

# UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

August 19, 1999

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

# SUBJECT: REQUEST FOR ADDITIONAL INFORMATION FOR THE ENVIRONMENTAL IMPACT STATEMENT (TAC NO. L22462)

Dear Mr. Parkyn:

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PDR

ADOCK 07200022

By application dated June 20, 1997, as supplemented by letter dated August 28, 1998, Private Fuel Storage L.L.C. (PFS) requested a license to receive, transfer, and possess nuclear power reactor spent fuel and other radioactive material associated with spent nuclear fuel storage in an independent spent fuel storage installation (ISFSI) on the Reservation of the Skull Valley Band of Goshute Indians, located within the geographical boundaries of Tooele County, Utah. As part of the process for licensing an away-from-reactor ISFSI, the Nuclear Regulatory Commission (NRC) is required, pursuant to 10 CFR 51.20(b)(9), to prepare an environmental impact statement (EIS) to satisfy its statutory responsibilities under the National Environmental Policy Act of 1969, as amended (NEPA). In addition, the Department of Interior (DOI), Bureau of Indian Affairs (BIA), must approve the lease negotiated between the Skull Valley Band of Goshute Indians and PFS. The DOI, Bureau of Land Management (BLM), must amend the land management plan for the area where PFS is proposing to build a rail line connecting the main line to the proposed site of the PFS facility, as well as issue rights-of-way for the proposed rail line and/or Intermodal Transfer Facility. As Federal agencies, BLM and BIA are also required to comply with NEPA. To gain efficiencies, the NRC, BLM, and BIA are cooperating in the preparation of the EIS.

A review of the information contained in the PFS environmental report, as supplemented, and the PFS February 18, 1999, response to the NRC December 18, 1998, request for additional information (RAI) has been completed. On the basis of that review, the cooperating agencies have determined that further information is needed to complete the EIS. The enclosure contains the second RAI, some which is similar to information requested in the previous NRC RAI. This is necessary because the PFS responses were either incomplete or did not accurately address the NRC's concerns. To avoid a similar situation, a meeting has been scheduled for September 1, 1999, at the BLM Salt Lake District Office to discuss the RAI.

To ensure that the draft EIS schedule is maintained, PFS is requested to respond to the enclosed RAI within 60 days of receipt of this letter. If this is not achievable, PFS should notify the NRC and propose an alternate date. Hewever, it should be noted that if PFS requires more than 60 days to respond to the RAI, it may result in a delay in the schedule for completing the draft and final EIS. In addition, when responding, PFS should submit the original to the NRC Document Control Desk and eight additional copies to me (mail stop O-6F18). Please reference the Docket No. 72-22 and TAC No. L22462 in your response.

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Mr. Parkyn

Please contact me at (301) 415- 1172 or Mark Delligatti at (301) 415-8518 to discuss any questions you may have about this letter or the enclosed RAI.

Sincerely,

ORIGINAL SIGNED BY /s/

Scott C. Flanders, Sr. Environmental Project Manager Licensing and Inspection Directorate Spent Fuel Project Office Office of Nuclear Material Safety and Safeguards

Docket No. 72-22

Enclosure: RAI

cc w/encl: Service lists

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## REQUEST FOR ADDITIONAL INFORMATION FOR THE PRIVATE FUEL STORAGE FACILITY ENVIRONMENTAL IMPACT STATEMENT DOCKET NO. 72-22

The general requirements for a Nuclear Regulatory Commission (NRC) draft environmental impact statement (DEIS) are delineated in 10 CFR 51.70. Pursuant to 10 CFR 51.70(b), the NRC staff is required to prepare a DEIS that is (1) concise, clear, analytical, and written in plain language, and (2) that states how the alternatives considered in the DEIS and decisions based on it will or will not achieve the requirements of Sections 101 and 102(1) of the National Environmental Policy Act of 1969. Appendix A of 10 CFR Part 51 describes the format the staff will use in preparing the DEIS and is consistent with the format prescribed in 40 CFR 1502.10.

To prepare a DEIS consistent with the requirements of 10 CFR 51.70, certain technical information is required. To satisfy the information requirement, the applicant is required, in accordance with 10 CFR 51.45, to provide an environmental report. NRC staff is required to independently review the technical information provided and prepare a DEIS. The staff has reviewed the applicant's environmental report and supplemental information and determined that additional technical information is necessary to prepare a DEIS that satisfies the requirements of 10 CFR 51.70. This request for additional information (RAI) is consistent with the format of the DEIS and is similar to the format described in Appendix A to 10 CFR Part 51.

## REQUEST FOR ADDITIONAL INFORMATION

## SECTION 1 PURPOSE AND NEED

The environmental report, pursuant to 10 CFR 51.45(b), is required to contain a description of the proposed action and a statement of its purposes. In addition, 10 CFR 51.45(d) requires the applicant to list all the Federal permits, licenses, approvals, or other entitlements which must be obtained in connection with the proposed action<sup>1</sup>.

## 1.6 Federal, State, and Tribal Authorities, Regulations, and Permits

1-1 Provide an update on the status of required approvals, licenses, and permits for agencies other than the NRC, BIA, and BLM.

The discussion should include any Tribal permits, licenses, and approvals required for the facility.

## SECTION 2 ALTERNATIVES

Section 51.45(b) requires the environmental report to contain a description of the proposed action and 10 CFR 51.45(b)(3) requires that the environmental report discuss the alternatives to the proposed actions. The discussion of alternatives, including the proposed action, should be sufficiently complete to assist the NRC in developing and exploring appropriate alternatives.

## 2.1 Proposed Action

2-1 Clarify whether the estimate of the type and quantity of construction materials provided in the February 18, 1999, RAI response (Response 4-1) included the type and quantity of materials necessary to construct the rail line and Intermodal Transfer Facility (ITF), as well as the Private Fuel Storage Facility (PFSF).

If it does not, then provide an estimate of the type and quantity of materials needed to construct the proposed rail line and the ITF.

2-2 Clarify whether PFS intends to obtain any or all of the construction material from Federal or Tribal owned lands.

Include the quanity and location of material PFS intends to obtain from Federal or Tribal land.

2-3 Clarify whether PFS intends to construct and operate an asphalt plant on site.

<sup>&</sup>lt;sup>1</sup> Section 1 of the DEIS will include a discussion on the applicant's status of compliance with Federal, State, and local permits, licenses, and approvals required for the proposed project.

If a plant is expected to be constructed and operated on site, provide the approximate location for the asphalt plant and the approximate area affected by the construction and operation of the plant. The February 18, 1999, RAI response indicated that the estimated quantity of asphalt does not justify locating a plant on site, however, other information such as emission estimates and the site description include an asphalt plant.

2-4 Discuss how the proposed barbed wire range fence surrounding the owner controlled area (330 ha or 820 acres) will satisfy BIA and BLM range fence requirements.

BIA and BLM require 4-strand wire range fences (1 smooth and 3 barbed). The range fence must (1) include a specific ratio of steel posts to wood posts, (2) space line posts 16 feet 6 inches apart, (3) include brace panels every 1/8 mile and at abrupt changes in land slope, and (4) space the wire strands in accordance with BLM specifications (smooth line 16 inches above the ground, the first barbed wire 7 inches above the smooth line, and the strands of barbed wire spaced 8 inches apart).

2-5 Clarify the sources of potable and non-potable water for the proposed facility during construction and operation.

Information has been provided that states necessary water will come from wells located on site, while other information indicates that it will come from the Indian Reservation water supply.

2-6 Discuss any anticipated holding periods for the spent nuclear fuel (SNF) shipments at the ITF and the Skunk Ridge rail siding.

Include an estimate of the number of casks held, the location (i.e., inside the ITF or on rail siding next to the ITF, etc.), and the duration of the holding periods. Include a description of the visibility of the casks being held at the ITF or the Skunk Ridge rail siding to individuals traveling on I-80 or other nearby roads.

The February 18, 1999, RAI response indicates that the average number of rail shipments per year is anticipated to be 50, and the average number of casks shipped per year is expected to be 100 to 200 a year. This implies that an average of 2 to 4 casks will be received each shipment. Since the RAI response indicates that a fleet of two heavy haul tractor/trailers will be used, it appears that PFS anticipates casks will be held at the ITF for some period of time. It is unclear whether PFS expects casks to be held at the Skunk Ridge rail siding.

2-7 Discuss the feasibility of constructing a new heavy haul road from Skunk Ridge to the PFSF site instead of a rail line.

This discussion should identify any differences in environmental impacts from construction and operation.

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## SECTION 3 AFFECTED ENVIRONMENT

The environmental report, pursuant to 10 CFR 51.45(b), is required to contain a description of the affected environment.

#### 3.1 Geology and Soils

3-1 Provide a general description of the mineral resources and claims known to be in Skull Valley, Utah.

The description should include an explicit reference to the mineral and claims resources known to be along the proposed rail route, ITF, and site.

#### 3.4 Ecological Resources

3-2 Provide additional information on the types of vegetation and habitat at the proposed Low railhead.

Include the existing and historical environment, as well as the current and historical land uses of this area.

- 3-3 Provide Skull Valley raptor data (i.e., birds of prey including eagles, hawks, falcons, and owls) from Hawkwatch International.
- 3-4 Provide land cover maps from the Utah Division of Wildlife Resources which include the proposed rail corridor and the Skunk Ridge rail siding.

The maps should be similar to those provided in figures 2.3-8 and 2.3-9 of the Environmental Report (ER).

- 3-5 Provide the results of the 1996 and 1997 United States Forest Service surveys for the spotted bats.
- 3-6 Provide an up-to-date map for raptor nesting locations for the Skull Valley area.

The map should be similar to ER figure 2.3-7 and depict locations of the proposed site, Skull Valley Road, ITF, and Skunk Ridge rail corridor.

3-7 Specify protection measures recommended and/or implemented by the State of Utah for species identified by the state as high interest species.

The February 18, 1999, RAI response provides the Utah Code 63-34-14, Species Protection Account, definition for species protection but does not describe any actions taken by the state to protect species of high interest.

## 3.5 Socioeconomics and Community Resources

- 3-8 Identify any known projects, other than public facilities, planned for the area near the proposed facility.
- 3-9 Provide enrollment data for Tooele Central School.

The February 18, 1999, response included this school in its list of Tooele County public schools, however, information provided by the Tooele County School District did not include Tooele Central School.

## 3.6 Cultural Resources

- 3-10 Provide the results of any cultural resource surveys performed for the proposed site and the rail line from Skunk Ridge.
- 3-11 Discuss any known traditional cultural properties (TCPs) and any ethnobiological resources (i.e., plants and animal resources that have economic or religious significance) within the vicinity of the site, ITF, and rail line corridor.

## 3.7 Background and Radiological Characteristics

3-12 Provide data on radiological levels in groundwater, vegetation, and mammalian flesh near the proposed storage site and rail line. If the data are from sources other than direct samples taken at the site and rail line locations, then provide justification that explains why the data are representative of the radiological levels at the proposed site.

## SECTION 4 ENVIRONMENTAL CONSEQUENCES

Section 51.45(c) requires the environmental report to include an analysis that considers and balances the environmental effects of the proposed action, the environmental impacts of alternatives to the proposed action, and alternatives available for reducing or avoiding adverse environmental effects. Consistent with the requirements of NEPA, the DEIS will compare the impacts of the proposed action to the impacts of alternatives. One alternative is locating the proposed ISFSI some place other than Skull Valley. The applicant's site selection process identified a site in Fremont, Wyoming, as a candidate site for the proposed ISFSI. Some of the information requested in this section refers to the alternate Wyoming site. To determine if an obviously superior site exists, information is needed on the Wyoming site to compare the impacts of constructing and operating the proposed ISFSI in Skull Valley to a reasonable alternate site (i.e., Wyoming).

## 4.1 Potential Impacts of the Proposed Action and its Alternatives

### 4.1.1 Geology and Soils

4-1 Describe briefly any known minerals resources at the Wyoming site or along transportation routes.

4-2 Discuss the expected uses or disposal of excess "spoil" material resulting from construction activity at the proposed site, the rail line, and ITF.

The February 18, 1999. RAI response provided a number of potential uses for excess material resulting from the construction of the site but did not identify one as the most likely use. In addition, the RAI response did not discuss potential uses of excess material generated from construction of the rail line or ITF.

4-3 Describe briefly the available quantities of aggregate, crushed rock, and other mineral resources available in Skull Valley and the adequacy of this supply to support known or reasonably foreseeable construction projects ongoing or planned for Skull Valley, including PFSF.

### 4.1.2 Surface Water and Groundwater

4-4 Describe the projected water source and use for the construction and operation of the rail line and the ITF and for any necessary improvements of Skull Valley Road.

The February 18, 1999, RAI response provides groundwater needs for construction and operation of the proposed facility. However, the RAI did not discuss the water needs for the construction and operation of the proposed rail line or ITF.

4-5 Provide an estimate of the distance from the Wyoming site to the nearest resident and the nearest well.

### 4.1.3 Air Quality

4-6 Provide up-to-date pollutant emission data (i.e., data for criteria pollutants and other air toxics) for nearby emission sources in Tooele County.

The February 18, 1999, RAI response provided good data, however, the data were from 1995 and did not include the Magcorp facility and the Tekoi Rocket Motor Test facility. In addition, the Deseret Depot did not begin operation until 1996 and the  $SO_2$  data provided may not accurately reflect  $SO_2$  levels as a result of operation. The response should also include polluant emission data for any facilities known to be planned for this portion of Tooele County during the projected lifetime of the PFSF.

4-7 Provide in electronic form, hourly meteorological data from the Pony Express convenience store, as well as meteorological data from the nearest source to the Skunk Ridge rail siding.

Include hourly records of wind speed, wind direction, air temperature, and atmospheric stability or some parameter from which an estimate of wind stability can be derived, such as the standard deviation of the horizontal wind direction.

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- 4-8 Provide, for each air emission source, UTM coordinates, elevation above mean sea level (or relative benchmark), estimates of stack height and inside diameter at the stack top, and stack gas exit temperatures and exit velocities.
- 4-9 Provide an estimate of emissions of criteria pollutants (SO<sub>2</sub>, CO, Pb, PM-10, PM-2.5, VOCs) from any diesel generator(s) PFS plans to use during construction and operation.
- 4-10 Provide an estimate of the time of day construction and operation activities, resulting in air emissions, will take place.

Include estimates of the time of day Skull Valley Road will be used by construction vehicles and heavy haul vehicles.

- 4-11 Provide a brief overview of any air monitoring program that PFS intends to implement at the site, rail line, and ITF.
- 4-12 Discuss any planned fueling station(s) for (1) on-site vehicles used at the proposed storage site, (2) locomotives used on the Skunk Ridge rail route, and (3) heavy-haul vehicles used for the Timpie ITF.

Include estimations of the fueling station location(s), types of fuels, fuel tank sizes and capacities, specification of whether the tanks would be above ground or below ground, spill prevention and/or containment measures, clean-up procedures, etc.

### 4.1.4 Ecological Resources

4-13 Provide a detailed description of the revised revegation plan for the project area (the site, rail line, and ITF).

Include the types of vegetation to be replanted, as well as the geographic areas where such revegetation will occur. Also, provide information on the type, frequency, etc., of anticipated monitoring that will be conducted to ensure the successful establishment of such vegetation. Describe any corrective actions that may be undertaken if successful revegation is not achieved.

4-14 Provide dose assessment information for wildlife that may be exposed to the casks. Specifically, dose estimates are needed for reptiles and small mammals that might not be excluded by the proposed nuisance and security fences. Also, dose estimates are needed for birds that may perch upon the tops of the casks.

The February 18, 1999, response included a general description of the effects of ionizing radiation on wildlife, as well as a calculation that estimated the dose to an animal standing at the security fence for a year.

4-15 Provide any available surveys of protected species in the vicinity of the alternate Wyoming site.

#### 4.1.5 Socioeconomic and Community Resources

4-16 Clarify whether the estimate of **130** workers for construction and 43 workers for operation includes the necessary workers for the construction and operation of the rail line and ITF.

If the estimate does not include the rail line and the ITF, then provide information on the number of workers needed for construction and operations for the following portions of the proposed project: (1) the Low railhead (siding), (2) the Skunk Ridge rail corridor, (3) the ITF, and (4) the heavy-haul use of Skull Valley Road. In addition to the information about the numbers of workers, provide the time periods during which these workers would be present in Skull Valley.

4-17 Discuss the potential source(s) of labor for construction and operation of the proposed project.

Include an estimate of the number of Native Americans that could potentially be employed.

4-18 Provide an estimate of the amounts of state and county tax payments, local payroll, and other such local expenditures that are anticipated over the lifetime of the PFSF.

A basis for the estimation should be provided.

4-19 Discuss the planned use of Skull Valley Road for heavy-haul vehicles from the proposed Timpie ITF.

The discussion should specify the anticipated number and frequency of shipments on Skull Valley Road, as well as the time of day these shipments would most likely be scheduled.

4-20 Provide information on the current and projected time-of-day traffic use (for all traffic, not just PFSF traffic) on Skull Valley Road.

#### 4.1.7 Radiological Resources

- 4-21 Provide an estimate of radiation dose from the storage casks to the nearest resident at the Wyoming site and person-rem estimates for the nearby population around the Wyoming site.
- 4-22 Provide the approximate number of occupational personnel that would receive an annual radiation dose exposure during operation of the PFSF.

This information should be provided for the following four categories: (1) personnel receiving, transferring, and moving SNF to storage; (2) personnel involved with security, inspection, and maintenance; (3) personnel at the facility not directly associated with Items 1 or 2; and (4) personnel involved at the proposed ITF.

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#### 4.1.9 Environmental Justice

- 4-23 Describe the locations and the economic status (where employed in what kinds of economic activities, approximate income level) of any non-Native American minority and low-income populations (if any) within 4 miles of the proposed Skull Valley PFSF.
- 4-24 Discuss the current health status of the Skull Valley population, especially low-income and minority populations (e.g., presence of chronic poor health conditions, unusual incidence of diseases of certain organs, skin conditions, and documentation of possible causes).
- 4-25 Identify low income and minority groups known to be in the vicinity of the Wyoming site (i.e., within 4 miles of the site), and include an estimation of the population of any known groups.
- 4-26 Describe any known TCP or ethnobiological resources in the vicinity of the Wyoming site that could potentially be impacted by the construction and operation of the proposed facility.

#### 4.1.10 Other Impacts

4-27 Provide the noise levels produced by the nearby Tekoi Rocket Motor Test facility when it is in operation.

Noise level data should be provided in decibels and their associated distances and directions from the Tekoi facility.

4-28 Provide an estimation of the frequency of rocket motor tests.

Also, discuss any expected changes in frequency over the expected life of the PFSF.

4-29 Provide sketches or artist renderings of the full facility (4,000 casks, batch plant, earthen berms, buildings, light poles, etc.), rail line and siding, and iTF.

Include daytime and night time sketches or renderings from points where people are most likely to view the site, rail line and siding, and ITF, such as Desert Peak, Skull Valley Road, Cedar Mountains, and Skull Valley Indian Reservation village.

The February 18, 1999, response to RAI Question 14 was deficient. None of the renderings provided for the proposed facility included a perspective from Desert Peak or the Skull Valley Indian Reservation village. Responses 14-1 and 14-2 are inadequate and incomplete in that none of the figures in those responses appear to include the facility's light poles. In addition, the batch plant and cask manufacturing areas do not appear to be shown.

#### 4.2 Potential Impact of the No-Action Alternative

4-30 Provide a projection of the number of reactors and reactor sites that will need additional storage capacity if PFS is not available and the Federal government does not start SNF acceptance at a geological repository until 2010.

The February 18, 1999, RAI response provided similar information, however, the data were based on the DOE repository beginning fuel acceptance in 2015 instead of 2010.

## SECTION 5 COST-BENEFIT ANALYSIS

Section 51.45(c) requires the environmental report to consider the economical, technical, and other benefits and costs of the proposed action and alternatives.

5-1 Provide an analysis of the avoided costs assuming a geological repository opens in 2010.

The analysis should be done for three different throughput values (operating capacity): (1) assuming only PFS member utilities; (2) maximum storage capacity [40,000MTU]; and (3) an expected value. Provide the avoided cost for the expected value assuming a geological repository opens in 2015. The analysis should be provided in the same format as that in the February 18, 1999, RAI response 15-2, table 15-2(a), and the results should be provided in both undiscounted and discounted values. A discount rate of 7 percent, the current discount rate required by the Office of Management and Budget Circular A-94, should be used.

#### **Private Fuel Storage**

CC:

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

Mr. Scott Northard Project Manager Private Fuel Storage, L.L.C. c/o NSP, 414 Nicollet Mall, RS& Minneapolis, MN 55401

The Honorable Michael O. Leavitt Governor of Utah Salt Lake City, UT 84114-0601

The Honorable Leon D. Bear, Chairman Skull Valley Band of Goshute Indians P. O. Box 150 Grantsville, UT 84029

Mr. Jack Gerard McClure, Gerard and Neunschwander 201 Maryland Avenue, NE Washington, DC 20002

Dr. Dianne R. Nielson, Executive Director Department of Environmental Quality State of Utah 168 North 1950 West P. O. Box 144810 Salt Lake City, UT 84114-4810 Mr. G. William Lamb, State Director Bureau of Land Management United States Department of the Interior Utah State Office P.O. Box 45155 Salt Lake City, UT 84145-0155

Mr. David L. Allison, Superintendent Bureau of Indian Affairs Uintah and Ouray Agency P.O. Box 130 Fort Duchesne, UT 84026

#### OGC LIST OF THIRD PARTIES FOR CERTIFICATE OF SERVICE

Jay E. Silberg, Esq. Shaw, Pittman, Potts & Trowbridge 2300 N Street, NW Washington, DC 20037-8007

. ر. ا

Joro Walker, Esq. Land and Water Fund of the Rockies 165 South Main, Suite 1 Salt Lake City, UT 84111

Michael M. Later, Esq. Parr, Waddoups, Brown, Gee & Loveless 185 S. State St., Suite 1300 P.O. Box 11019 Salt Lake City, UT 84147-0019

John Paul Kennedy, Sr., Esq. 1385 Yale Ave. Salt Lake City, UT 84105

Danny Quintana, Esq. Danny Quintana & Associates, P.C. 50 West Broadway Fourth Floor Salt Lake City, UT 84101

Denise Chancellor, Esq. Fred G. Nelson, Esq. 160 East 300 South, 5th Floor P.O. Box 140873 Salt Lake City, UT 84114-0873

Connie Nakahara, Esq. Utah Dept. of Environmental Quality 168 North 1950 West P.O. Box 144810 Salt Lake City, UT 84114-4810 Diarle Curran, Esq. Harmon, Curran & Spielberg 2001 "S" Street, NW Suite 430 Washington, DC 20009

Professor Richard Wilson Department of Physics Harvard University Cambridge, MA 02138

Martin Kaufman, Esq. Atlantic Legal Foundation 205 E. 42nd Street, 9th Floor New York, NY 10017 cc's for PFS EIS:

Clenn Carpenter, Supervisor U.S. Bureau of Land Management Salt Lake District Office 2370 south 2300 West Salt Lake City, UT 84119

David Allison, Superintendent U.S. Bureau of Indian Affairs Unitah and Ouray Agency P. O. Box 130 Fort Duschesne, UT 84026

Amy Heuslein, Environmental Specialist U.S. Bureau of Indian Affairs Phoenix Area Office P.O. Box 10 Phoenix, AZ 85001

Leon E. Berrgren, Resource Advisor U.S. Bureau of Land Management Salt Lake District Office 2370 South 2300 West Salt Lake City, UT 84119

Dale Hanberg, Land Operations Officer U.S. Bureau of Indian Affairs Unitah and Ouray Agency P.O. Box 130 Fort Duschesne, UT 84026

Greg Zimmerman, Project Manager P.O. Box 2008, 4500 N, MS 6200 Oak Ridge National Laboratory Oak Ridge, TN 37831-6200

Michael J. Scott, Staff Scientist Pacific Northwest National Laboratory Battelle Boulevard MSIN: K8-17 Richland, Washington 99352

Paul R. Nickens, Senior Research Scientist 5168 N. Windriver Place Tucson, AZ 85750