to increase.

- *Radiological releases.* The EIS should re-evaluate previous assumptions and calculations regarding radiological releases during an accident. Recent analyses suggest that during a severe accident, a greater fraction of cesium-137 may be released than estimated in WASH-1238. See State's Contentions at 158. Moreover, the cesium-137 inventory of the TransStor cask is a factor of 3.4 greater than assumed in WASH-1238. This new information must be evaluated in the EIS.
- *Transportation Distances.* The EIS must consider the great distances over which spent fuel will be shipped to the PFS facility. WASH-1238 is based on a transportation distance of approximately 1,000 miles. WASH-1238 at 38. But as PFS acknowledges, the distance may be more than twice that amount. ER at 4.7-3. Most spent fuel is located at reactors in the Eastern United States, which implies transportation distances much greater than 1,000 miles. For example, the one way mileage from Boston, Massachusetts to Salt Lake City is 2388 miles. PFS cites NUREG-1437 for the proposition that this increase is inconsequential. However, in light of all the deficiencies in WASH-1238, this is not a valid assertion. Doses must be recalculated for the entire shipping distance from plants to the ISFSI, and from the ISFSI to the repository, for all 19 plants served by the proposed ISFSI. See State's Contentions at 160-61.
- *Cumulative Transportation Impacts.* The State of Utah has a number of facilities for the storage and/or processing of radiological and hazardous materials, including both civilian and military material. The EIS should examine the cumulative impacts of shipping various kinds of dangerous materials through the State, including cumulative risks of normal and accidental exposure to toxic materials, and risks of accidental collisions. The EIS should also evaluate the interaction of spent fuel transportation to and from the PFS facility on other activities in the area. For instance, State Route 196, a two-lane blacktop road that runs north-south from I-80 at Rowley Junction to Dugway Proving Ground, is the route defined by PFS for transportation of spent fuel rods by heavy haul truck. The EIS must evaluate other uses and priorities for this route, including the fact that it is the primary surface transportation route for Dugway Proving Grounds, and is one of three emergency evacuation routes for the nearby chemical weapons incinerator at Desert Chemical Depot. It is also the sole access for the community of Iosepa, Utah, the adjacent ranching community, and residents of Skull Valley Reservation. There is also a need to evaluate the impacts of upgrading or widening the road, if that is the transportation corridor for transportation of spent fuel rods or as a result of increased traffic and use of the state route.
- *Risks of transporting damaged fuel from PFS facility to originating plant.* Contrary to the requirements of 10 C.F.R. § 72.122(l), PFS's application does not clearly establish measures for assuring the retrievability of spent fuel. If fuel is found to be damaged, PFS

proposes to return it to the originating nuclear power plant or to some other facility where it can be repackaged. The EIS should evaluate the impacts of transporting spent fuel whose cladding is known to be damaged, and therefore less capable of performing its safety function. Moreover, the EIS should evaluate the environmental impacts that would result if the spent fuel could not be transported to the originating plant because the plant had closed, and no other nuclear licensee would accept the fuel for repackaging.

- *Unique impact on transportation corridor.* The I-80 - Union Pacific Railroad transportation corridor east-west through Tooele and Salt Lake Counties is not a designated transportation corridor for other shipments of high level nuclear waste. Therefore, this proposed facility and the transportation corridor impacts which are uniquely associated with the proposed facility pose an otherwise non-existent set of risks to the local community, users of the transportation corridor, and the environment along the corridor. The significant and unique risks must be evaluated as part of the EIS. Impacts to be considered include:
 - What are the impacts of using non-dedicated trains to transport high level nuclear waste fuel rods, not only through Utah, but across the United States?
 - What are the impacts of shipment along a corridor which is not and will not likely be proposed for shipment of waste to the proposed deep geologic repository at Yucca Mountain, Nevada?
 - What are the additional impacts of transporting high level nuclear waste fuel rods from Southern California Edison's nuclear power plants, realizing that these wastes would not otherwise travel through Utah on their way to deep geologic storage at the proposed site at Yucca Mountain, Nevada?
 - What are the impacts of not providing funding for emergency response along the transportation corridor throughout the United States?
 - How will transportation by truck or rail be scheduled to avoid delays and conflicts with normal commerce and as well as emergency transportation?
 - How will conflicting transportation on State Route 196 be mitigated, recognizing that based on information in the license application, there will be up to 200 shipments per year, and turn around time for unloading each cask once it arrives at the ISFSI will take anywhere from 11 to 22 hours per cask? See SAR Table 5.1-2.
- *Other impact considerations.* As part of the scope of this EIS, the full and complete impacts to all transportation corridors must be evaluated.
 - What are the types of accidents which are possible because of the transportation of high level nuclear waste fuel rods?

- What impacts are caused by such accidents?
- How will impacts of transportation accidents involving high level nuclear waste be mitigated?
- Who will bear responsibility for financial and other losses resulting from such accidents?
- How will that financial responsibility and payment be assured?
- What are the cumulative possibilities for high level nuclear waste accidents and other accidents associated with existing and currently known activities?
- What transportation modes will be used by PFS, when will these be identified, and how will these alternatives be evaluated?

PUBLIC SAFETY AND EMERGENCY RESPONSE

The lack of emergency planning exhibited in the license application and the need for such planning are critical issues. But, emergency planning is a fall-back, fail-safe measure, not the primary means for assuring the safety of the public. In the context of the NRC safety regulations, the NRC must first conclude that the spent fuel can be safely transported in compliance with all relevant regulations. In the context of NEPA, emergency planning is not a substitute for an adequate EIS that evaluates all of the risks and costs posed by the proposed spent fuel transportation, objectively weighs whether the planned transportation constitutes the most cost-beneficial alternative, and then applies appropriate mitigation measures.

A critical aspect of the EIS scoping process is the definition of emergencies, both those that could result from the operation of the proposed storage of high level nuclear waste fuel rods and emergencies which could impact the ISFSI operations. Cumulative impacts of these emergencies should also be developed and evaluated. This evaluation should include a quantitative risk assessment as well as a detailed evaluation of the regulations, procedures, and equipments and personnel necessary to mitigate the impacts of the individual and cumulative problems. The following represents a partial list of the types of problems, accidents, and emergencies which need to be evaluated and mitigated in order to ensure protection of public health and the environment under the scope of the EIS. For example:

- How will the impacts and risks of range or wildfires be evaluated and mitigated?
- How will the risk of snow build-up around storage casks on-site be evaluated and mitigated?
- How will excessive heat and cold and resulting damage during summertime and wintertime storage be evaluated and mitigated?
- What is the necessary response time and capability for righting an overturned cask?
- What would be the impacts of being unable to repackage a cask which is damaged or leaking, during transportation and storage?

The EIS should also indicate what permits, licenses, regulation, and procedures, at a minimum, would be required to ensure that these impacts can be mitigated.

The State Science Advisor acts as coordinator for all state executive agencies for transportation related issues for high level and transuranic radioactive waste. The State Science Advisor has expressed serious and extensive concerns regarding the PFS proposal and its deliberate and inexcusable omission of any consideration of a comprehensive and detailed transportation or emergency response plan.

In recognition of the multitude and seriousness of concerns relating to the transportation of radioactive materials, Congress enacted the Nuclear Waste Policy Act of 1982 as amended in 1987 to provide for the safe, efficient and cost effective transportation of radioactive materials with specific provisions for spent nuclear fuel, naming the Department of Energy's Office of Civilian Radioactive Waste Management as the agency responsible for all shipments of high-level nuclear waste and commercial spent fuel to federal facilities. It is the position of the State of Utah that this proposal between PFS and the Skull Valley Band of Goshutes is an intentional and calculated attempt to circumvent the provisions of that Act which Congress deemed necessary to ensure the safety and environmental protection of nuclear waste shipping campaigns.

In preparation for shipments of high level radioactive waste transportation campaigns, the DOE began development of the Waste Isolation Pilot Plant (WIPP) in Carlsbad, New Mexico to serve as a pilot and demonstration program for handling, transporting and storing radioactive waste. Through the WIPP and other DOE related campaigns, the State of Utah has worked cooperatively and productively to design, plan, and implement a comprehensive and detailed transportation program and emergency response capability with critical and necessary input from all stakeholders involved. As a result of the successful cooperation of all parties, DOE will begin shipping materials to the WIPP facility this month with the full assurance of all corridor states that appropriate measures are in place. This effort has required many years of planning, written memoranda of understanding and agreement and development of a relationship of cooperation and trust. The State believes this has been a valuable pilot program and should serve as a model for PFS for the planning, implementation and operation of a high-level nuclear waste storage facility within the State's borders.

Private Fuel Storage proposes to undertake the design, building, transportation to and operation of a facility, the order of magnitude and the potential lethality of which is unprecedented in this country. With no experience, nor concern for the impacted stakeholders, PFS has demonstrated an egregious arrogance and lack of respect for not only the State of Utah but for every corridor state, local community and Native American jurisdiction through which the transportation of

these materials must pass.

It is the State's position that a comprehensive, detailed and cooperatively developed transportation plan to the proposed nuclear waste storage facility be provided to all potential corridor states and tribes. Further, it is the State's position that all provisions of the Nuclear Waste Policy Act be met by the proposers of this facility, including but not limited to financial and technical assistance, training, equipment and mutually agreed upon development for:

- Route selection ;
- Alternative route analysis;
- Route risk analysis;
- Route inspection (highway and rail) contingency routing plans;
- Transportation infrastructure improvements;
- Shipment notification;
- Shipment tracking;
- Shipment escorting;
- Provision of public information on routing and shipments;
- Preparation and enforcement of transportation operations protocols;
- Carrier and shipper compliance reviews;
- Assessment of state and local capabilities regarding safe routine transport and emergency response;
- Enhancement and maintenance of emergency response and recovery capabilities;
- Awareness training for first-on-the-scene and first responder personnel;
- Specialized training for emergency management and recovery personnel;
- Public information training for route community liaison personnel;
- Training for hospital personnel and other medical personnel;
- Waste acceptance scheduling(start date and annual rate);
- Safe and adequate contingency measures for handling and returning damaged fuel casks;
- Cask loading;
- Cask full scale testing;
- Accident notification;
- Safe parking designation and procedures; and
- Provision of equipment for emergency response, inspection, first response personnel.

A separate, comprehensive transportation and handling plan must be developed to address all aspects of the additional rail spur required or intermodal transfer of the high level waste at Rowley Junction, including but not limited to infrastructure improvements, handling equipment and protocols, security and sabotage safeguards, inspection of shipping casks, vehicles and carriers and state oversight and regulation.

It is further the State's position that responsibility for transportation-related damages from accidents involving spent fuel moving to and from this private facility will be solely and completely borne by Private Fuel Storage.

The Utah Division of Comprehensive Emergency Management (CEM) serves to save lives, reduce injuries, and protect property and the environment from the effects of natural and man-caused disasters. This is achieved through a statutory, comprehensive effort to prepare for, respond to, recover from, and mitigate the effects of disasters and emergencies created by a wide variety of hazards. CEM cares for people.

The best way to mitigate against a hazard is to reduce the risks associated with it to as low a level as possible. For example, while the State cannot remove the many earthquake faults that lie under our populated areas, it can establish and enforce appropriate building codes, increase public awareness and understanding of the earthquake threat, and take many related, proactive mitigation measures as individuals, families, and communities to plan and prepare for a major quake that is known to be overdue here.

The State can also continue efforts such as the intensive, cooperative process among local, state and federal agencies to eliminate the huge stockpile of chemical weapons currently being destroyed at the Tooele Chemical Weapons Disposal Facility at Deseret Chemical Depot. When these weapons are gone forever from the State, so will be the risks associated with them. The Chemical Stockpile Emergency Preparedness Program (CSEPP), coordinated by CEM in Utah, represents a great effort on the part of many different levels of government to protect the public during the destruction process. The State's CSEPP successes have been well documented, and have come about only through many years of concentrated work by dedicated professionals who recognize that effective communication and coordination are essential to protect the residents of our State. In fact, Utah CSEPP has established a standard of care that directly or indirectly applies to the emergency management of other technological hazards, and perhaps many natural hazards as well.

On the other hand, CEM's experience with the ISFSI proposed by PFS on the Skull Valley Reservation has proven to be quite a departure from the Utah CSEPP standard of care. Never once has PFS, nor any other representative of this effort, contacted CEM regarding its plans to store high level nuclear waste in Utah. Never once has any reply been offered to the many CEM comments and observations about the gross deficiencies in PFS's Emergency Plan, as outlined in the State of Utah 2.206 Petition (June 27, 1997), and the more recent State of Utah's Contentions. PFS's failure to communicate and coordinate with the State agency whose statutory responsibility for emergency management has been well established for many years is particularly remarkable since the intent of the consortium is to introduce an arguably significant hazard into the State's environment. Simply put, PFS's purpose is quite the opposite of hazard

mitigation; for Utah, it is *hazard promulgation*.

The State is aware that PFS has contacted Tooele County Emergency Management (one of the State's CSEPP partners), and we know, too, that Tooele County Emergency Management has replied to PFS with a list of concerns they share with CEM. However, the ISFSI is not uniquely a Skull Valley Goshute Indian business opportunity, nor an internal Tooele County problem that can be solved within the confines of Tooele County's boundaries. This is a vexing State issue that will affect hundreds of thousands of the State's residents along the expected transportation corridors to the proposed waste site. It is an issue for which appropriate, comprehensive emergency planning, such as in CSEPP, must take place.

In August of 1997, with an eye to emergency management-related issues, three CEM senior staff conducted a careful review and analysis of the PFS license application and related materials, including the Emergency Plan for the proposed PFS facility. More than ninety critical observations and questions regarding the PSF Emergency Plan alone were compiled at that time. These issues appear to remain largely unresolved to this day.

For example, regarding the PFS Emergency Plan, CEM commented: "Transportation planning here is confined to the site itself, and the area surrounding it within Tooele County. The plan does not consider intrastate transportation and interstate transportation planning requirements. This is not satisfactory considering the heavily populated regional transportation corridors along which these dangerous cargos may move. For example, Salt Lake County is likely to be affected, but does not receive any planning consideration (See SAR 1-4-1, and 10 CFR 72.108)."

Other serious questions follow on these observations. What exactly are the identified transportation routes from the nuclear reactors to the ISFSI site? What specific Utah communities will be affected, can they deal with a nuclear waste-related emergency, and what remedial or enhanced emergency management measures will be required? What unique security-related circumstances along the identified routes must be considered -- what factors that could make the shipments vulnerable to sabotage or accident? What is the overall hazard vulnerability of the transfer site at the routes' end? These, and many other concerns must receive appropriate emergency planning consideration.

The State has learned through the precedent of many years' successful participation in the Chemical Stockpile Emergency Preparedness Program that forthright communication, coordination, and effective planning by all jurisdictions and entities are essential to the attainment of public safety. Further, CEM believes that the State's residents, and those who serve them, have a right to accept or reject being subjected to unwarranted, unwanted risks over which they may exercise some control. In the absence of the communication, coordination, and effective planning elements that characterize a successful emergency management effort, the

ISFSI proposed for Skull Valley is viewed as especially unwelcome by Utah CEM. Therefore in the interest of public safety, CEM requests that the NRC reject the PFS proposal.

SCHOOL AND INSTITUTIONAL TRUST LANDS AND FUNDS

Through the Utah Enabling Act of 1894, Congress granted to the State approximately 1/9th of the lands in Utah for the support of public education (trust lands). The United States Supreme Court has referred to this Enabling Act land grant as a "solemn compact" between the United States and the State of Utah. Andrus v. Utah, 446 U.S. 500, 507 (1980). The grant has also been held to constitute a perpetual trust to which standard trust principles apply.

Trust principles impose fiduciary duties upon the State of Utah, including the duty to manage the trust lands in the most prudent and profitable manner possible, and not for any purpose inconsistent with the best interest of the trust beneficiaries. In Utah, the trust lands are managed by the School and Institutional Trust Lands Administration (Trust Lands Administration), which acts as a trustee for the State's public schools, the major trust beneficiary. Accordingly, the Trust Lands Administration must maximize the commercial gain from trust land uses consistent with long-term support of the trust beneficiaries. Pursuant to this fiduciary duty, the Trust Lands Administration is authorized, among other things, to sell or exchange trust lands, develop mineral resources contained upon or within trust lands, issue grazing permits, special use leases, easements and permit rights-of-entry across trust lands, and designate parcels of trust lands as development property.

Furthermore, imposed upon the Trust Lands Administration is the duty of undivided loyalty to, and a strict requirement to administer the trust corpus for the exclusive benefit of, the trust beneficiaries, which do not include governmental institutions or agencies or the public at large. This "solemn compact" imposes reciprocal duties upon the United States, as grantor of the trust. Consequently, the United States is bound to act "for the support of common schools" that were the beneficiaries of this trust.

It is critical that the NRC take into account the purpose of trust lands in the drafting of an EIS for, and ultimately in its consideration of whether to approve, the construction and operation of an ISFSI by PFS on the Skull Valley Reservation in Tooele County, Utah (the Proposal). The problem of addressing the handling of high level radioactive waste (HLW) is fraught with uncertainties as a result of the complexity of technical issues, its novelty, its extraordinary time horizon, and the extreme difficulty in predicting with any confidence the numerous unknowns associated with HLW. This has resulted in the American people being deeply apprehensive of HLW.

In fact, studies show that the possibility of exposure to radiation evokes considerably more dread than other hazards that may be more dangerous, and that the public has little confidence or trust in the federal agencies regulating HLW, especially concerning the agencies' estimates regarding the health dangers posed by HLW. Consequently, the public fear of the risks of accidents during the packaging, transportation, and storage of HLW is high.

This public perception and attitude towards HLW results in the diminution of the property value of lands surrounding activities involving HLW. Regardless of whether public perception regarding HLW is justified or is simply irrational, the fact is that the public's feelings shape their behavior and attitude regarding HLW, and consequently, the value of lands associated with or surrounding the packaging, transportation, and storage of HLW is adversely impacted. The case of City of Santa Fe v. Komis, 845 P.2d 753 (NM 1992), which dealt with an inverse condemnation action involving the construction of a highway to transport radioactive waste to the Waste Isolation Pilot Project in New Mexico, is illustrative of this point.

The court in Komis held that the plaintiff was entitled to compensation for the loss of market value of its property even if the loss is based on fears not founded on objective standards. The court stated, "if loss of value can be proven, it should be compensable regardless of its source. Thus, if people will not purchase property because they fear living or working on or near a WIPP route, or if a buyer can be found, but only at a reduced price, a loss of value exists." Komis, 845 P.2d at 756-57.

The public fear discussed in the Komis case is by no means isolated to the WIPP project, but stems from the public's general perception of radioactive wastes, and therefore, is present with any proposal involving radioactive wastes. Consequently, the effect of the public's behavior and attitude on the market value and revenue generating potential of trust lands surrounding PFS's proposed ISFSI, intermodal transfer point (ITP), and transportation routes especially concerns the Trust Lands Administration.

The Proposal has the potential of dramatically impacting trust lands, as the Trust Lands Administration administers approximately 42,780 acres of fee surface and mineral, 35,311 acres of fee mineral, and 4,850 acres of fee surface within Skull Valley and the area surrounding Rowley Junction. The market value and revenue generating potential of these trust lands will probably be adversely affected if NRC approves the Proposal.

Pursuant to the applicable rules and regulations implementing the NEPA and NRC statutes, the EIS must evaluate both direct and indirect effects that are "caused by" the Proposal. Under 40 C.F.R. § 1508.8 and 10 C.F.R. § 51, Subpt. A, App. A, this evaluation requires an analysis of the present and future economic effects of the Proposal on surrounding trust lands. Furthermore, this economic analysis must account for all diminution in value to trust lands, including any impact to

trust lands "caused by" the public's attitude towards the Proposal and its involvement with the handling, transportation and storage of HLW.

If the EIS determines that the economic value and revenue generating potential of trust lands will be adversely impacted or that the Trust Lands Administration will be hindered in its ability to effectively manage trust land, the United States, acting through NRC, must honor its duty as grantor of the trust and either compensate the Trust Lands Administration or deny licensing of the Proposal.

In addition, the Trust Lands Administration submits the following comments to be utilized in the development of the EIS for the Proposal:

1. *Purpose and Need* - Pursuant to NEPA, the EIS must analyze the purpose and need for the Proposal. This analysis must assess existing on-site storage capacities of the generators of HLW and the ability of HLW generators to construct additional storage capacity on-site. Moreover, this analysis must account for the possible storage capabilities of the Yucca Mountain site as a repository for HLW in the future. If this analysis determines that existing on-site storage is sufficient, construction of additional storage is feasible, or that the Yucca Mountain site will be available as a repository for HLW in the future, then the EIS should indicate that no valid need exists for the Proposal. Accordingly, NRC should deny the PFS's license application for the Proposal as no need exists and its costs will outweigh its benefits.
2. *Decommissioning* - Under 10 C.F.R. § 72.42, the Proposal can only be licensed for a maximum of forty (40) years, which reflects a twenty (20) year license term with an additional (20) year renewal term. Since the Proposal contemplates a temporary storage facility for HLW, decommissioning of the Proposal facilities must occur. However, as raised in the State's Contentions, questions exist whether decommissioning can occur. As the Contentions indicate, PFS fails to provide sufficient data about the design of its storage casks to assure compatibility with Department of Energy (DOE) repository specifications. Furthermore, the proposed facilities are not capable of repackaging spent fuel. Consequently, a question exists whether the HLW can be removed from the proposed facilities, thereby facilitating decommissioning of the proposed facilities as required under NRC regulations.

NEPA requires that all reasonable consequences of the Proposal be considered and addressed. Since questions exist regarding the compatibility of the storage casks with DOE specifications and the Proposal fails to provide for repacking of spent fuel, it is reasonable to consider that decommissioning of the proposed facilities could be delayed or will not occur. Accordingly, the EIS must analyze all impacts on trust lands,

including economic impacts, associated with either the delay or the failure to decommission the proposed facilities.

3. *Alternatives* - The EIS must include all reasonable alternatives to the Proposal. The importance of identifying and analyzing all reasonable alternatives is illustrated under NRC's own regulation, 10 C.F.R. § 51, Subpt. A, App. A, which states the alternative section "is the heart of the [EIS]." Pursuant to 40 C.F.R. § 1502.14, NRC must "rigorously explore and objectively evaluate all reasonable alternatives...[and] devote substantial treatment to each alternative...so that reviewers may evaluate their comparative merits." Reasonable alternatives to the Proposal include:

a) "*No Action*" alternative - Under 40 C.F.R. § 1502.14(d), the EIS must include the analysis of the no action alternative.

b) *On-site storage* - The EIS must analyze the option of storing HLW at the place of generation. Accordingly, an assessment must occur to determine the existing on-site capacity or the feasibility of constructing additional on-site storage capacity at the facilities generating the HLW. Such an assessment will allow NRC to better analyze whether a legitimate need exists for the Proposal or whether on-site storage is feasible at the place of generation.

Storage at the place of generation ("on-site storage") is the most logical approach in the management of HLW. On-site storage reduces the public's exposure to HLW, and consequently, the health risk posed by HLW is reduced. Furthermore, on-site storage presents a more manageable and controlled environment should an accident occur - the site is secure from the public; employees of generators of HLW are trained in evacuation procedures; trained personnel and specialized equipment are present thereby reducing risk of exposure and facilitating prevention or containment of contamination; the site has undergone extensive scientific studies and been deemed suitable for activities involving radioactive material.

Public exposure and the health risk presented by HLW is extremely high with storage of HLW at a place other than the place of generation ("off-site storage"). Off-site storage requires the utilization of railroads and public highways for the transportation of HLW. Consequently, a less manageable and totally uncontrolled environment exists should an accident occur - no secure site exists, as the public is present; the public is not educated nor trained in protecting themselves from the dangers of radioactive material; trained personnel and specialized equipment are not present; thus, risk of exposure and likelihood of contamination are greatly compounded; railroads and public highways often border waterways, thus facilitating rapid and widespread dispersion of radioactive materials and

increasing the area of contamination.

- c) *Alternative site location* - The EIS must analyze the option of alternative site locations. Such alternative site locations must encompass all possible site locations, whether presently feasible or feasible in the future, including utilization of the Yucca Mountain site as a storage facility for HLW.
4. *Transportation* - The EIS must analyze the proposed equipment, the frequency, and the routes to be utilized in the transportation of HLW from the place of generation to the proposed ISFSI site. This analysis must fully examine:
 - a) *Direct and Indirect Impacts* - The EIS must analyze the direct and indirect impacts of the transportation of HLW to the proposed ISFSI site, including the economic impact to trust lands adjacent to transportation routes. In addition, the EIS must assess the economic impact to the approximately 15,890 acres of fee surface and mineral and approximately 4,140 acres of fee mineral administered by the Trust Lands Administration around Rowley Junction - the proposed ITP site.
 - b) *Safety Issues* - The EIS must fully examine the safety of all the equipment to be utilized in the transportation of the HLW, including canisters, trucks, railroad cars, loading and unloading equipment, etc.
 - c) *Accident Rates* - The EIS must determine the accident rates associated with each type of equipment to be utilized in the transportation of HLW, the probability of each type of accident event, and its impact upon each proposed transportation route. In assessing the impact, the EIS must assess any economic impact that may occur as a result of the closure of each proposed transportation route to facilitate the containment and cleanup of any contamination.
 5. *Cumulative Impacts* - The EIS must determine and analyze the cumulative impacts, including economic impacts, to trust lands should NRC approve the Proposal. In this evaluation, the EIS must take into account the Proposal's effect on trust lands in conjunction with the Dugway Proving Ground, the Hill Air Force Base Bombing and Gunnery Range, the Wendover Bombing and Gunnery Range, the Army's Chemical Weapon's Incinerator, the Laidlaw APTUS hazardous waste incinerator, and the Envirocare low level and mixed waste landfill.
 6. *Affected Environment & Environmental Consequences* - Pursuant to the requirements of NEPA and NRC regulations, the EIS must succinctly describe the environment of the area(s) to be affected by, and assess the environmental consequences of, the Proposal and

its alternatives. In particular, the EIS must address:

a) *Seismology* - The Trust Lands Administration is concerned that Skull Valley has a potential for seismic activity, and may thereby expose trust lands surrounding the Proposal to the threat of contamination from HLW should the Proposal be approved. Accordingly, the EIS must fully examine the geologic stability of the region surrounding the proposed ISFSI site. This examination must assess surface and subsurface faulting, ground motion (including liquefaction), and soil stability.

b) *Hydrology* - Contamination of trust lands via hydrological systems is a serious concern to the Trust Lands Administration. The EIS must analyze the Proposal's potential to contaminate surface and groundwater systems. Accordingly, the EIS must identify all surface and groundwater systems, contamination sources of the Proposal, and the impact of contamination to trust lands down gradient.

Furthermore, the EIS must require the installation of monitoring wells around the proposed ISFSI and ITP facilities to safeguard against contamination of surface and groundwater systems. Baseline data must be compiled to be utilized in conjunction with the monitoring wells to effectively monitor for the presence of contaminants from the Proposal. Moreover, monitoring wells will assist in identifying the direction and migration rate of any contamination should it occur, and thereby, facilitate a more efficient and effective cleanup.

7. *Mitigation* - NEPA and NRC regulations require the EIS to identify mitigation measures for the Proposal. Therefore, the EIS must include measures and assurances that the contamination of any trust lands as a result of the Proposal will be rectified. Furthermore, the EIS must include a means to compensate for any loss of economic value of trust lands or the imposition of any additional costs associated with the management of trust lands as a result of the approval of the Proposal.

8. *Conflicts* - Pursuant to 10 C.F.R. § 51, Subpt. A, App. A, the EIS must identify possible conflicts between the Proposal and its alternatives and the objectives of federal and State policies. The fiduciary duties imposed upon the Trust Lands Administration constitute the basis for its policies outlining the management of trust lands. As previously indicated, in upholding its fiduciary duties the Trust Lands Administration must manage the trust lands in the most prudent and profitable manner possible, and not for any purpose inconsistent with the best interest of the trust beneficiaries. Accordingly, the Trust Lands Administration must maximize the commercial gain from trust land uses consistent with long-term support of the trust beneficiaries.

The "solemn compact" creating trust lands imposes reciprocal duties upon the United States as grantor of the trust. Consequently, the United States is bound to act "for the support of common schools" that are the beneficiaries of this trust. To the extent the Proposal hinders the ability of the Trust Lands Administration to effectively manage trust lands, or diminishes the market value or revenue generating potential of trust land, the Proposal is in conflict with the objectives of both the State and federal policies for trust lands. Accordingly, the EIS must identify and fully discuss the presence of this conflict.

Notwithstanding the fact that no HLW is generated as a result of the operation of nuclear power plants within the State of Utah, the school children of Utah should not be forced to suffer an economic loss as a result of the storage of HLW pursuant to the Proposal. It is the hope of the Trust Lands Administration that NRC fully consider the purpose of trust lands and the issues submitted above in the drafting of the EIS. And if the EIS determines that the Proposal will hinder the ability of the Trust Lands Administration to effectively manage trust lands or adversely impact the economic value or revenue generating potential of trust lands, the United States, through NRC, should honor its duty as grantor of the trust and either compensate the Trust Lands Administration fully or deny the licensing of the Proposal.

NATURAL RESOURCE AND HAZARDS IMPACTS

In accordance with NRC regulations, the NRC has determined that the proposed license is a major federal action that warrants the preparation of an EIS. The Utah Geological Survey (UGS) has identified significant geotechnical issues that should be analyzed in depth, not only in the NRC's staff safety review but also in the EIS. These issues are crucial to the safe and responsible siting of the ISFSI and, to date, have not been satisfactorily addressed by PFS. The issues are summarized in following discussion:

- UGS believes that capable faults, as defined by the NRC, may underlie the proposed ISFSI; if so, earthquakes generated by the faults may produce greater vibratory ground motions than that for which the facility is designed, and may pose a threat of surface fault rupture.
- PFS has not conducted a rigorous and detailed investigation of subsurface conditions appropriate for a critical facility of this type; the current level of investigation is very preliminary and not a detailed determination of site suitability necessary for establishing design parameters. In some instances, the PFS characterization of subsurface foundation soils is not supported by their own test data.

These issues are significant and must be analyzed and resolved as a prerequisite for a responsible decision on the future of the proposed facility. Furthermore, Part 51.61 to Title 10 of the Code of

Federal Regulations (10 CFR Part 51.61) requires that the Environmental Report, which forms the basis for NRC's EIS, address the siting evaluation factors contained in 10 CFR Part 72, subpart E. Without proper analysis of geotechnical issues related to siting evaluation factors, including a detailed characterization of the geologic and seismic environment, the potential impacts of this critical facility may not be fully recognized. Thus, the issues described herein must be fully addressed in the EIS. *See State's Contentions at 80-96. See also April 1998 memo to the Utah Department Environmental Quality that highlights potential earthquake hazards in Skull Valley, attached hereto as Exhibit B.*

It is unclear how water will be obtained for the proposed site. The Utah Department of Natural Resources and the Division of Water Rights are concerned that the availability of water has not been sufficiently investigated. If the Tribe plans to make water available for the facility under a claim of a federal reserved water right, the Division foresees potential challenges to the validity and extent of the Tribe's water rights claims. If the Tribe plans to make water available for the facility under state-created water rights, the Department of Natural Resources and Division of Water Rights foresee potential challenges under the change application process conducted by the state engineer.

The Tribe's federal reserved water rights will depend on the number of practicably irrigable acres (PIA) located on the reservation. The process of determining PIA requires a detailed analysis of the hydrology, soils, engineering feasibility, economic feasibility and numerous legal issues related to the establishment of the reservation. This is a complex process in and of itself. Once the right is quantified, the type of water use must be changed from irrigation to the industrial or commercial uses associated with the fuel rod storage. Approval of this change of use, regardless of how it is undertaken, will be another time-consuming process fraught with difficulty and perhaps challenges by other water users.

Even if the Tribe chooses to forego claims of reserved rights and uses state-created rights it already holds, or purchases water rights held by others, it will need to file a change application to put the water to the new uses associated with fuel rod storage. Again, deliberations related to this change of use will be time-consuming and complicated -- many challenges can be expected.

The Division of Water Resources disagrees with the drainage area that was used to compute the Probable Maximum Flood (PMF) for the portion of the area that cuts across the access road east of the storage facility. The Applicant used a drainage area of 26 square miles. The State believes the drainage area is closer to 240 square miles. In wetter-than-average years, the large depressions south of the access road filled, the ground was saturated, and most of Skull Valley produced significant amounts of run-off. Wetter-than-average conditions which would occur during a probable maximum flood event would fill the depression and water running off from the southern end of Skull Valley would only drain through the depression near the northeast corner

of the area, causing flooding.

The Division is also concerned with potential contamination of the groundwater aquifer underlying the site and the potential for contamination of other water sources. These impacts would be critical also to springs which provide water to adjacent ranching operations.

According to the Division of Wildlife Resources, risks to ground and surface waters due to an accident either at the PFS facility or along any transportation corridor should not be underestimated nor should the value of those resources to local wildlife be disregarded. The nearby Horseshoe Springs (managed as a wildlife use area by the Bureau of Land Management) and Timpie Springs (managed as a wildlife management area by Utah Division of Wildlife Resources) areas represent important wetlands for migratory birds. They are simply extensions of the much larger Greater Great Salt Lake Wetland Ecosystem. The Great Salt Lake is an internationally recognized wetland as part of the Western Hemispheric Shorebird Reserve Network. Radionuclide contamination of the Great Salt Lake or its tributary waters and associated wetlands would represent an international tragedy.

Because of the unique wind patterns associated with the Stansbury Mountains along the east side of Skull Valley and the presence of an abundant prey source, multiple raptor species occur proximal to the PFS facility. Some of the raptors nest while others simply forage as they migrate through western Utah. Regardless, bioaccumulation of radionuclides in the raptor population from accidental contamination of the raptors' prey sources would have international consequences.

Super-human efforts must be made to avoid or minimize impacts, particularly radionuclide contamination to wildlife or their habitat use areas. Compensatory mitigation for unavoidable construction and operational or maintenance impacts must be planned. The Applicant is urged to coordinate with the division to develop acceptable mitigation strategies.

With respect to population impacts evaluated by the Division of Parks and Recreation, PFS did not meet the requirements of 10 CFR § 72.11, completeness and accuracy of information. The information provided in the initial application process was insufficient and incomplete. The stated impact on population distributions from potential contamination is vastly underestimated. The description of "influence zones" in the initial application process was misleading. The influence zone actually contains one of the most urbanized areas in the country (top third or fifth) -- the Wasatch Front. This was played down or not even mentioned in the original application. For example, there was no discussion of factors or conditions such as "wind travel/wind speed" to show how quickly materials could be broadcast by frequent winds from the north-west, west and south-west.

The Transtor Cask seems flawed. Rodent and insect barriers may be needed to prevent the spreading of waste and radiation from the site. Freeze thaw from moisture could also damage the cask (air inlets and outlets -- natural convection cooling in an area with extreme temperature changes; i.e., 30° below zero to over 105° F).

It seems incongruous to be destroying dangerous chemical warfare materials at Dugway, while introducing additional dangerous and toxic nuclear materials within a few miles. This area has high visual value from Deseret Peak Wilderness Area and freeway, and the Wasatch National Forest area. It is within eight miles of the old Hawaiian Historic settlement area and the Pony Express, California, Donner Party Historic trail alignment. After 20 to 40 years, the storage casks may have to be structurally and mechanically stabilized in order to move them. Do it right the first time!

The fact that USPCI, Aptus, Inc., and Envirocare are already in the area argues that enough is enough. The Wendover Range and aerial munitions testing area is seconds from an off-course F-16, an errant missile or artillery round. The historic pattern of errors, chemical leakages, dead sheep, frequency of carcinogenic anomalies, and nuclear fall-out over the past 50 years in western Utah, speaks poorly for attempting to locate such a dangerous facility this close to the Wasatch Front. The site is well within the active Great Basin Seismic belt. Terming the area "remote" is a relative term. Minutes from the Wasatch Front is not remote. The rate of urban development in Tooele County is rapidly increasing in terms of density and units.

The mission of many government divisions is to improve the "quality of life in Utah." How will this project meet that standard or shared statewide value? It clearly doesn't. Technology was allowed to develop that didn't know how to clean up its own mess. Why perpetuate it at such great economic, social and environmental costs? It may greatly enrich a few absentee reservation and property owners and protect a number of stockholders. But, it is the antithesis of the current, great statewide effort and huge capital development investment to improve infrastructure, provide more publicly accessible open space, and prepare for the 2002 Olympics. If any proposed action such as this cannot meet, implement or augment the array of reasonable State values, such as quality of life, safety, aesthetic beauty, and long-term development options, then it should be summarily dismissed.

Even though the proposed method of transporting these radioactive materials by rail may minimize human exposure, an elevated level of concern is associated with the transport through upland forested areas and associated watershed areas. Incidents and accidents are not uncommon along the various rail routes throughout the State. It is estimated by the Nuclear Information and Resource Service that more than 15,000 shipments could be made over the next 30 years, with each train cask carrying the long-lived radiological equivalent of 200 Hiroshima bombs. Many of the routes cut across key upland watershed areas providing downstream communities with

high quality water.

The rail route from the east runs adjacent to national forest and private forested lands and critical watershed areas. An ongoing project to create statewide water quality guidelines facilitated by the Department of Natural Resources and the Department of Environmental Quality per EPA requirements will assist in protecting these watersheds. However, the exposure from radioactive incidents along transportation corridors appears to offset any and all preventative measures that may be obtained through these guidelines.

The proposed transportation routes include rail lines coming into Utah from the west and east, continuing to Rowley Junction. At this point the radioactive materials would be transferred to trucks for shipment to Skull Valley which could increase the potential for accident. The rail route from the west travels parallel to Great Salt Lake and the state-administered sovereign lands -- an area impacted by extensive flooding in the recent past due to rising elevation of the lake. The obvious danger to nearby resources in Great Salt Lake include the riparian and wetland habitat, brine shrimp industry, mineral and salt extraction and extensive waterfowl habitat.

The potential for hazard to human health is just too high to allow the transportation of these materials through watershed and other key resource areas.

SOCIO-ECONOMIC IMPACTS

The NRC should not rely on the Applicant's inadequate discussion in the Environment Report of the socio-economic impacts of its proposed facility. See ER § 2.7. Furthermore, the Applicant's Environmental Report states: "the indirect costs, which are derived from socioeconomic and environmental impacts of the facility, are minimal due to the remote location and small size of the actual storage area." ER at 7.3-1. Conversely, the Applicant gives an over-inflated view of the indirect benefit of the project. ER at 7.2-3.

The license application also fails to address the impacts of the PFS proposal on future growth in this area of Utah. The population of Utah is projected to more than double in the next 25 years, with the most significant increases occurring along the Wasatch Front and adjacent counties to the east and west. Tooele County is already experiencing that growth in residential development. Various organizations and partnerships are currently assessing, through public scoping processes, options or scenarios for such growth. There is significant public information available. The NRC should consider that work as part of its EIS scoping, and must evaluate the impacts of transportation and storage of high level nuclear waste on the public and on infrastructure, for the entire life of the proposed facility and operations.

The Applicant's Environment Report fails to adequately analyze known and potential cultural resources in the area. The Utah Division of State History has informed the Applicant that there are at least nine archaeological sites in the area, that a significant portion of the area has yet to be surveyed for historic properties, and there is a high potential for location of other historic properties in the area. *See* April 30, 1997 letter from the Utah Division of State History to Stone & Webster, attached hereto as Exhibit C. Consequently, the draft EIS must address all known and potential cultural resources in the area.

LAWS, ENTITLEMENTS, REGULATIONS, AND PLANNING REQUIREMENTS

The NRC cannot rely on the Environmental Report prepared by the Applicant because it is inadequate to satisfy the requirements for writing a defensible Environmental Impact Statement. NRC regulations require Environmental Impact Statements to describe approvals, permits, and legal entitlements that the facility will need to undertake the proposed action and the status of compliance with those requirements. 10 CFR § 51.71(c). In addition, the Council on Environmental Quality regulations require full cooperation and lack of duplication with State and local procedures. For example, 40 CFR § 1506.2(d) states:

To better integrate environmental impact statements into State or local planning processes, statements shall discuss any inconsistency of a proposed action with any approved State or local plan and laws (whether or not federally sanctioned). Where an inconsistency exists, the statement should describe the extent to which the agency would reconcile its proposed action with the plan or law.

State environmental permits or approval orders, both those authorized through delegated Federal programs and those required by State law, are designed to protect public health and the environment from the adverse effects of facilities and activities that might reasonably be expected to be a source or an indirect source of pollution. In addition to the media-specific environmental regulation, there are also State requirements for facility siting and public notice and review. Also, the State has long term plans in place for the management of the State's air resource (Utah Code Ann. § 19-2-104), radioactive waste (*id.* § 19-3-107), solid waste (*id.* § 19-6-104) and comprehensive emergency planning and response (*id.* § 53-2-104). Finally, Utah is a member of the North West Interstate Compact on Low-Level Radioactive Waste. Low-level waste generated in the State may be disposed of at the Compact site. However, as the PFS facility will be sited on the Skull Valley Reservation, it is unknown whether low-level waste generated on an Indian reservation would be eligible for disposal at the Compact site. The EIS scoping should evaluate all of the foregoing requirements, determine how to ensure those requirements are met, what the impacts of not meeting those requirements would be, and what impacts cannot be mitigated.

One of the contentions the State of Utah submitted in the PFS adjudicatory proceeding before the Atomic Safety and Licensing Board, discusses the entitlements, permits and approvals required under NEPA. The State incorporates by reference Utah Contention T and related responses into these comments. See State's Contentions, at 131-141; and State's Reply to NRC Staff's and Applicant's Response to State's Contentions A through DD dated January 16, 1998 (hereinafter "State's Reply") at 74-83.

The application does not address required legal entitlements for the Applicant to undertake critical activities associated with the ISFSI proposal. For example, the NRC must satisfy itself that the Applicant is entitled to use and control the proposed ISFSI site on the Skull Valley Reservation. This requires full disclosure of the lease between the Applicant and the Skull Valley Band of Goshutes. Currently, only a portion of the lease has been released and it is unknown whether the redacted portions of the lease contain termination clauses and other substantive lease provisions that the Applicant and the Band have withheld from scrutiny by the public or the NRC. Likewise, the Applicant has not shown that it is entitled to use or control the off-loading site and intermodal facility at Rowley Junction (or wherever else the Applicant intends to locate its transfer facility).

There is no record of the Applicant's legal entitlement from any governmental entity to widen public roads, rights-of-way or other property for use as a heavy haul road or rail spur from the railhead to the site.⁴ Nor is there a citation to any law or regulation that would allow such approvals. In fact, the Environmental Report is fatally flawed because the specific route to the site has yet to be chosen by the Applicant. The Applicant, for the first time and almost one year after it submitted its application to the NRC, announced at the public scoping meeting held on June 2, 1998 that it is studying a new transportation route somewhere west of Skull Valley Road. The Applicant did not publicly disclose any details of the new route. The public cannot legitimately comment on the scope of the EIS until such time as the Applicant submits a transportation and routing plan to NRC as part of its license application. In any event, most of the land between the Union Pacific mainline and the site is held by the State, the county or the federal government (e.g., military, Bureau of Land Management, Forest Service). Thus, the Applicant would need approval from these entities to construct a transportation corridor to the site. Such a route may trigger "major federal action" and the need for an additional independent EIS. The State reiterates its requests that NRC re-open the public comment period on scoping to allow legitimate public comment once the Applicant has deigned to inform the NRC, the State, and the public of its final and detailed plan for transporting and routing the casks to the proposed site.

⁴ See comments below regarding the State's jurisdiction over Skull Valley Road.

The Applicant must comply with environmental quality standards and requirements. The EIS must do more than the Applicant's inadequate assessment of air quality impacts from its construction and operation activities at the intermodal site, along the transportation route and at the proposed ISFSI site. The Environment Report has a totally inadequate analysis of air quality modeling techniques. *See* ER 4.3.3, 4.8-2. The Applicant appears to have used EPA "SCREEN3" model which is an inappropriate model for this operation. Furthermore, the Applicant has failed to adequately analyze whether it will be in compliance with the National Air Quality Standards, whether it will be subject to regulation under Section 111 of the Clean Air Act, whether it is a major stationary source of air pollution requiring a Prevention of Significant Deterioration permit. Moreover, the Applicant may require an Operating Permit in accordance with Title V of the Clean Air Act and also a State air quality Approval Order. The EIS must address and show how the Applicant will achieve compliance with these permitting requirements. *See* Utah Contention T at 137-39 and State's Reply at 77-79.

The State of Utah has jurisdiction over all groundwater within the State. Utah Code Ann. § 73-1-1. As such, the EIS must show how the Applicant will come into compliance with Utah's Groundwater Discharge Permit requirements. As is abundantly clear from the application, the retention pond proposed by the Applicant at the north end of the storage pad is designed to leach into groundwater. ER at 4.2-4. This is an unacceptable practice. Furthermore, the Applicant proposes to use a septic tank(s) for its wastewater disposal system. ER at 3.3-4, 5 and SAR 4.3-3. This is yet another unacceptable environmental practice and is a direct contaminant pathway to groundwater. The Environment Impact Statement must analyze the effect of the Applicant's questionable environmental water quality proposal on groundwater and downgradient resources and how the Applicant will achieve compliance with water quality regulations. Utah Contention O at 100-05, 107-08 and State's Reply at 60-61, and Utah Contention T at 139-140 and State's Reply at 81 are incorporated by reference into these comments.

In the arid West, water rights are a significant and often a contentious issue. The problem is exacerbated in this instance because the facility is proposed to be located on an Indian reservation. Not only does this implicate the State's jurisdiction over allocation of water rights within the State but it also raises the question of Federal reserved water rights and whether the Applicant's industrial use of water would fall within those rights. The EIS must address the legal authority of the Applicant to obtain water, the potential challenges from other water users, and the quantification of the amount of water the Applicant is entitled to use.⁵ The State has addressed this issue in its Contentions. *See* Utah Contention O at 105-06 and State's Reply at 60-61, and Utah Contention T at 140-41 and State's Reply at 79-82, which are incorporated by

⁵ *See also* discussion on water availability under the Natural Resource and Hazards Impact section above.

reference into these comments.

In addition to permits and approvals from the State of Utah, the EIS should evaluate what permits are required from the U.S. Environmental Protection Agency for activities that occur on the reservation, such as air quality or storm water permits. As currently proposed, the Applicant will disturb wetlands in the transportation corridor and the EIS must address how the Applicant will achieve compliance with the U.S. Army Corps of Engineers Section 404 dredge and fill permits. However, until such time as the Applicant provides a definitive transportation and routing plan, this scoping issue should remain open for public comment.

The State enacted new legislation in the 1998 General Legislative Session that the NRC should review for purposes of scoping. The High Level Nuclear Waste Disposal Act, S.B. 196, *inter alia*, places certain restrictions on the placement of high level nuclear waste and greater than class C radioactive waste in the State of Utah, establishes siting criteria, and requires certain findings and approvals be made by the Department of Environmental Quality. An enrolled copy of S.B. 196 is attached hereto as Exhibit D. In the 1998 session, the State designated SR-196 “[f]rom Route 199 near the control gate at Dugway Proving Grounds northerly via the Skull Valley Road to the west bound on and off ramps of Route 80 at the Rowley Junction Interchange” as a State highway. *See* S.B. 78 (1998). This means that the State of Utah has jurisdiction and control over the Applicant’s proposed transportation route from Rowley Junction intermodal transfer facility to the proposed ISFSI site. The EIS must show whether it is feasible for the Applicant to undertake any road widening or rail spur construction activities involving the road and public right-of-way along Skull Valley Road.

The NRC has the obligation to write an EIS that addresses the effect of the Applicant’s proposal, including construction, operation, transportation, and long term effects, on the State’s overall environmental plans and duly enacted regulatory and legal requirements. Furthermore, the State expects cooperation and coordination from NRC and its contractors by showing that it is willing to openly discuss the full extent of the State’s legal and regulatory authority involving the proposed action with appropriate State regulatory officials.

APPLICANT’S FINANCIAL AND CORPORATE STRUCTURE

Private Fuel Storage is a newly formed limited liability company without any independent assets. *See* LA at 1-3,4. PFS consists of seven or eight electric utilities; however, the member utilities merely make contributions to PFS, and the assets of the member utilities are shielded from liability associated with the PFS project. In Utah Contention E, the State discussed the Applicant’s lack of financial qualification to engage in the Part 72 activities for which it seeks a license and in Utah Contention S, the Applicant’s lack of assurance that it will have funds

necessary to decommission the facility. The State incorporates by reference Utah Contention F, Financial Assurance, State's Contentions at 27-38; and Utah Contention S, Decommissioning, State's Contentions at 123-130, into these comments.

Given that the Applicant appears to be nothing more than a shell company devoid of any assets or capital, it is critical that the EIS analyze the environmental consequences of licensing, constructing, operating and decommissioning a national centralized facility where spent fuel casks will be stored for 20, 40 or more years. The funding requirements for this project are not only critical to safety concerns but also to the level of maintenance, and timeliness and effectiveness of decommissioning. The environmental consequences that flow from undercapitalization and operating on a shoestring budget must be addressed in the EIS.

Another factor that the EIS must consider is the ability of this limited liability company to be accountable and responsible for the consequences of accidents and environmental contamination along the transportation route and at the site. The EIS should contrast this project with interim storage facilities authorized under the Nuclear Waste Policy Act which are owned and operated by the Department of Energy and have the full financial backing of the United States government.

ENVIRONMENTAL JUSTICE

Under Executive Order No. 12898 on Environmental Justice, issued on February 11, 1994, the U.S. Nuclear Regulatory Commission is required to:

... analyze the environmental effects, including human health, economic and social effects, of Federal actions, including effects on minority communities and low income communities, when such analysis is required by the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. section 4321 *et seq.*⁶

Environmental Justice is defined by the U. S. Environmental Protection Agency as:

...the fair treatment of people of all races, income, and cultures with respect to the development, implementation and enforcement of environmental laws, regulations, and policies. Fair treatment implies that no person or group of people should shoulder a disproportionate share of negative environmental impacts resulting from the execution of

⁶ Clinton, W. J., President, February 11, 1994, Memorandum for the Heads of All Departments and Agencies.

environmental programs.⁷

Earlier policy of the Department of Energy, in seeking a Monitored Retrievable Storage (MRS) site, focused on siting the facility(ies) on Indian Reservations and clearly was in violation of this directive. Members of Private Fuel Storage LLC are also responsible for site selection decisions, and the license application for the ISFSI which, if licensed, would violate the Order. Even if the Chairman of the Skull Valley Band of Goshutes approached PFS to site the facility, rather than visa versa, that action does not outweigh the Environmental Justice impacts on members of the Tribe who oppose the facility or individuals who live and work adjacent to the proposed site. But for the protection provided under Environmental Justice provisions, these groups do not have equal protection under the law, equal protection regarding the siting decision, because the proposed facility is located on an Indian Reservation. Nor does the contractual arrangement between the Skull Valley Band of Goshutes and PFS absolve the NRC or the federal government from any responsibility under NEPA, Title VI of the Civil Rights Act, or Executive Order No. 12898.

Therefore, as part of the EIS process, the NRC must fully and completely analyze and evaluate the Environmental Justice data, criteria and impacts of the proposed facility.

- What are the impacts related to the proposed decision to locate the facility on an Indian Reservation?
- What groups of individuals are impacted?
- What are the environmental, human health, social, economic, and other impacts?
- Are these impacts mitigated under one or more of the alternative actions?

If Environmental Justice impacts cannot be mitigated, NRC should disallow the proposed site alternative in the EIS.

COOPERATING FEDERAL AGENCIES

The Council on Environmental Quality Regulations emphasizes the need for cooperation among Federal agencies early in the NEPA process. Other federal agencies who have jurisdiction by law or who have special expertise with respect to any environmental issue that should be considered in an EIS shall be made a "cooperating agency" at the request of the lead agency. 40 CFR § 1501.6. There are a number of federal agencies with whom the NRC should consult on

⁷ U. S. Environmental Protection Agency, April 22, 1997, Region VIII Environmental Justice Fact Sheet.

this action, including the U.S. Military (Army, Air Force), Bureau of Land Management, Forest Service and Department of Energy.

By contrast, the Bureau of Indian Affairs, Department of Interior, cannot be a cooperating agency with respect to its approval of the lease between the Skull Valley Band of Goshutes and the Applicant. Such an action requires an independent EIS by the BIA because different standards are used in evaluating the impacts of these two major federal actions under NEPA. The BIA has a trust responsibility to all tribal members in evaluating the effects of approving the lease whereas the NRC's EIS will not evaluate the fiduciary responsibility of the federal government to tribal members.

INCORPORATION OF CONTENTIONS AND OTHER PLEADINGS

Contentions and other pleadings which are filed as part of the licensing hearing before the Administrative Licensing and Appeals Board (ASLB) raise issues and address matters which are relevant and necessary for consideration in the EIS process, regardless of whether the contention or pleading was rejected for licensing board purposes. Therefore, the following contentions and pleadings are incorporated in this written response by reference and raised for evaluation as part of the EIS. As new contentions and pleadings are filed, just as when the license application is modified by NRC staff recommendations or PFS modifications and changes, the new or additional information should be evaluated as part of the EIS, and the NRC should provide an opportunity for public notification and comment.

The State of Utah's Contentions, dated November 23, 1997, are hereby incorporated by reference, and a copy is attached hereto as Exhibit E.

The State filed a 2.206 Petition with the NRC on June 26, 1997, which in part addressed the severity of wildfires in Skull Valley and challenged whether the Applicant had sufficient resources to handle fires at or near the ISFSI. The EIS must evaluate the effect of severe wildfire that occur in Skull Valley as it relates to siting the ISFSI and whether there are sufficient resources available to the Applicant to stave off a wildfire. In addition to incorporating the June 26, 1997, 2.206 Petition by reference into these comments, the State attaches hereto Exhibit F, a copy of the May 27, 1997 memorandum dealing with fire frequency in Skull Valley that was attached as Exhibit 5 to the 2.206 petition.

The following pleadings are also incorporated by reference into these comm

- State of Utah 2.206 Petition, dated June 27, 1998;
- State of Utah 2.206 Petition, dated July 21, 1997;

Comments From The State of Utah
EIS Scoping, Docket No. 72-22
June 19, 1998
Page 38

- Petition to Intervene and Request for Hearing filed by State of Utah, dated September 11, 1997; and
- State of Utah's Reply to the NRC Staff's and Applicant's Response to State of Utah's Contentions A through DD, dated January 16, 1998.