

I'm a native of Colorado. I've lived up in the mountains above north Boulder my whole life. I've been around Rocky Flats and I realize that this stuff needs to be placed somewhere. I just don't believe bringing it all the way to the Carolinas through Georgia is the answer. I think that there's plenty of places within this state to stash the stuff safely indeed. And that's my, that's my urge and my hope that it will keep it within the state. Transferring this stuff really bothers me and annoys me. I think it's dangerous to put it on the road. I think we should keep it within the state. It was produced within the state, let's just keep it here.

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PD061

**PD061-1**

**Transportation**

DOE acknowledges the commentor's concern regarding the movement of fissile materials from RFETS to SRS. DOE made, and is honoring, a long-standing commitment to get all plutonium out of RFETS and to expedite closure of the site.

9/16/98

To: Howard Carter, Director Office of Finite Materials Disposition  
Re: Surplus Plutonium Disposition DEIS

Again, the question is raised, "What should be done with the plutonium (Pu)?" This woefully inadequate and voluminous document fails to address many important issues. At the top of the list are proliferation concerns with MOX. All the Pu needs to be immobilized. Many issues in the previous PEIS are still very relevant to this DEIS. Transport minimization and the ongoing refusal of DOE to follow its own inadequate transport rules needs some sunshine also.

Only Alternative II would be preferable to the no action Alternative I. Alternative 12 involves way too much cross continental transport. Alternatives II and 12 do however, give the important priority to non-proliferation and immobilization and show that MOX is by no means a done deal. There is a cultural problem at DOE on whether Pu is a liability or an asset - or asset to whom. Also there is what the Rocky Flats Federal Grand Jury called a "culture of contempt for the environment" at DOE. The high density of poor minorities at preferred alternative SRS site is also of great concern.

Needs would be best met by a compromise between Alternatives II and 12 including multiple immobilization facilities including Pantex, Hanford, INEEL SRS, and RFETS. Transport must be minimized. Some of these need to be built so that they can be moved, especially at RFETS design should also incorporate immobilization of other nuclear waste. At RFETS there is no need to bring in more nuclear waste. The Spent Fuel Standard need not limit dilution levels in the logs. It is alright to make it less accessible than in spent fuel.

MD238

## MD238-1

## Nonproliferation

DOE acknowledges the commentator's opposition to the MOX approach to surplus plutonium disposition based on concerns regarding nuclear proliferation. The goal of the surplus plutonium disposition program is to reduce the threat of nuclear weapons proliferation worldwide by conducting disposition of surplus plutonium in the United States in an environmentally safe and timely manner. Converting the surplus plutonium into MOX fuel and using it in domestic, commercial reactors is an effective way to accomplish this. Consistent with the U.S. policy of discouraging the civilian use of plutonium, a MOX facility would be built and operated subject to the following strict conditions: construction would take place at a secure DOE site, it would be owned by the U.S. Government, operations would be limited exclusively to the disposition of surplus plutonium, and the MOX facility would be shut down at the completion of the surplus plutonium disposition program. For reactor irradiation, the NRC license would authorize only the participating reactors to use MOX fuel fabricated from surplus plutonium, and the irradiation would be a once-through cycle with no reprocessing.

Pursuing both immobilization and MOX fuel fabrication provides the United States important insurance against potential disadvantages of implementing either approach by itself. The hybrid approach also provides the best opportunity for U.S. leadership in working with Russia to implement similar options for reducing Russia's excess plutonium in parallel. Further, it sends the strongest possible signal to the world of U.S. determination to reduce stockpiles of surplus plutonium as quickly as possible and in a manner that would make it technically difficult to use the plutonium in nuclear weapons again. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

## MD238-2

## Transportation

DOE acknowledges the commentator's concerns regarding transportation. DOE would follow all applicable DOE orders and NRC and DOT regulations. Transportation of special nuclear materials, including fresh MOX fuel, would use DOE's SST/SGT system. Since the establishment of the DOE

Transportation Safeguards Division in 1975, the SST/SGT system has transported DOE-owned cargo over more than 151 million km (94 million mi) with no accidents causing a fatality or release of radioactive material. The transportation requirements for the surplus plutonium disposition program are also evaluated in this SPD EIS.

**MD238-3**

**Alternatives**

Implementation of Alternative 11 or 12, each of which involves immobilization of all the surplus plutonium, would require approximately the same amount of transportation, with the possible exception of transportation of the final form to the potential geologic repository. Since the location of the potential geologic repository has not yet been determined, the distance from the candidate sites to the potential location at Yucca Mountain, Nevada, was used for the analysis. As indicated in Section 1.6, DOE's preferred alternative is the hybrid approach, not continued storage of the surplus plutonium as described as the No Action Alternative or the immobilization-only approach described as Alternatives 11 and 12. As indicated in Section 2.5, the No Action Alternative would not satisfy the purpose of and need for the proposed action because DOE's disposition decisions reflected in the *Storage and Disposition PEIS* ROD would not be implemented.

**MD238-4**

**DOE Policy**

DOE considers the existence of surplus plutonium a potential danger. DOE is implementing the President's nonproliferation policy by converting surplus plutonium in an environmentally safe and timely manner, to forms that cannot be reused in weapons again without significant risks, time, and money.

**MD238-5**

**Environmental Justice**

DOE acknowledges the commentor's concern regarding the density of poor minorities in the vicinity of SRS. As shown in Chapter 4 of Volume I, implementation of the alternatives for disposition of surplus plutonium at SRS would pose no significant risk to public health regardless of the minority and economic status of individuals in the population. This chapter also includes a separate and specific analysis of the potential impacts on minority or low-income populations. Appendix M describes the process that was used to obtain these impacts.

**MD238-6****Alternatives**

Because the implementation of multiple immobilization facilities would be very costly and time-consuming, no such alternative was considered for this SPD EIS. With only 50 t (55 tons) of surplus plutonium to disposition, it would not be practical to construct and operate more than one immobilization facility, even if the decision were made to immobilize all the surplus plutonium. While DOE prefers to minimize the transportation of plutonium that is still desirable for weapons use, plutonium is routinely and safely transported in the United States. As described in Appendix L.3.3, transportation of nuclear materials would be performed in accordance with all applicable DOT and NRC transportation requirements. Interstate highways would be used, and population centers avoided, to the extent possible.

All shipments of surplus plutonium that had not been converted to a proliferation-resistant form would use DOE's SST/SGT system. The transportation analysis results are presented for each alternative in Chapter 4 of Volume I and detailed in Appendix L. As indicated in Section 2.18, no traffic fatalities from nonradiological accidents or LCFs from radiological exposures or vehicle emissions would be expected. Therefore, there is no transportation concern that would warrant the construction and operation of multiple immobilization facilities.

MOX is a nightmare no one needs. MOX makes commercial reactors even more dangerous. MOX is an economic bailout for a failed industry. DOE must not use taxpayer dollars to pay utilities to use MOX. The Clinton administration favored complete immobilization with no MOX, in accordance with NAS recommendations. The last minute justification of MOX under intense nuclear lobby was primarily to keep up technologically with other countries, such as Russia primarily, that planned to use MOX. However, financial, fabrication, environmental, and public outrage pressures are making MOX unlikely in Russia. MOX also carries intense proliferation concerns, because it can be used for Pu breeder reactors, along with distribution and other proliferation concerns with MOX. Associated tritium production is also of great proliferation concern. Remember, the Nuclear Non-Proliferation Treaty obligates the USA to work towards eliminating nuclear arsenals and weapons.

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Sincerely,  
*Scott Hatfield* - various environmental,  
peace, and scientific groups  
Scott Hatfield  
PO Box 15471  
Boulder CO  
80308-8471

MD238

MD238-7

DOE Policy

Use of MOX fuel in domestic, commercial reactors is not proposed in order to subsidize the commercial nuclear power industry. Rather, the purpose of this proposed action is to safely and securely disposition surplus plutonium by meeting the Spent Fuel Standard. The Spent Fuel Standard, as identified by NAS and modified by DOE, is to make the surplus weapons-usable plutonium as inaccessible and unattractive for weapons use as the much larger and growing quantity of plutonium that exists in spent nuclear fuel from commercial power reactors. U.S. policy dating back to the Ford Administration has prohibited the commercial, chemical reprocessing and separation of plutonium from spent nuclear fuel. The use of U.S. surplus plutonium in existing domestic, commercial reactors does not involve reprocessing (reprocessing is a chemical separation of uranium, transuranic elements [including plutonium], and fission products from spent reactor fuel and the reuse of the plutonium and uranium to produce new fresh fuel). Section 4.28 discusses the potential environmental impacts of operating the reactors that would use the MOX fuel.

The remainder of this comment is addressed in response MD238-1.

Hi, my name is Wade Lockhart and my phone number is (303) 473-9986. I'm calling to express my opinion and to discourage you from using mixed oxide fuel in nuclear reactors for numerous reasons. I'd like to encourage you once again not to use MOX in nuclear reactors. It doesn't make any sense. It doesn't really eliminate any of the plutonium. It's quote, Westinghouse has quoted as saying that only one percent less than the amount of plutonium that goes into it comes out of the reactor. So this no way to get rid of our nuclear stockpile plutonium. My opinion is the best way to deal with this plutonium is to monitor it and perhaps do more research on vitrification or ways of storing it, but not to put it into nuclear reactors. All we are asking for there is just to enhance the, the waste problem that we already have and we haven't dealt with. And so I encourage you to not use mixed oxide or produce mixed oxide fuel for commercial nuclear reactors. Thank you.

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PD049

#### **PD049-1**

#### **Alternatives**

DOE acknowledges the commentor's opposition to the MOX approach. The goal of the surplus plutonium disposition program is to reduce the threat of nuclear weapons proliferation worldwide by conducting disposition of surplus plutonium in the United States in an environmentally safe and timely manner. As described in Sections 2.18.3 and 4.28.2.8, additional spent fuel would be produced by using MOX fuel instead of LEU fuel in domestic, commercial reactors. Spent fuel management at the proposed reactor sites is not expected to change dramatically due to the substitution of MOX assemblies for some of the LEU assemblies. Likewise, the additional spent fuel would be a very small fraction of the total that would be managed at the potential geologic repository.

Pursuing both immobilization and MOX fuel fabrication provides the United States important insurance against potential disadvantages of implementing either approach by itself. The hybrid approach also provides the best opportunity for U.S. leadership in working with Russia to implement similar options for reducing Russia's excess plutonium in parallel. Further, it sends the strongest possible signal to the world of U.S. determination to reduce stockpiles of surplus plutonium as quickly as possible and in a manner that would make it technically difficult to use the plutonium in nuclear weapons again.

**Rocky Mountain Peace and Justice Center**

P.O. Box 1156, Boulder, CO 80306 ph: (303) 444-6981 fax: (303) 444-6523

**Comments on the Surplus Plutonium Disposition Draft Environmental Impact Statement  
(DOE/EIS-0283-D)  
submitted by the Rocky Mountain Peace and Justice Center  
September 16, 1998**

The Rocky Mountain Peace and Justice Center (RMPJC) appreciates the opportunity to comment on the Surplus Plutonium Disposition Draft Environmental Impact Statement (SPDEIS). Since 1983 RMPJC has worked on issues pertaining to the DOE nuclear weapons complex, with a focus on the Rocky Flats Site.

As Rocky Flats currently stores approximately 12 metric tons of plutonium, most of which has been declared surplus, RMPJC has a strong interest in the disposition of plutonium. We also strongly agree that timely and environmentally safe disposition of plutonium is needed to reduce the threat of nuclear weapons proliferation worldwide (we note that it is not only the proliferation of weapons but the material itself that is of concern). However, we do not believe that any of the alternatives analyzed in the SPDEIS lead toward fulfillment of this goal, we find that the SPDEIS is fundamentally deficient, and ask that it be redone.

DOE identifies three preferred alternatives for disposition of plutonium:

- 1) Construct a new immobilization facility at the Savannah River Site that would operate in conjunction with the Defense Waste Processing Facility to immobilize waste during the can-in-can process;
- 2) Construct and operate a new MOX fuel fabrication facility at Savannah River Site;
- 3) Construct and operate a pit disassembly and conversion facility at Pantex or Savannah River Site.

RMPJC has the following concerns with the preferred alternatives and the disposition strategy outlined through these alternatives.

- 1) The SPDEIS does not demonstrate the need or benefit of a dual track disposition strategy.
- 2) The SPDEIS does not adequately consider the costs associated with a dual track plutonium disposition caused by public opposition to the MOX option.
- 3) The SPDEIS does not provide a rationale for directing only 17 tons of plutonium toward immobilization.

FD323

**FD323-1**

**General SPD EIS and NEPA Process**

DOE acknowledges the commentors' views. DOE has prepared this SPD EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively).

**FD323-2**

**Purpose and Need**

DOE acknowledges the commentors' concern about the preferred alternatives and the hybrid approach. Pursuing both immobilization and MOX fuel fabrication provides the United States important insurance against potential disadvantages of implementing either approach by itself. The hybrid approach also provides the best opportunity for U.S. leadership in working with Russia to implement similar options for reducing Russia's excess plutonium in parallel. Further, it sends the strongest possible signal to the world of U.S. determination to reduce stockpiles of surplus plutonium as quickly as possible and in a manner that would make it technically difficult to use the plutonium in nuclear weapons again. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

**FD323-3**

**Cost**

Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. A separate cost report, *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998), that analyses the site-specific cost estimates for each alternative was made available around the same time as the SPD Draft EIS. This report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

The SPD Final EIS was not issued until the proposed reactors had been identified and the public had an opportunity to comment on the reactor-specific information. As part of the procurement process, bidders were asked to provide environmental information to support their proposals. This information was analyzed in an Environmental Critique prepared for the DOE source selection board prior to award of the MOX fuel fabrication and irradiation services contract. DOE then prepared an Environmental Synopsis on the basis of the Environmental Critique, which was released to the public as Appendix P of the *Supplement to the SPD Draft EIS* in April 1999. This *Supplement* included a description of the affected environment around the three proposed reactor sites, and analyses of the potential environmental impacts of operating these reactors using MOX fuel (Sections 3.7 and 4.28 of this SPD EIS, respectively). During the 45-day period for public comment on the *Supplement*, DOE held a public hearing in Washington, D.C., on June 15, 1999, and invited comments. Responses to those comments are provided in Volume III, Chapter 4.

#### **FD323-4**

#### **Alternatives**

DOE reviewed the chemical and isotopic composition of the surplus plutonium and determined in the *Storage and Disposition PEIS* ROD that about 8 t (9 tons) of surplus plutonium were not suitable for use in making MOX fuel. Furthermore, DOE has identified an additional 9 t (10 tons) for a total of 17 t (19 tons) that have such a variety of chemical and isotopic compositions that it is more reasonable to immobilize these materials and avert the processing complexity that would be added if these materials were made into MOX fuel. The criteria used in this identification included the level of impurities, processing requirements, and the ability to meet the MOX fuel specifications. If at any time it were determined that any of the 33 t (36 tons) currently proposed for MOX fuel fabrication was unsuitable, that portion would be sent to the immobilization facility. The addition of this material would not require the immobilization facility to operate longer because it is being designed to handle a throughput of up to 50 t (55 tons) over a 10-year period. Likewise, the MOX facility is being designed to handle up to 33 t (36 tons) of surplus plutonium but would have the flexibility to operate at a lower throughput.

4) The SPDEIS analyzes only the disposition of 50 tons of surplus plutonium. According to the SPDEIS, "The three facilities would be designed so that they could collectively accomplish disposition of up to 50t (55 tons) of surplus plutonium over their operating lives..." (p. 1-6) It is probable that significantly more plutonium will be declared surplus during this time frame. This needs to be anticipated in the design of current disposition alternatives.

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5) The SPDEIS does not adequately analyze the impact of a significant delay or the failure of one track of the disposition strategy on the goal of accomplishing timely disposition.

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6) The SPDEIS fails to analyze immobilization at more than one site.

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7) Proprietary information in bids for MOX fuel fabrication does not allow the public to fully assess the impact of this work.

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The Rocky Mountain Peace and Justice Center urges the Department of Energy to redo the SPDEIS. It should analyze the impact of using the just the MOX option, and just the immobilization option. It should also analyze the possibility of immobilizing plutonium at more than one site, including the Rocky Flats Site. Portable and small scale immobilization technology should be analyzed. It should analyze the possibility of splitting the immobilization steps for the can-in-can process between different sites. That is, explore the possibility of immobilizing the "inside can" at the current storage location.

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Again, RMPJC would like to thank the Department of Energy for the opportunity to comment on the SPDEIS. If you have any questions regarding our comments please contact Leroy Moore or Tom Marshall at (303) 444-6981.

FD323

#### FD323-5

#### Purpose and Need

During the first week of September 1998, Presidents Clinton and Yeltsin held a Moscow summit and signed a statement of principles with the intention of removing approximately 50 t (55 tons) of plutonium from each country's stockpile. This document was added to Appendix A of Volume II.

DOE acknowledges the commentor's concern that the amount of surplus weapons-usable plutonium may change in the future. The design of the facilities could remain the same, but additional amounts could affect the schedule of surplus plutonium disposition. If the amount increased, DOE would comply with NEPA requirements and conduct further analyses.

#### FD323-6

#### Purpose and Need

The advantages of DOE's hybrid approach are described in response FD323-2.

#### FD323-7

#### Alternatives

As described in Chapter 2 of Volume I, all of the surplus plutonium disposition alternatives include immobilization of some or all of the surplus plutonium at either Hanford or SRS. Although DOE's preferred alternative is to locate the immobilization facility at SRS, Chapter 4 of Volume I analyzes the site-specific impacts associated with construction and operation of the immobilization facility at both Hanford and SRS.

#### FD323-8

#### MOXRFP

This comment is addressed in the public comment opportunity portion of response FD323-3.

#### FD323-9

#### Alternatives

Regarding portable, small-scale immobilization at plutonium storage sites, development work to date on the conversion, blending, and immobilization of these feed materials calls for a centralized plant to produce a durable, standardized product in a cost-effective manner. In addition, the NWPB qualification of the immobilized forms for disposal in a potential geologic repository could be affected if current plans for producing uniform products

were replaced with forms that varied significantly from site to site. In addition, deploying a new plutonium immobilization mission at RFETS would conflict with DOE commitments to expedite closure of the site by 2006.

While immobilizing all surplus plutonium is analyzed in this SPD EIS, fabricating all surplus plutonium into MOX fuel is not a reasonable alternative and is not analyzed. As described in response FD323-4, this is due to the complexity, timing, and cost that would be involved in purifying those plutonium materials to make them suitable for use in MOX fuel.

SMITH, FRANK W.  
PAGE 1 OF 1

To: Harold Canter, Director  
Office of Fissile Materials Disposition  
U. S. Department of Energy  
PO Box 23786  
Washington, DC 20026-3786

10 September, 1998

From: Frank W. Smith

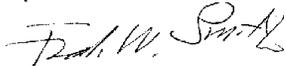
Re: Comment, Surplus Plutonium Disposition (SPD) EIS

We once met, at the Arvada Center in Denver with me in a wheelchair. I remain active at an appropriate level of engagement for growing physical limitations.

I strongly suggest that another facet be added to your Final EIS, namely a constructive showing that the commercial reactor(s) owners will "accept-and-use" MOX fuel to be created by that plutonium disposition option.

It has been shown in other studies that plutonium-based fuel(s) are not the "economic" fuel-of-choice" for light water reactors, and that there is a "uranium industry" that can be expected to fight use of MOX fuels that place the government (DoE) in competition with private industry. Without takers of MOX fuel, disposition will not be accomplished, and holding costs will continue.

Without addressing the "acceptance-and-use" of MOX fuels to be fabricate, the SPD EIS is incomplete. So please examine and report upon the prospect(s) for "acceptance and use of surplus-plutonium-based MOX fuel" for commercial reactors in the FINAL SPD EIS.



Frank W. Smith  
235 Lipan Way ... a change of street address for your mailing list, please  
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MD166

### MD166-1

### MOX Approach

DOE conducted a procurement process to acquire MOX fuel fabrication and irradiation services. The selected team, DCS, would design, request a license, construct, operate, and deactivate the MOX facility as well as irradiate the MOX fuel in domestic, commercial reactors. However, these activities are subject to the completion of the NEPA process. Because the fuel fabricator and reactor licensees work closely as a team, it is unlikely that there would be a problem in accepting the MOX fuel. Section 4.28 was revised to discuss the potential environmental impacts of operating Catawba, McGuire, and North Anna, the reactors that would use the MOX fuel.

1

**THE ROCKY FLATS LOCAL IMPACTS INITIATIVE**  
**BOB DYER**  
**PAGE 1 OF 1**

**THE ROCKY FLATS LOCAL IMPACTS INITIATIVE**

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August 28, 1998

Howard R. Canter  
 Acting Director  
 Office of Fissile Materials Disposition  
 US Department of Energy  
 PO Box 23786  
 Washington, DC 20026-3786

Dear Mr. Canter:

Thank you for the opportunity to comment on the Environmental Impact Statement for the disposition of surplus plutonium. The Rocky Flats Local Impacts Initiative is a coalition of local governments, unions, neighbors and community interest groups working together to provide a community voice in the downsizing of the Rocky Flats facility. It is not within our mission nor expertise to comment on the options for disposition facilities or processes. However there are two corollary issues important to us.

First, we are eager to have the excess plutonium now being stored at Rocky Flats safely moved to better locations. With over two million people now living within fifty miles of Rocky Flats and the plutonium being stored in inadequate facilities, we support the goals of the Rocky Flats Field Office and Kaiser-Hill to accelerate shipments. In order to optimize the cleanup schedule, shipments of plutonium metals and oxides should begin in the next two to four years. We support and appreciate the August amendment to the Record of Decision for storage and disposal that would accelerate shipment of Rocky Flats non-pit plutonium to Savannah River once the decision is finalized that SRS should be the ultimate disposal site. 1

Second, we foresee that a concern will be raised by citizens and communities along the transportation corridors. The EIS does not specify routes due to security concerns. However, if this material is to be shipped on routes other than those already designated by states for transport of hazardous materials, concerns of local communities may be justified. We urge your office to continue to coordinate with other DOE programs, states, Tribes, local governments and others to provide information and assurance to those in potential transportation corridors of the safety of the transport. 2

Sincerely,



for Bob Dyer  
 Chair

MD171

**MD171-1**

**Storage and Disposition PEIS and ROD**

DOE acknowledges the commentor's support of the amended *Storage and Disposition PEIS* ROD to support the early closure of RFETS.

**MD171-2**

**Transportation**

The shipment of nuclear material (e.g., depleted uranium) using commercial carriers would be the subject of detailed transportation plans in which routes and specific processing locations would be discussed. These plans are coordinated with State, tribal, and local officials. The shipment of waste would be in accordance with the decisions reached on the *Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste* (DOE/EIS-0200-F, May 1997) and the *WIPP Disposal Phase Final Supplemental EIS* (DOE/EIS-0026-S-2, September 1997) because the waste types and volumes that would result from surplus plutonium disposition activities have been included in those environmental reviews. The transportation of special nuclear materials is the subject of detailed planning with DOE's Transportation Safeguards Division. The dates and times that specific transportation routes would be used for special nuclear materials are classified information; however, the number of shipments that would be required, by location, has been included in this SPD EIS. Additional details are provided in *Fissile Materials Disposition Program SST/SGT Transportation Estimation* (SAND98-8244, June 1998), which is available on the MD Web site at <http://www.doe-md.com>.