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UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION

DOCKETED  
USNRC

Before the Atomic Safety and Licensing Board

June 18, 2002 (3:35PM)

OFFICE OF SECRETARY  
RULEMAKINGS AND  
ADJUDICATIONS STAFF

In the Matter of )  
 )  
PRIVATE FUEL STORAGE L.L.C. )  
 )  
(Private Fuel Storage Facility) )

Docket No. 72-22-ISFSI

ASLBP No. 97-732-02-ISFSI

**APPLICANT'S PROPOSED FINDINGS OF FACT AND  
CONCLUSIONS OF LAW ON CONTENTION SUWA B**

Pursuant to 10 C.F.R. § 2.754 and the Order of the Atomic Safety and Licensing Board ("Licensing Board" or "Board") dated September 17, 2001,<sup>1</sup> Applicant Private Fuel Storage, L.L.C. ("Applicant" or "PFS") submits in the form of a portion of a partial initial decision its proposed findings of fact and conclusions of law concerning intervenor Southern Utah Wilderness Alliance's ("SUWA") Contention SUWA B—Railroad Alignment Alternatives ("SUWA B"). See Joint Report on Schedule for Findings of Fact and Findings of Fact (Responses) for Contention SUWA B (May 8, 2002). PFS's proposed findings on SUWA B are submitted separately from its proposed findings to be submitted on Contentions Utah K/Confederated Tribes B and Utah L/QQ, which have been the subject of evidentiary hearings beginning on April 8 and scheduled to run through early July 2002. The proposed partial initial decision is organized as follows. Section I, Overview and Conclusion, introduces Contention SUWA B and the witnesses for the parties who testified regarding the contention, summarizes the testimony on the contention, and presents proposed conclusions on the contention.<sup>2</sup> Section II, Findings of

<sup>1</sup> Order (Revised General Schedule) (September 17, 2001).

<sup>2</sup> PFS's proposed findings on Contentions Utah E/Confederated Tribes F and Utah S (dated July 31, 2000) included a section that presented the history of the case to date.

Template = SECY-057

SECY-02

Fact, presents Applicant's proposed findings of fact on the contention, in sequentially numbered paragraphs. Section III, Conclusions of Law, presents Applicant's proposed conclusions of law on the contention, also in sequentially numbered paragraphs.

## I. OVERVIEW AND CONCLUSION

Contention SUWA B, which concerns the adequacy of the NRC's National Environmental Policy Act ("NEPA") analysis of alignment alternatives for the rail line PFS proposes to construct from the Union Pacific mainline to the Private Fuel Storage Facility ("PFSF"), was admitted by the Licensing Board in February 1999. Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-99-3, 49 NRC 40, aff'd, CLI-99-10, 49 NRC 318 (1999). SUWA B was the subject of a motion for summary disposition filed by PFS that was denied by the Board on the grounds that the NRC Staff's draft environmental impact statement ("DEIS")<sup>3</sup> had not evaluated one of the alternative rail alignments proposed by PFS. Private Fuel Storage, L.L.C. (Independent Spent Fuel Storage Installation), LBP-01-34, 54 NRC 293, 302-03 (2001), recons. denied, LBP-01-38, 54 NRC 490 (2001). The NRC Staff subsequently included its evaluation of this alignment in the final environmental impact statement ("FEIS") for the facility. See Finding 25, infra.

PFS's testimony on railroad alignment alternatives was provided by PFS Project Director John Donnell, civil design engineer Douglas Hayes (with Stone & Webster, Inc., the architect/engineer of the PFSF), and environmental scientist Susan Davis (also with Stone & Webster). Pre-filed Testimony of John Donnell at 1 (following Tr. 4564) ["Donnell"]; Pre-filed Testimony of Douglas Hayes at 1-2 (following Tr. 4564) ["Hayes"]; Pre-filed Testimony of Susan Davis at 1 (following Tr. 4564) ["Davis"].<sup>4</sup> As

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<sup>3</sup> Draft Environmental Impact Statement for the Construction and Operation of an Independent Spent Fuel Storage Installation on the Reservation of the Skull Valley Band of Goshute Indians and the Related Transportation Facility in Tooele County, Utah, NUREG-1714 (June 2000).

<sup>4</sup> Appendix A identifies, by witness, the location of written testimony in the transcript. Appendix B lists

Project Director, Mr. Donnell is responsible for the execution and integration of the legal and technical activities of the PFSF project. He is a Licensed Professional Engineer with more than 21 years of experience in nuclear project management and engineering.

Donnell at 1, Statement of Professional Qualifications. Mr. Donnell testified to PFS's plan for the construction and operation of the rail line to the PFSF. Id. at 2-3. He also testified to the alternative railroad alignments that PFS considered for the PFSF and the cost differential of the West Skull Valley Alternative alignment. Id. at 3-8.

Mr. Hayes is the Lead Railroad Design Engineer on the PFS project, with over 40 years experience in surveying and engineering civil projects. Hayes at 1. His experience with Stone & Webster specifically includes many railroad design projects, involving earthwork, structural and drainage considerations; railroad loading, unloading and transportation; and site development. Id. Statement of Professional Qualifications. Mr. Hayes is responsible for the layout and development of construction drawings and railroad construction specifications. Id. at 2. He testified to the design and the construction requirements of the proposed Low Corridor rail line. Id. at 3-5. He also testified to the construction requirements for the West Skull Valley Alternative railroad alignment. Id. at 2-11.

Ms. Davis has a bachelor's degree in wildlife management and extensive experience in environmental research and consulting, including providing environmental assessments for many types of construction projects, such as dams, spent fuel storage facilities, combustion turbine power plants, and pipelines and transmission lines. Davis at 1, Statement of Professional Qualifications. She has analyzed a variety of environmental resource areas for those projects, including wetlands, wildlife habitat, endangered species, and visual resources. Id. Ms. Davis has been responsible for

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the exhibits marked and the transcript citation of Board rulings on the exhibits.

analyzing environmental impacts associated with the PFS project and PFS transportation options. Id. at 2. She testified to the relative environmental impacts of the proposed rail alignment and the alternatives that PFS considered. Id. at 2-11.

The NRC Staff testimony on rail alignment alternatives was provided by Britta N. Laub, an Outdoor Recreation Planner in the Salt Lake Field Office of the Bureau of Land Management (“BLM”); Kenneth E. McFarland, a Principal Engineer at Washington Infrastructure Services, Inc., a third party contractor to the U.S. Surface Transportation Board, a cooperating agency on the PFS FEIS; Alice B. Stephenson, an Environmental Specialist for the BLM Salt Lake Field Office; and Gregory P. Zimmerman, the leader of the Environmental Impact Analysis Group, Environmental Sciences Division, Oak Ridge National Laboratory. Pre-filed Testimony of Britta N. Laub, Kenneth E. McFarland, Alice B. Stephenson, and Gregory P. Zimmerman at 1-2 (following Tr. 4653) [“Staff Test.”]. Ms. Laub has a bachelor’s degree in Parks and Recreation Management and has extensive experience with respect to the management of recreation uses, visual resources, and wilderness characteristics. Id. at 1, Statement of Professional Qualifications. In 1999 she served as wilderness coordinator for BLM when she was temporarily assigned to the Utah Statewide Wilderness Study Area Planning Team. Id. at Statement of Professional Qualifications. She assisted with the Staff’s assessment of the environmental impacts of the PFS transportation options. Id. at 1.

Mr. McFarland has bachelor’s and master’s degrees in civil engineering and 32 years of experience in rail, transit, and water resources projects. Id. at Statement of Professional Characteristics. His experience includes trackwork and alignment design, civil engineering design, cost estimating, engineering supervision, survey control, contract administration, and construction management activities. Id. He assisted in the NRC Staff’s analysis of the earthwork requirements necessary for the construction and operation of the proposed and alternative transportation options for the PFSF. Id. at 1-2.

Ms. Stephenson has experience in the coordination and implementation of NEPA reviews and evaluation of BLM land use plans and issuance of right-of-way grants. Id. at 3, Statement of Professional Qualifications. She has been in the BLM Salt Lake Field Office for 13 years and has received training in the BLM planning system, NEPA issues, riparian and visual resource management. Tr. at 4664-65 (Stephenson). Ms. Stephenson assisted with the Staff's analysis of the environmental impacts of PFS transportation options and participated with Ms. Laub in photographing areas around the proposed rail corridor for the PFSF. Staff Test. at 4-5.

Mr. Zimmerman has bachelor's and master's degrees in mechanical engineering and over 20 years of experience at Oak Ridge in risk and safety analyses, radioactive waste management, and environmental impact assessment. Id. at Statement of Professional Qualifications. He participated in the preparation and evaluation of the FEIS and assisted the Staff in assessing the environmental impacts of PFS transportation options. Id. at 2.

Testimony for SUWA was provided by Dr. James Catlin, Project Director for the Wild Utah Project. In 1997, Dr. Catlin acquired a doctorate in natural resource management and geographic information systems; most of his career has been spent in computer engineering. Pre-filed testimony of James C. Catlin at 1 (following Tr. 4795) ["Catlin"]; Tr. at 4806-4814 (Catlin). He testified to the wilderness characteristics of the SUWA-designated North Cedar Mountains Area ("NCMA") and to the impacts of the proposed PFS rail line alignment and the alternative alignments on the naturalness of the NCMA. Catlin at 2. Dr. Catlin acknowledged that he was neither a biologist, nor a railroad construction engineer, nor an archaeologist. Tr. at 4809, 4814, 4886, 4900 (Catlin).

In addition to receiving testimony on this contention, prior to the hearing the Licensing Board and the parties toured the area around the northern portion of the

proposed route for the Low Corridor rail line, from the Union Pacific mainline at Skunk Ridge in the north, south through the easternmost portion of the NCMA, to the point where the proposed route for the PFS rail line would emerge from the NCMA. Tr. at 4549-50 (Farrar, J.) While this tour is not part of the evidentiary record, it provided valuable background to the Board to help it understand the issues being litigated. The tour was also referred to by various witnesses in providing testimony on this contention.

Based on evaluation of all the evidence in the record, the Licensing Board finds that the analysis of alignment alternatives for the rail line from the Union Pacific mainline railroad to the PFSF meet all applicable NRC requirements. PFS and the NRC Staff have considered a reasonable range of alternative alignments for the proposed Low Corridor rail line—routes running down the east, center, and west of Skull Valley. In each case the alternative would result in greater environmental impact than the proposed route. In addition, the Board finds that the FEIS and the remainder of the record in this proceeding have adequately described the environmental impacts of the proposed rail line and the alternatives, including a full consideration of wilderness characteristics. The Board's specific findings on this issue are set forth below.

## **II. FINDINGS OF FACT**

### **A. Contention SUWA B**

#### **1. In Contention SUWA B, SUWA alleges that:**

The License Application Amendment fails to develop and analyze a meaningful range of alternatives to the Low Corridor Rail Spur and the associated fire buffer zone that will preserve the wilderness character and the potential wilderness designation of a tract of roadless Bureau of Land Management (BLM) land—the North Cedar Mountains—which it crosses.

LBP-99-3, 49 NRC at 53. The contention was admitted so far “[a]s it seeks to explore the question of alignment alternatives to the proposed placement of the Low Junction rail spur.” Id.<sup>5</sup>

2. SUWA asserts that the NCMA possesses wilderness characteristics and should be designated as wilderness under the Wilderness Act of 1964.<sup>6</sup> Contentions<sup>7</sup> at 2. SUWA defines the NCMA as a roadless area just west of Skull Valley and just south of Interstate 80 and the Union Pacific mainline railroad. See id. at 3; id. Exhibit 2 (map). The area is a rough polygon about 5.5 miles wide by 7 miles long. Donnell at 3; see Exhibit 2 to Contentions (map); FEIS Fig. 2.16. The boundaries of the area for which SUWA makes its claim were set by the Utah Wilderness Coalition, a group of private organizations of which SUWA is a member. See Finding 9, infra.
3. The proposed PFS rail line (the “Low Corridor” rail line) will run from the Union Pacific mainline at Skunk Ridge near Low Junction, Utah approximately 32 miles south to the PFS site in central Skull Valley. FEIS Fig. 1.2. It will run north to south across the far eastern portion of the NCMA, separating a sliver of land approximately one-half to three-quarters of a mile wide and less than three miles long from the remainder of the area. See Exh. 2 to Contentions; PFS Exh. CC and EE; FEIS Fig. 2.16. That sliver of land constitutes about 800 acres out of the roughly 14,000 acres in the NCMA. Tr. at 4838-4839 (Catlin). SUWA asserts that the PFS Low rail line would “irreversibly impair the wilderness character of

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<sup>5</sup> While a contention may be framed as a challenge to the Applicant’s Environmental Report, once the agency’s draft or final environmental impact statement is published, the contention is resolved as a challenge to the environmental impact statement. Louisiana Energy Services, L.P. (Claiborne Enrichment Center), CLI-98-3, 47 NRC 77, 84 (1998) (“LES”).

<sup>6</sup> The wilderness characteristics of the NCMA are at issue in this proceeding but whether Congress would or would not designate the area as wilderness is outside the scope of the contention. Tr. at 4561 (Farrar, J.)

<sup>7</sup> Southern Utah Wilderness Alliance’s Contentions Regarding Private Fuel Storage Facility License Application (The Low Rail Spur) (Nov. 18, 1998) (“Contentions”).

the North Cedar Mountains.” Contentions at 4. SUWA claims that PFS should have adequately considered alternatives to the Low rail line that would protect the wilderness character of the NCMA and preserve for Congress the opportunity to designate the area as wilderness. *Id.* at 5-6.

**B. The Environmental Impact Statement**

4. NEPA (42 U.S.C. §§ 4331 *et. seq.*) and the NRC’s NEPA regulations require that the FEIS describe the potential impacts of the proposed action on the environment and discuss reasonable alternatives to the action. 10 C.F.R. §§ 51.71(d), 51.90.<sup>8</sup> The discussion of environmental impacts should be sufficient “to enable the decisionmaker to take a ‘hard look’ at environmental factors and make a reasoned decision.” LES, CLI-98-3, 47 NRC at 88 (citations omitted). An environmental impact statement (“EIS”) is prepared under a “rule of reason” standard. *Id.* at 97. Thus, impacts are discussed in proportion to their significance. See 10 C.F.R. §§ 51.29(a)(2) and (3), 51.45(b)(1). Insignificant impacts need receive little or no treatment in the EIS. See 10 C.F.R. § 51.29(a)(3). “Remote and speculative” impacts need not be discussed. Limerick Ecology Action, Inc. v. NRC, 869 F.2d 719, 739 (3d Cir. 1989). In addition to the FEIS, the environmental record in this proceeding also includes material submitted at the licensing hearing. See Barnwell, *infra* note 9, ALAB-296, 2 NRC at 680; 10 C.F.R. § 51.102(c).
5. An EIS must look at “alternatives available for reducing or avoiding adverse environmental effects.” 10 C.F.R. § 51.71(d). The “rule of reason” guides “both

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<sup>8</sup> The record of decision on an action for which an FEIS is prepared and a hearing is held under 10 C.F.R. Part 2 Subpart G consists of the initial decision of the presiding officer. 10 C.F.R. § 51.102(c). That record “may incorporate by reference material contained in [an FEIS].” 10 C.F.R. § 51.103(c). Therefore, in practice, in ruling on an environmental issue, if a licensing board (or the Commission on appeal) reaches a conclusion different from that set forth in the FEIS, the statement “is simply deemed amended *pro tanto*.” Allied-General Nuclear Services (Barnwell Nuclear Fuel Plant Separations Facility), ALAB-296, 2 NRC 671, 680 (1975).



the choice of alternatives as well as the extent to which the [EIS] must discuss each alternative.” City of Carmel-by-the-Sea v. DOT, 123 F.3d 1142, 1155 (9<sup>th</sup> Cir. 1997) (citation omitted). Thus, the discussion “must consider not every possible alternative, but every reasonable alternative.” Long Island Lighting Co. (Shoreham Nuclear Power Station, Unit 1), CLI-91-02, 33 NRC 61, 71 (1991) (first emphasis added). Hence, NEPA does not require the consideration of alternatives that are impractical, Airport Neighbors Alliance v. United States, 90 F.3d 426, 432 (10<sup>th</sup> Cir. 1996), that present unique problems, or that cause extraordinary costs, Communities, Inc. v. Busey, 956 F.2d 619, 627 (6<sup>th</sup> Cir.), cert. denied, 506 U.S. 953 (1992). Nor does NEPA require the consideration of speculative “alternatives which could only be implemented after significant changes in governmental policy or legislation.” Sacramento Municipal Utility District (Rancho Seco Nuclear Generating Station), CLI-93-3, 37 NRC 135, 145 (1993) (citations omitted). Nor does NEPA require the consideration of alternatives that “are not significantly distinguishable from alternatives actually considered.” Headwaters, Inc. v. BLM, 914 F.2d 1174, 1181 (9<sup>th</sup> Cir. 1990), reh’g en banc denied, 940 F.2d 435 (1991). “[A]n agency’s consideration of alternatives is sufficient if it considers an appropriate range of alternatives, even if it does not consider every available alternative.” Id. Moreover, NEPA does not require the selection of the most environmentally benign alternative if “other values outweigh the environmental costs.” LES, CLI-98-3, 47 NRC at 88 (quoting Robertson v. Methow Valley Citizens Council, 490 U.S. 332, 350 (1989)).

**C. The Wilderness Act and the Federal Land Policy and Management Act**

6. Under the Federal Land Policy and Management Act of 1976 (“FLPMA”), the Secretary of the Interior is the federal official responsible for reviewing BLM land

for potential designation as wilderness. The Secretary is to review “those roadless areas of five thousand acres or more . . . of the public lands, identified . . . as having wilderness characteristics described in the Wilderness Act”<sup>9</sup> and report to the President on “the suitability or nonsuitability of each such area . . . for preservation as wilderness.” 43 U.S.C. § 1782(a).<sup>10</sup> The President must then advise Congress of those areas he recommends be designated as wilderness, but Congress must make the final designation by passing a statute. 43 U.S.C. § 1782(b). FLPMA requires the Secretary to maintain an inventory of BLM lands and “their resource and other values.” 43 U.S.C. § 1711(a). The Secretary has claimed continuing authority under this provision to evaluate lands for potential wilderness designation. Babbitt, *infra* note 11, 37 F.3d at 1207.

**D. The Proposed Rail Line and the North Cedar Mountains**

7. PFS’s proposed Low Corridor rail line would cross the easternmost part of the NCMA as it heads south from Skunk Ridge, near Low Junction, to the PFS site. Based on maps submitted by PFS and testimony by Dr. Catlin, the proposed rail line would cross the NCMA for less than three miles and separate about 800 acres

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<sup>9</sup> The Wilderness Act, 16 U.S.C. §§ 1131 *et seq.*, imposes similar requirements and processes for areas within national forests, national parks, national wildlife refuges, and national game ranges. The Wilderness Act characterizes a wilderness as an area “which (1) generally appears to have been affected primarily by the forces of nature, with the imprint of man’s work substantially unnoticeable; (2) has outstanding opportunities for solitude or a primitive and unconfined type of recreation; (3) has at least five thousand acres of land or is of sufficient size as to make practicable its preservation and use in an unimpaired condition; and (4) may also contain ecological, geological, or other features of scientific, educational, scenic, or historical value.” 16 U.S.C. § 1131(c).

<sup>10</sup> The Secretary’s review process has involved:

(1) the “inventory” phase, consisting of (a) an “initial inventory” to identify “wilderness inventory units,” which were defined as roadless areas of 5000 acres or more that may have wilderness characteristics, and (b) an “intensive inventory” of these units to determine whether the units possessed wilderness characteristics and, if so, designation of the units as “wilderness study areas” (“WSAs”); (2) the “study” phase, during which WSAs were studied to determine whether the lands were suitable for designation as wilderness; and (3) the “reporting” phase, consisting of the Secretary’s recommendations to the President and the President’s recommendations to Congress.

Utah v. Babbitt, 137 F.3d 1193, 1198 (10<sup>th</sup> Cir. 1998) (citations omitted).

of land from the roughly 14,000 acres of the NCMA. Tr. at 4838 (Catlin); PFS Exh. EE. Because the separated parcel of the far easternmost portion of the NCMA would be less than 5,000 acres, that parcel would be legally precluded from being designated as wilderness. See 43 U.S.C. § 1782(a); 16 U.S.C. § 1311(c)(3).<sup>11</sup> The rail line would not, however, preclude the remainder of the NCMA from being designated as wilderness, in that the area would be larger than 5,000 acres and human imprints outside potential wilderness areas, e.g., roads and railroads, are not normally considered in their evaluation. Bureau of Land Management, Wilderness Inventory and Study Procedures, H-6310-1 (Jan. 10, 2001) at 13, 16-17 (SUWA Exh. 6); Tr. at 4756 (Laub), 4839-43, 4937 (Catlin).<sup>12</sup>

**1. The Wilderness Characteristics of the North Cedar Mountains**

8. In 1980, BLM, the federal agency responsible for reviewing lands for potential designation as wilderness, inventoried the North Cedar Mountains and “dropped them from further consideration as wilderness because of lack of wilderness characteristics . . . .” 45 Fed. Reg. 75,602, 75,603-04 (1980); Staff Test. at 16-17.

In doing so, BLM stated:

The lack of “outstanding” potential, or opportunity for solitude and/or primitive and unconfined recreational experience should drop [the North Cedar Mountains area] from further wilderness inventory consideration. Man’s imprints are substantially noticeable within the unit. Natural screening contributes little to hide or enclose man and his contrasting influences. Recreation

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<sup>11</sup> As discussed below, in any event, we have found that the portion of the NCMA that would be crossed by the proposed PFS rail line and the 800 acres to the east of the rail line lacks wilderness characteristics independent of the presence of the rail line.

<sup>12</sup> Indeed, if roads and railroads outside potential wilderness areas were considered, I-80 and the Union Pacific mainline immediately to the north of the NCMA are substantial human imprints that would significantly affect the “naturalness” of the area and would render the impact of the PFS rail line immaterial in that regard. See Tr. at 4839-43, 4937 (Catlin) (the entire area must meet the naturalness criterion to qualify as wilderness and highways and railroads would not satisfy the criterion).

opportunities exist but all are encumbered by man's developments.<sup>13</sup>

The FEIS similarly concurred that the NCMA lacks wilderness characteristics:

[T]he North Cedar Mountains contains no wilderness or wilderness study designation and contains no wilderness values or characteristics. In 1980, BLM considered the northern portion of the Cedar Mountains for designation as wilderness during its Utah land inventory process. The area was found to lack naturalness (i.e., it did not fit the attributes of being affected primarily by the forces of nature, with the imprint of man's work substantially unnoticeable); outstanding opportunities for solitude or a primitive and unconfined type recreation; and supplemental values (i.e., ecological, geological, or other features of scientific, educational, scenic, or historical value).

FEIS at 2-49. Testimony from NRC Staff witnesses Stephenson and Laub concurred with and supported these conclusions. Staff Test. at 18-23.

9. SUWA disputes the conclusions of the 1980 BLM inventory with respect to the North Cedar Mountains. Catlin at 5. It claims, based on a 1998 survey of BLM lands by the Utah Wilderness Coalition (a group of private organizations of which SUWA is a member), that the NCMA possesses wilderness characteristics. *Id.* at 4-5. It claims that the Coalition set the boundaries of the NCMA to exclude human imprints that were within the area that BLM had inventoried in 1980. *Id.* at 5. SUWA claims that the NCMA possesses the same opportunities for solitude and the pursuit of primitive recreation as the Cedar Mountains Wilderness Study Area to the south. *Id.* at 4. It claims that the NCMA possesses supplemental values in the form of critical wildlife habitat, area dominated by native habitat, and rock art and potential archaeological sites related to ancient humans. *Id.* at 4-5.

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<sup>13</sup> BLM Intensive Wilderness Inventory, Final Decision on Wilderness Study Areas, Utah (November 1980) ("Wilderness Inventory") (PFS Exh. JJ).

10. In April 2001, SUWA submitted a proposal to BLM to revisit its 1980 decision on the NCMA. BLM concluded that the SUWA proposal did not constitute significantly new or different relevant information so as to warrant further review of the area. FEIS at 2-49, 2-51; Letter from G. Carpenter, Field Office Manager, Salt Lake Field Office, BLM, to S. Bloch, Staff Attorney, SUWA (May 8, 2001) (Staff Exh. H). BLM rejected SUWA's claim that the Utah Wilderness Coalition's new boundaries for the NCMA excluded the human imprints that had been part of the reason BLM had found that the area lacked wilderness characteristics in 1980. Id. at 3. BLM also noted additional human imprints in the area that had occurred since 1980. Id. at 4.<sup>14</sup>
11. The eastern portion of the NCMA, i.e., the portion of the NCMA east of the proposed Low Corridor rail line, consists of relatively smooth terrain, covered by grasses and greasewood, that slopes downward from the eastern edge of the North Cedar Mountains themselves toward the floor of Skull Valley. As shown in photographs of the area, it is topographically distinct from the mountains. See PFS Exh. GG (files DSCN1363, 1367, 1382); NRC Staff Exh. L, N, O. All of the parties described specific human imprints that exist or activities that occur there. They include: motorcycle paths; use of off-highway vehicles and extensions of vehicle routes; livestock trails and grazing; invasive, non-native plant species such as cheatgrass; wildfire rehabilitation projects; and trash left by human visitors to the area. Staff Test. at 18; Donnell at 3; Davis at 3-4; see Tr. at 4835, 4944, 4948, 4955 (Catlin). Some of these imprints (cattle grazing, vehicle paths,

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<sup>14</sup> SUWA has appealed BLM's rejection of its claim. SUWA Notice of Appeal, Statement of Reasons, Request for Stay (June 21, 2001) (SUWA Exh. 3). The request for a stay was subsequently denied. See Tr. at 4556 (Farrar, J.).

and cheatgrass invasion) are depicted in the photographs referenced above. See also PFS Exh. II (map of jeep trails); Staff Test. at 21.

12. The NRC Staff witnesses testified that the eastern portion of the NCMA also does not offer outstanding opportunities for solitude or a primitive and unconfined type of recreation. Staff Test. at 22. This is due to sparse vegetative cover, relatively open terrain, and the cumulative effect of the human impacts in the area. Id. Recreational opportunities are not outstanding because wildlife population and numbers are few, terrain for hiking and horseback riding is not unique, and sightseeing is encumbered by outside activities and human impacts in the area. Id. Dr. Catlin asserted that the NCMA had the same opportunities for solitude and recreation as the Cedar Mountains WSA to the south. Catlin at 4. However, as the basis for his claim, Dr. Catlin referred to topography, vegetation, and “incised canyons and ridgetops,” but admitted that those characteristics are comparable to those of the Cedar Mountain WSA only at the higher elevations of the NCMA, well above the area where the proposed rail line will be located. See Tr. at 4877, 4879 (Catlin).
13. NRC Staff witnesses also testified that the eastern portion of the NCMA lacked supplemental values that would suggest that the area possessed wilderness characteristics. See Staff Test. at 22-23. Rock formations and caves are present in the northern portion of the NCMA (but not the area crossed by the rail line), but even those are not unique and not particularly significant. Id. at 22. Sites of historical interest, such as Hastings Pass, exist on the edges of or just outside the area, but not in the portion to be crossed by the rail line. Id. at 23. Dr. Catlin testified that the NCMA contained supplemental values in that it provides critical wildlife habitat and is a place “where native habitat dominates.” Catlin at 4. However, critical habitat assessments performed for the project showed that no

critical habitat in the NCMA extended down to the elevations where the rail line would be located. Tr. at 4620, 4633-34, 4636-37, 4640-41, 4973-75 (Davis); see FEIS at 3-27 (map of mule deer critical habitat); see also Tr. at 4883-85 (Catlin) (producing no maps indicating the presence of critical habitat). In fact, rather than being dominated by native habitat, all parties acknowledged that the Low Corridor area has been extensively invaded by cheatgrass, a non-native plant species. FEIS at 3-24; Tr. at 4666 (Stephenson); Davis at 3; Tr. at 4858-59 (Catlin). Wild horses live in the NCMA but they are feral horses that were introduced to the area by man. Tr. at 4859-60 (Catlin). Dr. Catlin asserted that the NCMA contained rock art and potentially archaeological sites related to ancient humans, Catlin at 5, but he knew of no such resources in the Low Corridor area, Tr. at 4886-88 (Catlin).

14. On the basis of the findings of BLM regarding the wilderness character of the NCMA; the description of the area in the FEIS; and the testimony of the witnesses regarding the human imprints, the limited opportunity for recreation and solitude, and the absence of supplemental values in the easternmost portion of the NCMA; which were corroborated by our observations during the rail corridor visit; we find that the part of the NCMA to be traversed by the proposed Low Corridor rail line and the portion east of the rail line lack wilderness characteristics. SUWA witness Dr. Catlin conceded as much when he stated that the question in his mind was whether the rail line would make it harder to restore the productivity of the land in the NCMA, not whether the land is pristine or in its “natural fully functional character today.” Tr. at 4880 (Catlin); see also Tr. at 4882, 4943-44 (Catlin). The question we are evaluating here is the impact of locating the PFS railroad in an area heretofore asserted to be in a natural state, i.e., wilderness. See LBP-01-34, 54 NRC at 302 & n.4. It is not whether the area could possibly be

restored to a natural state at some time in the future. Therefore, because we find that the rail line route through the NCMA and the NCMA area east of the rail line lack wilderness character, we find that the rail line would have no impact on the wilderness character of the NCMA.

## **2. Environmental Impacts of the Proposed PFS Rail Line**

15. In addition to asserting that the proposed rail line would impact wilderness by virtue of its planned location in the NCMA, SUWA also asserted that the rail line would cause specific environmental impacts, including: scenic impacts, habitat fragmentation and loss of biodiversity, impacts arising from increased access to the area, railroad fire hazards, facilitation of the spread of exotic plant species, disruption of natural runoff patterns, harmful impacts of herbicides, and impacts on springs and small wetlands. Catlin at 6-7. We find, as discussed below, that all of the asserted impacts are adequately discussed in the FEIS and the testimony and are either small or do not significantly differ between rail line alignment alternatives.
16. The scenic impacts of the rail line are described in the FEIS as small to moderate, depending on the perspective of the viewer. FEIS § 5.8.2. PFS and the NRC Staff testified that the scenic impact of the rail line would be no less if it were moved to an alternative location. Davis at 8-9; Tr. at 4625-27 (Davis), 4776 (Laub); Staff Test. at 28. Our site tour confirms these views. Dr. Catlin offered no comparison of the scenic impact of the proposed rail line with any alternative. See Catlin at 6.
17. The FEIS states that “[b]ecause wildlife in Skull Valley do not exclusively use any particular portion of the valley, the presence of the new rail line would not significantly contribute to habitat fragmentation, segregation, or interruption of habitat connectivity.” FEIS at 5-16. Nor would it significantly affect the



movement of wildlife in the valley. Id. Dr. Catlin offered no specific information as to how habitat fragmentation (and associated loss of biodiversity) would occur, other than to say that the rail line would traverse an area SUWA believes contains wilderness characteristics. See Catlin at 6. He acknowledged that he is not a biologist. Tr. at 4814, 4820 (Catlin). Therefore, we do not anticipate that the proposed rail line will cause habitat fragmentation or loss of biodiversity.

18. Dr. Catlin's belief that the proposed rail line will lead to environmental impacts from increased access to the area stemmed from his speculation that there would be an access or maintenance road constructed alongside the rail line. See Catlin at 6; Tr. at 4821-24 (Catlin). PFS has stated clearly that there will be no such road. Hayes at 3; Preliminary Plan of Development, Right of Way Application U-76985, Private Fuel Storage L.L.C. – Rail Line at 3 (Staff Exh. AA). Furthermore, an existing dirt road (which forms the eastern edge of the NCMA) already runs parallel to and about half a mile east of the Low Corridor route and a jeep trail runs parallel to the Low Corridor route between the route and the road. See PFS Exh. EE; PFS Exh. II; Staff Exh. I. A second jeep trail runs perpendicular to the Low Corridor route, from the eastern edge of the NCMA westward into its interior. See PFS Exh. II; PFS Exh. GG (file DSCN1382). Therefore, the proposed rail line will not lead to greater access to the area with associated environmental impacts.
19. Dr. Catlin also testified more generally that the PFS railroad was part of the "rapid industrialization" of this part of the State of Utah, citing the presence of communication sites, other transportation facilities, an incinerator on the far side of the North Cedar Mountains, a magnesium plant north of Skull Valley, a chemical weapons disposal facility on the other side of the Stansbury Mountains, and a military proving ground in southern Skull Valley. Tr. at 4944-45 (Catlin).

Dr. Catlin acknowledged, however, that the incinerator had been present for “a fair number of years,” as had the chemical weapons disposal facility; the magnesium plant had been there for several decades and the military proving ground had been there since World War II. Tr. at 4960-61. We find that the development of some industrial facilities over a very wide area over a period of decades does not qualify as “rapid industrialization.” Moreover, Dr. Catlin offered no testimony that the facilities that now exist or any future facilities, other than the PFSF itself, are in any way connected to the construction of the PFS rail line.

20. The FEIS states that the proposed rail line “would not add significantly to the existing risk of fire in Skull Valley.” FEIS at 5-73. This is due to PFS’s planned use of modern railroad equipment, the railroads’ small contribution to fire risk in Skull Valley relative to other potential contributors to risk, and PFS’s planned revegetation of the railroad construction right of way with a BLM-approved, fire-resistant vegetation seed mix. *Id.* § 5.8.4; *id.* at 5-22. In addition, the railroad bed adjacent to and beneath the tracks will be maintained free of vegetation, which will mitigate the risk of fire. Hayes at 3-4; Staff Test. at 10-11. Dr. Catlin offered that a rail line through the mudflats in central Skull Valley would pose a lesser risk of fire. Catlin at 7. But as discussed below, a central Skull Valley alternative would cause other significant environmental impacts and may not be permissible under federal regulations that protect wetlands and other types of waters. Therefore, we find that the small fire hazard posed by the proposed rail line does not render it inferior to any alternative rail alignments.
21. Dr. Catlin asserts that the proposed rail line would facilitate the spread of exotic plant species in the area because of the fire hazard and the disruption of the natural fire regime of the area caused by “[t]he Low Corridor’s rail line, road, and

associated fire buffers.” Catlin at 7. As discussed above, there will be no road associated with the proposed rail line and the fire hazard posed by the rail line will be small. Both PFS and the NRC Staff testified that there will be no “fire buffer” associated with the rail line, aside from the railroad bed itself, which will be maintained clear of vegetation. Hayes at 3-4; Staff Test. at 9-11. In addition the rail line construction right of way will be revegetated with a BLM-approved seed mix consisting mostly of native vegetation, which could have a positive impact on vegetation. FEIS at 5-15 to -16; Hayes at 3-4. Therefore, we find that the rail line would not contribute to the spread exotic species in the area.

22. Dr. Catlin claimed that the proposed rail line would disrupt natural runoff patterns in the NCMA and affect the vegetation nearby because the natural flow of water would be diverted from many small meanders into a smaller number of culverts. Catlin at 7. However, Dr. Catlin was unaware of the number or size of the culverts planned for the rail line. Tr. at 4959-60 (Catlin); see Tr. at 4915-16 (Catlin). PFS testified that it plans to emplace culverts of at least 24 inches in diameter to preserve the natural flow in all of the drainage paths across the Low Corridor that are now larger than six inches deep. Tr. at 4975 (Hayes). The corridor would cross 32 such intermittent or ephemeral drainages. FEIS at 5-17. The culverts would maintain the natural flow condition in the corridor and hence would not have a significant impact on vegetation. Tr. at 4975-76 (Davis); FEIS at 5-17, 5-20.

23. Dr. Catlin claimed that the use of herbicides on the rail line has the potential to disrupt the vegetation in the area. Catlin at 7. On the contrary, the FEIS states:

EPA’s labeling requirements control when and under what conditions herbicides can be applied, mixed, stored, or used (e.g., wind speed, relative humidity, air temperature, chemical persistence, time since last rainfall). By following these

requirements, PFS would ensure that the impacts on non-target vegetation from the use of herbicides during the operational lifetime of the rail line would be small.

FEIS at 5-19. Because Dr. Catlin provided no reason to doubt the efficacy of EPA labeling requirements or PFS's compliance with them, we find that the use of herbicides on the rail line would not have a significant impact on non-target vegetation. In addition, Dr. Catlin testified that the impact of herbicide use on the Low Corridor rail line would be similar to the impact of herbicide use on the West Skull Valley Alternative route. Tr. at 4916, 4925-26, 4928 (Catlin).

24. Finally, Dr. Catlin asserted in his testimony that the proposed rail line would have adverse impacts on springs and small wetlands. Catlin at 7. However, on cross-examination, Dr. Catlin conceded that the portion of the rail line that crossed the NCMA would not impact any springs or wetlands. Tr. at 4828-29 (Catlin); see Tr. at 4960 (Catlin) (no riparian areas in Low Corridor).

**E. Railroad Alignment Alternatives for the PFSF**

25. PFS and the NRC Staff have considered a wide range of alignment alternatives to the proposed Low Corridor rail line. At the time the Low Corridor rail line was first proposed in 1998, PFS had considered one alternative, the East Skull Valley Alternative, which had a number of alternative starting points but for most of its length ran along Skull Valley Road, down the eastern side of Skull Valley. Donnell at 3-4; PFSF Transportation Study (SWEC 1998) § 3.3 (PFS Exh. HH); PFS ER § 4.4 (Rev. 0) (PFS Exh. BB). The DEIS considered variations of the East Skull Valley Alternative route, along Skull Valley Road, with two different starting points. DEIS at 2-42. PFS subsequently considered a West Skull Valley Alternative, on the west side of the valley, that avoided the NCMA by skirting it to the east and a Central Skull Valley Alternative that would run down the middle of the valley to the PFS site. Donnell at 5-6. The FEIS retains the DEIS's

assessment of the East Skull Valley Alternative and also assesses the West Skull Valley Alternative. FEIS at 2-47 to -51. In its testimony, the NRC Staff considered a variation on the West Skull Valley alternative that would run approximately two miles east of the NCMA. Staff Test. at 32-33. Thus, PFS and the FEIS have considered basically three alternatives to the alignment of the proposed Low Corridor rail line: the West, Central and East Skull Valley Alternatives. PFS and the NRC Staff concluded that none of the alternatives is environmentally superior to the proposed Low Corridor alignment. Donnell at 8; Staff Test. at 26-27, 31-32, 34. SUWA did not propose any rail alignment. Tr. at 4844-45, 4912 (Catlin). SUWA's witness, Dr. Catlin, expressed little familiarity with the alternative rail alignments other than the proposed Low Corridor route and, to a limited extent, the West Skull Valley Alternative. See Tr. at 4912-19, 4922-24 (Catlin).

**1. The West Skull Valley Alternative**

26. The NRC Staff and PFS have considered an alternative rail line alignment on the west side of Skull Valley that that would completely avoid the NCMA by passing just to the east of it. Donnell at 6; Hayes at 6; FEIS Fig. 2.16; PFS Exhibits CC and EE. This alternative alignment would start at the same point as the proposed Low Corridor rail line but would change course slightly as it approached the NCMA to run about 2,000 to 3,000 feet east of the Low Corridor alignment for about 6.5 miles. FEIS at 2-49; Hayes at 6. Just south of the NCMA, the West Skull Valley Alternative would rejoin the Low Corridor alignment and would continue south to the PFS site. Hayes at 6; see FEIS Fig. 2.16.
27. The route of the West Skull Valley Alternative just to the east of the NCMA is constrained by two narrow gaps through which it must pass. The first gap is at the northern end of the alternative alignment, about two and a half miles south of

I-80; it must pass east of the NCMA but stay west of a parcel of land owned by the State of Utah. This route must avoid the State-owned land because of PFS's well-founded belief that the State would not allow the use of its land for the location of the railroad. See LBP-01-34, 54 NRC at 299 n.3; Tr. at 4577, 4585-87 (Donnell).<sup>15</sup> In any event, as discussed further below, routing the alternative rail line farther to the east, across the State owned land, would cause additional environmental impact with no countervailing environmental benefit. The second gap is along the southern part of the alternative alignment, about four miles south of I-80; it must stay west of the large mudflat in the middle of Skull Valley. Hayes at 6; PFS Exhibits CC and EE. The mudflat must be avoided because it is protected from disturbance by federal regulations promulgated under the Clean Water Act. Davis at 8-9; 33 C.F.R. §§ 330.4(a) and (e).

28. The route of the West Skull Valley Alternative crosses down into lower elevations toward the valley floor such that the railroad bed would require the use of a significant amount of fill material to maintain the 1.5% maximum grade on PFS trains. Hayes at 7-10; FEIS at 2-49. The maximum grade of the PFS rail line (other than at sidings) is 1.5%. Maximum rail line grade is set based on the best fit of locomotive tractive effort and horsepower. The 1.5% maximum grade is set to enable PFS trains to move at a reasonable speed. Hayes at 5; Staff Test. at 28; Tr. at 4606-7, 4636 (Hayes); FEIS at 2-49. Mainline railroads typically employ grade limitations less than 1.5%. Tr. at 4607, 4636 (Hayes).
29. Total net fill material required over the 6.5 mile length of the West Skull Valley Alternative rail alignment is 560,000 cubic yards.<sup>16</sup> Hayes at 10; Staff Test. at 28-

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<sup>15</sup> Under NEPA, an agency need not consider speculative "alternatives which could only be implemented after significant changes in governmental policy or legislation." Rancho Seco, CLI-93-3, 37 NRC at 145 (citation omitted). Permission from the State of Utah to use its land for the rail line serving the PFSF would certainly take a significant change in the State's policy.

<sup>16</sup> Net fill is the total amount of fill required over the length of the alternative rail line minus the amount of

30; FEIS at 2-49. The embankments on which the railroad bed would be constructed would be as high as 20 feet above grade. Hayes at 8; Staff Test. at 30; FEIS at 2-49. Dr. Catlin questioned PFS's rail line grade and fill requirement calculations but he had performed no calculation of fill requirements and had no basis for claiming that PFS's calculations were wrong. Tr. at 4853-54, 4899-4902 (Catlin).

30. The construction of a siding area for the Low Corridor rail line where it joins the Union Pacific mainline near Low Junction would generate a surplus of about 300,000 cubic yards of fill material above what is needed for fill elsewhere on the Low Corridor line. The West Skull Valley Alternative would require substantial additional fill—about 260,000 cubic yards—which would need to be imported from an offsite location. Hayes at 10, Staff Test. at 29; FEIS at 2-49.
31. The environmental impacts of the West Skull Valley Alternative would be greater than the impacts of the proposed Low Corridor rail line because of the need to use more fill material and because the railroad bed would have to be elevated by as much as 20 feet above the ground level. Davis at 7-8; Staff Test. at 30; FEIS at 2-51. The raised railroad bed would have a greater visual impact. Davis at 8; Tr. at 4776 (Laub). It could also interfere with the access to roads, grazing, and the fighting of wildfires in the North Cedar Mountains. Davis at 7-8; Staff Test. at 28; FEIS at 2-49.
32. Moving the West Skull Valley Alternative farther east (into land held by the State of Utah) would require even more fill, as the ground elevation decreases as one moves further east. Hayes at 10-11; Staff Test. at 33. For example, moving the route two miles east of the Low Corridor would require about 50 percent more fill

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earth that would be cut (to lower the elevation of the railroad relative to the terrain) over the length of the line. See Tr. at 4670 (McFarland).

than the West Skull Valley Alternative. Staff Test. at 33. This would result in an even greater adverse environmental impact. *Id.* Therefore, other alignments on the west side of the valley that crossed into the State-owned land, even if feasible, would be inferior to the West Valley Alternative considered by PFS and to the proposed Low Corridor alignment.

33. As a result of the greater fill requirements, the West Skull Valley Alternative alignment would also be significantly more expensive than the proposed Low Corridor alignment. This alternative would increase costs by approximately \$5 million for the fill alone, which is roughly 15 to 25 percent of the cost of the rail line, ignoring additional cost impacts for other material and related installation effects. Donnell at 7-8.
34. Aside from the impacts of the fill material and the raised railroad bed, the proposed Low Corridor line and the West Skull Valley Alternative would have similar (small) environmental impacts. Davis at 6-7; Staff Test. at 31. Dr. Catlin testified that the environmental impacts of rail lines generally were similar, independent of whether they might be built inside or outside of the NCMA. Catlin at 8.
35. Because of the greater environmental impacts arising from the increased fill requirements and the greater cost, we find that the proposed Low Corridor rail alignment is superior to the West Skull Valley Alternative alignment.

## **2. The Central Skull Valley Alternatives**

36. PFS has considered an alternative railroad alignment—the Central Skull Valley Alternative—that would pass down the center of Skull Valley from the Union Pacific mainline south to the PFSF. Donnell at 5. The Central Skull Valley Alternative would have to cross I-80 before heading to the PFSF, in that the Union Pacific mainline runs on the north side of I-80 from Salt Lake City until



reaching Low Junction on the west side of Skull Valley. See id.; Staff Test. at 25-26; FEIS at 2-47. Crossing I-80 would present construction difficulties and cause environmental impacts because of the need to either raise I-80 and create a bridge over the new rail line or build a bridge for the rail line to cross over I-80. Staff Test. at 25-26.

37. The northern end of Skull Valley is covered by mudflats and adjacent wetlands, which provide a specialized habitat for a variety of shorebirds and other animals. The mudflat habitat is classified and protected as waters of the United States under section 404 of the Clean Water Act. Davis at 8-9. The mudflats are clearly visible in photographs of the Low Corridor area. See PFS Exh. GG (file DSCN1375, 1380).
38. A center of the valley route would require the mudflats to be bisected by a rail line, disrupting the habitat and requiring substantial fill. Davis at 9; see Staff Test. at 33. Furthermore, it is unlikely that the Army Corps of Engineers would allow PFS to fill long tracts of the mid-valley mudflats when alternatives on the east and west side of Skull Valley are feasible and would not impact any mudflats or waters of the United States. Davis at 9; 33 C.F.R. §§ 330.4(a) and (e).
39. Building a rail line across the mudflats would also present construction difficulties because of the need to support the weight of the railroad in the mudflat soil, which could potentially be unstable or unsuitable for a railroad bed. Tr. at 4849-50 (Catlin). The entire length of the rail line built through mudflats would have to be built on fill material. Staff Test. at 33.
40. Other than the impact on wetlands and mudflats and the impacts resulting from crossing I-80, the central Skull Valley alternative and the proposed Low Corridor rail line would have similar (small) environmental impacts. Davis at 9.

41. Because of the greater environmental impacts that would result from routing the rail line through the wetlands and mudflats and from crossing I-80, we find that the proposed Low Corridor rail alignment is superior to the Central Skull Valley Alternative alignment.

### **3. The East Skull Valley Alternatives**

42. PFS and the NRC Staff also considered railroad alignments that would run south to the PFS site from the Union Pacific mainline, along Skull Valley Road, on the east side of Skull Valley—the East Skull Valley Alternatives—as potential alternatives to the currently proposed Low Corridor alignment. Donnell at 3; PFS Exh. HH; FEIS at 2-47; Staff Test. at 25-27. The East Skull Valley Alternatives would either use (1) the existing underpasses below I-80, Donnell at 4; (2) over a new bridge over I-80, Donnell at 4; Staff Test. at 25; (3) a new underpass created by raising I-80, Staff Test. at 25; or (4) a new rock cut in the north end of the Stansbury Mountains that would allow the rail line to connect with the Union Pacific mainline east of the Stansburys, where it is south of I-80, Donnell at 4; Staff Test. at 26. See also FEIS at 2-47.
43. The existing Skull Valley Road underpasses under I-80 would not provide sufficient clearance to meet railroad requirements for a train carrying a loaded spent fuel cask. Donnell at 4. Building a new bridge over I-80, raising I-80 over the new rail line, or making a rock cut around the north end of the Stansbury Mountains would all add environmental impacts to the project. Donnell at 4; Staff Test. at 25-27; see FEIS at 2-47.
44. Regardless of their starting points, as they ran alongside Skull Valley Road the East Skull Valley Alternatives would likely impact the wetlands near Horseshoe Springs. FEIS at 2-47. Compared to the proposed alignment from Low Junction that requires only obtaining a right of way from BLM, an alignment along Skull

Valley Road would also require right of way agreements with other land-owners along the road, particularly private and State of Utah interests. Davis at 10.

Finally, the East Skull Valley Alternatives would also have impacts on existing houses and ranches and traffic on Skull Valley Road. Davis at 10; FEIS at 2-47.

45. Other than the impacts discussed above, the East Skull Valley Alternatives and the proposed Low Corridor alignment would have similar (small) environmental impacts. Davis at 10-11.

46. Because of the greater environmental impacts that would result from crossing I-80 and from running the rail line alongside Skull Valley Road, we find that the East Skull Valley Alternative rail alignments are not superior to the proposed Low Corridor alignment.

**F. Conclusion**

47. The Licensing Board concludes that the FEIS and the parties' testimony in this proceeding have adequately assessed potential alternative alignments for PFS's proposed Low Corridor rail line and wilderness issues associated with those alignments. A range of reasonable alternative rail line alignments available for transporting spent nuclear fuel from the Union Pacific mainline to the PFSF has been considered. Of the potential alternatives, the proposed Low Corridor alignment would have the least environmental impact. The fact that the proposed alignment crosses a small part of the NCMA does not alter that conclusion, since the area that would be crossed by the rail line lacks wilderness characteristics, as does the part of the NCMA east of the proposed rail line route. This conclusion regarding wilderness characteristics is supported by the assessment and findings of BLM, the federal agency responsible for assessing the wilderness characteristics of federal lands, the FEIS, and by the testimony in this proceeding. Furthermore, even if the portion of the NCMA to be crossed by the rail line and to

its east possessed wilderness characteristics, the Low Corridor rail alignment would only disqualify the far easternmost portion of the NCMA from potential designation as wilderness. Changing the rail alignment to avoid the small affected part of the NCMA, however, would result in additional adverse physical environmental impacts and costs that outweigh the value, if any, of preserving that small area for potential wilderness designation. In the end, serious consideration was given to a reasonable range of alternatives and no obviously superior alternative to the proposed alignment was found. Therefore, it is reasonable to locate the rail line as proposed. Thus, the requirements under NEPA and applicable NRC regulations for evaluating potential rail line alternatives for the PFSF have met been met.

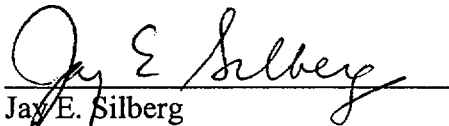
### **III. CONCLUSIONS OF LAW**

1. Under 42 U.S.C. §§ 4332(2)(C)(iii) and 4332(2)(E) and 10 C.F.R. §§ 51.71(d) and 51.90, the FEIS and the parties' testimony in this hearing assess and describe a reasonable range of alternative alignments for the proposed Low Corridor rail line.
2. None of these alternative alignments are environmentally superior to the proposed Low Corridor rail line.

#### IV. CONCLUSION

The Applicant respectfully requests that the Board rule in favor of the Applicant on Contention SUWA B.

Respectfully submitted,



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June 7, 2002

**Appendix A—Pre-filed Direct Testimony**

<b>Witness(es)</b>	<b>Location of Testimony</b>
John Donnell	Tr. at 4564
Susan Davis	Tr. at 4564
Douglas Hayes	Tr. at 4564
Kenneth McFarland Gregory Zimmerman Alice Stephenson Britta Laub	Tr. at 4653 (testimony) Tr. at 4661 (qualifications)
James Catlin	Tr. at 4795

### Appendix B—Exhibits

Exhibit	Marked	Admitted
<b>PFS Exhibits BB-KK submitted with Prefiled Testimonies of John Donnell, Susan Davis, and Douglas Hayes</b>		
<b>PFS Exhibit BB:</b> Excerpts from PFS ER	Tr. 4565	Tr. 4565
<b>PFS Exhibit CC:</b> SWEC Drawing DY-SK-19-A (Rail Alignment Plan)	Tr. 4565	Tr. 4565
<b>PFS Exhibit DD:</b> SWEC Drawing DY-SK-20A (West Skull Valley Alternate Alignment Sections)	Tr. 4565	Tr. 4565
<b>PFS Exhibit EE:</b> Overview of Low Corridor	Tr. 4565	Tr. 4565
<b>PFS Exhibit FF:</b> 5/8/01 BLM ltr to SUWA re North Cedar Mountains	Tr. 4565	Tr. 4565
<b>PFS Exhibit GG:</b> Photographs of the Low Corridor Area	Tr. 4565	Tr. 4565
<b>PFS Exhibit HH:</b> PFSF Transportation Study (SWEC 1998) § 3.3	Tr. 4565	Tr. 4565
<b>PFS Exhibit II:</b> Map of “jeep” trails near Low Corridor	Tr. 4565	Tr. 4565
<b>PFS Exhibit JJ:</b> BLM Intensive Wilderness Inventory Final Decision on Wilderness Study Areas (Nov. 1980)	Tr. 4565	Tr. 4565
<b>PFS Exhibit KK:</b> Second Declaration of Dr. Jim Catlin for Petitioner SUWA (12/8/98)	Tr. 4565	Tr. 4565
<b>NRC Staff Exhibits G-O submitted with Prefiled Testimonies of Kenneth McFarland, Gregory Zimmerman, Alice Stephenson, and Britta Laub</b>		
<b>NRC Staff Exhibit G:</b> FEIS Fig. 2.16	Tr. 4663	Tr. 4663

<b>NRC Staff Exhibit H:</b> 5/8/01 BLM ltr to SUWA re North Cedar Mountains	Tr. 4663	Tr. 4663
<b>NRC Staff Exhibit I:</b> Map showing locations of photographs	Tr. 4663	Tr. 4663
<b>NRC Staff Exhibit J:</b> Point 1S, Photo 71	Tr. 4663	Tr. 4663
<b>NRC Staff Exhibit K:</b> Point 2E, Photo 74	Tr. 4663	Tr. 4663
<b>NRC Staff Exhibit L:</b> Point 2W, Photo 75	Tr. 4663	Tr. 4663
<b>NRC Staff Exhibit M:</b> Point 3S, Photo 76	Tr. 4663	Tr. 4663
<b>NRC Staff Exhibit N:</b> Point 5W, Photo 79	Tr. 4663	Tr. 4663
<b>NRC Staff Exhibit O:</b> Point 7W, Point 85	Tr. 4663	Tr. 4663
<b>NRC Staff Exhibit Y:</b> U.S. Department of the Interior BLM Manual Transmittal Sheet, No. 6840—Special Status Species Management	Tr. 4893	Tr. 4896
<b>NRC Staff Exhibit Z:</b> Application for Construction and Operation Authority for Great Salt Lake and Southern Railroad	Tr. 4903	Tr. 4906
<b>NRC Staff Exhibit AA:</b> Application for Transportation on Federal Lands, Private Fuel Storage Facility	Tr. 4906	Tr. 4911
<b>SUWA Exhibits 1-3 submitted with Prefiled Testimony of Dr. James Catlin</b>		
<b>SUWA Exhibit 1:</b> Resume of Jim Catlin	Tr. 4796	Tr. 4796
<b>SUWA Exhibit 2:</b> 5/8/01 BLM ltr to SUWA re North Cedar Mountains	Tr. 4796	Tr. 4796



<b>SUWA Exhibit 3:</b> Selected pages from Notice of Appeal, Statement of Reasons, and Request for Stay re Utah State Director Wisely's Decision Partially Denying SUWA's Protest of Inclusion of Certain Parcels in the May 22, 2001 Competitive Oil and Gas Lease Sale	Tr. 4796	Tr. 4796
<b>SUWA Exhibit 4:</b> Off Highway Vehicle Designations Pony Express Resource Area	Tr. 4679	Tr. 4767
<b>SUWA Exhibit 5:</b> Information on Unit UT-020-087, North Cedar Mountains	Tr. 4705	Tr. 4767

**UNITED STATES OF AMERICA  
NUCLEAR REGULATORY COMMISSION**

Before the Atomic Safety and Licensing Board

In the Matter of	)	
	)	
PRIVATE FUEL STORAGE L.L.C.	)	Docket No. 72-22
	)	
(Private Fuel Storage Facility)	)	ASLBP No. 97-732-02-ISFSI

**CERTIFICATE OF SERVICE**

I hereby certify that copies of the Applicant's Proposed Findings of Fact and Conclusions of Law on Contention SUWA B were served on the persons listed below (unless otherwise noted) by e-mail with conforming copies by U.S. mail, first class, postage prepaid, this 7<sup>th</sup> day of June, 2002.

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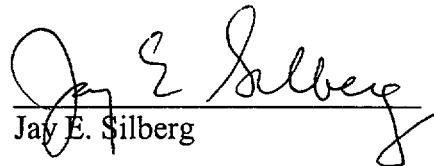
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