
DOCKET 72-22

Environmental Impact Statement Scoping Process

Scoping Report

Private Fuel Storage Facility
Skull Valley Indian Reservation, Tooele County, Utah

September 1998



U.S. Nuclear Regulatory Commission
Rockville, Maryland

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1. INTRODUCTION

Private Fuel Storage L.L.C. (PFS), a company owned by seven U.S. electric utilities,¹ has applied to the U.S. Nuclear Regulatory Commission (NRC) for a license to construct and operate an independent spent fuel storage installation (ISFSI). Pursuant to the Atomic Energy Act, as amended, and the Commission's regulations in Title 10 of the *Code of Federal Regulations*, PFS filed an application (Docket No. 72-22) with an accompanying Environmental Report on June 20, 1997, for a specific license to receive, transfer, and possess nuclear power reactor spent fuel and other radioactive material associated with spent nuclear fuel (SNF) storage in an ISFSI to be constructed and operated on the Skull Valley Indian Reservation in Tooele County, Utah. The proposed facility would be located on an 820-acre site leased from the Skull Valley Band of Goshute Indians approximately 27 miles west-southwest of the city of Tooele. The proposed facility would be designed to store SNF for an initial license period of 20 years that would be subject to renewal for an additional 20 years. The applicant anticipates that by the end of the 40-year period all SNF stored at the proposed facility would have been transferred offsite, and the ISFSI site would be decommissioned.

Pursuant to its regulations in 10 CFR Part 51, the NRC is preparing an environmental impact statement (EIS) on the proposed facility as part of its decision-making process. In addition to the EIS, the NRC is preparing a Safety Evaluation Report (SER) to address safety aspects of the proposed facility.

Both the Bureau of Indian Affairs (BIA) and the Bureau of Land Management (BLM) have requested to be cooperating agencies in the preparation of the EIS. As trustees for the Skull Valley Band of the Goshute Indians, the BIA has responsibility to ensure that the interests of the tribe are not compromised by construction and operation of the proposed ISFSI. As manager of the Federal land adjacent to the proposed facility and over which rail access to the site might be built, the BLM has responsibility to represent the interests of the United States with regard to these lands.

The proposed facility would store SNF inside sealed canisters, which are enclosed in steel and concrete casks that provide shielding and additional mechanical protection to the fuel. The canister/cask-based system confines radioactive wastes and would be licensed by NRC in accordance with 10 CFR Part 72 requirements for storage of SNF. The proposed facility would store up to 40,000 metric tons of uranium (MTU) in a maximum of 4,000 casks. PFS proposes to begin construction of the facility in 2000 and to complete Phase 1 construction by the end of 2001. This phase of construction will provide an operational facility. Ownership and ultimate responsibility for the SNF would continue to remain with the utilities that generated it until such time as the fuel is transferred to the U.S. Department of Energy (DOE).

¹As per p. 1-10 of the PFS License Application, the members of the limited liability company are Genoa FuelTech, Inc., Indiana Michigan Power, Consolidated Edison Company of New York, GPU Nuclear Corporation, Northern States Power Company, Illinois Power Company, and Southern Nuclear Operating Company.

The scoping process was initiated on May 1, 1998, with the publication in the *Federal Register* of a Notice of Intent (NOI) to prepare an EIS and conduct the scoping process (63 *Fed. Reg.* 24197-98). As described in the NOI, the objectives of the scoping process are to

1. define the scope of the proposed action which is to be the subject of the EIS;
2. determine the scope of the EIS and identify significant issues to be analyzed in depth;
3. identify and eliminate from detailed study issues which are peripheral or are not significant;
4. identify any environmental assessments and other EISs which are being or will be prepared that are related to but not part of the scope of the EIS under consideration
5. identify other environmental review and consultation requirements related to the proposed action;
6. indicate the relationship between the timing of the environmental analyses and the Commission's tentative planning and decision-making schedule;
7. identify any cooperating agencies and, as appropriate, allocate assignments for preparation and schedules for completion of the EIS to the NRC and any cooperating agencies; and
8. describe the means by which the EIS will be prepared, including any contractor assistance to be used.

This report has been prepared to summarize the determinations and conclusions reached in the scoping process. Individuals and organizations who provided comments during the scoping period will receive a copy of this report. Following the publication of this report, the NRC staff will commence preparing a draft EIS. Oak Ridge National Laboratory is the contractor selected by NRC to provide technical assistance in the preparation of the EIS.

After publication of the draft EIS, the public will be invited to comment on that document. After evaluating comments on the draft EIS, NRC will issue a final EIS that will serve as the basis for the Commission's consideration of environmental impacts in its decision on licensing the proposed ISFSI and for issuance of decisions by cooperating agencies with authorizing actions. Section 2 of this report summarizes the comments and concerns expressed by government officials, agencies, and the public. Section 3 identifies the issues that the EIS will address and those issues that are not within the scope of the EIS. Where appropriate, Section 3 identifies other places in the decision-making process where issues that are outside the scope of the EIS may be considered.

2. SUMMARY OF ISSUES RAISED DURING THE SCOPING PROCESS

2.1 OVERVIEW

NRC held the Public Scoping Meeting for the EIS regarding the proposed ISFSI in Skull Valley, Utah, on June 2, 1998, in Salt Lake City. During the scoping meeting, 35 individuals offered comments about the proposed action. Of these 35 speakers, 3 were representing Federal agencies or organizations, 9 were representing State of Utah agencies or departments, and 23 spoke on behalf of other organizations or as private citizens. In addition, 30 written statements from individuals, organizations, and agencies were received during the scoping period. Some of these submittals were written statements or summaries of the verbal testimony. This active participation by the public in the scoping process is an important component of determining the major issues that the EIS should assess.

The individuals at the meeting offered comments and questions on several subject areas but primarily emphasized their concerns about risk and safety issues (e.g., transporting spent fuel and the potential for accidents during storage), the role of the Utah State government, and environmental impacts resulting from the construction and operation of the proposed facility. The comments and questions have been initially categorized into the following general topics:

- accidents;
- transportation of spent fuel;
- cumulative impacts and scope of the analysis;
- compliance with applicable local, State, and Federal regulations;
- geology and seismicity;
- hydrology (surface water and groundwater);
- socioeconomics (including land use, aesthetics, recreational resources and cost/benefit analyses);
- ecology;
- cultural resources and environmental justice;
- need for the facility;
- radiological impacts and human health and safety;
- emergency preparedness;
- decommissioning;
- long-term storage of spent fuel; and
- alternatives.

Attachment A to this report lists the commentors and, on the basis of the topics listed above, shows the subject areas covered by their comments. Attachment B contains a proposed outline for the draft EIS, which was developed after considering the oral and written scoping comments.

In addition to raising important issues about the potential environmental impacts of the proposed facility, some commentors offered opinions and concerns that typically would not

be included in the subject matter of an EIS—these include, for example, general opinions about nuclear energy policy in the United States or issues that are more appropriately considered in the NRC's SER. Comments of this type are taken into consideration by the staff, but they do not point to significant environmental issues to be analyzed. Such comments are categorized here as "out of scope." Other statements may be relevant to the proposed action, but they have no direct bearing on the evaluation of alternatives or on the decision-making process involving the proposed action. For instance, general statements of support for or opposition to the proposed project fall into this category. Again, comments of this type have been noted but are not used in defining the scope and content of the EIS.

Section 2.2 summarizes the issues raised during the scoping process, many of which the staff has identified as having a direct bearing on the analysis of potential environmental impacts and the NRC's related decision-making process. Section 2.3 briefly describes other sources of project-related information that were considered during the scoping process for the EIS.

2.2 SUMMARY OF ISSUES RAISED

2.2.1 Accidents

A common concern expressed pertaining to the proposed project is the potential for accidents. Of particular concern are accidents that would involve a significant radiological release that, in turn, could have serious human health, social, ecological, and economic impacts. Many commentors were concerned that such accidents could occur in the facility itself, during transport of spent fuel, in the Intermodal Transfer Facility (ITF) which would be located about 24 miles from the proposed facility, and while casks are being handled by various types of equipment.

Several commentors were concerned about cask testing, performance, and degradation, especially the potential for leaks, loss of containment, loss of helium from the canisters, and cask overheating. Natural phenomena (such as earthquakes, floods, and brush fires) and external events (such as plane crashes) were also believed to be capable of causing catastrophic accidents involving radiological releases. The lack of a hot cell in the facility and the potential for human error were seen as increasing the potential for accidents.

The threat of sabotage, either by an insider or by terrorists, was regarded as an important vulnerability of the facility and of transportation activities; and several commentors pointed out that the population of the region around the proposed project is expected to increase, potentially making the consequences of an accident more serious. Some commentors expressed concern that the proposed project itself may cause accidents that would affect other resources and create hazards for the public, such as the ignition of wildfires by the proposed railroad and the resultant hazards to fire fighters.

Many commentors felt that accident analysis should be broadly extended to cover all components of transporting and storing the spent fuel and that the analysis should be based upon accurate, reliable, and objective data and previous studies. A few commentors felt that new tests should be performed to ensure the reliability of the casks. Mitigation plans for accident consequences and considerations of the potentially significant costs of an accident were also seen as related to the environmental impact analysis for the facility.

2.2.2 Transportation of Spent Fuel

Many commentors were concerned about the number, type, and frequency of spent fuel shipments; and there were several comments about the large quantity of spent fuel to be shipped and stored. These commentors felt that the transport of high-level nuclear waste carries many environmental and economic risks that have not been adequately evaluated in the site-specific context of the proposed action.

One commentor noted that transportation accidents – even those that do not involve a radiological release – may disrupt and adversely affect vital transportation routes in the region, resulting in attendant economic impacts. Other commentors mentioned that (1) DOE will be using the same transportation corridor for nuclear waste shipments, (2) Utah State legislation (HR 2083 and SB 196) may impose prohibitively high fees on transporting spent fuel within the State, and (3) public health resources would have to be used to inform affected members of the public who perceive that they are in danger from the shipments.

One commentor said that an accident involving spent fuel near the Great Salt Lake could result in serious impacts to wildlife. Some commentors indicated that all communities along transport corridors would be endangered and, further, that they may not have adequate emergency response capabilities. Commentors also felt that there were insufficient safeguards in place to prevent or mitigate accidents and to protect shipments from potential sabotage.

In addition, commentors felt that the EIS should evaluate the transportation of spent fuel comprehensively – that is, from the originating nuclear power plant to the proposed facility, by both truck and rail shipments, and in terms of the full range of potential impacts associated with transporting spent fuel. Of particular concern were the potential impacts on the public and on the emergency response capabilities in communities located along the transport corridors.

2.2.3 Cumulative Impacts and Scope of the Analysis

Commentors noted that the proposed site is located in an area of military, chemical-industrial, and waste disposal facilities, such as Dugway Proving Grounds, the Tooele chemical weapons depot, and a magnesium refining operation. Consequently, they felt that the proposed facility should be evaluated in the context of the collective, interrelated, and cumulative impacts of these facilities, especially because of accidents that have already occurred in the area and because of past and ongoing environmental insults and contamination.

Commentors suggested that the potential for accidents at the proposed site would be heightened by the proximity of the other hazardous facilities and by the presence of an Air Force base that performs low-altitude flights. A few commentors reported that residents of the area already have experienced increased risk and incidence rates for serious illnesses as a result of contamination and emissions from the nearby facilities and from nuclear weapons tests in that area in the 1950s. Some commentors argued that the impact assessment should include a large region around the proposed site because of the presence of other potentially hazardous facilities.

2.2.4 Compliance with Applicable Local, State, and Federal Regulations

Many commentors raised legal and regulatory questions regarding the proposed project. Some of those issues fall outside the scope of the EIS, such as DOE's statutory responsibilities regarding spent fuel management and transportation, contractual liabilities and responsibilities of the Skull Valley Band, the terms of the lease agreement with Band members, Tribal sovereignty laws, and the actions and responsibilities of BIA.

Some commentors felt that the proposed project should comply with all provisions of the Nuclear Waste Policy Act, and a few commentors felt that existing NRC regulations regarding the transportation of spent fuel and the operation of spent fuel storage facilities are inadequate to ensure the public safety. Commentors also pointed to legal and regulatory compliance issues that would be relevant to the proposed facility under the NEPA process. In particular, these include the need to comply with all applicable Federal, State, and local regulations covering environmental resources such as groundwater, air quality, effluents, waste, wetlands, and water and storm discharges.

Other commentors were concerned that construction and transportation activities associated with the proposed project would infringe on rights-of-way or trust lands owned by the State of Utah or by private citizens. Two commentors mentioned water rights as an issue that may affect the availability of any potable or process water required for the facility. One commentor said that relevant legislation, regulations, entitlements, and permits enacted or required by the State of Utah should be reviewed in detail and that the status of compliance with those requirements should be described.

A representative from BLM asked if that agency should be included as a cooperating agency in the preparation of the EIS and mentioned its potential role in key decisions about permits and other authorizations. Some commentors felt that NEPA regulations regarding scoping would require NRC to extend the comment period because the PFS application lacks sufficient detail. Another commentor mentioned that any existing or potential oil, mineral, or natural gas leases in the area should be identified and evaluated for their effect on the proposed project. One commentor stated that BIA should prepare an independent EIS regarding the lease agreement between the applicant and the Skull Valley Band of Goshutes.

2.2.5 Geology and Seismicity

Several commentors regarded geology and seismicity at the proposed site as critically important issues affecting the suitability of Skull Valley to host a spent nuclear fuel storage facility. The geologic conditions mentioned most often include the potential for large-magnitude earthquakes, ground motion, soil stability, and surface rupturing.

Commentors felt that the potential for earthquakes and ground motions in the area may be greater than the applicant has reported and that a more complete analysis of the faults and other geologic structures in the area is needed. One commentor, for example, recommended that PFS be required to collect data from a statewide strong-motion seismic information network for use in design and planning of the proposed facility. Other commentors felt that the design of the proposed facility and the casks is sufficient to prevent damage to or releases from the spent fuel in the event of a large earthquake.

2.2.6 Hydrology (Surface Water and Groundwater)

Several commentors felt that the effects of construction and operation of the proposed project on surface water and groundwater resources should be assessed in detail for both the site itself and the larger region around it. In addition, some commentors felt that the facility – during both routine and accident conditions – has the potential to contaminate water resources. One commentor stated that existing water supplies are “dirty,” and several others mentioned the issue of water rights and availability.

Other issues mentioned by commentors include the probable maximum flood (PMF), facility water usage requirements, water availability, effects on the water table and aquifer, and impacts on other water uses and users in the area. One commentor disagreed with the PMF calculation in the license application, saying that the drainage basin described by the applicant as 26 square miles in area is actually closer to 240 square miles. The same commentor noted that floods have occurred in the area and that during those floods, the land depressions south of the access road were filled, the ground was saturated, and much of Skull Valley produced significant amounts of runoff.

2.2.7 Socioeconomics

Some commentors acknowledged that the proposed project may have positive economic effects on the resident Tribal population, but they also expressed concerns about allowing these positive effects to overshadow the negative social and economic consequences of the proposed action. Socioeconomic issues mentioned include effects of the proposed facility on (1) nearby property values, (2) the local tax base, (3) residential and commercial development in the region, (4) agriculture, (5) beef production, and (6) regional employment. A few commentors suggested that the mere presence of the facility may induce these adverse socioeconomic impacts because of the negative public perceptions that are attached to nuclear waste storage.

Some commentors were particularly concerned about the costs associated with accidents at the facility and the economic burdens that could be placed on the Tribe or the State if costly cleanup activities were required. Other commentors felt that there are too many unknowns in the potential costs of the project to allow for an accurate cost determination, and one commentor said that the cost/benefit analysis must thoroughly evaluate the cost and risks of the proposed project in comparison with the costs of storing the spent fuel at the nuclear power plants. One commentor suggested that financial assistance should be given to affected communities to mitigate potential economic impacts of the proposed facility.

Although the proposed project may induce positive socioeconomic impacts, some commentors were concerned that those economic benefits would not be distributed fairly, would be inadequate compensation for the degree of risk involved, and would be insufficient to cover any costs the Tribe may incur as a result of hosting the proposed facility.

Some commentors stated that the cost/benefit analysis should cover the life of the project and should include the cost of on-site storage at the power plants, the specifics of State-imposed restrictions, the costs of transportation, and the specific costs of all phases of the project, including decommissioning. One commentor stated that the cost/benefit analysis should include an evaluation of the financial impact of the proposed project on ratepayers at the PFS member utilities.

A few commentors were concerned about the effect of the proposed project on land use and values in the area, particularly public lands (such as State-administered Trust lands) and rights-of-way, that may be disturbed or degraded during construction and operation of the facility and during transportation activities. Others noted that the proposed project may alter the land use patterns of the area and set an undesirable precedent for future land use. Also, commentors mentioned livestock grazing and the extensive agricultural and ranch lands in the vicinity and were concerned about potential adverse impacts on these resources. Some commentors felt that the proposed project would interfere with future land use and development in the area.

Several commentors noted that Skull Valley is a valuable and attractive ecosystem that is too often inaccurately described as "barren." These commentors see the wildlife and vegetation in the region as valuable resources that must be preserved and protected for the enjoyment of current and future residents and visitors.

Similarly, some commentors were concerned about the effects of the proposed facility on recreational resources and tourism. Nearby wilderness areas and historic sites and trails, for example, have recreational value; and the Valley is an educational resource for wildlife observation, including the study of raptors.

2.2.8 Ecology

Commentors expressed several concerns about the impacts of all phases of the proposed project on plant and animal species of the region. One commentor said that some mitigation measures being discussed could possibly minimize those impacts but felt that a greater effort should be made to identify and address unintended impacts on wildlife migration patterns, critical habitats, and the potential for unavoidable impacts on wildlife and its habitat.

One commentor suggested that the EIS include an assessment of the proposed facility's effects on wetlands and the grazing patterns of domestic livestock. The commentor further expressed concern about the potential impacts of toxic spills or other environmental contamination of the Great Salt Lake, which he said is a unique ecosystem of international importance. The commentor noted that the lake has been designated as a western hemispheric shore bird reserve because of its importance to migratory wildlife and that it supports brine shrimp harvest and mineral extraction industries that are important to the State's economy. Two other sites near the proposed facility were also mentioned as ecologically significant areas (Timpie Springs and Horseshoe Springs) because of their importance to migratory birds and other wildlife that use these isolated areas. Commentors further mentioned that the project may impact threatened, endangered, or other special status species such as the bald eagle, peregrine falcon, and Pohl's Milkvetch. Another commentor asked that the EIS evaluate potential impacts on wild horses.

One commentor suggested that rabbits and pigeons should be prevented from getting near the casks because of the potential for impacts from repeated low-level exposures; and one commentor was concerned about the potential for bioaccumulation of radionuclides in raptors from accidental contamination of their prey. The commentor stated that rodent and insect barriers may be needed for the casks. Some commentors felt that the impacts of the project may extend well beyond the boundaries of the site itself and that the EIS should evaluate potential impacts to natural resources throughout northern Utah.

2.2.9 Cultural Resources and Environmental Justice

Some commentors indicated that the proposed project may have adverse and unacceptable impacts on the historic and archaeological resources and heritage of the area. They felt that a full analysis of those potential impacts should be included in the EIS. Several commentors pointed to the cultural traditions and lifestyle of the resident Native Americans and were concerned that the proposed project might disrupt the practice and enjoyment of that lifestyle. These commentors felt that Native American reservations have been disproportionately used as sites for hazardous and toxic waste storage or disposal. A few commentors noted that the proposed project has caused social rifts among Tribal members.

Citing Executive Order 12898, some commentors mentioned environmental justice issues and said that most of the impacts of the proposed project would fall on a minority population that already experiences increased environmental and health risks from several nearby hazardous facilities. Some commentors suggested that the presence of the proposed facility, the transport of nuclear fuel, and the potential for accidents may induce fears and a loss of the sense of well-being among residents, impinge on and diminish the value of ancestral or sacred land, and affect residents' attitude toward their community and lands. They indicated that these impacts may be felt both individually and collectively for the resident population. Other commentors were concerned that the economic benefits of the proposed project might not be distributed fairly among the resident Native Americans. Furthermore, the commentors suggested that emergency planning programs for transportation and operation should specifically consider the needs and characteristics of the Native American population.

2.2.10 Need for the Facility

The need for the facility was questioned by several commentors. For instance, it was felt that many nuclear power plants have the capability to store the spent fuel they generate and that an analysis of the need for the facility should therefore include current and projected quantities of spent fuel and storage capacity at those plants.

Commentors further suggested that the assessment of the need for the Skull Valley facility must consider that need on a national level, must be consistent with current national nuclear waste policy and legislation, and should not be used to divert national attention and policy away from more suitable locations. Some commentors also felt that the need for the facility is being evaluated only for temporary storage when it may become a permanent facility if no suitable repositories are available at the end of the facility's license.

2.2.11 Radiological Impacts and Human Health and Safety

The dominant human health and safety concern expressed by commentors was the potential for exposure to radiation. They noted that exposures to both workers and the public could occur during transport of nuclear fuel, after an accident, and during routine operations and maintenance; and they felt that comprehensive dose assessments should be conducted. The commentors also felt that the health effects of accidental releases would be very serious. Potential adverse effects on the mental health of residents and on people exposed to radiation in an accident were also mentioned; one commentor was concerned that the perception of risk could cause adverse impacts on a population. Other commentors

said that the EIS should analyze health risks in the context of the ongoing risks from the nearby chemical and hazardous waste facilities – some commentors felt that many residents of the region have already experienced significant health problems because of those facilities and existing contamination in the area. Commentors also felt that the public health and safety resources of the State would be overburdened if they must be used to address the real and perceived risks of the facility. One commentor stated that quantitative and qualitative health and ecological risk assessments should be provided. Another commentor suggested that rain and melted snow may become radiologically contaminated on the concrete pads.

2.2.12 Emergency Preparedness

Several commentors noted that the inherent hazards of spent nuclear fuel and the potentially serious consequences of a catastrophic accident should make emergency preparedness issues a consideration in the EIS. They stated that a specific, detailed emergency response plan should be prepared; that it should be coordinated, reviewed, and approved by relevant local, State, and Federal organizations; that it should describe the on- and off-site emergency response capabilities; and that it should not be limited only to Skull Valley or Tooele County.

Some commentors indicated that emergency response planning should cover all transportation corridors and all elements of emergency preparedness such as facilities, equipment, infrastructure, response capabilities, monitoring, warning and notification systems, personnel training, cumulative impacts, mitigation, and relevant NWSA provisions. Two commentors felt that the emergency planning for the proposed facility should be modeled after the U.S. Army's Chemical Stockpile Emergency Preparedness Program, particularly its emphasis on effective coordination, consultation, and agreement with State agencies. One commentor suggested that financial assistance may be needed in at-risk communities. Specific concerns mentioned by one commentor include (1) wildfires, (2) snow buildup around casks, (3) excessive heat and cold, (4) accident response times, and (5) impacts of being unable to repackage a damaged cask.

2.2.13 Decommissioning

Some commentors felt that decommissioning of the proposed facility may be difficult and costly, particularly if any accidents occurred during the license term. These commentors expressed uncertainties about the ability and willingness of the applicant's member utilities to provide sufficient funds for decommissioning. They further stated that the financial viability and responsibilities of the member utilities may be difficult to assess and that individual member utilities may elect to withdraw from PFS, thereby complicating the question of funding for decommissioning.

2.2.14 Long-term Storage

Several commentors were concerned that the proposed project is being planned as an interim storage facility but may become a permanent storage facility. They cited, as an example, the current unavailability of the Yucca Mountain site, the uncertain schedule for opening that site, and the potential legal, regulatory, and social opposition that may arise if other sites are proposed. In general, these commentors felt that the proposed facility will be

forced to store spent fuel past the license term or will become attractive as a permanent storage site if very few alternatives are available. Because of these concerns, the commentors stated that the analysis of environmental impacts in the EIS should include the possibility of long-term or even permanent storage of spent fuel in the proposed facility.

2.2.15 Alternatives

Some commentors said that the no-action alternative should be covered in detail, including the economic and environmental benefits of leaving spent fuel stored on-site at the originating nuclear power plants. One commentor mentioned that the evaluation of alternatives should include all the technological concerns raised by the State of Utah about the proposed facility. Another commentor felt that the potential environmental justice impacts of the proposed facility could possibly be mitigated by the selection of an alternative site. Some commentors stated that other sites may be more suitable locations for spent fuel storage if a permanent repository is not available at the end of the proposed facility's license term. A few commentors suggested that other locations, including regional private ISFSIs, may be more suitable for a spent fuel storage facility. One commentor said that the applicant's Environmental Report lists 38 potential sites and that the EIS should evaluate each of these sites. The commentor also mentioned that alternative transportation routes should be evaluated in the EIS. Lastly, some commentors felt that the analysis of alternatives should acknowledge the possibility that other facilities may not be available to receive damaged canisters if PFS is required to ship such items off-site or when the license term expires.

2.3 OTHER SOURCES OF SCOPING-RELATED INFORMATION

The comments from the public scoping meeting, as well as the written comments received within the scoping period, were used to help NRC define the issues and alternatives to be addressed in the EIS. As part of determining the scope of the draft EIS, the NRC staff has also reviewed its regulations and generic guidance documents relevant to the preparation of the EIS, as well as many of the documents that were submitted as part of the licensing process for this facility, as appropriate. Some of these documents, although not summarized here, present issues and alternatives that helped to refine the scope of the EIS.

3. SUMMARY AND CONCLUSIONS

3.1 SCOPE OF THE EIS

To a large extent, the general content of an EIS prepared by NRC is prescribed by NEPA (Public Law 91-90, as amended), NRC's regulations for compliance with NEPA (10 CFR Part 51), and guidance provided by the Council on Environmental Quality regulations (40 CFR Parts 1500-08). These regulations broadly define the areas that must be considered in the assessment of potential impacts resulting from a proposed action. In conjunction with these regulatory guidelines, the scoping process summarized in this report helped to identify and refine the project-specific issues that warrant consideration in the EIS.

The EIS will include a cost/benefit analysis that summarizes the environmental and other costs and benefits of the proposed action. On the basis of the regulations and the scoping process, NRC has initially determined that the EIS will assess the potential environmental impacts of the proposed facility, for both construction and operation activities, in the following subject areas, as supplemented by the areas identified in Attachment B:

- **Radiological impacts and human health and safety.** The potential public health consequences of the proposed facility will be evaluated primarily in terms of radiological exposure risk during normal operations (including handling, transfer, and inspection activities) and under credible accident scenarios. Nonradiological events and activities with potential human health impacts will also be identified and evaluated.
- **Cumulative impacts.** The EIS will analyze the potential cumulative impacts, if any, of the proposed facility in the context of other existing and proposed facilities and activities in the area of the proposed site, as appropriate.
- **Socioeconomics.** The socioeconomic issues that fall within the scope of the EIS include the direct and indirect economic effects (both beneficial and adverse) on employment, taxes, property values, residential and commercial development, agriculture, and public services in the area. The EIS will include an economic cost/benefit analysis. The effects of the proposed project on land use in the area, including public lands and rights-of-way, will be assessed in the EIS, including an evaluation of the extent to which lands and land use may be disturbed or altered during construction and operation of the proposed facility. In addition, recreational and tourism sites, wilderness areas, and aesthetic values of the area will be analyzed.
- **Cultural resources and environmental justice.** The EIS will assess potential impacts of the proposed project on the historic and archaeological resources of the area and on the cultural traditions and lifestyle of Native Americans. Environmental justice impacts will receive attention because of the location of the proposed facility on Reservation lands.
- **Geology and seismicity.** The EIS will describe the geologic and seismic characteristics of the proposed site. Evaluation of the potential for earthquakes, ground motion, soil stability concerns, surface rupturing, and any other major geologic or seismic considerations that would affect the suitability of the proposed site as a storage location for SNF will be addressed in the SER rather than the EIS; the SER will also address cask design, particularly in the context of potential seismic events.

- **Transportation.** The analysis of potential impacts resulting from the transportation of spent fuel will consider relevant aspects of both rail and truck transport of SNF to the proposed facility. The EIS will discuss the number, type, and frequency of shipments, as well as routing considerations and the quantities of spent fuel being shipped. The impacts of transportation will be evaluated primarily in terms of radiological exposure risk during normal transportation (including handling, transfer, and inspection) and under credible accident scenarios. The nonradiological impacts of transportation will also be identified and evaluated. Construction activities required for road or rail systems will be assessed, including input from BIA and BLM.
- **Accidents.** The SER will assess the environmental impacts associated with credible accidents at the proposed facility, both from natural events and human activities. (NRC regulations and guidance specify that the facility be designed to withstand various natural events without having a significant radiological release). The EIS will analyze the potential environmental impacts resulting from credible accidents at the proposed facility.
- **Compliance with applicable regulations.** The EIS will present a listing of the relevant permits and regulations that are believed to apply to the proposed facility. Regulatory or legal issues that will be covered in the EIS include water rights, land use restrictions such as rights-of-way, and oil, gas, or mineral leases that would interfere with the availability or suitability of the proposed site.
- **Air quality.** Potential air quality impacts of the proposed project will be evaluated in the EIS. The evaluation will include potential impacts resulting from construction activities and operation and will compare the anticipated air quality impacts, if any, with relevant standards. If appropriate, modeling will be performed to assist in the analysis of potential air quality impacts.
- **Hydrology.** The EIS will assess the potential impacts of the proposed project on surface water and groundwater resources. The assessment will consider water resources, water quality, water use, floodplains, and the probable maximum flood.
- **Ecological resources.** The EIS will assess the potential environmental impacts of the proposed facility on ecological resources, including plant and animal species and threatened or endangered species or critical habitat that may occur in the area. As appropriate, the assessment will include potential effects on wildlife migration patterns; and mitigation measures to address adverse impacts will be analyzed.
- **Need for the facility.** A discussion of the need for the proposed facility and the expected benefits will be presented in the EIS and will include an estimate of the amounts of spent fuel generated by participating nuclear power plants and the utilities' capabilities to store that fuel.
- **Decommissioning.** The EIS will include a general discussion of decommissioning of the facility and associated impacts.
- **Alternatives.** The no-action alternative and other reasonable alternatives to the proposed action will be described and assessed in the EIS. Other reasonable alternatives to the proposed action, such as alternative sites or alternative storage methods, will be considered.

3.2 ISSUES OUTSIDE THE SCOPE OF THE EIS

The purpose of an EIS is to assess the potential environmental impacts of a proposed action as part of the decision-making process of an agency – in this case, a licensing decision. As noted in Sect. 2.1, some issues and concerns raised during the scoping process are not relevant to the EIS because they are not directly related to the assessment of potential impacts or to the decision-making process. Exclusion from the EIS, however, does not suggest that an issue or concern lacks value. Issues beyond the scope of an EIS may be appropriately discussed and decided in other venues.

Some of the issues raised during the public scoping will not be addressed in the EIS. These include legal issues such as the potential conflict between Federal laws regarding Tribal sovereignty and State laws regarding waste storage. An analysis of DOE's statutory responsibilities regarding SNF, particularly as legislated in the Nuclear Waste Policy Act, is also outside the scope of the EIS; and DOE's responsibilities regarding SNF do not require that DOE be a cooperating agency for this EIS. Similarly, DOE's activities at Yucca Mountain and questions about the future availability of that site are beyond the scope of the EIS, as is the potential that such a facility may not become available within the next 40 years [see 10 CFR § 51.23(b)]. Other issues that will not be evaluated in the EIS include requests to extend the scoping period in response to revised licensing-related submittals by the applicant and conducting separate scoping processes for BIA and BLM.

Some issues raised during the public scoping process for the proposed facility are outside the scope of the EIS, but they will be analyzed in the SER. The EIS and the SER are related in that they may cover the same topics and may contain similar information, but the analysis in the EIS is limited to an assessment of potential environmental impacts. In contrast, the SER primarily deals with safety evaluations and procedural requirements or license conditions to ensure the health and safety of workers and the general public. The SER also covers other aspects of the proposed action such as demonstrating that the applicant will provide adequate funding for decommissioning of the facility (in compliance with NRC financial assurance regulations) and that the site-specific emergency preparedness procedures are appropriate. Also, the design of the transport, transfer, and storage casks will be evaluated in the SER or in separate rulemaking proceedings for conformity with NRC regulations regarding safety and testing. The SER will include an evaluation of the safeguards at the proposed facility (pursuant to 10 CFR Part 73).

Attachment A

**Comment Subject Areas by Commentor,
Oral and Written Comments**

Attachment A. Comment subject areas by commentator, oral and written comments ^a		Oral comments											
Commentor and affiliation (if any)		Lee Allison, Utah Geological Survey	Calvin Andrews, Analytics Marketing and Consulting	Wayne Ball, Utah Department of Health	Steven Barrowes, Scientists for Secure Waste Storage	Leon Bear, Chairman, Skull Valley Band of the Goshute Indians	Ralph Becker, Utah House of Representatives	Lisa Bulcreek, member, Skull Valley Goshutes	Margene Bulcreek, Ohngo Gaudadeh Devia Awareness				
Commentor and affiliation (if any)		✓	✓	✓	✓		✓	✓	✓	✓			
Safety and accidents			✓										
Transportation			✓										
Cumulative impacts and EIS scope			✓										✓
Regulatory compliance													
Geology and seismicity		✓											
Hydrology					✓								
Socioeconomics			✓			✓							
Ecology			✓										
Cultural resources and environmental justice			✓										✓
Need for the facility													
Radiological impacts and human health			✓										✓
Emergency preparedness					✓								
Decommissioning													
Long-term storage			✓										
Alternatives													

Attachment A (continued)

Commentor and affiliation (if any)	Safety and accidents	Transportation	Cumulative impacts and EIS scope	Regulatory compliance	Geology and seismicity	Hydrology	Socioeconomics	Ecology	Cultural resources and environmental justice	Need for the facility	Radiological impacts and human health	Emergency preparedness	Decommissioning	Long-term storage	Alternatives
Chris Cernich, Utah Department of Agriculture and Foods	✓						✓	✓			✓				
Kathleen Clark, Utah Department of Natural Resources	✓	✓	✓	✓		✓	✓	✓							
Donald Cobb, Utah Department of Public Safety	✓	✓										✓			
Merrill Cook, U.S. House of Representatives	✓	✓	✓	✓	✓		✓							✓	✓
Cynthia of the Desert	✓	✓	✓		✓	✓			✓		✓	✓			✓
Nina Dougherty, Sierra Club, Utah Chapter	✓	✓	✓		✓		✓	✓	✓		✓				✓
Ferris Groll, Utah Department of Public Safety	✓	✓					✓								
R. J. Hoffman	✓		✓							✓	✓				✓
Steve Hoffman, Hawk Watch International		✓					✓	✓							
Rosemary Holt, Women Concerned/Utahns United	✓	✓	✓											✓	✓

Attachment A (continued)

Commentor and affiliation (if any)	Safety and accidents	Transportation	Cumulative impacts and EIS scope	Regulatory compliance	Geology and seismicity	Hydrology	Socioeconomics	Ecology	Cultural resources and environmental justice	Need for the facility	Radiological impacts and human health	Emergency preparedness	Decommissioning	Long-term storage	Alternatives
Martin Huebner, Coalition 21			✓												
Jonathan Hurd, Salt Lake Food Not Bombs			✓				✓				✓				
Bob James, Hill Air Force Base	✓														
Virgil Johnson, member Goshute Tribe (Ibapah)	✓						✓		✓						
John Paul Kennedy, general counsel for the Confederated Tribes of the Goshute Reservation				✓			✓		✓		✓		✓		✓
Stephanie Kessler, Wyoming Outdoor Council	✓	✓	✓	✓			✓			✓		✓		✓	✓
Michael O. Leavitt, Governor, State of Utah	✓	✓	✓	✓			✓				✓			✓	✓
Brian Meacham, Utah Peace Test	✓	✓	✓		✓										✓
Dianne Nelson, Utah Department of Environmental Quality	✓	✓	✓	✓			✓		✓		✓	✓			✓
William D. Peterson, P&A Engineers	✓										✓				

Attachment A (continued)	
Commentor and affiliation (if any)	Bonnie Robinson
Safety and accidents	✓
Transportation	✓
Cumulative impacts and EIS scope	✓
Regulatory compliance	✓
Geology and seismicity	✓
Hydrology	✓
Socioeconomics	✓
Ecology	✓
Cultural resources and environmental justice	✓
Need for the facility	✓
Radiological impacts and human health	✓
Emergency preparedness	✓
Decommissioning	
Long-term storage	✓
Alternatives	✓
	Christopher Robinson, Skull Valley Co., Ltd.; Castle Rock Land & Livestock, L.C.; and Ensign Ranches of Utah, L.C.
	Jerry Schmidt
	David Terry, School and Institutional Trust Lands Administration, State of Utah
	Gregory Thayne, Bureau of Land Management, Utah State Office
	Chip Ward, West Desert HEAL
	Suzanne Winters, Utah State Science Advisor
Written comments	
	Agency for Nuclear Projects, State of Nevada (Robert R. Loux)
	Myron and Lois Armstrong

Attachment A (continued)

Commentor and affiliation (if any)	Safety and accidents	Transportation	Cumulative impacts and EIS scope	Regulatory compliance	Geology and seismicity	Hydrology	Socioeconomics	Ecology	Cultural resources and environmental justice	Need for the facility	Radiological impacts and human health	Emergency preparedness	Decommissioning	Long-term storage	Alternatives
Bureau of Land Management (U.S. Department of the Interior) Utah State Office (G. William Lamb)	✓	✓	✓				✓	✓	✓	✓	✓	✓		✓	
Coalition 21 (M. F. Huebner)			✓												
Merrill Cook, U.S. Congress	✓	✓	✓	✓	✓									✓	✓
Department of the Air Force (E. Allan Dalpiaz)	✓						✓								
Downwinders, Inc. (S. Erickson)	✓		✓	✓	✓				✓		✓	✓			✓
Dolores K. Gurr	✓				✓						✓				
Land and Water Fund, for L. Bullcreek, M. Bulcreek & OGD (R. E. Condit and J. Walker)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
Michael O. Leavitt, Governor, State of Utah		✓	✓				✓							✓	✓
Nuclear Information and Resource Service (Mary Olson)	✓	✓	✓	✓			✓		✓		✓			✓	✓

Attachment A (continued)

Commentor and affiliation (if any)	Safety and accidents	Transportation	Cumulative impacts and EIS scope	Regulatory compliance	Geology and seismicity	Hydrology	Socioeconomics	Ecology	Cultural resources and environmental justice	Need for the facility	Radiological impacts and human health	Emergency preparedness	Decommissioning	Long-term storage	Alternatives
P&A Engineers (William D. Peterson)	✓														
Parr Waddoups Brown Gee & Loveless, for Castle Rock (B. T. Allen)		✓	✓			✓	✓	✓							✓
Fae Picklesimer															✓
Public Citizen Critical Mass Energy Project, et al. (M. Olson, A. Piersma, D. Kraft, C. Williams, D. Katz)				✓						✓					
Donald J. Ravas	✓				✓						✓				
Sierra Club, Utah Chapter (C. King)	✓	✓			✓		✓		✓		✓				
Skull Valley Band of Goshute Indians (L. Bear)							✓		✓						
State of Utah, Department of Environmental Quality (D. R. Nielson)	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Doug Tanner								✓	✓						

Attachment A (continued)

Commentor and affiliation (if any)	Utah Farm Bureau Federation (C. B. Wallentine)	Utah Peace Test (B. Meacham)	Carol Werner	West Desert HEAL et al (C. Ward)	Western Interstate Energy Board (K. Niles and A. Turner)	Delbert Williams	Morie Wills	Women Concerned/Utahns United (R. A. Holt)	N. Woodmansee	Wyoming Outdoor Council (S. Kessler)
Safety and accidents	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Transportation		✓						✓		✓
Cumulative impacts and EIS scope		✓		✓		✓	✓			✓
Regulatory compliance	✓									✓
Geology and seismicity		✓	✓							
Hydrology	✓		✓							
Socioeconomics	✓		✓	✓			✓			✓
Ecology	✓			✓			✓			
Cultural resources and environmental justice							✓			
Need for the facility										✓
Radiological impacts and human health				✓			✓			
Emergency preparedness										✓
Decommissioning							✓			
Long-term storage			✓				✓	✓		✓
Alternatives		✓	✓			✓	✓	✓		✓

*Some commentors gave oral and written comments and are therefore listed twice in the table.

Attachment B

**Proposed Outline for the Draft Environmental
Impact Statement**

PROPOSED OUTLINE OF THE DRAFT EIS CONTENTS

PRIVATE FUEL STORAGE FACILITY, SKULL VALLEY INDIAN RESERVATION

1. PURPOSE AND NEED
 - 1.1 INTRODUCTION
 - 1.2 THE PROPOSED PROJECT
 - 1.3 NEED FOR THE PROPOSED PROJECT
 - 1.4 SCOPING PROCESS
 - 1.5 COOPERATING AGENCIES
 - 1.6 STATUS OF FEDERAL AND STATE APPROVALS

2. ALTERNATIVES INCLUDING THE PROPOSED ACTION
 - 2.1 PROPOSED ACTION
 - 2.1.1 Applicant's Site Selection Process
 - 2.1.1.1 Candidate Site Identification and Screening
 - 2.1.1.2 Selection of Proposed and Alternative Sites
 - 2.1.1.3 Potential Sites on Skull Valley Indian Reservation
 - 2.1.2 Site Preparation and Construction
 - 2.1.2.1 Site Development
 - 2.1.2.2 Plant Design and Layout
 - 2.1.2.3 Utilities and Other Services
 - 2.1.2.4 Access Road, Fences, and Other Ancillary Facilities
 - 2.1.2.5 Intermodal Transfer Point Facility
 - 2.1.2.6 Improvements and Additions to Skull Valley Road
 - 2.1.2.7 Rail Spur (or any Rail Spur options)
 - 2.1.2.8 Resource Requirements and Waste Generation
 - 2.1.3 Operation
 - 2.1.3.1 Transportation of Spent Fuel to PFSF
 - 2.1.3.2 Receipt and Transfer of Spent Fuel at PFSF
 - 2.1.3.3 Operation of the Storage System
 - 2.1.3.4 Emissions, Effluents, and Solid Wastes
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 - 2.2 NO ACTION ALTERNATIVE
 - 2.3 ALTERNATIVE SITES FOR SPENT FUEL STORAGE
 - 2.3.1 Site Selection Process Used by the Applicant
 - 2.3.2 Alternative Off-site Location
 - 2.3.3 Alternate Location on the Skull Valley Reservation
 - 2.4 ALTERNATIVE SPENT FUEL STORAGE TECHNOLOGIES
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 - 3.2 ATMOSPHERIC RESOURCES

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 - 3.2.2 Air Quality
 - 3.3 GEOLOGY AND SOILS
 - 3.3.1 Regional Geology
 - 3.3.2 Local Geology
 - 3.3.3 Seismicity
 - 3.3.4 Soils
 - 3.4 WATER RESOURCES
 - 3.4.1 Surface Water Hydrology and Quality
 - 3.4.2 Groundwater Hydrology and Quality
 - 3.4.3 Water Use and Rights
 - 3.5 ECOLOGICAL RESOURCES
 - 3.5.1 Terrestrial Resources
 - 3.5.1.1 Vegetation
 - 3.5.1.2 Wildlife
 - 3.5.2 Aquatic Resources
 - 3.5.2.1 Perennial and Intermittent Streams
 - 3.5.2.2 Wetlands
 - 3.5.3 Threatened, Endangered, and Other Special Status Species
 - 3.6 SOCIOECONOMIC AND COMMUNITY RESOURCES
 - 3.6.1 Employment
 - 3.6.2 Population and Housing
 - 3.6.3 Community Services
 - 3.6.4 Demography
 - 3.6.5 Land Use
 - 3.6.6 Aesthetics
 - 3.7 CULTURAL AND ARCHAEOLOGICAL RESOURCES
 - 3.8 NOISE AND TRAFFIC
-
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 - 4.1.1 Air Quality
 - 4.1.2 Groundwater and Surface Water
 - 4.1.3 Geology and Soils
 - 4.1.4 Ecological Resources
 - 4.1.5 Land Use
 - 4.1.6 Socioeconomic and Community Resources
 - 4.1.7 Environmental Justice
 - 4.1.8 Noise
 - 4.1.9 Traffic
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 - 4.2.1 Nonradiological Impacts
 - 4.2.1.1 Air Quality
 - 4.2.1.2 Groundwater and Surface Water Hydrology
 - 4.2.1.3 Geology and Soils
 - 4.2.1.4 Ecological Resources

- 4.2.1.5 Land Use
 - 4.2.1.6 Socioeconomic and Community Resources
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 - 4.2.1.8 Cultural and Archaeological Resources
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APPENDICES (e.g., Comments on DEIS and Responses to Comments, Consultation Letters)