UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of:	)	Docket No. 72-22-ISFSI
PRIVATE FUEL STORAGE, LLC (Independent Spent Fuel Storage Installation)	)	ASLBP No. 97-732-02-ISFSI
	)	January 16, 1998

STATE OF UTAH'S REPLY TO THE NRC STAFF'S AND APPLICANT'S RESPONSE TO STATE OF UTAH'S CONTENTIONS A THROUGH DD

In accordance with the Licensing Board's Memorandum and Order of January 6, 1998, the State of Utah hereby replies to the Responses filed by the Staff and the Applicant on December 24, 1997, and the supplemental response filed by the Applicant on January 6, 1998, with respect to State of Utah Contentions A through DD. With respect to contentions regarding general NEPA issues, the intermodal transfer site, financial assurance, and ISFSI design, this Reply is supported by the Declaration of Lawrence A. White, PE, Executive Vice-President and Senior Project Manager of Versar, Inc., attached hereto as Exhibit 1. With respect to Contentions regarding failure to comply with NRC dose limits; inadequate facilitation of decommissioning; inadequate thermal design; inadequate inspection and maintenance safety components, such as canisters and cladding; inadequate training; inadequate quality assurance program; lack of a procedure for verifying presence of helium in canisters; and failure

to consider impacts of onsite storage and transportation of spent nuclear fuel, this Reply is supported by the Declaration of Dr. Marvin Resnikoff, Senior Associate of Radioactive Waste Management Associates, attached hereto as Exhibit 2. Time does not permit the State to address all of the issue raised in the Applicant's voluminous 700-page Answers to the State's contentions, or in the Staff's Response. Thus, perforce, the State has limited its reply to the key points of their responses. The State reserves the right to present additional arguments at the prehearing conference on the admissibility of all of its contentions.

DISCUSSION

I. The Standards for Admissibility of Contentions

To be admitted as an Intervenor, at least one contention that petitioner seeks to have litigated in the proceeding must satisfy the requirements of 10 CFR § 2.714(b)(2). 10 CFR § 2.714(b)(1). In addition to finding that contentions meet the requirements set forth in 10 CFR § 2.714(b)(2), a licensing board may "appropriately view Petitioners' support for its contention in a light that is favorable to the Petitioner." Arizona Public Service Co. (Palo Verde Nuclear Generating Station, Unit Nos. 1, 2 and 3), CLI-91-12, 34 NRC 149, 155 (1991).

The Commission amended the rules governing admissibility of contentions in 1989 by raising the threshold for the admission of contentions. However, "[i]n

adopting this higher threshold, the Commission was not requiring that an intervenor or petitioner prove its case prior to the admission of its contention." Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 205 (1993). In commenting on the 1989 amendments to 10 CFR § 2.714(b)(2)(ii), the Commission stated, "[t]his requirement does not call upon the intervenor to make its case at this stage of the proceeding, but rather to indicate what facts or expert opinions, be it one fact or opinion or many, of which it is aware at that point in time which provide the basis for its contention." 54 Fed. Reg. 33,168, 33,170 (1989). The Commission commented further that a petitioner must "read the portions of the application (including the applicant's safety and environmental reports) that address the issues that are of concern to it and demonstrate that a dispute exists between it and the applicant on a material issue of fact or law." 54 Fed. Reg. 33,168, 33,171 (1989).

In a facial challenge to the revised contention requirement, Union of Concerned Scientists v. NRC, 920 F.2d 50 (D.C. Cir. 1990) held the revised rules to be valid on their face but the court observed that the NRC rules "of course could be applied so as to prevent all parties from raising a material issue." Id. at 56. The Licensing Board in Pacific Gas and Electric Co. (Diablo Canyon Nuclear Power Plant, Units 1 and 2), LBP-93-1, 37 NRC 5 (1993), cognizant of Union of Concerned Scientists, stated that in reviewing the petitioner's proposed contentions it "will keep

in mind both the upholding of the purpose of the rule [10 CFR § 2.714(b)(2)] and the need to interpret it as not foreclosing reasonable inquiries into the licensing action before us." Diablo Canyon, 37 NRC at 13. In Diablo Canyon, the applicant, for business reasons, filed for an early license amendment request. The applicant complained that certain contentions could become moot by future actions. The Board held that it will "take facts as they exist today" and added "the Applicant cannot have it both ways: with the early application comes the need to consider and rule based on facts that currently exist." Id. at 14.

In this licensing action, the Applicant, petitioners and Board should "take facts as they exist today." The State has combed the license submittal for relevant information on various issues and, in many cases, found either no information or limited information. The Commission states that the Rules of Practice do not permit "the filing of a vague, unparticularized contention, followed by an endeavor to flesh it out through discovery...." 54 Fed. Reg. at 33,170. Likewise, the Applicant should not be permitted to meet the substantive requirements of Part 72 by filing vague, unparticularized statements in its license submittal followed by the promise of submitting the information at some indefinite future date. The issue of lack of substantive detail is not a new issue raised by the State for the first time in its Contentions. Rather it is an issue that the State has endeavored to bring to the attention of the NRC for some time.

On June 25, 1997 the Applicant delivered its application to the NRC and also delivered a copy to the State of Utah. Since that time, the State has repeatedly pointed out that the application is lacking in substantive detail and that it would be fruitless to try to conduct a meaningful review of such an application. On June 27, 1997 the State filed a 10 CFR § 2.206 Petition[1] requesting NRC to reject PFS's application outright because PFS had not submitted its Emergency Plan to relevant authorities for comment 60 days prior to application submittal in accordance with 10 CFR § 72.32(a)(14). On July 27, 1997 the State filed another 2.206 Petition requesting NRC to find the application incomplete and to not accept the PFS application for docketing "until such time as PFS can craft an application that contains sufficient detail to meet the requirements of 10 CFR Part 72."[2] The NRC ignored the State's petitions [3] and announced on July 31, 1997 that it would docket the application. Notice, 62 Fed. Reg. 41,099 (1997).

The Applicant, and to a certain extent the NRC Staff, have the temerity to turn the lack of substantive detail contained in the application into a defense against the

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[1] *See* State of Utah's Motion to Suspend Licensing Proceedings Pending Establishment of a Local Public Document Room and Applicant's Submission of a Substantially Complete Application, and Request for Re-Notice of Construction Permit/Operating License Application, dated October 1, 1997, Exhibit 3.

[2] *See* State of Utah's Motion to Suspend Licensing Proceedings . . . dated October 1, 1997, Exhibit 4 at 1.

[3] The NRC did not respond to the two 2.206 Petitions until August 6, 1997. *See* Id., Exhibit 5.

State's Contentions. The Applicant's frequent response to the State's Contentions is that the State has failed to provide sufficient basis to support its contentions. *See, e.g.*, Applicant's Answer at 56, 77, and 79. In an application that contains limited or no information on a substantive requirement, the State is faced with the insuperable burden of not knowing how the Applicant intends to meet a substantive requirement of the Part 72 (*e.g.*, financial assurance, decommissioning) while at the same time the State is expected to rebut with adequate documentation, etc. what is not contained in the application.

One example is the lack of detail in the Applicant's estimation of construction, operating, and decommissioning costs. The Applicant's generalized cost estimates are without a breakdown or supporting documentation so as to be incapable of evaluation. *See* ER Table 7.3.-1, LA at 1-5 to 1-8. For example, the Applicant's estimated construction costs of $100 million include site preparation; construction of the storage pads, all buildings at the site, the access road, and transportation corridor; procurement of canister transfer and transport equipment; expenses relating to personnel, licensing and host benefits; and a contingency amount. LA at 1-5. One of the Applicant's defenses to the lack of detail in its cost estimates is that the State "must provide some factual basis for its claim that applicant's estimates are not reasonable other than the bald assertion that they are inadequate." Applicant's Answer at 79. This is an absurd defense. It is the Applicant's application which is "bald." It should be sufficient for

the State to show that there is a lack of adequate information in the application to determine the reasonableness of the cost estimate. Otherwise, the very lack of information in the application becomes, of itself, a shield against reasonable disclosure and accountability.

Another example is queuing of casks at Rowley Junction. Both the Applicant and Staff assert that the State has provided no basis for its assertion that casks may queue up at Rowley Junction. Applicant's Answer at 40; Staff's Response at 17. However, the current state of the application is that the Applicant has not disclosed any details about transhipment of casks from Rowley Junction except to say that it may be by road, or it may be by a yet-to-be-built rail spur, and up to 100 to 200 casks could be expected to arrive annually at Rowley Junction. From this scanty information the Applicant and Staff expect the State to provide a factual basis – other than what is contained in Contention B – for its queuing claim. This unfair burden the Staff and PFS are trying to impose on the State cannot reasonably be met until such time as the Applicant sees fit to elucidate specifics about the movement of casks at Rowley Junction.

The State has set forth discernible issues with reference to relevant documents and expert opinion "with sufficient clarity to require reasonable minds to inquire further." Rancho Seco, 38 NRC at 212. Many of the objections advanced by PFS and the Staff are merely disagreements as to the merits of the contention, which are not

grounds for dismissing proposed contentions. Id.

II Redrafting of Contentions to Include Subcontentions.

The Board's January 6, 1998 Order requests the State in its reply to address the PFS suggestions for redrafting contentions, to include subcontentions. Generally, the Applicant has outlined the basis for the State's Contentions but often a specific issue raised by the State is merely illustrative of why the application is deficient in meeting a regulatory requirement. But without sufficient detail, it is impossible to list all possible examples that may result from such inadequacies in the application. If, for example, the Applicant were to correct only the deficiency illustrated, it may claim that it had satisfied that subcontention and move for summary dismissal. Then the State would be faced with meeting the burden of late-filed contentions if at some later date the Applicant files insufficient information to correct the regulatory requirement.

Notwithstanding the State concerns, and given the voluminous material that the State was required to review and respond to in a relatively short time period, the State has endeavored to address rephrasing contentions in the specific reply to each contention below. However, time did not permit the State to address the proposed rephrasing in every case. The State intends to fully address this issue at the pre-hearing conference during the week of January 26.

III Reply to Applicant's and Staff's Response to State's Contentions

REPLY: CONTENTION A

The Applicant asserts that the State in Contention A is impermissibly challenging a Commission rule. Applicant's Answer at 23. This is incorrect. The State in Contention A is challenging the statutory authority of the NRC to license a centralized 4,000 cask away-from-reactor ISFSI. The NRC Staff initially made the same assertion as the Applicant in its December 24, 1997 Response at 7, n. 11, and at 14, but on December 31, 1997 the Staff filed substitutes for pages 7 and 14,[4] deleting any reference to an impermissible challenge to the Commission's regulations. Thus, the Staff does not consider Contention A to be a challenge to the Commission's regulations.

The Applicant, citing Siegel v. AEC, 400 F.2d 778, 783 (D.C. Cir. 1968), argues that the regulatory scheme authorized by the Atomic Energy Act is "virtually unique in the degree to which broad responsibility is reposed in the administering agency" [then the Atomic Energy Commission] to decide how to achieve statutory objectives. Applicant's Answer at 23-24. The Applicant is apparently implying that the NRC now has broad discretion to license any spent fuel storage facility it deems appropriate. That view glosses over the critical distinction between the great deference courts give

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[4] *See* Letter from NRC Staff attaching corrected pages 7 and 14 to its December 24, 1997 Response to Contentions . . ., filed December 31, 1997.

to NRC's "technical" decisions "at the frontiers of science" and "policy choice[s] made by Congress," such as those "embodied in the NWPA." Kelley v. Selin, 42 F.3d 1501, 1521 (6th Cir. 1995).

The language the Applicant cites from Siegel describes the authority of the Atomic Energy Commission (AEC), not that of the NRC. The Atomic Energy Commission had broader statutory authority than does the NRC. In the Energy Reorganization Act of 1974, Congress abolished the AEC, separated its functions, and transferred them to other agencies. 42 U.S.C. §§ 5801(c) and 5814(a)-(c). The AEC's functions were split between the newly created Energy Research & Development Administration (now the Department of Energy) and the newly created Nuclear Regulatory Commission. 42 U.S.C. §§ 5801(b) , 5814(c) and 5841(f), respectively. The Applicant has used Siegel's description of AEC authority in 1968 to characterize NRC authority 30 years and major events later.

The "backdrop" for the unique degree of broad responsibility given to the Atomic Energy Commission, as described in Siegel, was that Congress allowed such flexibility under the Atomic Energy Act of 1954 in the hope of fostering the new civilian atomic energy industry. At that time, Congress agreed that "it would be unwise to try to anticipate by law all of the many problems that are certain to arise." Siegel, 400 F.2d at 783.

One unanticipated future problem involved the storage and disposal of spent

nuclear fuel, which was of minor, if any, concern to Congress in the 1960's. Pub. L. No. 97-425, Legislative History, Nuclear Waste Policy Act of 1982, House Report No. 97-491, 1982 U.S.C.C.A.N. (96 Stat. 2201) 3792. Back then, Congress recognized that it could not predict with certainty "the events of 1975 or 1980," and that "many unforeseeable developments may arise in this field [atomic energy] requiring changes in legislation from time to time." Pub. L. No. 88-489, Legislative History, Private Ownership of Special Nuclear Materials Act of 1964, Senate Report No. 1325, 1964 U.S.C.C.A.N. 3113, 3123 (emphasis added). For example, the general recognition that storage of spent nuclear fuel, prior to its ultimate disposal, would be a likely "additional new step in the nuclear fuel cycle" came about only after the deferral of reprocessing of spent fuel in 1977. 45 Fed. Reg. 74,693 (Comment No. 1) (1980). In other words, Congress was not concerned with interim storage of spent fuel when, in the 1950's and 1960's, it provided the Atomic Energy Commission with the broad general authority described in the Siegel case.

Siegel held that since the Atomic Energy Commission's expedited licensing of a nuclear reactor in the 1960's was not in conflict with the Congressional purposes underlying the [Atomic Energy] Act, it was within the AEC's broad authority to realize those purposes. Siegel, 400 F.2d at 783-784. Since then, Congress enacted the Nuclear Waste Policy Act of 1982, which declares the national policy regarding nuclear waste. The broad AEC authority to further the Congress' Atomic Energy Act (AEA)

objective of promoting the civilian commercial nuclear power industry in the 1960s, does not equate with NRC authority to thwart the current Congressional policy on interim storage of spent fuel as expressed in the NWPA, 42 U.S.C. §§ 10151-10157. Moreover, the NWPA does not delegate policy decisions to the NRC. Kelley v. Selin, 42 F.3d 1501, 1521 (6th Cir. 1995).

The Staff in its Response at 8-9, cites various sections of the AEA dealing with authority to license source and byproduct materials, in addition to special nuclear material, as support for authority to license spent fuel under Part 72. However, the NRC's notice of the final Part 72 rule, published at 45 Fed. Reg. 74,693 on Nov. 12, 1980, specifically states that Part 72 was developed to provide a more definitive regulation for spent fuel storage in lieu of the general regulation, Domestic Licensing of Special Nuclear Material, 10 CFR Part 70. The rationale for enacting Part 72 calls into question NRC's claim that its byproduct and source material authority also authorize it to license away-from-reactor ISFSIs. In addition, NRC's reliance on § 53(a) of the AEA, 42 U.S.C. § 2073(a),[5] for its authority to license private away-from-reactor ISFSIs does not comport with the legislative history of the enactment and amendment of § 53(a).

As enacted, § 53(a) of the AEA, 42 USC § 2073(a), authorized the AEC to license private persons to possess and use, but not own, special nuclear materials,

[5] The Staff (Response at 7-8) incorrectly cites 42 U.S.C. § 2071 instead of § 2073 for authority to license special nuclear material.

which were then in short supply. By 1964 special nuclear material was no longer scarce and Congress believed that private ownership legislation would enable utilities to negotiate long term supply contracts and encourage long term planning for the development of civilian, commercial nuclear power. Pub. L. No. 88-489, Legislative History, Private Ownership of Special Nuclear Materials Act of 1964, Senate Report No. 1325, 1964 U.S.C.C.A.N. 3,111-13. Thus, in 1967, Congress amended § 53(a) of the AEA, 42 USC § 2073(a), to clarify the AEC's authority to license private ownership, possession and use of special nuclear material. Id. ("Section by Section Analysis"), 1964 U.S.C.C.A.N. at 3125. The NRC is inappropriately trying to use § 53(a) of the AEA to overcome the interim storage policy choices made by Congress in the NWPA.

In disputing Utah's contentions that the NWPA rejects NRC authority to license a private away-from-reactor ISFSI, the Applicant (Answer at 24) confuses the scheme established for a federal MRS, 42 U.S.C. § 10161-10168, with the interim storage program under the NWPA, 42 U.S.C. § 10151-10157. It is the interim storage program, not the MRS program, that reflects Congressional intent on the issue of at-reactor versus away-from-reactor private storage of spent fuel. The MRS program does not address these private storage issues.

Both the Staff (Response at 7) and the Applicant (Answer at 24) argue that the NWPA did not repeal, impinge or limit the NRC's existing authority which they both

presumed has existed under the Atomic Energy Act to license interim storage of spent nuclear fuel at away-from-reactor sites. The Applicant cites Morton v. Mancuri, 417 U.S. 536 (1974) for the proposition that "repeal of statutes by implication are strongly disfavored as a matter of law." Applicant's Answer at 24-25. But by the same token, courts should not presume the existence of rulemaking power (such as for licensing of spent fuel storage in privately owned, away-from-reactor ISFSIs) based solely on the fact that Congress has not expressly withheld such power. American Petroleum Institute v. EPA, 52 F.2d 1113, 1120 (D.C. Cir. 1995); National Mining Association v. Department of Interior, 104 F.3d 691, 695 (D.C. Cir. 1997).

If the NRC already had general licensing authority under the Atomic Energy Act to approve spent fuel storage in private facilities either at or away-from-reactor sites (Staff's Response at 7), then why did Congress in the NWPA's interim storage program bother to specifically authorize private storage of spent nuclear fuel only at reactors (42 U.S.C. § 10155(h))? The more sensible explanation is that § 10155(h) simply expresses a Congressional policy choice to preclude private storage of spent fuel at away-from-reactor facility sites.

Even if the NRC did issue a license for an ISFSI to GE (Morris, Ill.) under Part 72 before the NWPA was enacted (Applicant's Answer at 4), that would not justify continuing to do so after the NWPA was enacted. 42 U.S.C. § 10155 (h). And now that Congress in amending the NWPA has rejected a proposal which would have

expressly authorized the NRC to license away-from-reactor ISFSIs, the NRC's position is even more suspect. *See* Sec. 207, Private Storage Facilities, of H.R. 1270, Nuclear Waste Policy Act of 1997.

Response to Applicant's Rephrasing of Contention A:

The State objects to the Applicant's rephrasing of Contention A.

REPLY: CONTENTION B (License Needed for Intermodal Transfer Facility)[6]

Notwithstanding the Staff's opposition to Contention B, it is obvious that the Staff considers operations at the Intermodal Transfer Point to be significant. At the end of its response to State's Contention B, the Staff at page 19, note 29, states:

> The Staff notes that it intends to review the Applicant's discussion of the equipment and transfer operations to be located at the Rowley Junction ITP, and may seek further information regarding those matters from the Applicant. The Staff will consider, in the course of its review, whether the planned transfer operations at that location present grounds to consider whether additional measures, beyond those specified in Commission and/or DOT regulations, should apply to operations conducted at that location. In the event the Staff concludes that additional requirements may need to be imposed on those operations, it will provide timely notice of that determination to the Licensing Board and parties to this proceeding via a Board Notification.

When convenient, both the Staff and the Applicant treat PFS's Part 72 ISFSI license request as a "facility" license instead of a materials license to possess spent fuel at an "installation." Notice of Hearing, 62 Fed. Reg. 41,099 (1997). Part 72 defines

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[6] This contention is supported by the Declaration of Lawrence A. White, attached hereto as Exhibit 1.

"ISFSI" as "a complex designed and constructed for the interim storage of spent nuclear fuel." 10 CFR § 72.3 (*emphasis added).* The Staff's logic is that the term "site" in 10 CFR § 72.3 applies only to the ground on which the ISFSI is located and not to the private railroad property located 24 miles away at Rowley Junction. Thus, says the Staff, the intermodal transfer point need not be treated as part of the ISFSI installation. Staff's Response at 15. This is indeed curious. On the one hand the Staff says that the Intermodal Transfer Point is not part of the ISFSI installation but on the other hand it says that in the course of its review of the PFS application it may "consider whether additional measures, beyond those specified in Commission and/or DOT regulations, should apply to operations conducted at that location [*i.e.*, Rowley Junction ITP]." Id. at 19, n. 29.[7] It is apparent that the Staff is struggling with where the Rowley Junction Intermodal Transfer Point fits in the regulatory scheme. However, it is disingenuous of the Staff to assert that it may impose "additional measures" or "additional requirements" on the Applicant and then turn around and object to Utah's contentions that raise health and safety concerns at Rowley Junction, such as Contention N (Flooding), and portions of R (Emergency Response) and S (Decommissioning).

There is nothing in Part 72 or guidance that requires an ISFSI "complex" to be

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[7] The Staff's approach lends credence to the State's argument that the NRC does not have the statutory authority to license a national facility of this size and scope. See Reply, Contention A, *supra.*

located on contiguous property. Moreover, 10 CFR § 72.3 defines "structures, systems and components important to safety" to mean, in part, "features of the ISFSI or MRS whose function is ... [t]o provide reasonable assurance that spent fuel or high-level radioactive waste can be received, handled, packaged, stored, and retrieved without undue risk to the health and safety of the public. The Applicant, at 34, by emphasizing "specifically" argues that 10 CFR § 72.2(a) limits the scope of Part 72 to a complex "designed and constructed specifically for storage of spent fuel." However, § 72.2(a) can also be read to include the intermodal transfer point if the emphasis is placed on the words "to be stored," such that "licenses issued under this part are limited to the receipt, transfer, packaging, and possession of . . . spent fuel to be stored in a complex that is constructed specifically for storage of power reactor spent fuel ... in an ISFSI." 10 CFR § 72.2(a).

The Applicant, and to some extent NRC Staff, wish to have Rowley Junction considered like any other transfer station along the shipping route. Applicant's Answer at 28; Staff's Response at 15. But the overall scope of the operations at the transfer facility has been sidestepped in the Staff's and Applicant's responses. The Applicant relies on Shipments of Fuel From Long Island Power Authority's Shoreham Nuclear Power Station to Philadelphia Electric Company's Limerick Generating Station, DD-93-22, 38 NRC 365 (1993), for the proposition that approvals additional to 10 CFR Part 71 are not required for the transportation and intermodal transfer of

spent fuel. Applicant's Answer at 28. Shoreham to Limerick, a decision on a 10 CFR § 2.206 Petition, involved 33 shipments by barge and then by rail of slightly irradiated fuel from the decommissioned Shoreham plant in New York to the Limerick facility in Pennsylvania over an eight month period. Id. at 370-71. Unlike a concentrated flow of shipping casks from a national network of reactors to a single point in the PFS case, Shoreham to Limerick involved the same two facilities and the same route for all 33 shipments. Id. The fact that 33 shipments from Shoreham to Limerick occurred under Part 71 does not mean that NRC should not evaluate the 200 annual shipments into Rowley Junction as part of PFS's Part 72 license application. Moreover, Shoreham to Limerick is a decision by the NRC Staff, and therefore does not bind the Licensing Board in any respect.

The point at which NRC regulations apply instead of DOT regulations may be when the ISFSI licensee is in receipt and possession of the casks. *See* the definitions from Part 72 discussed above. PFS says it will accept delivery and perform receipt inspection at the Skull Valley site, not at Rowley Junction. Applicant's Answer at 34-35. But this begs the question of who has actual or constructive possession and receipt of the casks at Rowley Junction. As stated by the Applicant, either PFS or the licensed utilities will perform transportation under DOT regulations (*see* Applicant's Response at 32.) but the responsibility for operation at Rowley Junction has not been clearly addressed. As discussed in State's Contention B at 11-13, the number of casks and the

length of time casks will likely be at Rowley Junction before they are transferred to heavy haul truck stretches the concept of in transit to the point where the casks should be considered as being stored and in the possession of PFS as part of its ISFSI operation.

PFS and the Staff complain that the State has not justified its concern regarding the queuing of casks at Rowley Junction. Applicant's Answer at 40; Staff's Response at 17. Given the dearth of information in the application to determine whether queuing would occur, the State in Contention B at 11-14, has fully justified this assertion and has substantiated the contention with a supporting affidavit of expert opinion. Not only will there be queuing but shipments will continue throughout the 20 year license term (and renewal) of the ISFSI. The 4,000 casks will be shipped at a rate of 200 per year for 20 years or 100 per year for 40 years. Rowley Junction does not involve temporary storage incident to transportation but is an integral part of the PFS ISFSI complex.

Given the lack of information in the application, the uniqueness of the intermodal transfer issue, the Staff's footnote 29 response, and the potential health and safety implication of the intermodal operation, this issue is material and raises factual disputes that are appropriate for admission in the proceeding.

Response to Applicant's Rephrasing of Contention B:

The State does not object to the Applicant's rephrasing of Contention B.

REPLY: CONTENTION C (Failure to Demonstrate Compliance With NRC Dose Limits)[8]

The Staff does not oppose the admission of this contention, but only to the extent it is limited to the Applicant's dose analysis for the hypothetical loss of confinement barrier accident (*see* sub-basis (b)). In all other respects, the Staff opposes the contention. The Applicant opposes the contention in its entirety. Their arguments are without merit.

Sub-basis (a) asserts that the design basis accident for the ISFSI is based in part on the design of the Holtec HI-STORM and Sierra Nuclear Company (SNC) TranStor casks. Because these designs have not been fully reviewed or approved by the NRC, they provide an inadequate basis for licensing. State's Contentions at 17-18. The Staff argues that the assertion does not raise a litigable issue, because the adequacy of the HI-STORM and SNC casks will be reviewed in a separate rulemaking. Staff Response at 20-21. The Applicant argues that the contention impermissibly challenges the Staff's performance rather than the application itself. Applicant's Response at 44.

The Staff and Applicant misconstrue the State's argument. The State is not contesting the generic adequacy of the casks, which the Commission's regulations undisputedly relegate to a rulemaking. Nor is the State contesting the adequacy of the

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[8] The State's Reply regarding Contention C is supported by the Reply Declaration of Dr. Marvin Resnikoff (January 15, 1998), attached as Exhibit 2. The State also notes that Contention C itself is also supported by the Declaration of Dr. Marvin Resnikoff (November 20, 1997). *See* State's Contentions at 16, note 5. Thus, all factual assertions in Contention C and this reply are supported by Dr. Resnikoff's expert opinion.

Staff's generic review. Rather, the State contends that, because the design of the ISFSI proposed by PFS depends on the use of those particular casks, it cannot be licensed until the casks are approved by the agency. This is a cognizable legal issue.

The Staff and Applicant also oppose the State's assertion, in sub-basis (b), that the loss of confinement barrier accident is credible. They argue that the report on which the State relies is inapplicable because it relates to a transportation accident. Staff Response at 19, Applicant's Answer at 42. This argument is in error. The accident analyzed in the Halstead report, on which the State relies, concerned the penetration by a missile of a transportation cask. The effects of a missile on a storage cask would the same or worse since storage casks have much less metal than transporation casks. The NRC has not done anti-tank missile tests on storage casks. The key characteristics of the accident analyzed by Halstead, therefore, are the nature and construction of the cask, *i.e.*, the materials and thickness of the cask, and the penetrating power of the missile. Anti-tank missiles (MILAN and TOW-2), developed since the NRC cask tests in 1981, are accurate up to 1 km and can penetrate 39 inches of metal. Therefore, a storage cask is likely to be even more vulnerable to sabotage than a transportation cask.

In any event, as the Applicant recognizes, the loss of confinement accident is analyzed in the application, and therefore the Board needs to address the question of whether the accident is credible. Applicant's Response at 46.

The Applicant opposes admission of the sub-bases which contend that in evaluating an accident involving loss of confinement barrier, the Applicant has made selective and inappropriate use of data sources, has failed to consider significant dose contributors, and uses an outdated model. Applicant's Response at 45-58. None of these arguments has merit. Despite volumes of prose, the Applicant fails to demonstrate that it was justified in its inconsistent use of data for its dose calculations. As demonstrated in Contention C, PFS used NUREG-1536's data for storage casks in calculating releases from the fuel assemblies into the environment, and another set of data from a Sandia Report (SAND80-2124) on transportation accidents, for calculating the % release that is respirable. This mix of data yields a lower dose than if the Applicant had consistently used the Sandia data. NUREG-1536 states that "as a minimum, the nuclides ... in Table 7.1 must be analyzed." NUREG-1536 at 7-5. It does not further specify the percentage of release that is respirable. The Applicant does not counter the State's valid inquiry as to why it mixed the data sources for this calculation, other than to say that the NUREG-1536 data was "available." Oil and water are usually available, but that does not mean it is appropriate to mix them.

To give an overview of the Applicant's inappropriate mixing and matching of data sources, it is helpful to break the calculation down into its three steps: 1) calculating the percentage of the cask inventory released to the environment, 2) calculating the percentage of that release that is respirable (*i.e.*, $< 10\ \mu m$ in size), and 3)

calculating the contamination of food supplies and water. For step (1), the Applicant used NUREG-1536 data for the design basis accident. NUREG-1536 data yield a small release because only the vapors in the gap between the fuel pellet and cladding is considered to be released. The State contends that a sabotage event should be the design basis accident. As the State asserts in the Contention, these releases could be much larger if a sabotage event took place, because not just radionuclides within the gap, but a percentage of the fuel itself would be released. For step (2) PFS took the percentage of respirable particulates from the Sandia report. This is a small fraction of the released material because Sandia assumes a high velocity impact, with the breaking of the fuel into large chunks. If PFS had used the Sandia data for both steps (1) and (2), then the respirable release would be greater by a factor of 100. Finally, in conducting step (3) it is not just respirable material that is important. Non-respirable radionuclides can be deposited on the ground and lead to a direct gamma or food ingestion dose, pathways. However, PFS ignores this factor.

The Applicant also contests the aspect of Contention C which charges that PFS calculated the dose to an adult 500 m from the accident, due solely to inhalation of the passing cloud, and did not consider other relevant pathways, such as ground shine and ingestion. Applicant's Answer at 52. Applicant also claims that contrary to the State's assertion, it did not assume evacuation of local residents until contamination is removed. This dispute turns on the interpretation of 10 CFR § 72.24(m), which

requires that:

> The calculation of individual dose equivalent or committed dose equivalent must be performed for direct exposure, inhalation, and ingestion occurring as a result of the postulated design basis event.

The Applicant interprets the phrase "occurring as a result of the postulated design basis event" to require consideration of only "instantaneous" exposures. Applicant's Answer at 53-54. The Applicant claims this interpretation is dictated by NUREG-1536 at 7-7. Id. at 54. The language of the regulation itself must be treated as dispositive here. It speaks in terms of doses occurring "as a result of" an accident, not in the immediate aftermath of an accident. Moreover, it is hard to see why a regulation would even mention ingestion doses if such doses would always be zero under the circumstances, as the Applicant alleges. Applicant's Answer at 54.

Both the Staff and the Applicant dispute the admissibility of the State's assertion that PFS should have considered the dose to children. Citing NRC dose standards, the Staff faults the State for failing to "indicate[]" that the Applicant does not meet these standards. Staff's Response at 22. It is not incumbent upon the State to prove that the Applicant does not meet the standards; rather, the State must show that the Applicant has not complied with the standards. This the State has done. In fact, the Applicant effectively concedes that it has made no attempt whatsoever to determine the dose to children, but has based its dose calculations on an adult male. This is contrary to the standards in 10 CFR Part 72 and 20, which place no such

limitation on dose calculations. These standards prescribe dose limits for "an individual outside the controlled area" (10 CFR § 72.24(m), and "individual members of the public" (10 CFR §§ 20.1301, 20.1302 . For purposes of the Part 20 dose standards, the regulations define "individual" as "*any* human being," and "member of the public" as *any* individual except when that individual is receiving an occupational dose." (Emphasis added). The concept of "any individual" clearly includes people other than adult men, *i.e.*, children. Nor does the Atomic Energy Act limit its protection against undue risk to adult males. In fact, NRC regulations already make special exception for the dose of a minor (10 CFR § 20.1207) and the dose to an embryo/fetus (10 CFR § 20.1208) within restricted areas.

As demonstrated in Contention E at pages children are more vulnerable to radiation than adults because of their higher surface-area-to-volume of organs ratio. State's Contentions at 21. Other contributing factors include the fact that children have higher soil ingestion rates. In the opinion of the State's expert, Dr. Marvin Resnikoff, because of these distinctions, the dose to children from the proposed ISFSI is likely to be significantly higher than the dose to an adult. Thus, in order to satisfy the regulation, it is necessary to determine whether the dose limits are satisfied for children.

In addition, the risk to children is greater. That is, children also have a greater chance of developing cancer than adults, because they live longer than adults (and

therefore have a greater chance to develop cancer). In addition, children have more rapidly growing cells.

The Applicant attempts to shield itself from this contention by arguing that it followed the Staff's guidance document, NUREG-1536, and EPA Guidance Report No. 11, both of which use an "adult breathing rate." As has been long-recognized by the Commission, however, compliance with Staff guidance documents does not conclusively establish compliance with the regulations. As the Board held in Louisiana Energy Services (Claiborne Enrichment Center), LBP-91-41, 34 NRC 332, 354 (1991), a regulatory guide "is not a regulation." It is "established law" that "intervenors are not 'precluded from demonstrating that [a] prescribed method is inadequate in the particular circumstances of the case.'" Id., *quoting* Public Service Co. Of New Hampshire (Seabrook Station, Units 1 and 2), ALAB-875, 26 NRC 251, 161 (1987); Gulf States Utilities Co. (River Bend Station, Units 1 and 2), ALAB-444, 6 NRC 760, 772-73 (1977).

The Applicant and Staff also argue that the State has not supported its assertion that ICRP-30 is an outdated basis for dose calculations, and should be replaced by ICRP-60. Staff's Response at 22-23; Applicant's Response at 58. The State has presented the expert opinion of Dr. Marvin Resnikoff that ICRP-60 is more accurate for human radiation doses, particularly inhalation doses from a refined lung model, than ICRP-30 and correctly calculates the dose to children, which ICRP-30 does not do

at all. This constitutes sufficient basis for the contention. Moreover, the fact that the NRC Staff and the EPA rely on ICRP-30 does not bar a challenge to the appropriateness of the method. See Louisiana Energy Services, 34 NRC at 354. Finally, there is not support in the regulations for the Applicant's implicit argument that ICRP-30 is a part of Part 20 because its "philosophy and methodology" were "generally adopted" by the Commission in promulgating Part 20. Applicant's Response, *citing* 56 Fed. Reg. 23,360, 23,361 (May 21, 1991). The general language in the preamble to the rule contains no prescription of any particular methodology for calculating doses. Moreover, the regulations explicitly address doses to an "individual" or "member of the public," not limiting them to an adult male, as evaluated in ICRP-30. Therefore, the rulemaking provides no support for restricting dose calculations to adult males.

Finally, the Staff contests the State's position that, because offsite doses are likely to exceed the doses assumed in the NRC's emergency planning regulations, the need for offsite emergency planning must be reconsidered. Staff's Response at 22. The State responds that the Staff cannot have it both ways. If the Applicant evaluates only "instantaneous" exposures, this must be based on an assumption that the area is evacuated and supplies are interdicted. If so, the Applicant must take necessary measures to ensure that these protective measures are carried out, i.e., offsite emergency planning. Otherwise, the Applicant must correctly calculate the doses to

the public, both during and after an initial release.

Response to Applicant's Rephrasing of Contention C:

The State does not object to the Applicant's rephrasing of Contention C with the exception that the reference in (c) be changed from SAND80-2124 to NUREG-1536.

REPLY: CONTENTION D (Facilitation of Decommissioning)[9]

The Applicant and Staff both oppose this contention, which challenges the adequacy of the Applicant's measures for facilitating decommissioning under 10 CFR § 72.130 and Reg. Guide 3.48. Applicant's Answer at 58, Staff's Response at 23. Their arguments have no merit.

First, the Staff argues that Reg. Guide 3.48 is not binding on the Applicant, who may use an acceptable alternative for satisfying the regulations. Staff's Response at 24. However, the Staff has not identified any alternative used by the Applicant. Moreover, the Applicant's pleading demonstrates that the Applicant has elected to comply with the Reg. Guide, by claiming that the Applicant's spent fuel casks designs do address potential DOE spent fuel acceptance criteria to the extent they are available. Applicant's Answer at 60.

The Staff also argues that the contention is inadmissible because "the

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[9] This contention is supported by the Reply Declaration of Dr. Marvin Resnikoff, Exhibit 2.

availability of sufficient waste disposal capacity at Yucca Mountain is not required to be addressed by the Applicant." Staff's Response at 24. The State's contention does not seek to litigate the availability of waste disposal capacity at Yucca Mountain, however, but whether the Applicant has taken adequate measures to facilitate decommissioning, by planning for compatibility with DOE disposal requirements.

Citing decommissioning planning regulations at 10 CFR § 72.30, the NRC claims that the Applicant's decommissioning plan does not need to address disposal of spent fuel. This is inapposite. That regulation governs decommissioning itself. The regulation cited in Contention D, 10 CFR § 72.130, governs facilitation of decommissioning.

Finally, the Staff argues that the Commission has established specific design compatibility requirement for Certificates of Compliance under Subpart L (10 CFR § 72.236(m)), and that the lack of any comparable requirements for ISFSIs demonstrates that it is not necessary for ISFSI applicants to show compatibility of their designs with DOE requirements. Staff's Response at 25. However, the Commission did address the issue in 10 CFR § 72.130, requiring applicants for ISFSI licenses to demonstrate measures to ensure expeditious decommissioning.

The Applicant argues that to the extent DOE criteria are currently available, it has adequately addressed them. Applicant's Answer at 60-61. The discussions of compatibility cited by the Applicant, however, amount only to an assertion that multi-

purpose casks are generally compatible with DOE acceptance criteria. The Applicant has not addressed such issues as thermal design, size, weight, and capacity of the casks. *See* State's Contentions at 23-24. The Applicant and Staff also argue that because the DOE criteria have not yet been issued, the Applicant need provide no more information than it already has. Applicant's Answer at 62-63, Staff's Response at 26. Some criteria, such as the requirement that fuel with degraded cladding must be encapsulated are already available however. *See* DOE standard contract cited in Applicant's Answer at 63-64.

The Applicant challenges the State's contention that it should have some means (such as a hot cell) for inspecting fuel to ensure compliance with DOE acceptance criteria, on the ground that it seeks stricter requirements than imposed by NRC regulations, and impermissibly attacks the regulations. Applicant's Answer at 63. This is incorrect. NRC regulations explicitly require the retrievability of spent fuel at ISFSIs. NRC "overall" design criteria for ISFSIs and MRSs include the requirement that "[s]torage systems must be designed to allow ready retrieval of spent fuel or high-level radioactive waste for further processing or disposal." 10 CFR § 72.122(l). Other regulatory statements and documents also carry this requirement. For instance, the Statement of Considerations for Additions to List of Approved Spent Fuel Storage Casks, 59 Fed. Reg. 65,898, 65,901 (1994), states that:

> According to 10 CFR § 72.122(l), storage systems must be designed to allow ready retrieval of the spent fuel in storage. *A general license using*

an NRC-approved cask must maintain the capability to unload a cask. Typically, this will be done by maintaining the capability to unload a cask in the reactor fuel pool. Other options are under consideration that would permit unloading a cask outside the reactor pool.[10]

With respect to canister equipment and design, the DSC or canister is designed to the ASME Boiler and Pressure Vessel Code (BPVC), Section III, Subsection NB. The DSC provides a containment boundary for the radioactive material and the cladding of the fuel rods provides confinement of fuel pellets. Only intact fuel assemblies (rods) with no known cladding defects greater than pin holes and hairline cracks are permitted to be stored. *This approach assures the structural integrity of the fuel to confine the fuel pellets and its retrievability. In the unlikely event of a breach that required the canister to be unloaded, the canister can be returned to the reactor spent fuel pool. Therefore, it is incorrect to assert there is no place to unload a canister.*

Id., (*emphasis added*). *See also* Statement of Considerations for Proposed Licensing Requirements for the Independent Storage of Spent Nuclear Fuel and High-Level Radioactive Waste, 51 Fed. Reg. 19,106, 19,108 (1986). Thus, the Certificate of Compliance for the Sierra Nuclear VSC-24 Storage Cask System (Effective Date: May 7, 1993) requires SNC to have a procedure for "cask unloading, assuming damaged fuel," either "at the end of service life" or "for inspection after an accident." VSC-24 Certificate of Compliance at A-2, relevant pages attached as Exhibit 3. Moreover,

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[10] The Applicant cites this Statement of Consideration for the proposition that the NRC deems it unnecessary to require means for the inspection of canisters, because the helium-filled, double-welded design of the canisters provide sufficient protection. Applicant's Answer at 64. The discussions referenced by the Applicant, at 59 Fed. Reg. 65,902, and 58 Fed. Reg. 17,948, 17,954 (1993), however, concern the Commission's determination that "continuous monitoring" of the canisters is not necessary. These discussions do not absolve licensees of the requirement to provide the capability to inspect and retrieve canisters, as required by 10 CFR § 72.122(l).

contrary to the Applicant's assertion, the DOE has not contracted to accept spent fuel in any condition. As clearly provided in the language of the standard DOE contract quoted by the Applicant, failed fuel must be "previously encapsulated." Applicant's Answer at 66. The Applicant does not explain how fuel determined to have failed will be encapsulated in the absence of a hot cell. As documented by the State, the applicant's mere assertion to the effect that "it can't happen here" is contradicted by previous experience (*see* State's Contentions at 67-69), and is inconsistent with the NRC's fundamental regulatory philosophy of providing backup for failed safety systems. The design of the proposed ISFSI simply has no such backup for failed fuel that does not comply with DOE acceptance criteria.

The Applicant also disputes the contention to the extent that it argues the fuel should be inspected and repackaged, if necessary, before being shipped to the DOE repository, because the DOE repository may not have such capability, and because the shipping of failed fuel creates significant safety hazards that could be avoided if the fuel were dealt with properly before shipping. According to the Applicant, this is a "transportation" issue not within the scope of this proceeding. Applicant's Answer at 67. To the contrary, the issue concerns preparation for transportation, not transportation itself, and is thus admissible. Moreover, the Applicant is incorrect in arguing that the Commission has determined that transportation of failed fuel poses no safety concern because the canister acts as a replacement barrier in lieu of the failed

cladding. Applicant's Answer at 68. The Federal Register notice cited by the Applicant, 51 Fed. Reg. at 19,108, does not make such a representation, but generally proposes that the use of a canister "could" prevent unnecessary occupational exposures during handling operations. The Applicant also claims that the Statement of Considerations for the NUHOMS spent fuel canister, 59 Fed. Reg. at 65,901, supports its argument. Applicant's Answer at 68. However, that Statement of Considerations assumes that fuel loaded into canisters will be "intact," with "no known cladding defects greater than pin holes and hairline cracks." As discussed above, the Commission also observed that in the "unlikely event of a breach," the canister could be unloaded in the spent fuel pool. Id.. This statement simply does not support the premise that the Commission believes the canister is a completely adequate substitute for intact fuel.

The Applicant also claims that the State has provided no support for its assertion that shipment of failed fuel increases the risk of accidents, such that it is more reasonable, and would probably be preferable to DOE, for fuel to be inspected prior to shipment to a repository. Applicant's Answer at 68. To the contrary, the State has explained the basis for its view that the risks of shipping degraded fuel are higher, *i.e.*, because it "diminishes or removes one of the key barriers to environmental release of radiation." State's Contentions at 26. Moreover, this assertion is supported by the expert opinion of Dr. Marvin Resnikoff. *See* State's Contentions at 22, n. 7.

REPLY: CONTENTION E (Financial Assurance)

The NRC Staff does not oppose admission of this Contention. Staff Response at 26. The Applicant opposes the contention on the ground that it seeks the application of Part 50 and Appendix C, under a Licensing Board decision that has been reversed by the Commission. Applicant's Answer at 71, *citing* Louisiana Energy Services, L.P. (Claiborne Enrichment Center) ("LES"), CLI-97-15, (slip op., Dec. 18, 1997). In that case, however, although the Commission held that "the NRC is not required as a matter of law to apply the strict financial qualification provisions of Part 50 to all Part 70 license applications" (slip op. at 6), the Commission found that the agency is not "precluded from applying Part 50 standards to a Part 70 applicant if particular circumstances warrant this approach." Id. at 13. The Commission also applied the Part 50 guidance, by imposing license conditions that required the applicant to demonstrate full funding and long-term production contracts before construction commences. Slip op. at 26. Thus, as the Staff recognizes, the Part 50 and Appendix C financial qualification provisions may be used as guidance to evaluate the financial qualification of a Part 72 applicant. Staff's Response at 26-27.

The Applicant also argues that the reasoning underlying the Licensing Board's decision in Louisiana Energy Services is inapplicable here, because Part 72 has a different rulemaking history than does Part 70. Applicant's Answer at 71-72. This

argument ignores the discussion of State's Contention E at 29 that until 1980, ISFSIs were regulated under Part 70. Thus, there is no impediment to the Board applying Part 50 and Appendix C as guidance in evaluating the adequacy of the Applicant's financial qualifications. Moreover, the circumstances in this licensing proceeding warrant reference to Part 50 standards in evaluating the adequacy of PFS's financial qualifications.

The Applicant also criticizes Contention E on the ground that it does not show a link between the alleged errors in the financial plan and the health and safety impacts they invoke. Applicant's Answer at 75, *citing* Yankee Atomic Electric Company (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235, 258 (1996). Contention E is quite distinct from the decommissioning funding contention presented in Yankee Atomic. In that case, the Commissioners found that revising a decommissioning cost estimate would be an academic exercise, because the Intervenor had not provided sufficient cause to question whether the applicant would be able to come up with the money needed to finance decommissioning. Id. at 258-59; *see also* Yankee Atomic Electric Company (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1, 9 (1996). Here, the State has not identified just a few holes in the Applicant's demonstration of financial qualifications, but has demonstrated the gross inadequacy of the application to provide any factual basis for a finding of financial assurance – from the lack of a reasonably detailed cost estimate down to the failure to supply such basic information

as the identification of the participants in the project. *See* State's Contentions at 32-38. As the Board found in Wisconsin Electric Power Co. (Point Beach Nuclear Plant, Units 1 and 2), LBP-81-45, 14 NRC 853 (1981), the "reasonable specificity" requirement for contentions "should be interpreted in light of the 'full procedural context,'" such that when an application for a license amendment is itself incomplete, the standard for admission of contentions is lowered. 14 NRC at 856.[11] Moreover, contrary to the Applicant's assertion, the State has not filed a vague unparticularized Contention. *See, e.g.*, Applicant's Answer at 77. State's Contention E at 32-38 recites from the relevant portions of the license submittal the vague and generalized statements relied on by the Applicant to substantiate its financial qualifications. Furthermore, it is self-evident that reasonable cost estimates, name and relationship among equity contributors, and allocation of financial responsibility are indispensable to evaluating the reasonableness of the applicant's financial qualifications.

The State submits that as in the LES case, circumstances warrant application of the Part 50 criteria in this case. First, both proposed facilities are large, first-of-a-kind, and potentially hazardous operations. The LES case constitutes the first time the NRC

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[11] While the Point Beach case was decided prior to the 1989 rules of practice changes, it nonetheless is still on point. In commenting on the rule change, the Commission stated that the former rule did not permit the filing of a vague, unparticularized contention; that the new rule does not require the intervenor to make its case when filing a contention; and that the new rule requires a contention and basis to contain sufficient information to show that a genuine dispute exists on a material issue of law or fact. 54 Fed. Reg. at 33,170 (1989).

has ever considered a construction permit and operating license application for a private uranium enrichment facility – all other enrichment facilities were built and operated exclusively by the Department of Energy. Slip op. at 2. Similarly, PFS is applying for a license to build and operate a privately owned and operated centralized away-from-reactor storage facility. The only other contemplated centralized interim storage of spent fuel was the Department of Energy's unsuccessful effort to establish a Monitored Retrievable Storage facility.

Second, like LES, this Applicant is not an established electric utility company but is a newly formed entity with limited liability protection. In the same context, both the LES and PFS projects are high-risk ventures. LES described its financial plan as a "venture project where the decision to go forward is constantly reassessed." Slip op. at 15. Also LES had no financial backing in the form of contractual commitments or funding from lending institutions. Id. at 16. Likewise, PFS can be described as a "venture" project without any financial backing. PFS describes its project as being "developed on a phased basis" with different funding mechanisms contemplated for each of four separate steps. LA at 1.5.

Third, the PFS application is different in kind and scope than an application from an established electric utility applying to store a limited number of casks at or near an existing reactor site. Accordingly, application of the Part 50 criteria for demonstration of financial qualifications is reasonable and necessary in this case.

For the reasons above and as set forth in the basis to contention E, the State has described with particularity the material deficiencies in the Applicant's purported demonstration that it is financially qualified to conduct Part 72 license activities. Moreover, this Board should be guided by the requirements of Part 50 and Appendix C in evaluating whether the Applicant has demonstrated reasonable assurance of its financial qualification to carry out the activities for which this application is sought. *See* 10 CFR §§ 72.22(e) and 72.40(a)(6). Even if the Board decides that Part 50 does not constitute applicable guidance, the information sought by the State in its contention regarding the identities of the participants in the project, the sources of funding for the project, and reasonably detailed cost estimates, are reasonable requirements for establishment of financial qualifications under 10 CFR part 72. *See, e.g.*, cased cited in State's Contentions at 33-34, in which licensing boards historically have found that reasonably accurate cost estimates are important safety requirements under the financial qualifications regulations.

Response to Applicant's Rephrasing of Contention E:

The State does not agree with the Applicant's rephrasing of Contention E. The Contention is adequately worded to put the Applicant and other parties on notice of the nature of the State's concerns and the issues it wishes to litigate.

REPLY: CONTENTION F (Inadequate Training and Certification of

Personnel)[12]

The Staff does not object to this contention insofar as it asserts that the Applicant's training program, as described in the SAR § 9.3., does not comply with the training requirements established in 10 CFR § 72.192. Staff's Response at 28. However, both the Staff and the Applicant object to basis (2), which faults the Applicant for failing to describe the physical condition of operators under 10 CFR § 72.124. Upon confirmation from the Applicant that the medical examination described in the License Application addresses both the mental and physical condition of the operators, the State will withdraw basis (2). If, however, the medical examination addresses only the physical condition of operators, then it clearly does not satisfy the requirements of 10 CFR § 72.194.

Applicant's objections to the other parts of the contention are unfounded. The Applicant mischaracterizes the contention as seeking procedures, or minutiae such as the questions on operator training exams. Applicant's Answer at 90-91. As set forth in the contention, what the State seeks is a basic description of the elements of the training program, sufficient to support a determination of the adequacy of the Applicant's program. At present, the Applicant has only provided enough information to determine the existence of such a program. The Applicant devotes more prose to opposing the contention than it does to describing the training for the

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[12] This contention is supported by the Reply Declaration of Dr. Marvin Resnikoff, Exhibit 2.

entire PFS organization. The contention is admissible.

REPLY: CONTENTION G (Quality Assurance)[13]

The Staff does not oppose admission of this contention, with two reservations. Staff's Response at 28-19. First, the Staff "opposes the admission of portions of this contention which suggest that an ISFSI applicant must establish a wholly self-contained program – without being able to rely in any manner upon the reactor licensee's program – for quality assurance and/or quality control in 'the procurement of materials and packaging of spent fuel by nuclear power plant licensees.'" Staff's Response at 29. *See also* Applicant's Answer at 96. The Staff and Applicant misunderstand this part of the State's contention. The State does not contend that the Applicant should place no reliance on reactor licensees. However, as explained in the contention, the State challenges the Applicant's unquestioning reliance on reactor licensees, and its failure to establish measures for verifying the uniformity and quality of materials procured and packaging performed by reactor licensees. As set forth in the contention, the licensing of this ISFSI raises unique quality assurance issues, in that (a) the Applicant apparently will own the materials (*i.e.*, the casks), but they will be procured and handled by other parties who are not under the Applicant's control, and (b) the safety of the ISFSI depends in large part on the quality of materials and

[13] This contention is supported by the Reply Declaration of Dr. Marvin Resnikoff, Exhibit 2.

packaging performed by the licensees. The application should address this problem with measures designed to give the Applicant a degree of control over the procurement and packaging process, so as to ensure that the Applicant can comply with its own quality assurance responsibilities, as required by 10 CFR Part 72, Subpart G. Unquestioning reliance on the materials supplied by reactor licensees does not satisfy these obligations. Moreover, this is a significant issue of regulatory compliance that cannot be left to be addressed in the Applicant's procedures, which are not subject to licensing review. *See* Applicant's Answer at 95. Finally, the Applicant is incorrect in claiming that the State has not demonstrated any reason not to rely on the performance of reactor licensees. As discussed extensively in the State's Contentions at 68-69, there have been numerous instances in which casks have been improperly packaged; moreover, Sierra Nuclear recently has been the subject of an enforcement order due to the alleged production of substandard casks. Id. at 67.

The Staff also objects that the State's assertion regarding the need for independent means, such as a hot cell, to verify the adequacy of materials and packaging, on the ground that it constitutes a challenge to the regulations. As discussed above with respect to Contention C, the requirement for retrievability of spent fuel is contained in NRC regulations at 10 CFR § 72.122(l). Thus, the State has not challenged the regulations, but asserted another ground on which inclusion of a hot cell in the design of the facility is needed for protection of public health and safety.

The Applicant claims that the State has not provided enough detail or support for its claim that the QA program is inadequately described. This argument is simply contradicted by the contention itself, which provides examples of the type of information that is missing from the QA program. State's Contentions at 42-44 (list of "broad goals" is insufficient to describe the means by which quality assurance will be achieved; no information about the nature of the ISFSI or its unique operations, specific requirements of regulations not addressed, design control section fails to describe structure or content of QA organization, or who in the QA organization will fulfill functions, QAPD program fails to specify minimum review intervals or what will trigger earlier review). The State need not prove its case, but merely provide sufficient specificity and basis to support the contention, which it has done.

The Applicant disputes the State's claims regarding inconsistent representations in the QA program and the SAR, on the ground that the QA Program Description has been updated. Applicant's Answer at 97. However, the Applicant has not provided the document, or even a reference to it. Therefore, the contention remains valid and admissible. The Applicant also asserts that the error was merely administrative, and has no safety significance. However, as documented in Contention G, the entire Quality Assurance Program seems to have been treated as merely an administrative matter – PFS took a QA program for an entirely different operation, changed a few words, and submitted it to the NRC. The failure to accurately describe the

organization is symptomatic of a much deeper failure in the QA program, *i.e.*, the failure to establish a QA program that even considers the particular characteristics of this operation.

Finally, the Applicant disputes Contention G's criticism of the lack of demonstrated independence of the QA organization. Contrary to the Applicant's assertion, the State does not seek complete independence of the QA organization, but independence that is sufficient to ensure that the QA organization can do its job effectively. Applicant's lengthy argument does not demonstrate that the State's concern is baseless, but rather shows that there is a material factual dispute between the Applicant and the State.

Contention H: Inadequate Thermal Design[14]

The Staff does not oppose the admission of this contention. Staff's Response at 30. The Applicant's various objections are without merit, and indeed further demonstrate the existence of a material dispute between the State and the Applicant.

The gist of Contention H is that PFS proposes to use casks with design temperatures that are lower than the site design ambient temperature of ~~100~~ 110°F, without adequately justifying the inconsistency. The TranStor cask is designed for ambient

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[14] This reply is supported by the Reply Declaration of Dr. Marvin Resnikoff (January 15, 1998). The original contention H was also supported by Dr. Resnikoff's expert opinion. Declaration of Dr. Marvin Resnikoff (November 20, 1997).

temperatures of 75°F, and the Holtec cask is designed for a daily average ambient air temperature of 80°F. State's Contentions at 53. PFS claims that the off-normal design temperature of 100°F "represents a maximum daily average temperature over a period of several days and nights required for the system to reach thermal equilibrium." SAR at 4.2-15. The State sets forth four bases for disputing the accuracy of this statement. None of the Applicant's arguments controvert the State's assertions.

First, the Applicant argues that the State ignores the fact that the casks have been analyzed for maximum daily ambient temperatures of 125°F. Applicant's Answer at 103-4. To the contrary, the State has not ignored this information. This is a transient temperature condition. It is simply not relevant to the question of what is the maximum daily *average* temperature.

Second, the Applicant contends that the "assumption of a sustained 100° maximum daily average temperature for the PFS storage cask analysis envelopes any sustained daily average temperatures expected to be seen at the PFSF site." Applicant's Answer at 105. *See also* Applicant's Answer at 109, referring to a "conservative 5°F margin" between the License Application's maximum ambient daily average temperature of 100°F and the maximum average daily ambient temperature of 95°F. The Applicant provides no basis for this bald assertion, or for the notion that the 100°F design temperature is conservative. In fact, as demonstrated in State's Contention H, there are significant grounds for questioning such an assertion, *i.e.*, the Applicant has not

demonstrated that it has taken adequate measurements for predicting onsite temperatures, and has not taken into account the thermal effects of a large array of casks stored on a concrete pad.

Moreover, the Applicant fails to demonstrate that the State lacks a basis for challenging the adequacy of consideration of these factors. With respect to temperature measurements, the Applicant asserts that measurements taken at Salt Lake City, Dugway, and Iosepa, are adequate. Applicant's Answer at 106-107. The assertion does not controvert the State's claim, which is supported by the expert opinion of Dr. Marvin Resnikoff, that the Applicant should base its design on onsite measurements, taken at a distance from the ground that is comparable to the location of intake vents on the storage casks. State's Contentions at 53-54.

With respect to the Applicant's failure to take into consideration the heat given off by the casks and the pad, the Applicant asserts that the contention is not supported by any facts or references. To the contrary, the assertion is supported by the expert opinion of Dr. Resnikoff, whose reasoning is explained and factually documented in the body of the contention. *See* State's Contentions at 54-55. The Applicant's attempts to show that heat contribution from these sources is negligible are based on analyses of single casks in isolation, and therefore do not provide sufficient information to establish that the casks will not contribute a significant heat load to the immediate environment. The Applicant does not consider the fact that temperature at the ISFSI floor where the air intake port for

the HI-STORM is located may be higher than at the outlet port, thereby reducing cooling air flow. While the State agrees with the Applicant that the cask designers have conservatively assumed the cask is insulated at the ISFSI floor, this does not resolve the State's concern.

The Applicant also disputes the State's contention that projected temperatures for cask concrete either exceed or are very close to the NRC's recommended limits, thus compromising the integrity of the concrete. Applicant's Answer at 118. With respect to the HI-STORM cask, the Applicant states that this is not an issue, because the concrete is not relied on for structural integrity. Id. At 119. While this may be true, the State submits that the cracking, spalling, and deterioration of concrete in a storage cask could negatively affect the safety of the facility, by making removal of the casks difficult, by blocking aisles between casks, and by blocking ventilation shafts, but, most importantly, by raising the direct gamma and neutron exposure rates due to less shielding.

With respect to the TranStor cask, the Applicant's rambling response, while appearing to state that the issue has been resolved, fails to establish whether the Applicant or TranStor has actually committed, and incorporated into the technical specifications, a commitment to use an alternative concrete mix and aggregate that will meet the NRC's temperature specifications. In the absence of such a clear showing, there remains a valid controversy between the parties.

Response to Applicant's Rephrasing of Contention H:

In general, the State does not object to the rephrasing.

REPLY: CONTENTION I (Lack of Procedure for Verifying Presence of Helium in Canisters)[15]

The Applicant and Staff both oppose this contention, on the ground that ISFSI testing for helium is not required by Commission regulations. NRC Staff's Response at 30, Applicant's Response at 122. Applicant cites a Federal Register notice regarding generic storage cask approval decisions, for the proposition that the Commission has determined that while the canister is important to safety, "because the canister is filled with helium and double-seal welded shut, the risk of penetration of the canister from the inside is so low that there is no need to inspect the canister for leaks or corrosion or to ensure the helium remains inside." Applicant's Answer at 122-23, *quoting* 59 Fed. Reg. 65,898, 65,901-2 (1994). The Applicant also cites the Statement of Considerations for 1990 amendments to Part 72. 55 Fed. Reg. 29,181, 29,188 (1990) Both of these rulemaking decisions, however, assume that casks will be used only for storage. They do not take into account the stresses caused by multiple steps of transferring casks from nuclear plant to railroad cars and/or vehicles, and transfer again to a storage facility; or the stresses caused by transportation of casks thousands of

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[15] This reply is supported by the Reply Declaration of Dr. Marvin Resnikoff (January 15, 1998). The original contention was also supported by the Declaration of Dr. Marvin Resnikoff (November 20, 1997). See State's Contentions at 60.

miles. *See* State's Contentions at 62. During these operations, casks may be jostled, vibrated or dropped, thus causing welds to loosen. Id. This assertion, which is supported by the an explanation of the basis for the expert opinion of Dr. Marvin Resnikoff, meets the criteria for admissibility. Moreover, it is not controverted. The various guidance documents and studies cited by the Applicant for the purpose of demonstrating the adequacy of seals to protect the canister from helium releases, are related to storage, not combined storage and transportation. Applicant's Answer at 124. In *quoting* NUREG-1536, the Applicant declined to mention that "the SAR should discuss any routine testing of support systems (e.g., vacuum drying, helium backfill and leak testing equipment)." NUREG-1536 at 9-7. Further, an accident considered in the Environmental Assessment for dry cask storage, NUREG-1092 at II-12, is canister failure during storage.

Moreover, the Applicant's assertion that Reg. Guide 3.48 applies only to MRS facilities is belied by the title of the Reg. Guide itself: Standard Format and Content for the Safety Analysis Report for an Independent Spent Fuel Storage Installation or Monitored Retrievable Storage Installation (Dry Storage). Nor does the body of the Reg. Guide assert that it, or some part of it, is limited to MRS facilities. The guidance is relevant for ISFSIs as well as MRSs.

With respect to human error, the Applicant argues that the State has submitted no evidence. Applicant's Answer at 126-28. However, the State has submitted

substantial evidence of human error in the packing of casks. State's Contentions at 67-68. In addition, as discussed in the State's Contention G, regarding quality assurance, the Applicant's lack of direct control over the packaging of casks by many different licensees adds further to the potential for human error. Id. at 62. See discussion of Quality Assurance contention G, supra.

Finally, the quote from the Waste Confidence Rulemaking, cited by Applicant at 129 for the proposition that dry cask storage creates no significant hazards, is taken completely out of context. It ignores the fundamentally important fact that the Commission's low risk finding was based in part on the ability to verify material integrity by inspecting and repairing, if necessary, the contents of storage canisters during the lifetime of the facility. See State's Contentions at 65, discussing NUREG-1092, Environmental Assessment for 10 CFR Part 72, Licensing Requirements for the Independent Storage of Spent Fuel and High-Level Radioactive Waste (1984). Further, the statement quoted by PFS regarding "the absence of high temperature and pressure conditions," was in reference to extended spent fuel storage in reactor pools, where the temperature is indeed much lower than in a dry storage cask. NUREG-1092 at II-15.

REPLY: CONTENTION J (Inspection and Maintenance of Safety Components, Including Canisters and Cladding)[16]

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[16] This Reply is supported by the Reply Declaration of Dr. Marvin Resnikoff (January 15, 1998). The original Contention J was is also supported by the Declaration

The Staff and Applicant both object to the admission of this contention. Staff's Response at 32, Applicant's Answer at 131.

The Staff contends that the State fails to provide any fact or expert opinion sufficient to demonstrate the existence of a genuine dispute with the Applicant, and notes that the Applicant has addressed the issue of retrievability in the SAR, in § 4.7. Staff's Response at 32. The Staff also notes that retrievability of the spent fuel is required by 10 CFR § 72.122(l), and that the Staff has not yet reviewed whether the Applicant's facilities and means for retrieval of spent fuel are adequate under the standard. The Applicant argues that the ability to inspect and inspect the canisters is not necessary for compliance with NRC inspection and maintenance requirements, and does not pose an undue risk to public health and safety. Applicant's Answer at 131-146.

As pointed out by the Staff, retrievability of spent fuel is unequivocally required by NRC regulations at 10 CFR § 72.122(l). As discussed in NUREG-1092, retrievability of fuel is necessary to permit verification of the condition of the fuel during the lifetime of the facility. See State's Contentions at 64. Although this statement was made with respect to MRS facilities, the Commission later amended its regulations to apply the requirement to both MRSs and ISFSIs. Statement of Considerations, Licensing Requirements for the Independent Storage of Spent Nuclear

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of Dr. Marvin Resnikoff (November 20, 1997).

Fuel and High-Level Radioactive Waste, 53 Fed. Reg. 31,651 (1988). See also discussion in Reply Contention D, *supra*. Thus, providing a means for inspection and maintenance of critical safety components is a key purpose of 10 CFR § 72.122(l). Because § 72.122(l) establishes a clear and overarching requirement for retrievability of spent fuel, which also encompasses the ability to inspect and maintain it, the State seeks leave to amend the contention to include noncompliance with § 72.122(l).[17]

The Staff argues that the State has failed to show that the Applicant's discussion of retrievability in § 4.7 of the SAR is inadequate. In Section 4.7, the Applicant states that:

> Retrieval of individual spent fuel assemblies from the canister before offsite shipping is not anticipated. As described earlier in this chapter, the canister is designed to withstand all normal, off-normal, and accident-level events. Nevertheless, retrieval of the spent fuel from the canister can be achieved if necessary. In the event the spent fuel assemblies require unloading prior to being shipped offsite, the canister will be shipped back to the originating nuclear power plant via a shipping cask (if the originating plant is still available) or the individual spent fuel assemblies will be transferred into a different canister as described in Section 8.2.7.4.

SAR at 4.7-2. The State has pointed out, however, that reliance on spent fuel pools at the originating reactor site or other nuclear plant sites is unrealistic and unsafe. See State's Contentions at 71, 150. Moreover, the Applicant's proposed measures for

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[17] Amendment of the contention is justified and necessary in order to clarify all of the legal requirements relating to Contention J. Moreover, the amendment will not prejudice any party, because the proceeding is at a very early stage, and in fact the Staff has not even reviewed this issue.

shipping the fuel contradict other licensing documents. For instance, the Applicant states that the cask would constitute the "confinement boundary, with no reliance on the canister for fission product confinement." SAR at 8.2-40. This contradicts the TSAR for the HI-STORM cask (Report HI-941184), which contains the following damaged fuel specification:

> To replace the radiological release boundary provided by the cladding, damaged fuel assemblies will be loaded into stainless steel damaged fuel containers.

Id. at 2.1-3. As discussed above with respect to Contention D, Facilitation of Decommissioning, the DOE will also require damaged fuel to be "encapsulated."

Moreover, none of the other vaguely described alternative measures for retrievability, as described in § 8.2.4.7 of the SAR, are a part of the proposed facility design. They are merely suggested as possible means of satisfying the regulations, rather than submitted in satisfaction of the regulations. Therefore, they need not be addressed. For example, § 8.2.47 vaguely refers to a "procedure" in the HI-STORM SAR for transfer of the damaged canister to a "HI-STAR" metal storage cask, but the procedure admittedly requires "a site specific seismic analysis, equipment to vacuum dry and backfill the HI-STAR cask with helium, and a pressure monitoring system to ensure the integrity of the mechanical seal." SAR at 8.2-41. The proposed design of the facility contains none of this information or equipment, and thus it constitutes pure speculation by the Applicant. Similarly, the SAR describes two TranStor

procedures involving equipment and systems not contained in the Applicant's proposed design, and in one case an amendment to the Certificate of Compliance for the cask. SAR at 8.2-42. As such, they remain only a possibility, and not a commitment. Finally, the Applicant vaguely suggests, as "[a]nother method of recovery," a "portable dry transfer system." SAR at 8.2-42. Concededly, this is not a part of the PSFS design. Id. Therefore, because these vaguely suggested alternatives have not been submitted as design features intended to satisfy the NRC's regulations, they need not be addressed in a contention.

Because the Commission itself has determined that it is necessary that spent fuel be retrievable in order to allow the verification of its condition, it is not necessary for the State to factually justify the need inspection and maintenance of spent fuel. Nevertheless, the State has adequately supported the factual basis for this contention, and it should be admitted.

Response to Applicant's Proposed Rephrasing of Contention J:

The State does not oppose the rewording of the contention, with the exception that it should be amended to note the failure to comply with 10 CFR § 72.122(l). Moreover, the contention is not limited to the assertion that a hot cell is needed. The State seeks a reasonable and safe means for inspecting, maintaining, and retrieving fuel, which may consist of a hot cell or other means.

REPLY: CONTENTION K (Inadequate consideration of credible accidents)

The Staff does not oppose the admission of this contention except insofar as it asserts that the Applicant is required to evaluate the risk of accidents occurring at the Rowley Junction intermodal transfer point or elsewhere during transportation. Staff's Response at 32. The Applicant opposes this contention because it claims, among other assertions, that the SAR § 2.2 covers potential risks posed by surrounding facilities, and that transportation or intermodal transfer point accidents are beyond the scope of this licensing action. *See* Applicant's Answer at 146-165.

The Applicant claims that, pursuant to the guidance provided by NUREG-1567, Standard Review Plan for Spent Fuel Dry Storage Facilities (Draft), § 2.4.2, U.S. NRC, October 1996, it has discussed potential hazards from "[a]ll facilities within an 8-km (5-mi) radius . . . , as well as facilities at greater distances, as appropriate to their significance." Applicant's Answer at 148. Furthermore, the Applicant argues, "PFS has thoroughly considered the potential risks posed by these facilities in section 2.2 of the SAR." *See* Id. But this later so called consideration is contained in barely three and a half pages of cursory overview. Moreover, the Applicant dismisses potential accidents without supporting its conclusion. The State has provided a number of facts that demonstrate a material dispute with the Applicant's analysis. For example, the State discussed various hazardous activities at the Tekoi Test Facility to refute the Applicant's unsubstantiated claims that any explosion from the facility would be

dispersed because the facility is 2.5 miles from the ISFSI and Hickman Knoll, located between the facility and ISFSI, is over 287 feet higher in elevation than the Tekoi Test facility. Utah Contention at 74; SAR at 2.2-1.

In discussing facilities at greater than a five mile radius from the ISFSI, the Applicant briefly mentions only the U.S. Army's Dugway Proving Ground, including Michael Army Air Field, and Tooele Army Depot (SAR at 2.3-2 to -4), not "a number of other facilities and military installations," as claimed in Applicant's Answer at 148. Moreover, the application provides no support for the conclusion that Dugway Proving Ground (Dugway) poses no credible hazard because of the relative distance and the intervening Cedar Mountains. SAR at 2.2-2. Without a detailed analysis, it is impossible to understand how the Applicant reached such a conclusion given Dugway's location at the mouth of Skull Valley, only 8 miles from the proposed ISFSI site, and the diversity of hazardous activities which may not simply be contained by the Cedar Mountains, as claimed by the Applicant. *See* State's Contention K at 74. In fact, on December 10, 1997, an advanced cruise missile launched from a B-52 bomber that had taken off from Minot Air Force Base in North Dakota veered off course and crashed two miles from its intended target, destroying two trailers at Dugway, only 20 miles from the residential area, English Village, and biological and chemical agent facilities.[18] *See* news reports, Salt Lake Tribune, attached hereto as Exhibit 4. A cruise

[18] English Village and the chemical and biological facilities are located approximately 8 miles from the proposed ISFSI site. State's Contention K at 74.

missile, like other hazardous activities conducted at Dugway could easily escape past Dugway's boundaries, not only at the mouth of Skull Valley, but over the Cedar Mountains. Thus, the Applicant cannot discount all hazardous events in the area wholesale by simply concluding that the mountain range will contain any and all hazards.

The Applicant also asserts that the concerns outlined in the State's Contention regarding military aircrafts in the area "echoes that of the petitioner in Carolina Power & Light Company," where the Board rejected a contention that the safety analysis was deficient because it failed to consider "consequences of terrorist commandeering a very large airplane . . . and diving it into the containment." Applicant's Answer at 151. In addition, the Applicant cites 10 CFR § 50.13, in concluding that "military style attacks with heavier weapons are not a part of the design basis threat for commercial reactors." Id. In this contention, the State is not addressing the possibility of terrorist activity or "military style attacks." The State is not claiming that the branches of the U.S. military might attack the ISFSI, but that the proposed location for the ISFSI is in the near vicinity of ongoing hazardous military activities involving various military aircraft, firing of military weapons, explosives, and chemical and biological agents. Thus, because the Applicant proposed its location in an area which undergoes routine hazardous activities, the activities and their potential impact must be closely evaluated to ensure protection of public health and safety.

Furthermore, contrary to Applicant's complaint (*see* Applicant's Answer at 152) that the State has failed to "quantify what 'occasionally' means" in the State's concern about "hanging bombs" in the vicinity of the proposed ISFSI, the Affidavit of David C. Larsen, recites that "[a]pproximately five times per year a munition becomes stuck and does not drop from the bomber" which must then land at Dugway. State's Exhibit 8 to Contentions at ¶ 8.

The Applicant also argues that in determining an in-flight crash rate the State failed to provide any factual bases to show the need to include flights which do not originate or end at Michael Army Airfield, Dugway Proving Ground. Applicant's Answer at 154. First, distressed commercial aircraft in the process of crashing may not have the ability to refrain from restricted military airspace. As stated in the contention, commercial aircraft flight patterns run parallel to the Stansbury Mountains, (State's Contention at 76) and a distressed plane may crash on either side of the Stansbury Mountains, including near the ISFSI.

Next, with respect to the probability of aircraft crashes in the vicinity of the site that do not originate or end at Michael Army Airfield, two Air Force F-16C fighter jets collided in midair during a training exercise on January 7, 1998. One of these jets crashed in a "fireball" in the Utah Test and Training Range ("UTTR"), a facility located 18.3 miles from the proposed ISFSI (*see* State's Contentions at 76) and a facility completely ignored by the Applicant in its license submittal. The other

damaged jet managed to fly adjacent to the proposed ISFSI site and land at Michael Army Airfield. The very next day, January 8, 1998, an unlikely coincidence happened: another F-16C fighter jet crashed and exploded in the UTTR just north of Interstate 80 and west of the intermodal transfer point.[19] *See* news releases from the U.S. Air Force home page, attached hereto as Exhibit 6.

The recent nearby military accidents raise the possibility of explosive debris striking a cask at over 126 miles per hour. The Holtec HI-STORM cask is designed to only withstand a tornado missile strike of an 1,800 kilogram object, an 8 inch diameter rigid cylinder, or a 1 inch diameter steel sphere traveling at 126 miles per hour. Topical Safety Analysis Report for the Holtec International Storage and Transfer Operation Reinforced Module Cask System (HI-STORM 100 Cask System), Holtec Report HI-941184. Thus, the recent events point to the credibility of a cask breach.

Response to Applicant's Rephrasing of Contention K:

The State objects to the Applicant's rephrasing of Contention K as it unacceptably narrows the Contention's scope.

REPLY: CONTENTION L (Geotechnical)

The Staff does not oppose this contention. Staff's Response at 33. The

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[19] Note, thirty-seven crashes of F-16's have originated out of Hill Air Force base in the last 19 years. *See* Salt Lake Tribune news article, attached hereto as Exhibit 5. Hill Air Force Base, Utah, conducts air-to-air and air-to-ground training missions at UTTR, adjacent to the proposed ISFSI site. *See* State Contention at 76.

Applicant does not oppose this contention as rephrased. Applicant's Answer at 168.

Response to Applicant's Rephrasing of Contention L:

The State will address the Applicant's rephrasing of Contention L at the prehearing conference.

REPLY: CONTENTION M (Probable Maximum Flood)

The Staff does not oppose this contention. Staff's Response at 34. The Applicant does not oppose this contention as rephrased. Applicant's Answer at 169.

Response to Applicant's Rephrasing of Contention M:

The State will address the Applicant's rephrasing of Contention M at the prehearing conference.

REPLY: CONTENTION N (Flooding)

Both the Staff and Applicant object to this contention because it deals with flooding at the Intermodal Transfer Point. Staff's Response at 34-35; Applicant's Answer at 171-172. As more particularly discussed in State's Reply, Contention B, *supra*, the activities and operations important to health and safety at Rowley Junction must be addressed as part of this licensing proceeding. The Applicant proposes and will be responsible for permanent structures, buildings, rail spurs, and highly specialized equipment. *See* SAR § 4.5. Potential flooding, inundating, or swamping of

PFS's operation at the ITP facility are important health and safety issues. Therefore, it raises an admissible issue.

Response to Applicant's Rephrasing of Contention N:

The State objects to Applicant's rephrasing of Contention N in that it attempts to unacceptably narrow the State's Contention.

REPLY: CONTENTION O (Hydrology)

The Staff does not object to this contention except as it imposes requirements at the Intermodal Transfer Point. Staff's Response at 35. *See* State's general discussion in Reply to Contention B, *supra*, on this issue.

The Applicant's main defense is that the State has failed to provide supporting facts or expert opinion. Once again, the Applicant is using the lack of detail in its application as a defense to issues the State is endeavoring to glean from the paucity of information contained in the application such as that relating to the retention pond, sewer/wastewater system, etc. The issues raised in Contention O relate primarily to water contamination which is a health and safety concern. Contention O raises material issues disputing the Applicant's assessment of the construction, operation, decommissioning and regional impact of the ISFSI on these health and safety concerns.

In any event, this contention is supported by adequate factual information. The State thoroughly identifies the factual information that is missing from the application,

and discusses the reasons that the information is necessary. The State has provided more than sufficient specificity and basis to warrant the admission of the contention.

Response to Applicant's Rephrasing of Contention O:

The State objects to the rephrasing of Contention O but would agree to the following:

The Applicant has failed to adequately assess the health, safety and environmental effects from the construction, operation and decommissioning of the ISFSI and the potential impacts of transportation of spent fuel on groundwater, as required by 10 CFR §§ 72.24(d), 72.100(b) and 72.108, with respect to the following contaminant sources, pathways, and impacts:

1. Contaminant pathways, ~~including those~~ from the applicant's sewer/wastewater system, the retention pond, facility operations and construction activities.
2. Potential for groundwater and surface water contamination.
3. The effects of applicant's water usage on other well users and on the aquifer.
4. Impact of potential groundwater contamination on downgradient hydrological resources.

REPLY: CONTENTION P (Inadequate Control of Occupational and Public Exposure)

The Applicant and Staff both oppose to this contention. Applicant's Answer at

187-206; Staff's Response at 37-39. The State replies to the Applicant's cask system selection and offsite dose estimates and reserves the right further defend this contention at the pre-hearing conference.

Contention P states that the Applicant has not provided enough information to meet NRC requirements for controlling and limiting the occupational radiation exposures to as low as is reasonably achievable and analyzing the potential dose equivalent to an individual outside of the controlled area from accidents or natural phenomena events. State's Contentions at 109. The Applicant cites the definition of ALARA[20] in its response to Contention P. Applicant's Answer at 191. The Applicant then concludes that "ALARA does not require the selection of only a spent fuel storage system with the 'lowest does rates, as the State contends" and thus, the State's contention should be rejected. Id. However, the Applicant, neither in the application nor its answer, describes how its chosen cask system, rather than one with the lowest dose rate, meets the ALARA criteria specified in 10 CFR 72.3. The application merely states that the spent fuel storage system vendors "have incorporated a number of design features to provide ALARA conditions." SAR at 7.1-5. In addition, the application

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[20]ALARA means "as low as low as is reasonably achievable taking into account the state of technology, and the economics of improvement in relation to -

(1) Benefits to the public health and safety,

(2) Other societal and socioeconomical considerations, and

(3) The utilization of atomic energy in the public interest."

10 CFR § 73.2.

refers to a number tables displaying various does rates. SAR Tables 7.3-1 to 7.3-8.

As delineated in the State's contention, at no place in the application, does the Applicant describe "why the two cask vendors were chosen" (State Contentions at 110) and in comparison to other casks how the two chosen cask systems meet ALARA considering "technology, and the economics of improvement in relation to benefits to the public health and safety, other societal and socioeconomical considerations, and the utilization of atomic energy in the public interest" as required by 10 CFR § 72.3.

The Staff relies on the Applicant's statement that "the release of radioactive material is controlled in compliance with 10 CFR §§ 72.106 and 72.126(d)" and maintains that the State's Contention should be rejected because the State failed to address the Applicant's analysis and conclusion. Staff's Response at 38. However, the Applicant bases its compliance on an analysis of design events, including "earthquake, extreme wind, flood, explosion, fire, hypothetical storage cask drip/tip-over," etc. Id.

The overall design event analysis is dependent upon control factors derived from the individual analysis of specific events. To a limited extent, the Applicant describes the individual analysis of those specific events in various part of the application, *e.g.*, seismic analysis is described in Section 2 of the SAR. However, the State has detailed deficiencies in a number of the Applicant's individual event analyses, such as geotechnical analysis (State Contention L at 80-95), and the Probable Maximum Flood analysis (State Contention M at 96-99), neither of which contentions were

opposed by the Staff or the Applicant.

Because of the discrepancies identified in other contentions, the validity of the overall design event analysis, without more, is in question and places in doubt the Applicant's compliance with 10 CFR §§ 72.106 and 72.126(d). This contention should not be rejected.

Response to Applicant's Rephrasing of Contention P

The State generally objects to the Applicant's rephrasing of its Contention P (Applicant's Answer at 187-189), but would not object to the following:

> The Applicant has not provided enough information to meet NRC requirements of controlling and limiting the occupational radiation exposures to as low is reasonably achievable (ALARA) and analyzing the potential dose equivalent to an individual outside of the controlled area from accidents or natural phenomena events in that:
>
> 1. The Applicant has failed to provide detailed technical information demonstrating the adequacy of it's policy of minimizing exposure to workers as a result of handling casks, nor does it describe the design features that provide ALARA conditions during transportation, storage and transfer of waste. Specifically, if the design has incorporated ALARA concepts, the storage casks used at the ISFSI should have the lowest dose rate.
>
> 2. The Applicant has failed to provide an analysis of alternative cask handling procedures to demonstrate that the procedures will result in the lowest individual and collective doses.
>
> 3. The Applicant has failed to adequately describe why the Owner Controlled Area boundaries were chosen and whether the boundary dose rates will be the ultimate minimum values compared to other potential boundaries.
>
> 4. The Applicant has failed to indicate whether rain water or melted snow

from the ISFSI storage pads will be collected, analyzed, and handled as radioactive waste.

5. The Applicant has failed to provide design information on the unloading facility ventilation system to show that contamination will be controlled and workers will be protected in a manner compatible with the ALARA principle. In addition, procedures to maintain and ensure filter efficiency and replace components are not provided.

6. The Applicant has failed to provide adequate or complete methods for radiation protection and failed to provide information on how estimated radiation exposures values to operating personnel were derived to determine if does rates are adequate.

7. The Applicant has failed to describe a fully developed radiation protection program that ensures ALARA occupational exposures to radiation by not adequately describing:
   a. the management policy and organizational structure to ensure ALARA;
   b. a training program that insures all personnel who direct activities or work directly with radioactive materials or areas are capable of evaluating the significance of radiation doses;
   c. specifics on personnel and area, portable and stationary radiation monitoring instruments, and personnel protective equipment, including reliability, serviceability, equipment limitation specifications;
   d. a program for routine equipment calibration and testing for operation and accuracy;
   e. a program to effectively control access to radiation areas and movement of radiation sources;
   f. a program to maintain ALARA exposures of personnel servicing leaking casks;
   g. a program for monitoring and retaining clean areas and monitoring dose rates in radiation zones to ensure ALARA; and
   h. specific information on conducting formal audits and review of the radiation protection program.

8. The Applicant has completely failed to include an analysis of accident conditions, including accidents due to natural phenomena, in accordance with 10 CFR §§ 72.104 and 72.126(d).

9. The Applicant has failed to control airborne effluent which may cause unacceptable exposure to workers and the public, Contention T, Basis 3(a) (Air Quality) is adopted and incorporated by reference.

REPLY: CONTENTION Q (Analysis of ISFSI Design to Prevent Accidents)

Both the Applicant and Staff oppose this Contention, generally on the grounds that the contention lacks adequate basis. Applicant's Answer at 207-15; Staff Response at 39. The State contends that the basis provided in Contention Q (pp. 114-15) is adequate and will further address this issue at the prehearing conference

Response to Applicant's Rephrasing of Contention Q:

The State opposes the Applicant's rephrasing of Contention. However, the State will address this issue more fully at the prehearing conference.

REPLY: CONTENTION R (Emergency Response)

The lack of specificity and detail in the Applicant's Emergency Plan forms the primary basis for the State's Contention R. The Applicant rejects what it terms as the State "laundry list"of concerns stating that those concerns are outside the scope of Part 72 or, otherwise, the information the State is after is contained in the application. *See e.g.*, Applicant's Answer at 220. The Staff asserts that no regulatory basis exists for evaluation of the Applicant's off-site emergency response, the State has cited the incorrect regulation, and the State has not described the alleged failures in the plan

with specificity. Staff Response at 48-49.

The State acknowledges that it mistakenly cited to 10 CFR § 70.22, instead of 10 CFR § 72.32, when it introduced the basis for its contention. State Contention at 116. However, in the substantive discussion, the State cites the correct regulation. *See* State Contentions at 120. Furthermore, an inadvertent reference to an incorrect citation should not be the basis for rejecting a contention because "[p]leadings [] need not be technically perfect, even under the revised rules." Sacramento Municipal Utility District, (Rancho Seco Nuclear Generating Station), LBP-93-23, 38 NRC 200, 212 (1993). The NRC Staff is eager to oppose Contention R because, according to the Staff, the State inappropriately cites to Reg. Guide 3.67 instead of NUREG-1567. Staff Response at 41-42. However, NUREG-1567, Appendix C at C-1, states, "RG 3.67 'Standard Format and Content for Emergency Plans for Fuel Cycle and Materials Facilities,' constitutes the principle [sic] guidance on the preparation of emergency plans for ISFSI or MRS installations." *(emphasis added).* Moreover, the substantive basis for the State's contention, notwithstanding a mistaken introductory reference, is adequate to describe the deficiencies in the Applicant's Emergency Plan.

As stated in State's Contention R at 117, rather than specificity in the Emergency Plan, the Applicant defers to its "Emergency Plan implementing procedures." The Applicant's answer is that the mechanical details implementing the procedures are not suitable for litigation. Applicant's Answer at 220. But contention

R is concerned with the lack of sufficiency in the plan as it relates to the "implementability" and "adequacy of planning" – factors that are the hallmark of good emergency planning. *See* Applicant's Answer at 220, *citing* Carolina Power & Light Co. and North Carolina Municipal Power Eastern Agency (Shearon Harris Nuclear Power Plant, Units 1 and 2), LBP-84-29B, 20 NRC 389, 408 (1984).

In response to the State's argument that the Applicant must describe how it will procure a capable crane within 48 hours, the Staff claims that § 72.32(a)(5) does not require a description of "equipment" necessary to restore the site to a safe condition. Staff Response at 46. The State disagrees. It is not merely a description of the equipment that the State claims is necessary but the Applicant's ability to implement its Plan that is at issue. Section 72.32(a)(5) requires the Emergency Plan to include:

> A brief description of the means of mitigating the consequences of each type of accident, including those provided to protect workers onsite, and a description of the program for maintaining the equipment.

The reason that the implementability and adequacy of planning to mitigate the consequence cask tip over in 48 hours is important is because the Applicant relies on a cask design that requires the storage cask to be uprighted within 48 hours "to restore natural convection cooling before temperatures exceed design criteria." EP at 3-4. The State in Contentions L (Geotechnical) and late filed contentions EE and GG (failure to demonstrate cask-pad stability during a seismic event) demonstrate the credibility of

cask tip over and an earthquake beyond design basis. Therefore, adequate planning on the part of the Applicant to employ a capable crane at the site is crucial to mitigating the consequence of cask tip over. Given the location of the ISFSI, the Applicant's mere statement that a capable crane "would be temporarily procured" is a grossly inadequate plan. EP at 3-4. The Applicant's answer that it may have the flexibility to rely on a reasonable *ad hoc* response does not mean that the Applicant can have no plan at all. Applicant's Answer at 233.

Response to Applicant's Rephrasing of Contention R:

The State does not object to the Applicant's rephrasing of Contention R.

REPLY: CONTENTION S (Decommissioning)

The NRC Staff does not oppose admission of Contention S as stated in basis 1, 2, 4, 5 and 10. Staff Response at 49.

The Applicant argues that the standards established in Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-96-1, 43 NRC 1 (1996) (hereinafter Yankee I), Yankee Atomic Electric Co. (Yankee Nuclear Power Station), LBP-96-2, 43 NRC 61 (1996) (hereinafter Yankee II), and Yankee Atomic Electric Co. (Yankee Nuclear Power Station), CLI-96-7, 43 NRC 235 (1996) (hereinafter Yankee III) are applicable to "many if not all of the State's eleven decommissioning subcontentions." Applicant's Answer at 238 - 39. Contention S challenges the Applicant's ability to provide

sufficient funding for decommissioning and questions the Applicant's cost estimates. The status of Yankee Nuclear Power Station (Yankee Rowe facility) is entirely different from that of this Applicant, which is a newly formed limited liability company with no track record. The Yankee Rowe facility had existing rate based contracts. These firm contractual agreements had been a matter of public record for many years. Yankee III, 43, NRC at 259. Thus, the ability to raise funds was not the issue in the Yankee cases. In Contention S the State has shown the comprehensive failure in the Applicant's decommissioning funding, both with respect to estimates and ability to raise funds. The Applicant has not shown the reasonable likelihood of having the money it needs for decommissioning, so the estimates are relevant. Clearly, health and safety are jeopardized when the Applicant does not have sufficient money set aside to meet the costs of decommissioning.

The Applicant's response to the State's assertion that the decommissioning plan must include contingency costs in the event that the ISFSI cannot be decommissioned at the end of the license term due to the unavailability of disposal or alternate storage, is that it is barred as a matter of law. Applicant's Answer at 224, *citing* 10 CFR § 51.23(a). The fact that fuel may be stored on site beyond the license term is a distinct possibility. According to a 1993 GAO report Yucca Mountain may not open until between 2015 and 2023. Yankee II, 43 NRC at 72. Assuming the license is issued to PFS in 2000 and Yucca Mountain begins to accept fuel in 2020, not all fuel would be

interred at Yucca Mountain even by the end of the initial license term plus a 20 year renewal (*i.e.*, by 2040). DOE's prognosis for spent fuel acceptance for the first ten years is 8,200 MTU.[21] The Transportation of Spent Nuclear Fuel and High Level Waste, Nevada Nuclear Waste Project Office (September 10, 1996) at 15, attached to OGD's Contentions as Exhibit 4. After acceptance year ten, the rate would be 3,000 MTU annually. Id. Thus, by 2040 DOE would have accepted a total of 38,200 MTU. However, unlike other interim storage facilities authorized under the Nuclear Waste Policy Act, which by statute must have spent fuel removed no later than three years following fuel acceptance at a permanent repository or MRS, the PFS ISFSI is de-linked from Yucca Mountain. 42 USC § 10,155(e). It is probable that fuel from the PFS ISFSI will not have priority of receipt at Yucca Mountain. Therefore, it is reasonable to require this yet to be constructed facility to include contingent costs in the realistic event the ISFSI cannot be decommissioned at the end of the license term.

The Applicant also argues that an admissible contention "must allege more than mere uncertainty" and that "[i]t is unreasonable to require as much precision of an applicant's proposed decommissioning procedures at the time of licensing as will be required of its final procedures at the time of decommissioning." Applicant's Answer at 239, *citing* Yankee I, 43 NRC at 8. Another argument by the Applicant is that "[c]hallenges to the reasonableness of an applicant's decommissioning cost estimates are

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[21] The 8,200 MTU is computed as follows: In acceptance year one, 400 MTU; in acceptance year two, 600 MTU; then 900 MTU in years three through ten.

not admissible unless the petitioner shows that 'there is no reasonable assurance that the amount will be paid," and "[w]ithout such a showing, the only relief available would be the 'formalistic redraft of the plan with a new estimate.'" Applicant's Answer at 239-240, *quoting* Yankee I at 9.

Contrary to the Applicant's argument, the State has made this showing. First, as more fully discussed in State's Reply, Contention E, (Financial Assurance), *supra*, the Applicant is not an established electric utility company but a newly formed limited liability company. Clearly, the Applicant, devoid of any financial history or assets, cannot rely on its own unsubstantiated statements of promised funding, whether through a letter of credit or other means, to demonstrate reasonable assurance of providing funding. The Applicant further argues that assurance of obtaining funds need not be an "ironclad" one. Applicant's Answer at 240, *citing* Yankee III at 260. The State is not asserting that the Applicant provide "ironclad" assurance; it is asserting, however, that the Applicant be required reasonably to demonstrate its ability to secure the selected financial mechanism – in this case, a letter of credit, as required by the regulations. This it has not done.

Second, the Applicant argues that "[s]hort of an allegation of 'gross discrepancy' in the decommissioning cost estimate" the contention is inadmissible. Applicant's Answer at 240. The State's contention describes apparent contradictions and discrepancies in cost estimates, as well as unsubstantiated figures to the extent that

there is anything of substance to analyze in the application. *See* State Contentions at 126. The accumulation of potential discrepancies hidden in unsubstantiated statements and cost estimates could result in gross discrepancies, but without additional information it is an unreasonable burden to require specific claims beyond the examples that State has already cited in Contention S. For example, in Contention S, the State points to a $4 per square foot discrepancy in the Applicant's cost to decontaminate cask surfaces. This gross disparity could result in underestimating costs by 500% in 1997 dollars. Id.

Finally, unlike the Yankee cases, redrafting of a plan is not the only relief available to the State. Also, the Commission's policy that it considers decommissioning of an existing nuclear power plant to be a foregone conclusion in not applicable here.[22] As stated in Yankee II "[i]n contrast to the construction permit and operating licensing actions that brought Yankee Rowe into existence, there is not a 'no action' alternative in connection with facility decommissioning." Yankee II, 43 NRC at 82, n 6. In this case the proposed ISFSI is still seeking a license and decommissioning is not a foregone conclusion. Alternative relief may be granted by denying the license for failure to accurately estimate and provide reasonable assurance that the amount necessary for decommissioning will be available as required by 10 CFR § 72.30(b).

Response to Applicant's Rephrasing of Contention S:

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[22] "It clearly is Commission policy that all commercial nuclear facilities will be decommissioned." Id., citing 10 CFR § 50.82(f).

The State objects to the rephrasing of Contention S.

REPLY: CONTENTION T (Inadequate Assessment of Required Permits and Other Entitlements)[23]

The NRC Staff does not oppose the admission of this contention, with two exceptions. Staff's Response at 52.

The Applicant's response to State's Contention T addresses the issue of state jurisdiction over activities on the Skull Valley Reservation and the state role in water administration and applicability of state permits.

A. State Jurisdiction on Skull Valley Reservation.

The Applicant challenges (at 271-279) the State's authority to enforce otherwise applicable air quality and ground water regulations because the proposed storage project will be located on the reservation of the Skull Valley Band of Goshute Indians, and asserts (at 274) that State law has no application to activities in "Indian Country." This is a simplistic and misleading statement of the pertinent law which recognizes State civil-regulatory authority in the case of some on-reservation activities, particularly where those activities have off-reservation effects.

State civil-regulatory authority over tribes and tribal members has been recognized in a variety of circumstances, including record keeping and collection

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[23] This contention is supported by the Declaration of Lawrence A. White, Exhibit 1.

responsibilities for state cigarette sales taxes (Washington v. Confederation Tribes of Colville Indian Reservation, 447 U.S. 134, 159-60, 65 L.Ed.2d 10, 100 S.Ct. 2069 (1980) and Moe v. Confederated Salich and Kootenai Tribes, 425 U.S. 463, 482-83, 48 L.Ed.2d 96, 96 S.Ct. 1634 (1976)), state regulation of on-reservation liquor sales by tribal members for off-premises consumption (Rice v. Rehner, 463 U.S. 713, 732-33, 77 L.Ed.2d 961, 103 S.Ct. 3291 (1983)), and tribal member fishing practices (Puyallup Tribe, Inc. v. Department of Game, 433 U.S. 165, 53 L.Ed.2d 667, 97 S.Ct. 2616 (1977)).

Under the Supremacy Clause of the United States Constitution (article VI, cl.2), state laws clearly in conflict with federal law or policy are preempted. However, federal preemption of state law will not be lightly inferred.[24] Preemption will only be found where there is express statutory language signaling an intent to preempt and the courts

> infer such intent where Congress has legislated comprehensively to occupy an entire field of regulation, leaving no room for the States to supplement federal law, . . . or where the state law at issue conflicts with federal law, either because it is impossible to comply with both . . . or because the state law stands as an obstacle to the accomplishment and execution of congressional objectives[.][25]

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[24] International Paper Co. v. Ouellette, 479 U.S. 481, 491, 93 L.Ed.2d 883, 107 S.Ct. 805 (1987) and Rice v. Santa Fe Elevator Corp., 331 U.S. 218, 230, 91 L.Ed. 1447, 67 S.Ct. 1146 (1947).

[25] Northwest Central Pipeline Corp. v. State Corporation Comm'n, 489 U.S. 493, 509, 103 L.Ed.2d 509, 109 S.Ct. 1262 (1989); *accord* English v. General Electric Co.,

Where, as here, a variety of state, federal and tribal interests are involved, the Supreme Court has held that, "there is no rigid rule by which to resolve the question whether a particular state law may be applied to an Indian reservation or to tribal members,"[26] and that what is needed is a "particularized inquiry into the nature of the state, federal and tribal interests at stake, an inquiry designed to determine whether in the specific context, the exercise of state authority would violate federal law."[27] In connection with such a preemption analysis, "any applicable regulatory interest of the state must be given weight."[28]

In connection with the balancing of federal, tribal and state interests required to determine whether state civil-regulatory authority can be enforced on an Indian reservation, the courts have held that an important consideration is whether the on-reservation activity in question has potentially serious off-reservation effects. "A State's regulatory interest will be particularly substantial if the State can point to off-reservation effects that necessitate State intervention" New Mexico v. Mescalero Apache Tribe, 462 U.S. 324, 336, 76 L.Ed.2d 611, 103 S.Ct. 2378 (1983); *accord* Rice v. Rehner, 463 U.S. 713, 724, 77 L.Ed.2d 961, 103 S.Ct. 3291 (1983).

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496 U.S. 72, 79, 110 L.Ed.2d 65, 110 S.Ct. 2270 (1990); California Fed. Savings & Loan Ass'n v. Guerra, 479 U.S. 272, 280-81, 93 L.Ed.2d 613, 107 S.Ct. 683 (1987); Cotten Petroleum Co. v. New Mexico, 490 U.S. 163 (1989).

[26] White Mountain Apache Tribe v. Bracker, 448 U.S. 136, 142, 65 L.Ed.2d 665, 100 S.Ct. 2578 (1980).

[27] Id. at 145.

[28] Id. at 144.

State interest may also be greater where a third party locates a pollution source on tribal trust lands primarily to avoid State regulation. In the case of State of Washington v. Confederated Tribes of the Colville Indian Reservation, 447 U.S. 134, 65 L.Ed.2d 10, 100 S.Ct. 2069 (1980), the Court held that the state could tax on-reservation sales of cigarettes at tribal smokeshops to nonmembers who traveled to the shops to purchase cigarettes sold at a lower cost because state taxes were not being paid. The Court's reasoning was as follows:

> We do not believe that principles of federal Indian law whether stated in terms of preemption, tribal self-government, or otherwise, authorize Indian tribes thus to market an exemption from state taxation to persons who would normally do their business elsewhere.

Id. at 155 (*emphasis added*). In the case of California v. Cabazon Band of Mission Indians, 480 U.S. 202, 219-220, 94 L.Ed.2d 244, 107 S.Ct. 1083 (1987), the court recognized that state claims to jurisdiction are stronger where the tribe is primarily marketing an exemption from state laws.

In making the preemption analysis required in the instant case, several things are important to consider:

1. Even though comprehensive federal pollution control statutes have been enacted, the legislation gives states the right to adopt programs that parallel or exceed federal pollution standards. These provisions constitute a clear recognition by Congress that state authority in the

area is not excluded. Specifically, Section 510 of the Federal Water Pollution Control Act recognizes the right of Utah to adopt and enforce water quality protections. 33 U.S.C. §1370. Similarly, the federal Clean Air Act, Section 116, retains Utah's authority over air pollution sources. 42 U.S.C. §7416.

2. Tribes have the right to seek authority to administer some federal pollution control programs, to adopt pollution standards, and to organize a regulatory capability of their own. However, the Skull Valley Band has taken none of these steps, and thus its interest in preserving self-government will not be a factor.

3. State interests are substantial – the potential sources of pollution are located very close to important off-reservation resources and the State has a direct interest in consistent, comprehensive regulation of resources within the State. The effectiveness of State programs could be undermined if less stringent federal standards are applied to tribal lands, and especially if potentially pollution-emitting sources are induced to locate within Indian reservations as a way of evading State regulations.

As has been amply demonstrated, the statement (at 274) in the Applicant's response to the State's contentions that pertinent State air quality and ground water regulations have no application because the proposed project is located on an Indian

reservation is incorrect. In fact, the required preemption analysis leads inevitably to the conclusion that State law dealing with the vital matters of air and ground water has not been preempted and that it is enforceable.

B. Reserved Water Rights and State Control

The Applicant reaches incorrect conclusions in its discussion of the issue of the Goshute's reserved water rights. Applicant's Answer at 279-280. The water law of Utah embodies the appropriation doctrine. Priority and quantity of a water right are established by the date and in the amount the water was first put to beneficial use. Congress has recognized this state system in determining reserved water rights for federal lands. United States v. City and County of Denver, 656 P.2d 1, 4-8 (Colo. 1982). The Courts developed a reserved water rights doctrine which was formally identified in Winters v. United States, 207 U.S. 564 (1908). Under Winters, tribes hold implicitly reserved water rights. Congress has attempted to integrate reserved water rights into state water appropriations systems by authorizing states to adjudicate such rights in general adjudication proceedings and to administer those rights.

In 1952, the Congress passed the McCarran Amendment, waiving the sovereign immunity of the United States and allowing it to be named as a defendant in state water rights general adjudication and administration proceedings. In Colorado River Water Conservation District v. United States, 424 U.S. 800 (1976), the Supreme Court held that the McCarran Amendment allowed Indian water rights to be adjudicated in

state court by suing the United States in its role as trustee for the tribes. The Court has stated that the intent of Congress in enacting the McCarran Amendment was to subject all federal water rights of whatever nature to comprehensive state proceedings. Arizona v. San Carlos Apache Tribe, 463 U.S. 545 (1983).

The reserved rights of the Goshute Skull Valley Reservation have not as yet been determined either in quantity or priority through a State general adjudication proceeding. It is clear that all water, both surface and ground water, on and within the reservation are held in trust by the State of Utah. Utah Code Ann. § 73-1-1. The Goshutes may have reserved rights to an as yet undetermined quantity of water. The exact quantity must be determined by assessing the "practicably irrigable acreage." That quantification standard was established by the Supreme Court in Arizona v. California (Arizona I), 373 U.S. 546 (1963) and (Arizona II) 460 U.S. at 605 (1983). *See also* In Re Big Horn River System, 835 P.2d 273 (Wyo. 1992).

The appropriation, adjudication, and supervision of diversion and distribution of recognized water rights for both surface water and ground water are functions of each state water law system. The Goshute Tribe's reserved rights are subject to that Utah State system. In United States v. Anderson, 736 F.2d 1358 (9th Cir. 1984), the court upheld the State of Washington's permitting authority with respect to unappropriated waters on the Spokane Indian Reservation. Appropriators are entitled to the maintenance of the conditions substantially as they existed on the date they first

exercised their rights. Orr v. Arapahoe Water and Sanitation Dist., 753 P.2d. 1217 (Colo. 1988). The State of Utah and water rights holders have direct interests in the surface water and ground water on the Goshute Skull Valley Reservation, and specifically so where the proposed PFS facility affects quality and quantity of water use beyond the reservation boundary.

PFS argues that even assuming the State has jurisdiction over discharges to ground water from the reservation, PFS is not required to obtain a ground water discharge permit from the State. Applicant's Answer at 276. Even if the proposed facilities do come within the category of facilities that are permitted by rule, PFS is required to obtain a ground water discharge permit under the provisions of Utah Admin. Code R317.6.6.2C. The Executive Secretary of the Utah Water Quality Board has determined that the proposed facilities may interfere with probable future beneficial uses of the ground water, and has determined a permit is necessary. *See* letter from Don Ostler, Executive Secretary, Utah Water Quality Board, to John D. Parkyn, Chairman of the Board, Private Fuel Storage, L.L.C., dated July 8, 1997, attached hereto as Exhibit 7.

PFS argues that the State has failed to point to any existing water rights which the Applicant's activities are likely to impair or interfere with. The State is the trustee for all surface and ground water in the State and is so recognized by federal law, as discussed above. That direct interest must be protected and forms the basis for the

water portions of this Contention.

The State has recently assumed responsibility and control over the Skull Valley Road. *See* Minutes of Utah Transportation Commission, dated December 4, 1997, attached hereto as Exhibit 8. Any road improvements must be performed in cooperation with the State and meet State requirements. These issues should be addressed under the requirements of 10 CFR § 51.45(d).

NRC Staff, incredibly, opposes the State assertion that the entire lease with the Skull Valley Band of Goshutes must be produced. Staff's Response at 52. At issue are liability provisions and financial arrangements. That information is critical to evaluation of the license application, because it is necessary to determine the extent to which liability for safety problems may be shifted to the Goshutes as a result of their landlord status, and to assess and evaluate financial arrangements. The Staff gives no reasons for objecting to production of the entire lease agreement, nor is there any apparent basis for withholding it from disclosure.

The State agrees with the Applicant that NEPA requires analysis of likely impacts. There is no question that in the areas of air quality and water quality the proposed ISFSI will likely have impacts, as is described in the State's Contention T.

The Applicant argues that the State has failed to identify any wetlands that may be affected. Applicant's Answer at 277-278. PFS has failed to adequately describe its proposed project, most specifically at the intermodal transfer station and

transportation corridor, making it impossible for the State to identify a specific location. The State has pointed out in Contention T areas where there is significant likelihood of wetlands disturbance, and the application must identify the requirements for Clean Water Act § 404 permits in those areas.

For the reasons stated above and in the State's original filing, the State's contentions in this area have merit and should be retained for further factual development and support.

Response to Applicant's Rephrasing of Contention T:

The State does not object to PFS rephrasing of Contention T with two exceptions:

1. Subparagraph d) should be amended to read:

   d) The Applicant has shown no basis that it is entitled to widen Skull Valley Road or that the proposed 15-foot roadway would satisfy health, safety and environmental concerns nor does the application describe and identify State and local permits or approvals that are required.

2. Subparagraph i) should be amended to read:

   i) The applicant must show legal authority to drill wells on the proposed ISFSI site and that its water appropriations will not interfere with or impair existing water rights and identify and describe state approvals that are required.

REPLY: CONTENTION U (NEPA: Impacts of Onsite Storage not Considered)

The Staff considers Contention U as inappropriate for litigation. Staff Response at 54.

The Applicant for various reasons opposes this Contention. Applicant's Answer at 282-92. The State contends that the basis provided in Contention U (pp. 142-43) is adequate and appropriate for litigation and will further address this issue at the prehearing conference

Response to Applicant's Rephrasing of Contention U:

The State opposes the Applicant's rephrasing of Contention U. However, the State will address this issue more fully at the prehearing conference.

REPLY: CONTENTION V (Inadequate Consideration of Transportation-Related Radiological Environmental Impacts)

The Staff opposes this contention to the extent that it asserts Table S-4 of 10 CFR Part 51 does not apply to an ISFSI, allegedly challenges NRC regulations incorporating Table S-4, and allegedly contends that the Applicant is required to separately consider the environmental impacts of spent fuel storage at Rowley Junction. Staff's Response at 54. However, the Staff appears to accept the contention to the extent that the Applicant's proposal is not enveloped by Table S-4 and various other NRC environmental evaluations following the issuance of Table S-4. The Applicant opposes the contention in its entirety.

Neither the Staff nor the Applicant effectively controverts the showing by the State that by its own terms, the regulation containing Table S-4 does not apply to the

licensing of an ISFSI. Rather, it is limited to construction permits for nuclear power plants. Contrary to the Staff's argument, it is not "too simplistic" and "unfounded" to apply the regulations as they are written.[29] Staff's Response at 55. See also Applicant's Answer at 297-300. For one thing, a party's opinion of a regulation does not constitute grounds for ignoring its plain language. For another, the circumstances involved in evaluating a construction permit are quite distinct from those involved in licensing an ISFSI. At the construction stage for a nuclear reactor, the removal and transportation of spent fuel from the nuclear power plant site are too far off to be addressed with great precision. Of necessity, predictions must be somewhat general. At the stage when these steps are about to be carried out, and are indeed the central focus of the proposed action, they are more capable of the hard look required by NEPA. As the D.C. Circuit recognized in Calvert Cliffs Coordinating Committee v. AEC, 449 F.2d 1109, 1118 (D.C. Cir. 1971), an agency must evaluate environmental impacts to the "fullest extent possible." A much more searching inquiry is required at this stage than was required for the issuance of construction permits to the licensees of the reactors whose fuel is to be stored at the ISFSI.

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[29] The Staff suggests, but wisely avoids actually arguing, that Table S-4 is applicable under 10 CFR § 72.34, which requires applicants for ISFSI's to "meet the requirements of Subpart A of Part 51, which includes 10 CFR § 51.52 and Table S-4. Staff's Response at 55, note 55. Subpart A contains a host of requirements, only some of which apply to an ISFSI, or even to a private entity. For example, all of the requirements for preparation of EIS's by the NRC are contained in Subpart A. It would be absurd to read Section 72.34 to require compliance with these obviously inapplicable provisions.

The Staff concedes that to the extent pre-existing NRC environmental analyses do not envelope the proposal, the Applicant may need to address the environmental impacts of the proposal. Staff's Response at 62. Moreover, the Staff does not appear to object to most of the areas in which the State demonstrates that existing studies are inadequate to address the transportation-related environmental impacts of the proposed ISFSI. However, the Staff opposes the litigation of sabotage-related issues. Staff's Response at 61. According to the Staff, the Licensing Board is precluded from considering sabotage, based on NUREG-0170, an environmental "study" that was prepared over 20 years ago and accepted by the Commission as the basis for a finding that sabotage poses no significant risk to fuel in transit. Staff's Response at 61. However, the existence of a rulemaking in which the NRC made a generic determination about the environmental risks of sabotage does not automatically preclude the State from raising the issue of sabotage. As discussed above, for each new action proposed by the Commission, NEPA imposes an affirmative obligation to make the fullest possible evaluation of its environmental impacts. This affirmative obligation exists, regardless of whether the Commission has previously reached a generic conclusion about the impacts of that type of proposal. Here, the State has provided substantial and well-documented evidence to demonstrate that NUREG-0170 is based on outdated information, and that new weapons have been developed which

significantly increase the risks posed by sabotage.[30] State's Contentions at 152-153. Accordingly, it has provided sufficient grounds to permit the consideration of sabotage under this contention.

The Applicant argues that under the NRC's regulations, it is not required to evaluate all transportation-related impacts of the proposal, as the State contends, but only regional impacts. Applicant's Answer at 295. The State is not so much concerned with which party – the Applicant or the Staff – is obligated to evaluate the total risks of transportation associated with this proposal, but only that the analysis is carried out, as required by NEPA. Clearly, under NEPA, the Commission may not restrict the scope of a NEPA analysis to a geographic area that is narrower than the actual area of impact. If the Board determines that the Applicant's ER need not discuss transportation-related impacts outside of the region, then the State requests the Board to hold all non-regional aspects of the contention in abeyance until issuance of the EIS.

The Applicant also makes various other arguments, which can only be dealt with briefly here, and will be addressed in more detail in the prehearing conference.

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[30]By the same token, Applicant's argument that a rulemaking petition constitutes the only available avenue for challenging Table S-4 flies in the face of NEPA. Applicant's Answer at 307. NEPA determinations may not be insulated from challenge in the same way that the Commission arguably may insulate safety determinations. For each decision having a significant impact on the human environment, NEPA requires the Commission to evaluate the impacts and weigh their costs and benefits. While there is no question that the Commission may make generic determinations that apply to future specific decisions, NEPA does not allow the Commission to hide behind a generic determination that is demonstrated to be insufficient to address the environmental impacts of the proposal at hand.

First, the Applicant repeatedly argues that the issues raised by the contention are outside the scope of the proceeding, Applicant's Answer at 303, 305. This appears to be an argument that transportation-related environmental impacts cannot be litigated in a licensing proceeding for a storage facility. Clearly, however, the licensing of the storage facility will trigger environmental impacts associated with transportation of the spent fuel to and from the facility. Accordingly, such impacts are litigable here. Thus, for instance, where the intermodal transfer facility constitutes part of the storage facility for purposes of compliance with safety regulations, its environmental impacts must nevertheless be addressed by the Applicant and the NRC.

Finally, the Applicant generally charges that the bases of the contention are unfounded. The deficiencies in the environmental analysis relied on by the Applicant are thoroughly discussed, and are supported by the expert opinion of Dr. Marin Resnikoff, however, and thus this objection has not merit.

Response to Applicant's Proposed Rewording of Contention V:

The State does not oppose the Applicant's rewording.

REPLY: CONTENTION W (Other Impacts Not Considered)

Both the Applicant and NRC Staff oppose the admission of this contention on the basis that the State has not provided sufficient information to support its assertion that the Environmental Report does not adequately consider adverse impacts of the

proposed ISFSI. Applicant's Answer at 310-323, Staff's Response at 63. The State's position is that cumulative impacts, risks of accidents along the Skull Valley Road, flooding, pollution effects, seismic, and visual impacts are not assessed. While these issues are addressed specifically in other contentions, the point of Contention W is that compliance with NEPA requires consideration of these impacts which is a distinctly separate legal requirement from compliance with NRC safety regulations. The State has provided sufficient factual information to support its assertions in the referenced contentions. The absence of consideration of adverse impacts for the identified area as required by NEPA has been detailed in the State's Contention W, and the related contentions. Contention W should be admitted.

Response to Applicant's Rephrasing of Contention W:

The State does not object to the rephrasing of Contention W.

REPLY: CONTENTION X (Need for the Facility)

Both PFS and NRC Staff oppose the admission of this contention on the basis that the State has not provided sufficient information to show there is an issue of fact. Applicant's Answer at 324, Staff's Response at 64. PFS makes the unsupported assertion there is a "need" with no supporting information. NEPA requires an affirmative description and demonstration of need, not an unsupported assertion. Council on Environmental Quality Regulations § 1502.10. On that basis alone this

contention should be admitted.

PFS attempts to explain away the language from the home page of Northern States Power. Cited excerpts from the Frequently Asked Questions part of Northern States Power home page attached hereto as Exhibit 9. It should be noted that this language has apparently now been deleted from the Northern States Power home page. It no longer appears at the site as originally cited. The representations in the cited home page support the State's Contention that need is not adequately discussed or demonstrated.

Response to Applicant's Rephrasing of Contention X:

The State objects to the Applicant's rephrasing of Contention X. The purpose of this contention is to contest the failure to affirmatively describe and demonstrate the purpose and need for the proposed facility as required by NEPA. The facts and discussion outlined by the State in its contention are illustrative of the failure to meet the requirement but do not purport to be a comprehensive listing of all facts supportive of the State's NEPA claim. The rephrasing by the Applicant improperly restricts the scope of the contention to the factual examples set forth in the contention. The contention should be accepted as written.

REPLY: CONTENTION Y (Connected Actions)[31]

[31] This contention is supported by the Declaration of Lawrence A. White, Exhibit 1.

NRC staff objects to this contention as an impermissible challenge to the NWPA and the Commission's regulations. Staff's Response at 65. This contention is not such a challenge. The primary purpose of NEPA is to provide the federal decisionmaker with adequate information on which to make an informed decision. The relationship of the proposed ISFSI to the national high level waste program is a major, significant environmental issue that must be described and addressed for NRC to make an appropriate licensing decision. NEPA requires that as a minimum.

PFS argues that the ISFSI is not a "connected action." Applicant's Answer at 331. For the reasons stated in its Contention the State asserts it is a connected action to the national high level waste program. Even if it is not a connected action requiring a single comprehensive environmental impact statement, at a minimum, an analysis of the relationship and impact on the national program is required under NEPA.

Even if after appropriate debate and inquiry the Commission finds that licensing of the proposed facility is not in conflict with the NWPA, NRC is required to prepare an EIS. Given that the proposed facility is a national-scale facility that will store a significant percent of all spent fuel destined for the repository, the EIS must address the implications of this licensing decision on other spent fuel options under the NWPA. These are connected actions, that at the very least are not "sufficiently distinct" as to not be considered. Siting of such a "national-scale facility" should have input through the NEPA process from affected parties such as States impacted by

transportation, construction, operation, and decommissioning of such facilities. The NRC Staff acknowledge that a no action alternative (Contention Z), range of alternatives (Contention AA), and site selection and discriminatory effects (Contention BB) should be addressed. These issues must be addressed in the context of other spent fuel storage options under the NWPA and not narrowly as currently addressed by the applicant's ER. NRC should take action to ensure the Applicant's ER is sufficient in scope to address these issues.

For this Contention Y, and also for Contentions Z and AA, part of the issue is whether the NRC Staff and PFS have unjustifiably restricted the analysis of the proposed action under NEPA. By narrowly defining the proposed action and not considering its broader consequences, the NRC Staff and PFS are not complying with the intent or process of NEPA. Specifically, by virtue of its large size and private operation, the proposed ISFSI does not fit the model of small-scale storage the NRC staff and PFS are using in designing their analyses. The ISFSI should be interpreted as being analogous to an MRS that has broader implications for high-level waste storage nationally, and should be analyzed under NEPA to consider these broader environmental consequences.

NRC Staff in its response, surprisingly and amazingly, states CEQ regulations do not apply, citing to various exemption provisions in the NWPA for preparation of an environmental impact statement under NEPA. The NRC Staff concludes these

exemptions affect the scope of an EIS for the proposed ISFSI. Staff's Response at 67-68. Those exemption provisions in the NWPA apply to federal interim storage, a high level waste repository, and a monitored retrievable storage facility, which we do not have here. Because no exemption exists for the proposed license, a complete NEPA EIS is required. The fact that exemptions exist for other types of facilities supports the State's position that a comprehensive EIS is required because no exemption applies to the current circumstance.

Although NRC is only assessing the proposed project as an private independent facility (*i.e.*, the narrowest possible context), the project is in reality a large, national facility storing about half the amount of spent fuel expected to be generated by the year 2030 and destined for the repository, and nearly two thirds of the capacity allowed for commercial spent fuel storage at Yucca Mountain, the first repository, and should therefore be evaluated in that context. Implications for licensing the proposed project include practically foreclosing DOE and Congressional decisions on future spent fuel storage. NEPA directs NRC to consider these connected actions and elevate its analysis to the programmatic level as necessary. This problem of ignoring the implications of licensing the proposed project on the national high-level waste program is segmenting connected actions or failing to consider cumulative effects.

In Thomas v. Peterson, 753 F.2d 754 (9th Cir. 1985) the court held that the effects of related future actions that were sufficiently certain should be analyzed with the

proposed project. Based on this interpretation, NRC is required to consider the consequences of creating a de facto national facility for the storage of high-level nuclear wastes.

NRC contends that CEQ regulations, that the NRC has not expressly adopted, are not binding, although they are entitled to "substantial deference." This statement is a reference to the decision in Andrus v. Sierra Club, 442 U.S. 347 (1979), where the Court relied on its own interpretation of NEPA and did not hold that the CEQ regulations were controlling. Lower federal court cases since Andrus have held that the 1978 CEQ regulations are controlling (Sierra Club v. U.S. Army Corps of Engineers, 701 F.2d 1011 (2d Cir. 1983); Sierra Club v. Sigler, 695 F.2d 957 (5th Cir. 1983)).

Even though agencies, such as NRC, are expected to adopt NEPA regulations that comply with the CEQ regulations, CEQ does not have the authority to revise these regulations if they do not comply. Nonetheless, federal agencies are subject to judicial review if the agency is challenged. The case law indicates that it is likely that the courts will not accept NRC's position of ignoring CEQ regulations and will find that its environmental analysis is inadequate in regard to considering connected actions of the national high-level nuclear waste program. *See* Sierra Club cases cited *supra.* Court decisions will also likely be influenced by Congressional intent that with respect to federal facilities, there is a requirement for comprehensive public and stakeholder involvement in a proposed project.

Response to Applicant's Rephrasing of Contention Y:

The State objects to the Applicant's rephrasing of Contention Y. The State's contention properly states the NEPA requirement. Applicant's rephrasing simply attempts to limit the scope of the contention by use of specific phrases from the State's discussion.

REPLY: CONTENTION Z (No Action Alternative)

The NRC Staff does not oppose the admission of this contention. Staff's Response at 68. PFS again resorts primarily to the "impermissible collateral attack" argument. Applicant's Supplemental Answer at 6, 8. NEPA requires definition of a "no action" alternative. The decisionmaker is required to consider a "no action" alternative. The analysis and description required by NEPA is not satisfied by other processes and proceedings.

The major part of the additional arguments presented by PFS go to factual issues which are disputed. The existence of these factual arguments support the need for consideration of this contention.

See also State's replies to Contentions W and Y.

Response to Applicant's rephrasing of Contention Z:

The State objects to the Applicant's rephrasing of Contention Z. The State's contention properly states the NEPA requirement. Applicant's rephrasing simply

attempts to limit the scope of the contention by use of specific phrases from the State's discussion.

REPLY: CONTENTION AA (Range of Alternatives)

NRC Staff does not oppose the admission of this contention. Staff's Response at 69. PFS objects to the contention because the State has provided no basis to "challenge the sufficiency of the 38 candidate sites"(Applicant's Supplemental Answer at 16) and because the State "ignored relevant material submitted by the Applicant" (Applicant's Supplemental Answer at 15).

NEPA does not require establishing the "sufficiency" of alternative sites, nor does it simply require the identification of "relevant material" on alternatives. NEPA does require that an Environmental Impact Statement include a discussion of the range of "reasonable alternatives." The Environmental Report does not constitute an adequate Environmental Impact Statement for purposes of NEPA as is described in the State's Contention. Surely PFS is not arguing that the Environmental Report constitutes an adequate NEPA EIS.

PFS misses the point of the State's contention. The contention is that NEPA has not been complied with. Nowhere does the State argue that PFS is required to send questionnaires "to all 38 site owners," as claimed by PFS. Applicant's Supplemental Answer at 17. NEPA does require an adequate description and

assessment of alternatives as is described in its contention.

The NRC cannot unduly restrict the range of alternatives considered. The consideration of alternatives under NEPA has been called both the "heart" and the "linchpin" of the EIS. Neither the intent nor the letter of NEPA are met if the NRC does not consider reasonable alternatives to achieving the purpose of the proposed project. Because the purpose of this project is prodigious, the range of alternatives needs to be on a comparable scale.

Courts have even gone so far as to hold that agencies must consider alternatives even though they are measures which the particular agency or official cannot adopt. Natural Resources Defense Council, Inc. v. Morton , 458 F.2d 827 (D.C. Cir. 1972). Later cases also support the requirement that the agency consider alternatives, even those outside the jurisdiction of the agency. *See* Libby Rod & Gun Club v. Poteat, 457 F. Supp. 1177 (D. Mont. 1978), *aff'd and rev'd in part on other grounds*, 594 F.2d 742 (9th Cir. 1979) (alternative power sources or energy conservation for a proposed dam) and A.T. & S.F. Ry. Co. V. Callaway, 382 F. Supp. 610 (D.D.C. 1974) (other modes of transportation as alternative to improvement of river navigation). Most cases have adopted a rule that alternatives must be discussed which relate to the purposes of the project. In this case, this rule means that NRC must consider reasonable alternatives to siting a large, national-scale spent fuel storage facility. Courts have not been willing to accept an applicant's project definition as the basis for narrowing the range of

alternatives. Van Abbema v. Fornell, 807 F.2d 633 (7th Cir. 1986); Sierra Club v. Marsh, 714 F.Supp. 539 (D. Me. 1992)).

Part of this issue is whether the range of the alternatives agencies must consider is more limited when the agency considers an action proposed by a private applicant. CEQ clearly points out that NEPA does not provide any justification for a dual standard (CEQ Guidance Regarding NEPA Regulations, 48 Fed. Reg. 34,263, 34,266 (1983)).

See also State's reply to Contentions W and Y.

Response to Applicant's rephrasing of Contention AA:

The State objects to the Applicant's rephrasing of Contention AA. The State's contention properly states the NEPA requirement. Applicant's rephrasing simply attempts to limit the scope of the contention by use of specific phrases from the State's discussion.

REPLY: CONTENTION BB (Site Selection and Discriminatory Effects)

The NRC Staff does not oppose the admission of this contention, but requests a clarification of the State's use of the term "investigation." Staff's Response at 69. The State is not seeking an "investigation" of this matter by the NRC Office of Investigations. It is seeking compliance with the President's Executive Order No. 12898 and NEPA.

PFS spends 10 pages arguing over what is or is not required by the Executive

Order and NEPA. The State's assertion is that the process of site selection used by PFS cannot be relied upon as meeting those requirements. NEPA and Executive Order No. 12898 must be complied with by NRC. There is ample justification under NEPA for considering Environmental Justice in this proceeding. By virtue of the large size and unique status of the project, the siting of the ISFSI must receive specific attention.

Response to Applicant's rephrasing of Contention BB:

The State objects to the Applicant's rephrasing of Contention BB. The State's contention properly states the NEPA requirements and requirements of Executive Order No. 12898. Applicant's rephrasing simply attempts to limit the scope and meaning of the contention by use of specific phrases from the State's discussion.

REPLY: CONTENTION CC (One-Sided Costs-Benefit Analysis)

The NRC Staff does not oppose the admission of portions of this contention, to the extent that the Staff does not oppose the admission of Utah Contentions H through P. Staff's Response at 70. The NRC Staff does take the position that because the State has not demonstrated any reason to believe that the Applicant's discussion is deficient, the "assertion is therefore lacking in the requisite basis." Id.

The Environmental Report is deficient on its face, as is described in the State's contention. Both PFS and the Staff would appear to start from the presumption that if

anything is on paper, it must be adequate. The standard for determining adequacy is listed in10 CFR § 51.45(c). The brief discussion in Section 7.3 of the Environmental Report does not meet the requirements of 10 CFR § 51.45(c). 10 CFR § 51.45(c) requires "analysis which considers and balances the environmental effects of the proposed action and the alternatives available for reducing or avoiding adverse environmental effects, as well as the environmental, economic, technical and other benefits of the proposed action." That analysis is just simply not included in the report.

PFS's approach is to shift the burden to the State. Under the rule, it is PFS's burden to "quantify" the various factors considered, and if they cannot be quantified, provide an explanation on why qualitative considerations are appropriate. 10 CFR § 51.45(c). No quantification or analysis is included in the report. PFS points to ER Chapter 5 in response to the State's claim that adverse environmental impacts are weighed against alleged benefits. Applicant's Supplemental Answer at 41. Chapter 5 on "Environmental Effects of Accidents" does not meet the requirement for analysis of environmental effects. 10 CFR § 51.45(c) is not limited to accidents. The State's point is there is no analysis. The State cannot address the parts that are allegedly defective where there is no analysis. Even ignoring the specifics contained in the State's contention, the failure to do an analysis is sufficient as the basis for this contention.

A final example is reflective of the deficiencies in the ER. PFS cites to the

Environmental Report, Table 7.3.-1 that emergency response costs are quantified. Applicant's Supplemental Answer at 43. Table 7.3-1 does not contain a category for emergency response costs. PFS claims it is lumped into operating expenses. So what are the costs? How can you evaluate information that is not provided? The entire Table 7.3-1 is so general, without any supporting information or breakdown of information, it is useless. Surely, 10 CFR § 51.45(c) was intended to require more.

Response to Applicant's rephrasing of Contention CC:

The State does not object to the Applicant's rephrasing of Contention CC.

REPLY: CONTENTION DD (Ecology and Species)

NRC Staff does not oppose the admission of this contention to the extent that it is limited to the Applicant's discussion of the impacts on the peregrine falcon at the Timpie Springs Waterfowl Management Area, adjacent to the Rowley Junction ITP. Staff's Response at 71. The NRC Staff, likewise, does not oppose the admission of the State's issue concerning the Applicant's discussion of livestock and farm animals. Id.

PFS is inconsistent in the Environmental Report by stating, on the one hand, that construction activities will temporarily disturb resident wildlife species and yet, on the other hand, stating that construction will be ongoing for over twenty years, citing the ER at 4.1-4 to 6. Applicant's Supplemental Answer at 46-47. Nowhere in those pages is there an identification of long term impacts for the twenty year

construction period.

The State presents a significant issue of the potential for contaminated ground or surface water. Any spills of radioactive material, chemicals used at the facility (*i.e.* lubricating or cleaning chemicals), or other sources of pollution will be collected in the retention pond. There is no discussion in the ER of potential effects of these contaminants on surface and ground water and wildlife, aquatic organisms, or vegetation as required by 10 CFR §§ 72.100 and 72.108 and NEPA.

NRC Staff argues that the State has presented no basis for asking that mitigation plans be provided. Staff's Response at 73. In evaluating environmental impacts, how can you determine whether impacts will be mitigated, if you don't know what the mitigating measures will be? Both NRC rule 10 CFR § 72.100, requiring an evaluation of the effects on the regional environment, and NEPA rule under CEQ Regulation § 1502.16 require at a minimum a description of mitigation measures.

To demonstrate adequacy of its ER on the peregrine falcon, PFS lists the provisions in the ER § 2.3.2.4 which concludes that the peregrine falcon nests are "not located in the vicinity" of the proposed intermodal transfer station. The Timpie Springs Waterfowl Management Area is adjacent to the proposed intermodal transfer station and therefore the impact on this federally endangered species must be addressed.

Responding to PFS's argument on the adequacy of information on pocket

gophers, the State's position is that a survey of pocket gopher mounds must be done to properly be able to describe and determine the effects on the environment resulting from construction, operation and decommissioning of the ISFSI. 10 CFR § 72.100. The reason for the survey is to meet the requirements of this section.

The Great Salt Lake is adjacent to the intermodal transfer station and transportation routes. In addition, the water drainage from the area of the proposed ISFSI goes to the Great Salt Lake. The impact of any spill or other discharge to the Great Salt Lake or into the drainages which discharge into the Great Salt Lake must be evaluated to meet the requirements of 10 CFR § 72.100, and NEPA. Furthermore, the potential impact on the environment of the transportation of high-level radioactive waste and use of a transfer station in the vicinity of the Great Salt Lake must be evaluated to meet the requirements of 10 CFR § 72.108.

The Applicant acknowledges in the ER that additional studies must be done to identify species and develop mitigation plans prior to construction. The State asserts that to meet the requirements of 10 CFR §§ 72.100 and 72.108 and NEPA, the information must be obtained and included in the ER. PFS inconsistently criticizes the State for not identifying any other plant or species of concern, yet acknowledges it doesn't know what is there because it hasn't done the study. The listed sections and NEPA require the Applicant to identify what is there.

Response to Applicant's rephrasing of Contention DD:

The State does not object to PFS rephrasing of Contention DD with one exception:

Subparagraph d) (iv) should be amended to read:

d) (iv). The License Application fails to include information on pocket gopher mounds which may be impacted by the proposal.

IV Categorization of Contentions

In accordance with the Board's January 6, 1998 Order, the State categorizes its Contentions into one of the following four categories:

Safety: relates primarily to matters discussed in the PFS Safety Analysis Report (SAR).

Environmental: relates primarily to matters discussed in the PFS Environmental Report (ER).

Emergency Planning: relates primarily to matters discussed in the PFS Emergency Plan (EP).

Other: does not fall into one of the three categories outlined above.

SAFETY: Contentions [C through Q and S; Late-filed Contentions EE though GG]

ENVIRONMENTAL: Contentions [T through DD]

EMERGENCY PLANNING: Contentions [R]

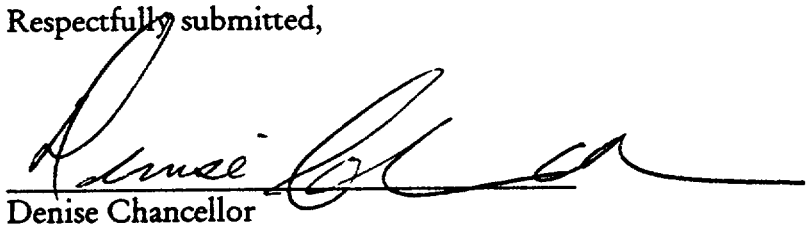
OTHER: Contentions [A and B]

V. Adoption by Reference of other Participant's Contentions

The State is willing to forego the adoption of other Petitioners' contentions at this time, so long as it may have to opportunity to adopt other Petitioners' admitted contentions at some later date.

DATED this 16th day of January, 1998.

Respectfully submitted,



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CERTIFICATE OF SERVICE

I hereby certify that copies of STATE OF UTAH'S REPLY TO THE NRC STAFF'S AND APPLICANT'S RESPONSE TO STATE OF UTAH'S CONTENTIONS A THROUGH DD were served on the persons listed below by Electronic Mail (unless otherwise noted) with conforming copies by First class mail this 16th day of January, 1998:

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Washington, DC 20555
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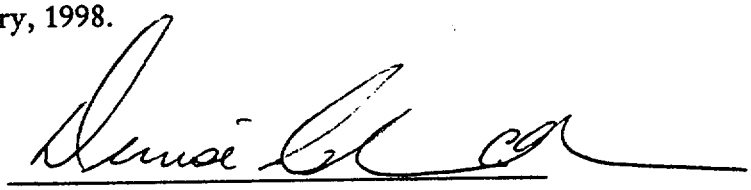
Dated this 16th day of January, 1998.



Denise Chancellor
Assistant Attorney General
State of Utah

EXHIBIT 1

UNITED STATES OF AMERICA

BEFORE THE U.S. NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
PRIVATE FUEL STORAGE, L.L.C.	)	
(Independent Spent Fuel Storage Installation)	)	Docket No. 72-22-ISFSI
	)	
	)	January 16, 1998
	)	

REPLY DECLARATION OF DR. MARVIN RESNIKOFF

I, Dr. Marvin Resnikoff, declare under penalty of perjury that:

1. I am the Senior Associate at Radioactive Waste Management Associates, a private consulting firm based in New York City. On November 20, 1997, I prepared a declaration which was submitted to the Licensing Board by the State of Utah in support of its contentions regarding Private Fuel Storage, L.L.C.'s proposed Independent Fuel Storage Installation. A statement of my qualifications is attached to that declaration.

2. I am familiar with Private fuel Storage's ("PFS's") license application and Safety Analysis Report in this proceeding, as well as the nonproprietary versions of applications for the storage and transportation casks PFS plans to use. I am also familiar with NRC regulations, guidance documents, and environmental studies relating to he transportation, storage, and disposal of spent nuclear power plant fuel, and with NRC decommissioning requirements.

3. I assisted in the preparation of, and have reviewed, the State of Utah's Reply to PFS's and NRC Staff's Responses to Utah Contentions A through DD, regarding failure to comply with NRC dose limits; inadequate facilitation of decommissioning; inadequate thermal design; inadequate inspection and maintenance safety components, such as canisters and cladding, inadequate training; inadequate quality assurance program; inadequate consideration of credible accidents, lack of a procedure for verifying presence of helium in canisters; and failure to consider impacts of onsite storage and transportation of spent nuclear fuel. The technical facts presented in the State's Reply regarding those contentions are true and correct to the best of my knowledge, and the conclusions drawn from those facts are based on my best professional judgment.

Dr. Marvin Resnikoff

EXHIBIT 2

UNITED STATES OF AMERICA

BEFORE THE U.S. NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
	)	
PRIVATE FUEL STORAGE, L.L.C.)		
	)	Docket No. 72-22-ISFSI
(Independent Spent Fuel	)	
Storage Installation)	)	January 14, 1998
	)	

DECLARATION OF LAWRENCE A. WHITE, PE

I, Lawrence A. White, PE declare under penalty of perjury that:

1. I am an Executive Vice President of Versar, Inc., an engineering and consulting firm headquartered in Springfield, Virginia. I have extensive experience in the areas of nuclear licensing, radioactive waste management, including the siting, design construction, operation, and decommissioning of nuclear facilities, the National Environmental Policy Act (NEPA), NRC regulations and licensing procedures, and the Nuclear Waste Policy Act of 1982. Copies of my resume and a description of Versar, Inc. are attached as Exhibit 1 to the contentions filed by the State of Utah in this proceeding on November 23, 1997.

2. I am familiar with Private Fuel Storage's ("PFS's") License Application, Safety Analysis Report and Environmental Report in this proceeding, as well as the storage and transportation casks PFS plans to use. I am also familiar with NRC regulations, NRC guidance documents, and with NEPA documentation requirements and environmental, scientific, and engineering studies relating to the transportation, storage and disposal of spent nuclear fuel. I also have reviewed the PFS's and NRC Staff's responses to the State of Utah's Contentions A through DD.

3. I assisted in the preparation of, and have reviewed, the State of Utah's Reply to PFS's and NRC Staff's Responses to Utah Contentions A through DD dealing with general NEPA issues, the intermodal transfer site, geotechnical, financial assurance, ISFSI design, and emergency planning requirements. The technical facts presented in those contentions are true and correct to the best of my knowledge, and the conclusions drawn from those facts are based on my best professional judgment.

Lawrence A. White, PE

January 14, 1998

Date

EXHIBIT 3

MISSILE TAKES WRONG TURN AT DU ... 12/11/97

Salt Lake Tribune

Types: Nation-World

Published: 12/11/97

Page: A1

Keywords: Military; UT; Weapons; Accidents General

Caption: Jump pg A10: Steve Baker/The Salt Lake Tribune graphic: missile Runs Amok (map)

Missile Takes Wrong Turn At Dugway; Accident Wrecks Controls For Japanese Telescopes; Missile Wrecks Trailers In Western Utah

Byline: BY JOHN HEILPRIN and LEE SIEGEL THE SALT LAKE TRIBUNE

An Air Force cruise missile flew out of control and crashed during a test Wednesday, wrecking two unoccupied trailers containing computers that control Japanese cosmic-ray telescopes at the Army's Dugway Proving Ground.

``Both of them [trailers] were essentially destroyed or received extensive damage as a result of the impact,'' said Lt. James Wilson, spokesman for the 388th Fighter Wing at Hill Air Force Base, which operates the Utah Test and Training Range at Dugway.

He said there were no injuries.

The 20-foot-long advanced cruise missile was launched from a B-52 bomber that had taken off from Minot Air Force Base, N.D., Wilson said. After failing to make a turn as planned over Dugway, the missile crash-landed at 2:46 p.m. in a remote area two miles from its intended target. Wilson said the missile's payload was an unarmed dummy warhead.

Air Force officials weren't immediately sure if the missile hit the two trailers or simply wrecked them by crashing nearby, Wilson said.

``We've already begun our investigation to figure out what went wrong with this test, and obviously we'll use that to prevent a future mishap,'' he said.

Hill spokesman Bill Orndorff said the trailers were ``leased to the University of Tokyo, and the computers inside were their equipment.''

Pierre Sokolsky, a University of Utah physicist, said seven Japanese telescopes, which operate only at night, are located on the southwest edge of the Cedar Mountains, approximately 18 miles northwest of base facilities at English Village.

The missile ``was activated and tumbled and lost control'' but did not damage the telescopes near the trailers, said Richard Koehn, vice president for research at the U., which helps run the Japanese project.

``Does the Air Force have a means of compensating us for our losses?'' Koehn wondered.

Cruise missiles can be fired from ships, ground launchers or planes. They are

computer-controlled and follow land contours to avoid detection.
Sokolsky said U. physicists had been unable by Wednesday night to locate Japanese physicists who run the telescopes, so they ``are at the moment unaware that this transpired."
The accident ``is certainly a setback" for the Japanese cosmic-ray project, said Craig Taylor, physics chairman at the U.
He said the computers are ``the brains for running the telescopes, and they [Japanese scientists] will have to reconstitute the computers that were lost in order to get the system up and running again."
The Japanese project is one of three existing or planned cosmic-ray observatories in Utah.
The U.'s Fly's Eye cosmic-ray observatory was built at Dugway in the early 1980s and is undergoing a $10 million upgrade. The seven Japanese telescopes at Dugway initially were meant to be prototypes for a $50 million set of 100 telescopes named the Telescope Array. A third cosmic-ray observatory, the $50 million Pierre Auger Project, has been proposed in central Utah's Millard County.
But funding problems in the United States and Japan have prompted physicists to consider merging Japan's Telescope Array and a proposed second upgrade to the Fly's Eye into a single project named the Snake Array, which would make observations jointly with the Auger Project.
The Snake Array would include sets of cosmic-ray telescopes on 11 hills stretching 140 miles in a snake-like path from Dugway south to Millard County.
Sokolsky said the Snake Array would not be built for several years, so the mishap's implications for the project remain uncertain.
However, ``this clearly shows that accidents do happen out there," he said. ``We'll have to evaluate what that means long-term and make sure the safety of life and limb is preserved."
All three projects are aimed at finding the mysterious source of ultrahigh-energy cosmic rays, which bombard Earth and are the most energetic particles in the universe. A single subatomic cosmic-ray particle carries the force of a fast-pitched baseball. In 1991, the Fly's Eye detected the highest-energy cosmic ray discovered to date.
Scientists believe ultrahigh-energy cosmic rays might be generated by supermassive black holes, the centers of active galaxies, the mysterious ``dark matter" that may make up much of the universe, or perhaps the breakdown of theorized ``cosmic strings" left over from the birth of the universe.

EXHIBIT 4

The Salt Lake Tribune

PREVIOUS NEXT Thursday, January 8, 1998 SECTION HOME

Pilots Safe After Midair Collision

BY JOHN HEILPRIN
THE SALT LAKE TRIBUNE

Two Air Force F-16C fighter jets collided in midair during a training run Wednesday, injuring both pilots and destroying one of the $20 million aircraft.

Pilots Paul Hertzberg and Scott Hufford were treated for minor injuries from the 1:30 p.m. collision over the Utah Test and Training Range, 105 miles west of Hill Air Force Base, officials said.

Hertzberg safely ejected from his crippled jet, which crashed in a fireball. Hufford managed to land his damaged single-engine fighter at Michael Army Airfield at Dugway Proving Ground. Both pilots are with the 421st Fighter Squadron.

Hertzberg was picked up by a Utah Army National Guard helicopter about 17 miles from where the planes collided, and was flown to a hospital at the base for treatment. Hufford was treated at the scene.

CLICK HERE
Visit the U.S. Air Force Web page for more details.

The collision, which occurred over the remote area of western Utah desert, was the first midair collision for active-duty jets stationed at Hill since the base opened in 1940. The base oversees maintenance for more than 3,900 F-16s for the United States and 17 other nations.

``Luckily in this crash, since it happened on the range, there was nothing in the way,'' said Air Force spokesman Rob Koon, speaking from the Pentagon.

It wasn't the first midair crash in Utah. In 1987, a SkyWest Metroliner and Mooney aircraft crashed over Kearns, killing 12 people.

Wednesday's collision took place while six F-16Cs were training for air-to-air combat. Four jets in a fanlike formation were acting as the ``blue air,'' or good guys. Two others, side-by-side, were taking the offensive as the ``red air,'' or bad guys.

Hufford, on the red team, hit Hertzberg, on the blue team, while playing a supersonic game of hide-and-seek, according to Air Force officials. That much is known, though investigators likely will take months to figure out exactly what happened.

``Unfortunately, we can't be sure who collided with who,'' said Dennis Mehring, spokesman for the 388th Fighter Wing. ``Fortunately, there were no reports of any serious injuries.''

The F-16Cs were carrying inert AIM9 Sidewinder missiles bolted to the jets. During training, the missiles are used only for the electronic eye that pilots see through for targeting.

Fuel from Hertzberg's jet -- one of 70 active-duty F-16s belonging to the 388th and 419th fighter wings at Hill -- apparently caused the explosion.

``I don't know how much is left of it. Presumably not much,'' Mehring said. ``We believe it to be a total loss.''

An interim safety investigation board has been formed to probe the cause of the incident, officials said, while a convoy of military personnel was dispatched to the scene Wednesday night.

The Air Force has 809 F-16s in use, including those at Hill. There are four types: A and C are single-seaters, while B and D are two-seaters.

Last year, during more than 369,000 collective flying hours, there were 11 major accidents in the United States and one death involving the jets.

Hill was the first base to have an operational wing for F-16s. It also is the nation's only major maintenance base for F-16s, which can travel faster than twice the speed of sound, or more than 1,200 mph.

Since the fighters arrived at Hill in 1979, there have been 37 F-16 crashes -- and no deaths.

Last February, for example, two Hill pilots were injured when their two-seater F-16 was struck by a bird. Midair crashes by U.S. military planes are rare, however.

There have been three recent ones outside Utah. Last March, two F-16s collided over the Gulf of Mexico on a training run.

Then in September, two more midair collisions occurred. A U.S. C-141 and a German TU-154 struck each other off the coast of Africa, killing nine Americans and 24 Germans.

Just three days later, two F-16s collided in midair during routine training at New Jersey.

In those F-16 crashes -- as in Wednesday's collision in Utah -- one pilot ejected safely while the other landed the plane.

Hill spokesman Bruce Collins said it takes months for the military to determine the cause of a crash or collision.

``Usually we're not going to find a single cause," Collins said, ``since most accidents are caused by number of factors that all come together at the wrong time."

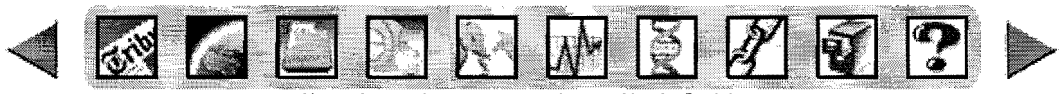


EXHIBIT 5

Air Force News
News Service

Hill F-16s collide, pilots safe

Released: Jan 7, 1998

HILL AIR FORCE BASE, Utah (AFNS) - Two 388th Fighter Wing F-16s collided in mid-air about 1:30 p.m. today over the Utah Test and Training Range, located 105 miles west of Hill AFB.

One aircraft impacted the range and the pilot ejected safely. The pilot was located and transported to a hospital where his condition will be evaluated.

The other aircraft sustained damage and landed safely at Michael's Army Air Field at Dugway Proving Grounds. There was one person on board each aircraft.

An accident board is being formed to investigate the incident. (Courtesy ACC News Service)

EXHIBIT 6

Air Force News
News Service

Another F-16 crashes at Hill Air Force Base

Released: Jan 9, 1998

HILL AIR FORCE BASE, Utah (AFNS) - A 388th Fighter Wing F-16C crashed Jan. 8 while flying a simulated bombing mission over the Utah Test and Training Range near Bonneville Salt Flats, Utah, about 100 miles west of Hill AFB.

The pilot, Lt. Col. Judd Kelley, from the 34th Fighter Squadron, ejected safely from the single-seat aircraft. He was transported to the Hill AFB hospital by a Utah Army National Guard HH-60 Blackhawk helicopter.

Following the accident, the 388th FW cancelled flying for the remainder of the day and Jan. 9.

An accident board is being formed to investigate the accident.

EXHIBIT 7

State of Utah
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER QUALITY

Michael O. Leavitt
Governor
Dianne R. Nielson, Ph.D.
Executive Director
Don A. Ostler, P.E.
Director

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July 8, 1997

John D. Parkyn
Chairman of the Board
Private Fuel Storage L.L.C.
PO Box C4010
La Crosse WI 54602-4010

Dear Mr. Parkyn:

This letter is to notify you that Private Fuel Storage (PFS) will be required to obtain state approvals and permits to insure protection of the state resources of surface water and ground water for the proposed high level nuclear waste storage facility on the Goshute Reservation and for any proposed transfer facility.

Attached is a copy of the state water quality rules.

Sincerely,

Utah Water Quality Board

Don A. Ostler, P.E.
Executive Secretary

DAO:mhf

Enclosure

cc: Mark Delligatti, Nuclear Regulatory Commission

K:\WQ\DIRECTOR\OSTLER\WP\PARKYN.LTR
FILE:PRIVATE FUEL STORAGE LLC

EXHIBIT 8

UTAH TRANSPORTATION COMMISSION

December 4, 1997
Salt Lake City, Utah

The regular meeting of the Utah Transportation Commission, held at 4501 South 2700 West, Salt Lake City, Utah, was called to order at 2:11 p.m. by Commission Chairman Glen E. Brown. He welcomed those in attendance, and recognized elected officials attending. Commissioner Griffith was excused from the meeting. The following Commissioners, staff members and others were in attendance:

Glen E. Brown, Chairman
James G. Larkin, Vice-Chairman
Ted D. Lewis, Commissioner
Hal M. Clyde, Commissioner
Dan R. Eastman, Commissioner
Stephen M. Bodily, Commissioner
LeAnn G. Abegglen, Commission Secretary
Thomas R. Warne, Executive Director
Clinton D Topham, Deputy Director
Linda Toy, Program Development Director
John Quick, Program Development
Jan Yeckes, Program Development
Kim Schvaneveldt, Project Development Engineer
P.K. Mohanty, Preconstruction
Ken Berg, Research
John Neil, Materials
David Miles, Engineer for Operations
Mack Christensen, Traffic and Safety
L. Robert Fox, Chief, Right of Way
Max Ditlevsen, Comptroller
Larry Mitchell, Motor Carriers/Ports of Entry
Randy Hunter, Risk Management
Melanie Buck, Community Relations
Tim Buntrock, Region One
Jim McMinimee, Region Two Director
Tracy Conti, Region Two
David Alvarez, Region Two
Lisa Wilson, Region Two
Carolyn Prickett, Region Two
Alan W. Mecham, Region Three Director
Merrell Jolley, Region Three
Gerald Robinson, Region Three
David Downs, I-15 Team
Brian Wilkinson, I-15 Team
Byron Parker, Legacy Highway Project
Carlos Braceras, Legacy Highway Project
John Baxter, FHWA
Steve Alder, Attorney General's Office

Dee Larsen, Leg. Research & General Counsel
Ben Christensen, Leg. Research
Representative Duane Bordeaux
Representative Brad King
Representative Glenn Way
Mayor Marie Huff, Spanish Fork
Representative Jim Gowans
Teryl Hunsaker, Tooele County Commission
Lois McArthur, Tooele County Commission
Gary M. Griffith, Tooele County Commission
Leon Bear, Chairman, Skull Valley Goshute Indians
Russell Allen, Skull Valley Goshutes
Kenneth Neal, Rose Park Community Council
Marc Heileson, Sierra Club
Mike Hegarty, Michael Baker Jr., Inc.
Pat Winmill, Parsons Brinckerhoff
John Thomas, Sear Brown
Michael Long, DMJM
Beverly Slack, Japai Project Office
Necia Christensen, CHAD Group
Ben Christensen, CHAD Group
Kathy DeJong, CHAD Group
Mary Jane Emrazian, CHAD Group
Carl Stuart, KSL

APPROVAL OF MINUTES

Commissioner Clyde moved to approve the minutes of the November 12, 1997 Commission meeting held in Salt Lake City, Utah. It was seconded by Commissioner Larkin and passed unanimously.

SR 6 THROUGH SPANISH FORK CANYON

Representative Glenn Way thanked the Commission for putting this item on the agenda. He said that he has driven SR 6 from I-15 to Helper many times, and knows the traffic problems associated with the road. He mentioned an article in the Deseret News which said that approximately 50% of all deaths in canyons and along the Wasatch front have happened in Spanish Fork Canyon. And, many times, accidents are caused by people that aren't involved in the accidents. People cutting in and out and passing in oncoming traffic create a lot of problems. Rep. Way also mentioned the backup of cars that occurs on I-15 that are trying to exit onto SR 6.

Mayor Marie Huff of Spanish Fork briefly addressed the Commission. She also spoke about the current conditions that exist on SR 6 and in Spanish Fork Canyon. She said the increase in traffic has been tremendous. There is a need for a wider traffic lane. There have been 33 fatalities in the canyon, including October, this year. And although some widening has been done, a lot of work is still needed on the canyon road. She would appreciate the Commission looking very seriously at something being done

to improve the conditions and make it easier for the traffic that is on the road. The discussion then focused on SR 6 and the I-15 exit.

Commissioner Clyde asked Mayor Huff where she would recommend the department start on SR 6. She replied at the mouth of Spanish Fork Canyon, through the red narrows. It's really bad there. Commissioner Clyde asked Rep. Way the same question. Rep. Way said he recognizes that it would cost over $300 million if there were to be four lanes all the way. He said he would first look at putting in dividers in some areas, but not in areas where there is a passing opportunity.

Representative Brad King spoke. He said he drives the canyon nearly every day in the fall. He talked about the fatalities on the road, and said that Senator Dmitrich is putting together a map that will show exactly where the fatalities are. Rep. King suggested starting with the most dangerous parts of the highway, where it will save the most lives. It's a safety issue, not just a convenience issue that the people in Eastern Utah are concerned about. People don't know where the passing lanes are and take chances when they get tired of following behind a truck. Most of the fatal accidents that happen are head-on accidents. There would be fewer head-on accidents if it was a divided highway. He referred to the STIP program and the funds that have been allocated to widening the road from Price to Wellington to four lanes. He said that he's never heard anyone complain about that road.

Alan Mecham made a few remarks. He said that in his mind, the backup on I-15 occurs southbound with cars trying to get off on Spanish Fork Main Street in the evening, not necessarily on SR 6. It's a free flow ramp all the way to the new signal that was put in on 10th North. Also, there is a $15 million project in the STIP that goes from I-15 to the Moark Junction area, which is the mouth of Spanish Fork Canyon. Mr. Mecham said they just had a concept meeting and they talked about some of these issues through the urbanized section of the road, widening it to four lanes and taking care of some of the traffic increases there. There is also an ongoing future project to put in some passing lanes and some safety features up the canyon. It is part of the Centennial Highway Fund. That is being pursued with passing lane studies and feasibility studies, and the department has about $1 million in the coming year to start the design of that project.

12300 SOUTH IN DRAPER

Tracy Conti explained that since they talked the last time about possibly doing a change order and extending the project to 265 West, Draper City has come back and given a best and final offer, which is to purchase or acquire the right of way. Mr. Conti said he is asking the Commission if the department should proceed with the $1.25 million available for P.E. in the 1998 year, use that for construction, and add this as a change order to the project that was just let last month. Clarification was given as to the exact location of the project. Director Warne said $1.25 million is programmed in FY 98 for the design, or engineering work from the project on 12300 South that was supposed to end at the railroad. He asked Mr. Conti how much money is being requested. Mr. Conti said about $700,000, which leaves about $550,000 to continue the engineering effort on 12300 South. Director Warne said he believes it is a good move to extend the project to 265 West. It makes sense. Draper has been working a long time to make this happen, and right of way was an important part of that.

Commissioner Clyde expressed concern about taking money from design further west where it's still imperative in getting that road done. It seems to be cutting this up into short sections rather than

getting the whole thing further west. The bottleneck is just being moved somewhere else. Director Warne said that the department is particularly concerned with the conditions to relieve the truck traffic, with much of that coming out of Coca Cola. This does resolve that particular issue. The future funding to improve 12300 South to the west would likely come from the Centennial Fund, and that's not programmed at this time. So, it seems prudent to take care of this particular problem at 265 West and leave enough money in there for the engineering work.

Commissioner Lewis moved to adopt the recommendation of the department to move $700,000 of FY 98 planning and engineering money to the project on 12300 South, extending construction to 265 West, and leaving a portion of money for further consideration for the next phase of planning and engineering. Also, Draper City will provide the right of way to accommodate the construction project. It was seconded by Commissioner Clyde and passed unanimously.

I-15 AWARD FEE FOR APRIL THROUGH OCTOBER 1997

Clint Topham explained that the I-15 contract had a provision where the department could pay the contractor up to $50 million in award fees depending on timeliness of performance and quality that was built into the project. That was to be considered in six month periods over the life of the project. The first six month period has come to an end, and they are working on establishing exactly what that fee will be. A process of determining the fee has been put together, and the governor and legislative leadership appointed an oversight committee which included some legislators, some legislative and governor's staff, and some private citizens. Considerable time has been spent in developing the process. There are between 60 and 100 people who are involved in monitoring and evaluating the project. Mr. Topham said that he, Mr. Downs and two of the principals from Wasatch Constructors make up a committee who will review the information that's provided, and will make a recommendation to Director Warne who will then make the final decision on the award that is made. Mr. Topham turned the time over to David Downs for further explanation.

Mr. Downs said that this process is very rigorous and is somewhat complicated. He distributed a handout to the Commission that provides a quick overview of what the award fee is about, and said the award fee is a part of Wasatch Constructor's profit. It was always intended to be a tool used to focus the design builder's attention to some very important areas on the project. The performance is tied to not only their schedule, which is a little over $21 million, but also in three other areas. Those areas are quality, management, and how they deal with maintenance of traffic and informing the public of issues associated with that. This process is not a substitute for the more traditional processes used to assure quality on the job. Just as the department does on any other project, they assure that the project is built to contract standards and specifications. So, the award fee is an effort focused on the processes and systems that Wasatch is putting in place to assure quality, and in essence it's a system to oversee some of the activities of work the department would normally be involved with that have now been turned over to the design builder, such as the quality control/quality assurance program. That's one of the systems that is reviewed as part of the award fee process.

Mr. Downs continued by saying that actual evaluations are performed on a monthly basis, and in actuality, they're performed on a day to day basis. Wasatch Constructors is provided with monthly feedback associated with their performance, and they're involved in these evaluations. Leading up to this

six month determination, to date, they have been meeting on a monthly basis discussing and reviewing performance associated with the award fee. And, as was previously mentioned, there are 60 plus individuals involved in monitoring and evaluating performance. Mr. Downs went into further detail on how performance is assessed. Once the evaluations are completed, they're all put together and given to the award fee oversight committee. Again, a review is done to assure that all of the information is very detailed, thorough, and meets the procedures. Any disagreement in the process between what the contractor is seeing and what the department is seeing, is elevated and discussed to reach a common understanding, and what the expectations and resulting scores are. The executive director of UDOT is where the award fee amount is determined. So, all the efforts of evaluating and scoring really is one big report or recommendation which is forwarded to Director Warne for final determination. Director Warne stated that the department is very comfortable with the process. It's very rigorous and a lot of work, and they feel a significant responsibility in terms of public trust. There was general discussion on the fee amount.

RECOMMENDED CHANGES IN NOISE WALL PROCEDURES

Clint Topham said that two months ago, some decisions about the noise wall program in the Millcreek area were finalized. At that time, the department told the Commission that they would like to go back and take an internal look at the procedure and make some recommendations. Mr. Topham referred to the information under Tab 6 in the Commissioner's binders, and said they are the recommendations they've brought forward to date. He said the department feels that the process should be more inclusive of local governments. In looking at some of the issues that have come before the Commission recently, the department feels that the request should be made through local governments. Also, in regards to the petitioning of the department for noise walls, there is a list of requirements that would be looked at. The local government would look to see whether or not they should even come forward with a petition, whether or not it's adjacent to the right kind of highway, whether or not the receptors are close enough to the highway, and whether or not the people in the area are in favor of it. Then, when a request comes from a local government, UDOT will do a study on that area. The department thinks it's best to do the studies based on a request coming from a community. Then UDOT would study the whole area, take the readings needed, and give out the information based on the model and the number of homes it affects, and not just give individual readings to people along the area. Then, from that information a candidate project list could be developed. All of the areas that meet UDOT's standards would be included, and then presented to the Commission in order of the decibel level, with a recommendation around the decibel level.

Mr. Topham said that there have been some questions as to whether or not the department should just prioritize based on noise level alone, or whether or not the fact that an area has been on the list for a long time ought to come into play in that formula. That could be addressed in a couple of ways. Being able to do the correct studies and keep those studies up to date, that's one way the timeliness can be addressed. Also, the department could recommend to the Commission that a three year program be adopted off the candidate list of projects. And once the three year program has been adopted, to go ahead and build the noise walls on that program regardless of what happens. If a new area came in and had a higher decibel level, it wouldn't replace any projects on the three year program, but could replace some projects on the candidate list. In addition, the Commission doesn't have to prioritize based just on decibel level. The Commission could look at an area and say that particular area has been on the list a long time and something should be done now. The department would like to have a procedure adopted to go along

with the policy. Mr. Topham said that each of the regions have a little different way of going about doing these studies, and the department wants to make sure that it's standardized to a procedure.

Representative Duane Bordeaux briefly spoke. He said that he appreciates the opportunity to address the Commission. He represents District 23, and this has been an issue for some time. He said that he and Senator Suazo are looking at introducing legislation to address some of their concerns, one being that the present rating right now is based only on a decibel reading. They would like to see something in the policy to address how long people have been waiting on the list. The other issue of concern is the money available to build the sound walls.

Kenneth Neal, chair of the Rose Park Community Council, said he's interested in a project that runs along the east side of Victoria Drive, from 900 North to 1400 North. Their project keeps moving down the list because of the ruling that decibel readings only is considered, and some readings may only be .1, .5, or .6 above their project. They're asking for fair treatment, and time on the list ought to be considered on projects that actually get funded.

Commissioner Lewis asked about local governments that refuse to deal with the issue. What recourse is there for citizens who have a legitimate need? Mr. Topham responded that the local government is not being asked for funding, they are being asked to determine whether the community wants the noise wall, and to see if they have laws in place. They need to have a noise ordinance. Also, he said many cities have appreciated being involved and working with the department. Commissioner Lewis suggested that in addition to the amount of time on the list, there ought to be some sort of mechanism for citizens who don't have success with local governments. Commissioner Bodily said he assumed that the local government in an unincorporated area would be the county commission, and he could see situations arising in unincorporated areas where citizens might not get the response they might in a city by going to the local government. He also proposed that the department may want to set some kind of criteria where a project couldn't be bumped by another project unless the decibel level was at a certain degree above it. Commissioner Eastman said that before one group or neighborhood is allowed to go ahead of another, both groups would have to be studied on a concurrent basis. Mr. Topham said that the conclusions he's drawn from today's discussion are that the Commission would like to make sure that peoples needs can be addressed whether or not the local municipality brings something forward, and to look at the issue of length of time on the list, and to see if there's something the department could come up with that is acceptable to the Commission. Chairman Brown mentioned the importance of continuing to review alternative mitigation for noise, independent of walls themselves. Mr. Topham said that the department would like to bring back adjustments to the policy, and also a procedure, at the January meeting.

Commissioner Eastman made a motion to advise UDOT to pursue this concept to a final policy level, and bring it back for approval. It was seconded by Commissioner Lewis and passed unanimously.

RECOMMENDED PEDESTRIAN SAFETY PROGRAM

Clint Topham discussed the proposed pedestrian safety formula. He said that last month there were suggestions made that the department might want to look at, such as future ADT, looking at actual speed rather than posted speed, and looking at limited sight distances as different variables in that equation. He

stated that in regards to current safety issues, the most current data ought to be used and the department ought not to be projecting what it might be in the future. And with the current information on the posted speed in order to use the actual speed, additional studies would have to be done. Using the posted speed in this formula would give the kind of results needed. And, there was only one location where site distance was an issue, and that was at 3100 South, which has already been funded.

Mr. Topham stated that there was one significant change in the formula. One thing that was talked about at the last meeting was putting a denominator in the formula of the cost of the project, which put all of the overpasses at the bottom of the list. The department recommends taking the cost out of the denominator. Mr. Topham referred to the list of projects and said that the projects on the list have been identified by the regions, but it may not be all inclusive yet. The department's recommendation is to adopt the formula on the first page without the cost in it, to prioritize projects for safety, and to look at future enhancement funds that the department might get to fund the safety program. The Commission wouldn't necessarily have to adopt the list today. The department could add any additional projects and evaluate any areas the Commission wants. Mr. Topham said that the department would like the Commission to adopt the formula.

Mary Jane Emrazian from the CHAD Group asked about 4100 South and why it wasn't on the list. It was their next priority after 3100 South. Mr. Topham said it was probably just inadvertently left off, and it will be added to the list. There was additional discussion focusing on the list, the ranking of projects, and funding. Director Warne said that it's the department's recommendation for the Commission to approve the process, then have the department come back at the next Commission meeting, apply the process, and address which projects would be recommended for completion. It's anticipated that the highway bill will be renewed and there will be enhancement money.

Commissioner Lewis moved to approve the approach of using the proposed pedestrian safety formula, without the cost denominator. It was seconded by Commissioner Larkin and passed unanimously.

STIP REVIEW IN RESPONSE TO THE EXTENSION OF ISTEA

Linda Toy said that last month, Congress passed a six month extension of ISTEA rather than doing a multi-year bill. Out of that bill, the department ended up with $89 million in funding that can be spent through May 1, 1998, or it is lost. Based on that, the department went back to the STIP and looked at the program to see if there were any adjustments that needed to be made, and determined that for now there are no adjustments that need to be made. She said the bill does allow for flexibility to move funds from one type of program to another, but when the multi-year ISTEA comes along, those funds have to be restored back to their original category.

Chairman Brown asked about the enhancement money in the $89 million. Ms. Toy responded that there are enhancement projects that have been programmed, and those will proceed as they are already on the program. Clint Topham said that there is no new enhancement money, but the department is spending money out of the enhancement category on projects that have already been programmed and have been moving along through the process and now are ready to be advertised. Ms. Toy said that it is anticipated that the enhancement program will continue in the next ISTEA at least at the same level that it's at now. It's not guaranteed, but it is expected. There was some discussion regarding frozen funds.

I-15 NORTH/LEGACY -- WEST DAVIS HIGHWAY DISCUSSION

Carlos Braceras gave the Commission an update on both projects. He said that their project team is managing the Legacy -- West Davis Highway as well as the I-15 north project because the two projects are very related and they are analyzing those as a solution to the north corridor issue. Handouts were given to the Commission as part of the presentation. Mr. Braceras said that purpose in need for the Legacy project has been demonstrated and the outstanding issue now is alignment location. Right now, the cities support Plan C, which is a western alignment. The Corps of Engineers supports Alternative A, an eastern alignment. He then went into detail about the two alignments and the impacts. In regards to resolving the alignment location issue, Mr. Braceras said UDOT, the cities, the Army Corps of Engineers, the governors' office and members of the legislature have been meeting, attempting to resolve the issue. It has resulted in a coming together of the two alignments, but a complete consensus has not been reached yet. The Corps of Engineers can only permit the least damaging, practical alternative. Mr. Braceras also explained the 404 and NEPA processes and discussed the schedule implications if selection for a preferred alignment is postponed until after the formal public hearing. Chairman Brown talked about the Corps' control based on environmental laws of the country, and expressed concern that the public perceives that they get input, but in reality they don't. There was additional discussion on this topic, mitigation, and an MOA between the Corps and the EPA.

Mr. Braceras next discussed the I-15 North project. He referred to the binders that were given to the Commissioners. He said that the binders have information on the purpose of need for the road, the public involvement process to date, and includes some small pullout maps showing the types of improvements that are being talked about. The project is basically going to be a mirror image of what's being done on the I-15 South project. It will be a ten lane section with four general purpose lanes in each direction and an HOV lane. Both the Legacy and the I-15 North projects need to be moved through the process at the same time. And, if one project is pushed and changed it's going to affect the other project. Mr. Braceras said that they have been working really well with the cities on I-15 North, and feel that there is a general agreement with the local municipalities and the public. They have made several changes to the project due to public input. Interchanges have been eliminated or reconfigured at the public's request. He said the current issue is the HOV access into SLC from the north. SLC doesn't want another access point into the city. Traffic studies show that for HOV to work, there needs to be a separate HOV access from the north, just as there is from the south. That's a key component for the success of both projects. Further discussion ensued.

CONSIDERATION OF ADDING TO THE STATE HIGHWAY SYSTEM F.A. ROUTE 2652 FROM I-80 TO DUGWAY THROUGH THE SKULL VALLEY INDIAN RESERVATION

Director Warne said the Governor has asked that the department bring to the Commission, a proposal that the Commission adopt as a state highway, F.A. Route 2652, which is a county road in Tooele. There is clear compelling state interest involved. Ownership of the road would allow the department to establish regulations and standards regarding the transportation of high level nuclear waste.

Tooele County Commissioner Teryl Hunsaker spoke to the Commission. He said he appreciates the relationship they have had with the Transportation Commission, and the efforts that UDOT has placed in Tooele County. But, they are here today because they don't know what is going on, and they would

like to find out. They feel like they've been ambushed. They were not aware of the Governor's actions until late yesterday afternoon, and don't understand the motivations for this action. They would like to know why this was not discussed with Tooele County, as it's a Tooele County road. What are the financial impacts to both the State of Utah and Tooele County, and how does this affect Tooele County's road construction master plan. They have a lot of questions they want answered. They don't believe the Transportation Commission should take action at this time, but should give UDOT and Tooele County 60 to 90 days to discuss this issue and answer some of these questions.

Tooele County Commissioner Lois McArthur said she can only echo what Chairman Hunsaker has said. She wondered why, at a time when there may be discussions going on between the Utah Association of Counties and the League of Cities and Towns about the possibility of transferring some of the state roads to county jurisdiction, why this road would come up to be transferred back to the state. And, when the state already has so much money to spread so thinly through all their other roads, why they would even want to take on a county road at this time.

Gary Griffith, Tooele County Commissioner, echoed the concerns of the other County Commissioners. He made an analogy between President Clinton announcing a new national monument without any consultation, and Governor Leavitt taking a county road away from Tooele, and said the parallel is very similar. He stated that it is obvious that this was done for purely political reasons. There needs to be more than political ambition when a decision like this is made. If the department has money to upgrade the road, then he suggested that it be spent on SR 36. That's where they'd like to see the money go.

Representative James Gowans addressed the Commission. He said he too was a bit shocked with this. He finally talked to the Governor late yesterday afternoon and wondered if any of the Tooele County Commissioners knew about this. He was told by the Governor that they had been notified. When he called Commission Chairman Hunsaker, Chairman Hunsaker had not heard anything. Rep. Gowans expressed concern over the lack of communication. He then discussed the statute and designation of state highways. He asked if anyone had evaluated the Skull Valley Road, and does the highway meet the standards?

Leon Bear, Chief of the Skull Valley Band of Goshute Indians and Chairman of the Skull Valley Executive Committee expressed his concern about the right of way across the Indian reservation. He said they were given no notice of the intent of the state, and feel that the right of way might be violated on the agreements between the Indian tribe and the State of Utah. When the state didn't give them any notice of the proposal or that they were terminating the county's jurisdiction over the road, they felt that was not a courtesy extended to the band.

Chairman Brown said that there have been some legitimate concerns and issues raised by those who have spoken to us. Director Warne said that it's a matter of the storage of high level nuclear waste, and is an issue that is important to all Utahns, not just to Tooele County. It's in the broad interest of the state that caused the Governor to have this request before the Commission today. And, in order to protect the broader interest of the state, one of the things that is important to do is to have jurisdiction and the ability to control and regulate the trafficking of high level nuclear waste on this road. So, the Department of Transportation is asking the Transportation Commission for their favorable consideration.

Commissioner Eastman asked if this needed to be done today. Director Warne responded that it seems that this has progressed along, negotiations are occurring in Tooele County between the tribe and

the county, and it appears that in order for the state to preserve its rights and its ability to regulate this very critical activity, the action should take place today. There was additional discussion about the negotiations between the Goshute tribe and the PFS facilities and Tooele County and the PFS facilities, right of way across the reservation, and safety issues.

Commissioner Bodily asked for more specific information as to what authority the state would have to regulate what travels on state roads. He said he is a little nervous about taking on another road and then having an overrule made by the courts where they say that a route has to be provided for this, and by the way, the road isn't adequate. Director Warne said that by statute, the department has the authority to regulate, and in some ways control, what crosses a highway. There are issues related to interstate commerce that would have to be dealt with that are national in nature, but this being a state highway gives the department flexibility as it relates to the regulation of the transport of high level nuclear waste. Commissioner Bodily said that he's not sure the department is accomplishing what they think they're accomplishing if this is made a state highway. He's not convinced yet.

Commissioner Lewis expressed his concerns and said that there is no single road in the state that isn't affected by just about every other road in the state in one way or another. The suggestion that somehow there is no relationship with the rest of the roads and the Commission's duty as to what happens on the rest of the roads is somehow perceived as less than it is. He thought the Commission not only has the authority, but has the responsibility to deal with those things that go on all of the roads in the state. And there's no question about the fact that is being talked about today is protecting the ability, if it is determined necessary at some point, for the state to regulate what is on that road because it will affect what is on all of the rest of the roads.

Chairman Brown asked for confirmation in relation to the jurisdiction of the roads that if the Commission chooses to take an action today it would have to be ratified by the legislature. Clint Topham said that is correct. The master highway bill that goes before the legislature each year would have to be amended to include any action taken today, and the legislature would have to consider it during the session in January and February. Chairman Brown said that doesn't preclude the legislature from deleting this. If it's in their wisdom, they could amend it out in the legislative process. Mr. Topham said that if the Commission doesn't take an action today, the legislature could take that action during the session if they wanted to do so.

Commissioner Lewis moved that the Commission adopt the recommendation of the department to place F.A. 2652, from I-80 to Dugway, on the State Highway System, with the understanding of being in compliance with statute number 27-12-27. It was seconded by Commissioner Eastman and passed with one dissenting vote by Commissioner Bodily.

Rep. Hunsaker asked if the motion means that UDOT takes over the maintenance of the road tomorrow? Is Tooele County through with that road? He also mentioned that the county has put a lot of money into the road. It's one of the best roads in Tooele County. Is UDOT just going to take it, or will the department pay Tooele County for it? Director Warne responded that as of the action of the Commission, that is the effective time for the transfer of the road. Maintenance and responsibility of that road begins immediately. In terms of reimbursement for the cost of the road, as road jurisdictions have been transferred throughout the state over the years, there has been no compensation between jurisdictions, whether it comes to the state or goes from the state.

Chairman Brown said that the Commission will need to adjourn to discuss an item in an emergency executive session.

Commissioner Eastman moved to adjourn to an emergency executive session for consideration of a Highway 89 legal issue. It was seconded by Commissioner Larkin and passed unanimously.

The meeting adjourned at 4:54 for an emergency executive session.

The regular meeting was called back to order by Chairman Glen Brown at 5:30 p.m.

INFORMATIONAL ITEMS
Next Transportation Commission Meeting

Clint Topham informed the Commission that there may need to be a special Commission meeting called between now and January's meeting to discuss an issue relating to where Bangerter Highway ends at 13800 South.

The next Transportation Commission meeting will be held on Wednesday, January 14, 1998, 1:00 p.m., at the Rampton Complex in the Large Conference Room.

The meeting adjourned at 5:35 p.m.

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LeAnn Abegglen, Commission Secretary

EXHIBIT 9

PRAIRIE ISLAND SPENT FUEL STORAGE FAQ
http://www.nspco.com/nsp/spntful.htm#q13
6/6/97

NSP has been safely storing used nuclear fuel in sealed steel containers outdoors at the Prairie Island nuclear power plant since May 1995. NSP is storing spent fuel outside the plant because the site's storage pool is full and the federal government has not yet provided either temporary storage or a permanent disposal site.

Radiation measurements made near the site show no measurable additional off-site radiation exposure from the loaded containers stored there.

The Minnesota Legislature authorized NSP to load and store up to 17 containers at the plant site as the company meets a number of requirements spelled out in the authorizing legislation.

Prairie Island Spent Fuel Storage Frequently Asked Questions

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Why don't you just keep it in the plant? Why not build another pool or put more in the pool you already have? Why build a second site? Why not ship it somewhere else? Can't the fuel be reprocessed?

NSP and state regulators reviewed several ways to store additional used nuclear fuel at Prairie Island. They agreed outdoor dry storage in sealed steel containers was the best option for NSP and its customers. The current storage pool at the plant is full.

A new pool would be much more expensive than dry storage and offers no significant safety or environmental advantages. There are no commercially available storage pools to which NSP could ship spent fuel for storage. Also, while reprocessing is possible, there are no operating commercial reprocessing facilities in the United States, and shipping the fuel to a foreign country for reprocessing would be prohibitively expensive.

How much radiation does a storage site give off? Does water run-off from the facility become radioactive? Will the containers leak?

The amount of off-site radiation from the Prairie Island storage site will be so small it cannot even be measured by today's most sensitive instruments. The used fuel is a solid ceramic inside metal tubes. It is not a powder, liquid or gas. It does not readily "leak." If both lid seals were to fail, an alarm would go off and only inert, non-radioactive helium gas would escape. Water coming in contact with the containers does not become radioactive, so storage site run-off is not

radioactive.

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Why is NSP looking for a second site?

The Minnesota Legislature ordered NSP to seek a second storage site in Goodhue County. NSP has enough room at its existing on-site storage facility for all the storage containers the plant will need.

What is the reason for the second site?

It is unclear why the legislature ordered a second site. The existing site is more than large enough, and state and federal agencies have found it to be safe for area residents and the environment. Further, the existing site does not require off-site transportation of used reactor fuel, as the alternate site in Goodhue County would.