

APPENDIX A
RELATED NATIONAL ENVIRONMENTAL POLICY ACT
REVIEWS AND *FEDERAL REGISTER* NOTICES

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Appendix A includes a description of related National Environmental Policy Act (NEPA) reviews (Sections A.1, A.2, and A.3) and includes *Federal Register* Notices specific to the *Surplus Plutonium Disposition Supplemental Environmental Impact Statement (SPD Supplemental EIS)* and lists other related *Federal Register* Notices (Section A.4).

A.1 Related NEPA Reviews – Surplus Plutonium Disposition

This section describes past NEPA reviews related to the Surplus Plutonium Disposition Program. The Surplus Plutonium Disposition Program is a subset of activities related to the long-term storage of weapons-usable fissile material (highly enriched uranium [HEU] and plutonium) and to the disposition of weapons-usable plutonium that has been, or in the future may be, declared surplus to U.S. defense needs. The NEPA documents that have been developed in support of decisions related to long-term storage and disposition of fissile materials are described in the following paragraphs, including documents specific to surplus plutonium disposition activities at the Savannah River Site (SRS) and Los Alamos National Laboratory (LANL).

The section is divided into Section A.1.1, Historical NEPA Reviews, and Section A.1.2, Recent NEPA Reviews for the Development of This *Surplus Plutonium Disposition Supplemental Environmental Impact Statement*.

A.1.1 Historical NEPA Reviews

In 1996, the U.S. Department of Energy (DOE) issued the *Storage and Disposition of Weapons-Usable Fissile Materials Final Programmatic Environmental Impact Statement (Storage and Disposition PEIS)* (DOE/EIS-0229) (DOE 1996c). The *Storage and Disposition PEIS* evaluated the potential environmental consequences of alternative strategies for the long-term storage and disposition of plutonium declared surplus to U.S. defense needs.

On January 21, 1997, in the *Storage and Disposition PEIS* Record of Decision (ROD) (62 *Federal Register* [FR] 3014), DOE announced its decision to pursue a dual-path strategy for disposition that would allow immobilization of some or all of the surplus plutonium in glass or ceramic material for disposal in a geologic repository, and fabrication of some surplus plutonium into mixed oxide (MOX) fuel for irradiation in existing domestic commercial nuclear power reactors, with subsequent disposal of the used fuel in a geologic repository. For plutonium storage, DOE decided to consolidate part of its surplus plutonium inventory by upgrading and expanding existing and planned facilities at the Pantex Plant (Pantex) near Amarillo, Texas (for plutonium pits), and SRS (for non-pit plutonium). These decisions were modified by later RODs.

In 1998, DOE prepared the *Supplement Analysis for Storing Plutonium in the Actinide Packaging and Storage Facility and Building 105-K at the Savannah River Site* (DOE 1998b). DOE prepared this supplement analysis to evaluate plutonium storage in K-Area at SRS prior to completion of the Actinide Packaging and Storage Facility. The storage option would support early closure of the Rocky Flats Environmental Technology Site (RFETS) and early deactivation of plutonium storage facilities at Hanford. In an amended *Storage and Disposition PEIS* ROD (63 FR 43386), DOE decided to proceed with accelerated shipment of surplus non-pit plutonium from RFETS to SRS before completion of the Actinide Packaging and Storage Facility, as well as the relocation of all Hanford surplus non-pit plutonium to SRS, pending disposition. Consistent with the January 1997 ROD for the *Storage and Disposition PEIS* (62 FR 3014), however, DOE decided to only implement the movement of the RFETS and Hanford surplus non-pit plutonium inventories to SRS if SRS were selected as the immobilization

site. In a 2001 ROD (66 FR 7888), DOE announced cancellation of the Actinide Packaging and Storage Facility in an amendment to the RODs for both the *Storage and Disposition PEIS* and the *Final Environmental Impact Statement, Interim Management of Nuclear Materials (IMNM EIS)*.

In 1998, DOE issued the *Final Environmental Impact Statement on Management of Certain Plutonium Residues and Scrub Alloy Stored at the Rocky Flats Environmental Technology Site* (DOE/EIS-0277F) (DOE 1998a). In several RODs for this environmental impact statement (EIS), DOE decided to dispose of certain plutonium scrap and residues at the Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico (63 FR 66136, 64 FR 8068, 64 FR 47780, 66 FR 4803, and 68 FR 44329).¹

In 1998, DOE prepared the *Pit Disassembly and Conversion Demonstration Environmental Assessment and Research and Development Activities* (DOE 1998c). In this environmental assessment, DOE analyzed a demonstration project at LANL to determine the feasibility of an integrated pit disassembly and conversion system as part of the surplus plutonium disposition strategy. This demonstration involved the disassembly of pits and conversion of the recovered plutonium to plutonium oxide. The demonstration helped develop the design and operational parameters for the pit disassembly and conversion project. The plutonium oxide produced by this program would be used in the Mixed Oxide Fuel Fabrication Facility (MFFF). The Finding of No Significant Impact (FONSI) for this environmental assessment was issued in August 1998 (DOE 1998d).

In 1999, DOE issued the *Surplus Plutonium Disposition Environmental Impact Statement (SPD EIS)* (DOE 1999), which tiered from the *Storage and Disposition PEIS*. In the *SPD EIS*, DOE evaluated, among other things, disposition of surplus plutonium by immobilization of the plutonium at specific DOE sites and by fabrication of MOX fuel for use in existing domestic commercial nuclear power reactors at specific commercial reactor sites. DOE also evaluated the construction and operation of a Pit Disassembly and Conversion Facility (PDCF); construction and operation of an MFFF, including the amount of plutonium that would be dispositioned by this approach; and an immobilization facility, including the technology to be used and the amount of plutonium that would be immobilized. Four DOE sites were considered for construction and operation of these facilities: the Hanford Site (Hanford) in Washington, the Idaho National Laboratory (at that time called the Idaho National Engineering and Environmental Laboratory) in Idaho, Pantex in Texas, and SRS in South Carolina. Six reactors at three sites were considered for irradiation of MOX fuel: Catawba Nuclear Station Units 1 and 2 in South Carolina, McGuire Nuclear Station Units 1 and 2 in North Carolina, and North Anna Power Station Units 1 and 2 in Virginia.

On January 11, 2000, DOE issued a ROD for the *SPD EIS* (65 FR 1608), in which DOE announced its decision to implement a hybrid approach to surplus plutonium disposition, wherein approximately 17 metric tons (19 tons) of surplus plutonium would be immobilized in a ceramic form, and up to 33 metric tons (36 tons) of surplus plutonium would be fabricated into MOX fuel and irradiated in existing domestic commercial nuclear power reactors. The ROD also announced that the three facilities needed to implement this approach—PDCF, MFFF, and the immobilization facility—would be constructed and operated at SRS.

In 2002, DOE prepared the *Supplement Analysis for Storage of Surplus Plutonium Materials in the K-Area Material Storage Facility at the Savannah River Site* (DOE 2002). In this supplement analysis DOE evaluated the potential for storage beyond 10 years at the K-Area Material Storage Facility (KAMS) (now known as the K-Area Material Storage Area), and concluded that potential impacts from the continued storage of surplus non-pit plutonium in KAMS for up to 50 years are not substantially different from those addressed in the original analysis of storage in the Actinide Packaging and Storage Facility contained in the *Storage and Disposition PEIS*. In a 2002 amended ROD (67 FR 19432) informed by this

¹ *Disposition of used nuclear fuel was evaluated in DOE's Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Programs Final Environmental Impact Statement (DOE/EIS-0203-F) (DOE1995c).*

supplement analysis, DOE amended the *Storage and Disposition PEIS* and *SPD EIS* RODs, and made the following decisions: cancellation of the immobilization portion of the disposition strategy; selection of the immediate implementation of consolidated long-term storage at SRS of surplus non-pit plutonium stored separately at RFETS and SRS; and authorization of consolidated long-term storage in KAMS. These decisions removed the basis for contingency contained in the previous RODs, which had conditioned transport of surplus non-pit plutonium from RFETS to SRS for storage on the selection of SRS as the site for the immobilization facilities. DOE left unchanged its prior decision to continue storage of surplus non-pit plutonium at Hanford, Idaho National Laboratory, and LANL, pending disposition (or movement to lag storage at a disposition facility). DOE also stated that storage of plutonium and the ultimate disposition of that plutonium were separate actions addressed separately in the *Storage and Disposition PEIS*, and that, while previous RODs combined these actions, such combination was not required to implement either decision and served no programmatic purpose. The amended ROD also stated that DOE was evaluating changes to the MOX fuel portion of the Surplus Plutonium Disposition Program, including a revised strategy to dispose of 34 metric tons (37 tons) of surplus plutonium in a MOX-only approach, to implement the 2000 PMDA.

DOE issued the *Supplement Analysis and Amended Record of Decision, Changes Needed to the Surplus Plutonium Disposition Program* (DOE/EIS-0283-SA1) in April 2003 (DOE 2003b) and made the associated determination that no additional NEPA analysis was needed to process into MOX fuel 6.5 metric tons (7.2 tons) of non-pit plutonium originally intended for immobilization (referred to as “alternate feedstock”) or to implement the MFFF design changes identified during the detailed-design process (68 FR 20134). The amended ROD announced DOE’s decision to disposition as MOX fuel 34 metric tons (37 tons) of surplus plutonium, including the alternate feedstock. The supplement analysis and amended ROD did not address the remaining surplus non-pit plutonium that had been intended for immobilization.

Since that time, most of the surplus non-pit plutonium in storage at various DOE sites around the United States has been moved to SRS for consolidated long-term storage pending disposition, consistent with the 2002 amended ROD; the *Supplement Analysis, Storage of Surplus Plutonium Materials at the Savannah River Site* (DOE/EIS-0229-SA-4) (DOE 2007a); and an amended ROD issued in 2007 (72 FR 51807) regarding surplus plutonium from Hanford, LANL, and Lawrence Livermore National Laboratory (LLNL). Surplus plutonium from Hanford has been moved to SRS, whereas material movements from LANL and LLNL are ongoing.

As part of the MOX approach, DOE had analyzed, in the *SPD EIS*, the potential environmental impacts of fabricating up to 10 MOX fuel lead assemblies² at five DOE sites and irradiation of these lead assemblies at existing domestic commercial nuclear power reactor sites, followed by postirradiation examination at two other sites. In the *SPD EIS* ROD, LANL was selected as the site for lead assembly fabrication and Oak Ridge National Laboratory was selected as the site for post-irradiation examination. Because of schedule impacts and programmatic considerations, the *Supplement Analysis for the Fabrication of Mixed Oxide Fuel Lead Assemblies in Europe* (DOE/EIS-0229-SA-3) (DOE 2003a) was prepared in 2003 and supported a subsequent amended *SPD EIS* ROD (68 FR 64611) announcing the change in the lead assembly fabrication location to existing MOX fuel fabrication facilities in Europe.

In 2005, DOE prepared the *Environmental Assessment for the Safeguards and Security Upgrades for Storage of Plutonium Materials at the Savannah River Site* (DOE 2005a). DOE prepared this environmental assessment to evaluate installation and operation of the K-Area Container Surveillance and Storage Capability (CSSC) for non-pit plutonium surveillance and stabilization, deinventory of plutonium from F-Area for storage in K-Area, storage of plutonium in DOE-STD-3013 containers, and installation of safeguards and security upgrades in K-Area and the Advanced Tactical Training Area. In the resulting FONSI, DOE determined that implementation of the proposed action was not expected to have a

² A MOX fuel lead assembly is a prototype reactor fuel assembly containing MOX fuel that is used to test fuel performance in a nuclear reactor.

measurable impact on the human environment and that an EIS was not required (DOE 2005b). Since the initial FONSI was issued on this environmental assessment, DOE has issued a revised FONSI (DOE 2010b). In the revised FONSI, DOE explains that the features originally planned for CSSC have been replaced by the Stabilization and Packaging Project in K-Area. This project would provide the capability to comply with DOE-STD-3013 requirements for stabilization and long-term storage of plutonium-bearing materials and would replace the compliance feature of CSSC. The types of equipment, processes, and technology proposed for use in the Stabilization and Packaging Project are the same as, or similar to, those originally proposed for CSSC.

In 2005, the U.S. Nuclear Regulatory Commission (NRC)³ prepared the *Environmental Impact Statement on the Construction and Operation of a Proposed Mixed Oxide Fuel Fabrication Facility at the Savannah River Site, South Carolina (MFFF EIS)* (NRC 2005a). In the *MFFF EIS*, NRC evaluated the environmental impacts of construction and operation of MFFF to fabricate 34 metric tons (37 tons) of surplus plutonium into MOX fuel and two connected actions, the construction and operation of PDCF and a Waste Solidification Building (WSB). NRC made a final NEPA recommendation in the *MFFF EIS*, concluding that the applicable environmental requirements and the proposed mitigation measures would eliminate or substantially lessen any potential adverse environmental impacts associated with MFFF (NRC 2005a).

In November 2008, DOE issued the *Supplement Analysis for Construction and Operation of a Waste Solidification Building at the Savannah River Site* (DOE/EIS-0283-SA-2) (DOE 2008c). In this supplement analysis to the *SPD EIS*, DOE evaluated construction and operation of a stand-alone WSB to treat liquid low-level radioactive waste (LLW) and high-activity and stripped-uranium liquid waste streams from MFFF and PDCF. On December 10, 2008, DOE decided to construct and operate a stand-alone WSB in close proximity to MFFF and the planned PDCF in F-Area at SRS (73 FR 75088), rather than incorporate the equipment to treat and solidify liquid LLW and liquid transuranic (TRU) waste into MFFF and PDCF as was evaluated in the *SPD EIS*. WSB is now under construction.

In three interim action determinations approved in December 2008, September 2009, and March 2011, DOE decided to process approximately 0.6 metric tons (0.7 tons) of surplus non-pit plutonium through H-Canyon/HB-Line and the Defense Waste Processing Facility (DWPF) (DOE 2008b, 2009b), and later decided to dispose of 85 kilograms (187 pounds) of the 0.6 metric tons (0.7 tons) at WIPP (DOE 2011a). Because of the small quantities involved relative to the 6 metric tons (6.6 tons) of non-pit plutonium to be evaluated in this *SPD Supplemental EIS*, it was determined that processing this material would not affect DOE's ultimate selection of disposition alternatives. Therefore, these actions were determined to be allowable interim actions in accordance with DOE regulations for implementing NEPA (10 CFR 1021.104 and 1021.211).

In an interim action determination approved in October 2011, DOE decided to process an additional 0.5 metric tons (0.55 tons) of surplus non-pit plutonium through H-Canyon/HB-Line for disposal at WIPP (DOE 2011d). Because of the small quantities involved relative to the 6 metric tons (6.6 tons) of non-pit plutonium being evaluated in the *SPD Supplemental EIS*, and because this material does not lend itself to disposition using other alternatives, it was determined that disposal of this material as TRU waste would not affect DOE's ultimate selection of disposition alternatives. Therefore, this action was determined to be an allowable interim action (10 CFR 1021.104 and 1021.211).

In an interim action determination approved in April 2011 (DOE 2011b), DOE evaluated modifying the design of MFFF to provide the flexibility to manufacture a variety of fuel types, including fuel for boiling-water reactors and next-generation light-water reactors. DOE's evaluation shows that impacts of modifying the design and operating the facility to manufacture a variety of fuel types are bounded by existing safety analyses and analyses in the *SPD EIS* (DOE 1999), and no additional potentially adverse

³ The Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (42 U.S.C. 5842) amended the Energy Reorganization Act of 1974 to provide NRC with regulatory and licensing authority over MFFF.

impacts have been identified. The proposed modifications would have no effect on DOE's selection of alternative plutonium preparation or disposition alternatives following completion of this *SPD Supplemental EIS*. Therefore, this action was determined to be an allowable interim action (10 CFR 1021.104 and 1021.211).

In an interim action determination approved in June 2012 (DOE 2012), DOE evaluated preparation of up to 2.4 metric tons (2.6 tons) of plutonium metal and oxide as feed material for the MFFF using H-Canyon/HB-Line at SRS. This material is a subset of the 6.5 metric tons (7.2 tons) of non-pit metal and oxides previously determined for use as MOX fuel as decided in an Amended ROD (68 FR 20134), described above. DOE determined that the impacts of processing these materials would be significantly less than historical levels of operating H-Canyon/HB-Line, and that use of these facilities in the near term, prior to selection of an option for plutonium conversion, would not limit the choice of alternatives being evaluated in this *SPD Supplemental EIS*. Therefore, this action was determined to be an allowable interim action (10 CFR 1021.104 and 1021.211).

A.1.2 Recent NEPA Reviews for Development of This *Surplus Plutonium Disposition Supplemental Environmental Impact Statement*

In 2007, DOE issued a Notice of Intent (NOI) (72 FR 14543) to prepare this *SPD Supplemental EIS* to evaluate the potential environmental impacts of surplus plutonium disposition capabilities that would be constructed and operated at SRS to provide a disposition pathway for surplus non-pit plutonium originally planned for immobilization. In the 2007 NOI, DOE stated that its Preferred Alternative was to construct and operate a new vitrification capability within an existing building at SRS to immobilize most of the surplus non-pit plutonium, and to process some of the surplus non-pit plutonium in the existing H-Canyon/HB-Line and DWPF at SRS. The NOI also stated that DOE would analyze the impacts of fabricating some (up to approximately one-third) surplus non-pit plutonium into MOX fuel.

Subsequently, DOE decided to evaluate additional alternatives. Therefore, on July 19, 2010, DOE issued an amended NOI (75 FR 41850) announcing its intent to modify the scope of this *SPD Supplemental EIS* and to conduct additional public scoping. DOE revised the scope of this *SPD Supplemental EIS* to refine the quantity and types of surplus plutonium, evaluate additional alternatives, and no longer consider in detail one of the alternatives identified in the 2007 NOI (ceramic can-in-canister immobilization). In addition, DOE had identified a glass can-in-canister immobilization approach as its Preferred Alternative in the 2007 NOI for the non-pit plutonium then under consideration; the 2010 amended NOI explained that DOE would evaluate a glass can-in-canister immobilization alternative in this *SPD Supplemental EIS*, but that DOE did not have a preferred alternative.

To evaluate additional options for pit disassembly and conversion, on January 12, 2012, DOE issued a second amended NOI (77 FR 1920) announcing its intent to modify the scope of this *SPD Supplemental EIS* and to conduct additional public scoping.

A.2 Other Related DOE NEPA Reviews

Activities related to the Surplus Plutonium Disposition Program include storage of pits at Pantex, plutonium recovery through the Global Threat Reduction Initiative (GTRI), plutonium processing at LANL, and the management of nuclear materials at SRS. In addition, disposition of surplus plutonium may involve the use of the DWPF and the high-level radioactive waste (HLW) management system at SRS, waste management facilities at SRS and LANL, and WIPP. Therefore, NEPA documents related to these facilities are described below.

A.2.1 Pit Storage at the Pantex Plant

Final Environmental Impact Statement for the Continued Operation of the Pantex Plant and Associated Storage of Nuclear Weapon Components (Pantex Sitewide EIS) (DOE 1996b). The *Pantex Sitewide EIS* evaluated activities associated with ongoing operations at Pantex, including onsite pit storage and transportation. The ROD, published in the *Federal Register* on January 27, 1997 (62 FR 3880), announced DOE's decision to implement the Preferred Alternative evaluated in the *Pantex Sitewide EIS*,

including interim storage of up to 20,000 pits at Pantex. DOE and its semiautonomous National Nuclear Security Administration (NNSA) published four supplement analyses for the *Pantex Sitewide EIS*, the most recent in October 2008 (DOE/NNSA 2008). The supplement analyses indicated that the identified and projected impacts for all resource areas, including cumulative impacts, were not substantially changed from those identified in the *Pantex Sitewide EIS* and ROD, nor did they represent significant new circumstances or information relative to environmental concerns. The *SPD Supplemental EIS* analyzes transportation of surplus pits from Pantex to the pit disassembly and conversion site and relies on the *Pantex Sitewide EIS* for impacts of interim storage of pits at Pantex.

The analysis in the *Pantex Sitewide EIS* indicates: operation of Pantex, including the continued storage of pits, was judged to not increase the potential for offsite contamination (DOE 1996b:p. S-17). Offsite concentrations of air pollutants were estimated to be below Effects Screening Levels and would not adversely affect human health (DOE 1996b:Table S-1). Potential radiological impacts from Pantex operations resulted from a range of activities, including weapons assembly, weapons disassembly, and interim storage of pits. Potential exposures of the public from site operations could come from releases of small amounts of tritium and doses to any member of the public would be a small fraction of a millirem (DOE 1996b:Chapter 4, Section 4.14.2.1). Worker doses from site operations, which include active weapons assembly and disassembly as well as interim storage of pits, would result in average worker doses of approximately 100 millirem per year (DOE 1996b:Chapter 4, Section 4.14.2.1). Additional worker doses were estimated from operations whereby pits would be packaged for transfer to another site, such as SRS or LANL. Collective worker impacts for packaging 8,000 to 20,000 pits for transfer to another site ranged from 113 to 283 person-rem (DOE 1996b:p. S-10).

A.2.2 Transuranic Waste Disposal at the Waste Isolation Pilot Plant

Final Environmental Impact Statement for the Waste Isolation Pilot Plant (DOE/EIS-0026) and two associated SEISs (DOE/EIS-0026-S-1 and DOE/EIS-0026-S-2) (DOE 1990, 1997b). In the *Final Environmental Impact Statement for the Waste Isolation Pilot Plant* and two SEISs issued in 1990 and 1997, DOE analyzed the development, operation, and transportation activities associated with WIPP, a mined repository for TRU waste near Carlsbad, New Mexico. In the 1997 *Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement (WIPP SEIS II)*, DOE analyzed the impacts from management and operation of WIPP to support disposal of TRU waste. DOE determined that the operation of WIPP during the period when it would be accepting waste shipments from around the DOE complex could be accomplished safely and that WIPP would not be expected to result in any long-term (over 10,000 years) impacts on human health as long as the repository was not disturbed after decommissioning (DOE 1997b). In the ROD associated with the 1997 *WIPP SEIS II* (63 FR 3624), DOE announced its decision that WIPP would be developed and begin accepting TRU waste for disposal. Since then, DOE published eight supplement analyses of the 1997 *WIPP SEIS II*. The supplement analyses indicated that the identified and projected impacts for all resource areas, including cumulative impacts, were not substantially changed from those previously evaluated, nor did they represent significant new circumstances or information relative to environmental concerns (DOE 2009a).

TRU waste produced as a result of surplus plutonium disposition activities would be required to meet WIPP waste acceptance criteria and would then be shipped to WIPP for disposal. The TRU waste (including non-pit plutonium packaged for disposal at WIPP) associated with the proposed alternatives being analyzed in this *SPD Supplemental EIS* would not be expected to change any of the impacts previously analyzed in the *WIPP SEIS II*, and would use, at most, 10 percent of the contact-handled TRU waste capacity for WIPP as authorized under the WIPP Land Withdrawal Act.

A.2.3 Plutonium Recovery through the Global Threat Reduction Initiative

Environmental Assessment for the U.S. Receipt and Storage of Gap Material—Plutonium and Finding of No Significant Impact (DOE/EA-1771) (DOE 2010a). In this environmental assessment, DOE assessed the potential environmental impacts of transporting to SRS for storage pending final disposition up to 100 kilograms (220 pounds) of plutonium that the United States may accept from at-risk foreign locations

as part of the GTRI. A final decision on the acceptance of any particular shipment of plutonium from a foreign country is contingent on confirmation that the material: (1) poses a threat to U.S. national security; (2) is susceptible to being used in an improvised nuclear device; (3) presents a high risk of terrorist threat; (4) has no other reasonable pathway to assure security from theft or diversion; and (5) meets the acceptance criteria of the storage facility at SRS. Acceptance of material also requires adequate storage capacity to accommodate the material at SRS. In the FONSI, DOE determined that the impacts of implementing the proposed action are not significant (DOE 2010a). Gap material plutonium would be dispositioned along with U.S. surplus plutonium. The disposition of plutonium materials that are recovered through the GTRI program and brought to SRS are analyzed in this *SPD Supplemental EIS*.

A.2.4 Pit Disassembly and Conversion at the Los Alamos National Laboratory

Site-Wide Environmental Impact Statement for Continued Operation of Los Alamos National Laboratory, Los Alamos, New Mexico (LANL SWEIS) (DOE/EIS-0380) (DOE 2008a). DOE prepared this sitewide EIS to evaluate the impacts associated with the continued operation of LANL. The activities analyzed in the *LANL SWEIS* include the production of plutonium oxide at LANL for use in MFFF at SRS. In the 2008 ROD for the *LANL SWEIS* (73 FR 55833), DOE selected the No Action Alternative, including the ability to produce plutonium oxide on site and to ship such materials from LANL to other sites within the DOE complex, including SRS. In the 2009 ROD (74 FR 33232), DOE decided to proceed with seismic upgrades to the Plutonium Facility at Technical Area 55. This *SPD Supplemental EIS* evaluates expanding the pit disassembly and conversion capabilities at LANL.

A.2.5 Interim Management of Nuclear Materials at Savannah River Site

Final Environmental Impact Statement, Interim Management of Nuclear Materials (IMNM EIS) (DOE/EIS-0220) (DOE 1995b). In the *IMNM EIS*, DOE assessed the potential environmental impacts of actions necessary to manage nuclear materials then stored at SRS until decisions on their ultimate disposition were made and implemented. Construction of a new Actinide Packaging and Storage Facility was included in the analysis. In many cases (e.g., for existing non-pit plutonium stored in vaults at SRS and plutonium-239 solutions), analyses in the *IMNM EIS* assumed that material was to be stored until DOE made “long-term storage or disposition decisions.” In the December 19, 1995, ROD (60 FR 65300), DOE selected stabilization methods and storage for the majority of “vulnerable” nuclear materials at SRS, selected the facilities in F- and H-Areas (including H-Canyon/HB-Line) to be utilized, and announced the decision to build the Actinide Packaging and Storage Facility. In the November 14, 1997, supplemental ROD (62 FR 61099), DOE announced its decision to implement processing and storage for vitrification in DWPF as an additional method for managing non-pit plutonium and uranium stored in vaults. DOE is currently using this method to process up to 0.6 metric tons (0.7 tons) of surplus non-pit plutonium in H-Canyon/HB-Line with subsequent vitrification in DWPF. In a 2001 ROD (66 FR 7888), DOE announced cancellation of the Actinide Packaging and Storage Facility in an amendment to the RODs for both the *Storage and Disposition PEIS* and the *IMNM EIS*.

A.2.6 Vitrification of High-Level Radioactive Waste at Savannah River Site

Final Environmental Impact Statement, Defense Waste Processing Facility, Savannah River Plant, Aiken, S.C. (DWPF EIS) (DOE/EIS-0082). In the 1982 *DWPF EIS*, DOE evaluated alternatives for construction and operation of DWPF at SRS. Nuclear materials production activities at SRS have produced HLW that is stored on site in tanks. The function of DWPF is to vitrify the low-volume, high-activity radioactive fraction of the tank waste (the sludge and salt fractions) that will be stored in stainless steel containers on site pending a decision on their ultimate disposal. The *DWPF EIS* ROD announcing DOE’s decision to proceed with the construction and operation of DWPF was published in June 1982 (47 FR 23801). Surplus plutonium disposition activities evaluated in this *SPD Supplemental EIS* include the use of DWPF to fill additional canisters with waste resulting from the processing of surplus plutonium in H-Canyon/HB-Line, and to fill canisters containing immobilized plutonium in can-in-canister assemblies.

Defense Waste Processing Facility Supplemental Environmental Impact Statement (DWPF Supplemental EIS) (DOE/EIS-0082-S) (DOE 1994). In 1994, DOE issued the *DWPF Supplemental EIS*, which evaluated changes in the HLW process proposed after the 1982 *DWPF EIS* was issued. In the *DWPF Supplemental EIS* ROD, DOE announced that it would complete the construction and startup testing of DWPF using the in-tank precipitation process to separate the high-activity fraction from the liquid waste (60 FR 18589).

Savannah River Site Salt Processing Alternatives Final Supplemental Environmental Impact Statement (DOE/EIS-0082-S2) (DOE 2001). In 2001, DOE prepared this supplemental environmental impact statement (SEIS) to select an alternative technology for separating the high-activity fraction from the low-activity fraction of the radioactive salt waste after DOE determined that in-tank precipitation could not meet production goals and safety requirements. In a ROD for this SEIS, DOE determined that any of the alternatives evaluated could be implemented with only small and acceptable environmental impacts, and decided to implement the caustic-side solvent extraction process, to be housed in the Salt Waste Processing Facility (66 FR 52752).

Supplement Analysis, Salt Processing Alternatives at the Savannah River Site (DOE/EIS-0082-S2-SA-01) (DOE 2006). In this supplement analysis, DOE evaluated the impacts of a new interim salt processing capability to process a specified fraction of the salt waste stored in the F- and H-Area tank farms. Use of this interim capability would allow DOE to continue removing and stabilizing the high-activity sludge waste and would accelerate the cleanup and closure of the tanks. In a ROD for this supplement analysis, DOE announced its decision to proceed with the use of the interim salt processing capability to continue uninterrupted use of DWPF and to allow use of the Salt Waste Processing Facility at higher capacity as soon as it comes on line (71 FR 3834).

A.2.7 Disposition of Surplus Highly Enriched Uranium

Disposition of Surplus Highly Enriched Uranium Final Environmental Impact Statement (DOE/EIS-0240) (DOE 1996a). In this EIS, DOE analyzed the environmental impacts associated with alternatives for the disposition of surplus U.S.-origin HEU (including the use of H-Canyon/HB-Line), both to support U.S. nuclear weapons nonproliferation policy by reducing global stockpiles of excess weapons-usable fissile materials and to recover the economic value of the materials to the extent feasible. In the ROD for this EIS (61 FR 40619), DOE announced its decision to implement a Highly Enriched Uranium Disposition Program, which is currently ongoing, to render surplus HEU non-weapons-usable by blending the HEU down to low-enriched uranium (LEU). The ROD describes DOE's plans to sell a portion of the LEU for use as feedstock for commercial nuclear power plant fuel fabrication and to dispose of the remaining LEU as LLW. H-Canyon/HB-Line at SRS was one of the facilities selected for blending HEU down to LEU. HEU from pit disassembly and conversion would be recovered for disposition in the Highly Enriched Uranium Disposition Program.

Supplement Analysis, Disposition of Surplus Highly Enriched Uranium (DOE/EIS-0240-SA1) (DOE 2007b). DOE/NNSA prepared this supplement analysis to evaluate the ongoing Highly Enriched Uranium Disposition Program and propose new initiatives, including new end-users for existing program material, new disposal pathways for existing discarded HEU, and downblending additional quantities of HEU through H-Canyon/HB-Line, consistent with current activities.

Final Site-wide Environmental Impact Statement for the Y-12 National Security Complex (Y-12 SWEIS) (DOE/EIS-0387) (DOE 2011c). As one of NNSA's major production facilities, the Y-12 National Security Complex (Y-12) is the primary site for enriched uranium processing and storage, and one of the primary manufacturing facilities for maintaining the U.S. nuclear weapons stockpile. Y-12 supplies nuclear weapons components, dismantles weapons components, safely and securely stores and manages special nuclear material, supplies special nuclear material for use in naval and research reactors, and disposes surplus materials. The *Y-12 SWEIS* analyzes the potential environmental impacts of reasonable alternatives for ongoing and foreseeable future operations, facilities, and activities at Y-12. Therefore, the impacts of storage of HEU at Y-12 are covered by the analyses presented in the

Y-12 SWEIS. The *Y-12 SWEIS* also covers activities related to the receipt and management of surplus HEU that will result from pit processing in PDCF or a pit disassembly and conversion capability. The impacts of incremental shipments to Y-12 of surplus HEU from pit disassembly and conversion are analyzed in this *SPD Supplemental EIS*.

A.2.8 Waste Management

NEPA analyses related to disposal of TRU waste at WIPP are addressed in Section A.2.2. Additional waste management NEPA documents related to the actions evaluated in this *SPD Supplemental EIS* are described in this section.

Savannah River Site Waste Management Final Environmental Impact Statement (DOE/EIS-0217) (DOE 1995a). DOE issued this EIS to provide a basis for selection of a sitewide approach to managing present and future wastes generated at SRS. The associated ROD (60 FR 55249) stated that DOE would configure its waste management system according to the moderate treatment alternative described in the EIS.

Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste (Waste Management PEIS) (DOE/EIS-0200-F) (DOE 1997a). DOE published the *Waste Management PEIS* as a DOE complex-wide study of the environmental impacts of managing five types of waste generated by past, present, and future nuclear defense and research activities. The *Waste Management PEIS* provided information on the impacts of various siting configurations that DOE used to decide at which sites to locate additional treatment, storage, and disposal capacity for each waste type. As applicable, waste resulting from action taken in the *SPD EIS* and this *SPD Supplemental EIS* would be treated, stored, and disposed of in accordance with the RODs associated with the *Waste Management PEIS*. DOE published four RODs associated with this programmatic EIS. In the ROD related to TRU waste and its three subsequent revisions (63 FR 3629, 65 FR 82985, 66 FR 38646, and 67 FR 56989), DOE decided that each DOE site that currently has or will generate TRU waste would prepare its TRU waste for disposal and store it on site until it could be shipped to WIPP for disposal. The *Waste Management PEIS* stated that DOE may approve, after NEPA review, shipments of TRU waste from sites where it may be impractical to prepare the waste for disposal to sites where DOE has or will have the necessary capability, including SRS. In addition, DOE approved the transfer of TRU waste from the Sandia National Laboratories in New Mexico to LANL for storage and preparation for disposal at WIPP. In the ROD related to non-wastewater hazardous waste (63 FR 41810), DOE decided to continue using offsite facilities for the treatment of major portions of such waste generated at DOE sites. In the ROD related to immobilized HLW (64 FR 46661), DOE decided to store such waste in a final form at the site of generation until transfer to an ultimate disposition site. In the ROD related to mixed low-level radioactive waste (MLLW) and LLW (65 FR 10061), DOE decided to perform minimal treatment of LLW at all sites and continue, to the extent practicable, onsite disposal of LLW at a number of sites, including SRS. DOE decided to treat MLLW at a number of sites, including SRS, with disposal at Hanford or the Nevada National Security Site (formerly known as the Nevada Test Site). This decision regarding MLLW and LLW does not preclude the use of commercial disposal sites.

The impacts of operation of waste management facilities at LANL are evaluated in the *LANL SWEIS* (DOE 2008a).

A.3 Related TVA NEPA Reviews

NEPA documents related to TVA's commercial nuclear power reactors at the Browns Ferry and Sequoyah Nuclear Plants are summarized below.

A.3.1 Browns Ferry Nuclear Plant

Final Supplemental Environmental Impact Statement for Browns Ferry Nuclear Plant Operating License Renewal (TVA 2002). This EIS was prepared by TVA to address the potential environmental impacts associated with TVA's proposal for NRC to renew the operating licenses for the extended operation of

Units 1, 2, and 3 at its Browns Ferry Nuclear Plant, located in Limestone County, Alabama. The operating licenses were renewed by NRC on May 4, 2006 (NRC 2006). Renewal of the operating licenses allows operation for an additional 20 years beyond the original 40-year operating license terms. NEPA, which created the need for EISs, was signed into law in 1970. Construction of the Browns Ferry Nuclear Plant started in 1967; therefore, its construction predated NEPA and an EIS was not prepared.

Generic Environmental Impact Statement for License Renewal of Nuclear Plants, Supplement 21, Regarding Browns Ferry Nuclear Plant, Units 1, 2, and 3, Final Report (NUREG-1437, Supplement 21) (NRC 2005b). This EIS was prepared by NRC in response to an application submitted to NRC by TVA to renew the operating licenses for Browns Ferry Nuclear Plant, Units 1, 2, and 3, for an additional 20 years under 10 CFR Part 54. This EIS includes NRC's analysis of the environmental impacts of the proposed action, the environmental impacts of alternatives to the proposed action, and mitigation measures available for reducing or avoiding adverse impacts. On May 4, 2006, NRC approved Browns Ferry's renewed licenses, allowing Units 1, 2, and 3 to operate through 2033, 2034, and 2036, respectively.

A.3.2 Sequoyah Nuclear Plant

Final Environmental Impact Statement for Sequoyah Nuclear Plant, Units 1 and 2 (TVA 1974). Based on information presented in the *Final Environmental Statement for Sequoyah Nuclear Plant, Units 1 and 2*, NRC approved construction and operation of the Sequoyah reactors. Construction of the Sequoyah Nuclear Plant was completed in 1980, and operating licenses were approved for Unit 1 in 1980 and Unit 2 in 1981. Unit 1 received its full power license on September 17, 1980, and began commercial operation on July 1, 1981. Unit 2 received its full power license on September 15, 1981, and began commercial operation on June 1, 1982.

Final Supplemental Environmental Impact Statement for Sequoyah Nuclear Plant Units 1 and 2 License Renewal, Hamilton County, Tennessee (TVA 2011). In June 2011, TVA issued a final SEIS to address the potential environmental impacts associated with TVA's application to NRC to renew the operating licenses for the Sequoyah Nuclear Plant. This SEIS supplements the original EIS prepared in 1974. The license renewals, if issued by NRC, would allow the plant to continue to operate for an additional 20 years beyond the current operating licenses, which would otherwise expire in 2020 (Unit 1) and 2021 (Unit 2). On August 18, 2011, the TVA Board of Directors decided to proceed with an application to NRC to extend the operation of Sequoyah Nuclear Plant Units 1 and 2 for a period of 20 years (76 FR 55723).

A.4 Related Federal Register Notices

A.4.1 Federal Register Notices for the Surplus Plutonium Disposition Supplemental Environmental Impact Statement

SUMMARY: The U.S. Department of Energy (DOE) announces its intent to modify the scope of the *Surplus Plutonium Disposition Supplemental Environmental Impact Statement* (SPD Supplemental EIS, DOE/EIS-0283-S2) and to conduct additional public scoping. DOE issued its Notice of Intent (NOI) to prepare the SPD Supplemental EIS on March 28, 2007, and issued an Amended NOI on July 19, 2010. DOE now intends to further revise the scope of the SPD Supplemental EIS primarily to add additional alternatives for the disassembly of pits (a nuclear weapons component) and the conversion of plutonium metal originating from pits to feed material for the Mixed Oxide (MOX) Fuel Fabrication Facility (MFFF), which DOE is constructing at the Savannah River Site (SRS) in South Carolina. Under the proposed new alternatives, DOE would expand or install the essential elements required to provide a pit disassembly and/or conversion capability at one or more of the following locations: Technical Area 55 (TA-55) at the Los Alamos National Laboratory (LANL) in New Mexico, H-Canyon/HB-Line at SRS, K-Area at SRS, and the MFFF at SRS. In addition, DOE has decided not to analyze an alternative, described in the 2010 Amended NOI, to construct a separate Plutonium Preparation (PuP) capability for non-pit plutonium because the necessary preparation activities are adequately encompassed within the other alternatives.

The MOX fuel alternative is DOE's preferred alternative for surplus plutonium disposition. DOE's preferred alternative for pit disassembly and the conversion of surplus plutonium metal, regardless of its origins, to feed for the MFFF is to use some combination of facilities at TA-55 at LANL, K-Area at SRS, H-Canyon/HB-Line at SRS and MFFF at SRS, rather than to construct a new stand-alone facility. This would likely require the installation of additional equipment and other modifications to some of these facilities. DOE's preferred alternative for disposition of surplus plutonium that is not suitable for MOX fuel fabrication is disposal at the Waste Isolation Pilot Plant (WIPP) in New Mexico.

DATES: DOE invites Federal agencies, state and local governments, Native American tribes, industry, other organizations, and members of the public to submit comments to assist in identifying environmental issues and in determining the appropriate scope of the SPD Supplemental EIS. The public scoping period will end on March 12, 2012. DOE will consider all comments

DEPARTMENT OF ENERGY

Second Amended Notice of Intent To Modify the Scope of the Surplus Plutonium Disposition Supplemental Environmental Impact Statement and Conduct Additional Public Scoping

AGENCY: U.S. Department of Energy, National Nuclear Security Administration.

ACTION: Amended Notice of Intent.

received or postmarked by March 12, 2012. Comments received after that date will be considered to the extent practicable. Also, DOE asks that Federal, State, local, and tribal agencies that desire to be designated cooperating agencies on the SPD Supplemental EIS contact the National Environmental Policy Act (NEPA) Document Manager at the addresses listed under **ADDRESSES** by the end of the scoping period. The Tennessee Valley Authority (TVA) is a cooperating agency for sections of the EIS as described below. DOE will hold a public scoping meeting:

- February 2, 2012 (5:30 p.m. to 8 p.m.) at Cities of Gold Hotel, 10-A Cities of Gold Road, Pojoaque, NM 87501.

The scoping period announced in this second Amended NOI will allow for additional public comment and for DOE to consider any new information that may be relevant to the scope of the SPD Supplemental EIS. Because the additional alternatives do not involve new locations except for LANL, and because there have been two previous scoping periods for this SPD Supplemental EIS, DOE does not intend to hold additional scoping meetings except at Pojoaque, NM, or to extend the scoping period beyond that announced herein.

ADDRESSES: Please direct written comments on the scope of the SPD Supplemental EIS to Ms. Sachiko McAlhany, SPD Supplemental EIS NEPA Document Manager, U.S. Department of Energy, P.O. Box 2324, Germantown, MD 20874-2324. Comments on the scope of the SPD Supplemental EIS may also be submitted via email to spdsupplementaleis@saic.com or by toll-free fax to (877) 865-0277. DOE will give equal weight to written, email, fax, telephone, and oral comments. Questions regarding the scoping process and requests to be placed on the SPD Supplemental EIS mailing list should be directed to Ms. McAlhany by any of the means given above or by calling toll-free (877) 344-0513.

For general information concerning the DOE NEPA process, contact: Carol Borgstrom, Director, Office of NEPA Policy and Compliance (GC-54), U.S. Department of Energy, 1000 Independence Avenue SW., Washington, DC 20585-0103; telephone (202) 586-4600, or leave a message toll-free (800) 472-2756; fax (202) 586-7031; or send an email to askNEPA@hq.doe.gov. This second Amended NOI will be available on the Internet at <http://energy.gov/nepa>.

SUPPLEMENTARY INFORMATION:

Background

To reduce the threat of nuclear weapons proliferation, DOE is engaged in a program to disposition its surplus, weapons-usable plutonium in a safe, secure, and environmentally sound manner, by converting such plutonium into proliferation-resistant forms not readily usable in nuclear weapons. The U.S. inventory of surplus plutonium is in several forms. The largest quantity is plutonium metal in the shape of pits (a nuclear weapons component). The remainder is non-pit plutonium, which includes plutonium oxides and metal in a variety of forms and purities.

DOE already has decided to fabricate 34 metric tons (MT) of surplus plutonium into MOX fuel in the MFFF (68 FR 20134, April 24, 2003), currently under construction at SRS, and to irradiate the MOX fuel in commercial nuclear reactors used to generate electricity, thereby rendering the plutonium into a spent fuel form not readily usable in nuclear weapons.

DOE announced its intent to prepare a SPD Supplemental EIS in 2007 to analyze the potential environmental impacts of alternatives to disposition about 13 MT of surplus plutonium (72 FR 14543; March 28, 2007). DOE issued an Amended NOI in 2010 "to refine the quantity and types of surplus weapons-usable plutonium material, evaluate additional alternatives, and no longer consider in detail one alternative identified" in the 2007 NOI (75 FR 41850; July 19, 2010).¹ The 2007 NOI and 2010 Amended NOI are available at <http://www.nnsa.energy.gov/nepa/spdsupplementaleis> and details from them are not reproduced in this second Amended NOI.

In the 2010 Amended NOI, DOE proposed to revisit its decision to construct and operate a new Pit Disassembly and Conversion Facility (PDCF) in the F-Area at SRS (65 FR 1608; January 11, 2000) and analyze an alternative to install and operate the pit disassembly and conversion capabilities in an existing building in K-Area at SRS. With this second Amended NOI, DOE is proposing to analyze additional

¹ The 2010 Amended NOI describes changes in the inventory of surplus plutonium to be analyzed in the SPD Supplemental EIS, though the total quantity remained about 13 MT. On March 30, 2011, DOE made an amended interim action determination to disposition approximately 85 kilograms (0.085 MT) of surplus, non-pit plutonium via the Defense Waste Processing Facility at SRS or disposal at the Waste Isolation Pilot Plant (WIPP) in New Mexico. On October 17, 2011, DOE made another interim action determination to dispose of 500 kilograms (0.5 MT) of surplus, non-pit plutonium at WIPP. These determinations do not affect the range of reasonable alternatives to be analyzed in the SPD Supplemental EIS.

alternatives for pit disassembly and conversion, which could involve the use of TA-55 at LANL, H-Canyon/HB-Line at SRS, K-Area at SRS, and the MFFF at SRS. These alternatives are described below under Potential Range of Alternatives.

Purpose and Need for Agency Action

DOE's purpose and need remains 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. Comprehensive disposition actions are needed to ensure that surplus plutonium is converted into proliferation-resistant forms.

Potential Range of Alternatives

Since the 2010 Amended NOI, DOE has reconsidered the potential alternatives for pit disassembly and conversion. DOE now is proposing to analyze additional alternatives.

The EIS analysis will account for the possibility that DOE could use some combination of facilities at TA-55 at LANL, K-Area at SRS, H-Canyon/HB-Line at SRS, and MFFF at SRS to disassemble pits, and produce feed for the MFFF.

DOE has determined that the construction of a separate Plutonium Preparation (PuP) capability would not be required because the alternatives that are being considered for the disposition of non-pit plutonium include any necessary preparation activities.

The complete list of alternatives that DOE proposes to analyze in detail in the SPD Supplemental EIS is provided below.

Surplus Plutonium Disposition

DOE will analyze four alternative pathways to disposition surplus plutonium. There are constraints on the type or quantity of plutonium that may be dispositioned by each pathway. For example, there are safety (criticality) limits on how much plutonium can be sent to the Defense Waste Processing Facility (DWPF) at SRS, and some plutonium is not suitable for fabrication into MOX fuel. Accordingly, DOE expects to select two or more alternatives following completion of the SPD Supplemental EIS.

- H-Canyon/DWPF—DOE would use the H-Canyon at SRS to process surplus non-pit plutonium for disposition. Plutonium materials would be dissolved, and the resulting plutonium-bearing solutions would be sent to a sludge batch feed tank and then to DWPF at SRS for vitrification. Depending on the quantity, adding additional plutonium to the feed may

increase the amount of plutonium in some DWPF canisters above historical levels.

- **Glass Can-in-Canister Immobilization**—DOE would install a glass can-in-canister immobilization capability in K–Area at SRS. The analysis will assume that both surplus pit and non-pit plutonium would be vitrified within small cans, which would be placed in a rack inside a DWPF canister and surrounded with vitrified high-level waste. This alternative is similar to one evaluated in the 1999 Surplus Plutonium Disposition EIS (SPD EIS; DOE/EIS–0283), except that the capability would be installed in an existing rather than a new facility. Inclusion of cans with vitrified plutonium would substantially increase the amount of plutonium in some DWPF canisters above historical levels.

- **WIPP**—DOE would provide the capability to prepare and package non-pit plutonium using existing facilities at SRS for disposal as transuranic waste at WIPP, provided that the material would meet the WIPP waste acceptance criteria. This alternative may include material that, because of its physical or chemical configuration or characteristics, could not be prepared for MFFF feed material and material that could be disposed at WIPP with minimal preparation.

- **MOX Fuel**—Plutonium feed material, beyond the 34 MT for which a decision already has been made, would be fabricated into MOX fuel at the MFFF, and the resultant MOX fuel would be irradiated in commercial nuclear power reactors. For purposes of analyzing this alternative, the EIS will assume all the surplus pit and some of the surplus non-pit plutonium would be dispositioned in this manner.

Pit Disassembly and Conversion Capability

Plutonium pits must be disassembled prior to disposition and, for the MOX alternative, plutonium metal from pits or non-pit material must be converted to an oxide form to be used as feed in producing MOX Fuel. DOE will analyze the potential environmental impacts of conducting pit disassembly and/or conversion activities in five different facilities to support its prior decision to disposition 34 MT of surplus plutonium by fabrication into MOX fuel and also any decision subsequent to this SPD Supplemental EIS to disposition additional surplus plutonium as MOX fuel. The Pit Disassembly and Conversion Capability Alternatives that NNSA proposes to analyze are:

- **PDCF** in F–Area at SRS—DOE would construct, operate, and

eventually decommission a stand-alone PDCF to disassemble pits and convert plutonium pits and other plutonium metal to an oxide form suitable for feed to the MFFF, as described in the SPD EIS and consistent with DOE's record of decision for that EIS (65 FR 1608; January 11, 2000).

- **Pit Disassembly and Conversion Capability** in K–Area at SRS—DOE would construct, operate, and eventually decommission equipment in K–Area at SRS necessary to perform the same functions as the PDCF. The alternative would include reconfiguration of ongoing K–Area operations necessary to accommodate construction and operation of the pit disassembly and conversion capability.

- **New alternatives for pit disassembly and conversion:**
 - **LANL/MFFF**—DOE would expand existing capabilities in the plutonium facility (PF–4) in Technical Area-55 at LANL to disassemble pits and provide plutonium metal and/or oxide for use as feed material in MFFF at SRS. DOE also may add a capability to the MFFF to oxidize plutonium metal.

- **LANL/MFFF/K–Area/H–Canyon/HB–Line** at SRS—DOE would expand existing capabilities in the plutonium facility (PF–4) in Technical Area-55 at LANL to disassemble pits and provide plutonium metal and potentially oxide for use as feed material in MFFF at SRS. DOE also may add a capability to the MFFF to oxidize plutonium metal. To augment the capability to provide feed material to the MFFF, DOE also would disassemble pits in K–Area at SRS and process plutonium metal to an oxide form at the H–Canyon/HB–Line at SRS.

Reactor Operations

MOX fuel will be irradiated in commercial nuclear reactors used to generate electricity, thereby rendering the plutonium into a spent fuel form not readily usable in nuclear weapons.

- DOE and TVA will analyze the potential environmental impacts of any reactor facility modifications necessary to accommodate MOX fuel operation at up to five TVA reactors—the three boiling water reactors at Browns Ferry, near Decatur and Athens, AL, and the two pressurized water reactors at Sequoyah, near Soddy-Daisy, TN. DOE and TVA will analyze the potential environmental impacts of operating these reactors using a core loading with the maximum technically and economically viable number of MOX fuel assemblies.

- DOE will analyze the potential environmental impacts of irradiating MOX fuel in a generic reactor in the United States to provide analysis for any

additional future potential utility customers.

Potential Decisions

The SPD Supplemental EIS will not reconsider decisions already made to disposition surplus plutonium, other than the decision to construct and operate the PDCF. DOE already has decided to fabricate 34 MT of surplus plutonium into MOX fuel in the MFFF (68 FR 20134; April 24, 2003), currently under construction at SRS, and to irradiate the MOX fuel in commercial nuclear reactors used to generate electricity. Subsequent to completion of the SPD Supplemental EIS, DOE will decide, based on programmatic, engineering, facility safety, cost, and schedule information, and on the environmental impact analysis in the SPD Supplemental EIS, which pit disassembly and conversion alternative(s) to implement to provide feed to the MFFF, which alternative(s) to implement for preparation of non-pit plutonium for disposition, whether to use the MOX alternative to disposition additional surplus plutonium (beyond 34 MT), and which alternative(s) disposition path(s) to implement for surplus plutonium that will not be dispositioned as MOX fuel. DOE may determine that it can best meet its full range of requirements in each of these areas by implementing two or more of the alternatives analyzed in the SPD Supplemental EIS. It is also possible that DOE may determine that its full range of requirements may be best met by implementing a composite set of actions that would be drawn from within the scope of the set of alternatives proposed and analyzed in the SPD Supplemental EIS.

DOE considers those alternatives that would avoid extensive construction and/or facility modification for the pit disassembly and conversion capability and non-pit plutonium preparation capability as having particular merit and, thus, has identified its preferred alternative for this proposed action. For non-pit plutonium preparation and pit disassembly and conversion of plutonium metal to MFFF feed for the manufacture of MOX fuel, DOE's preferred alternative is to use some combination of existing facilities, with additional equipment or modification, at TA–55 at LANL, K–Area at SRS, H–Canyon/HB–Line at SRS, and MFFF at SRS, rather than to construct a new, standalone facility. The MOX fuel alternative is DOE's preferred alternative for surplus plutonium disposition. DOE's preferred alternative for disposition of surplus plutonium

that is not suitable for MOX fuel fabrication is disposal at WIPP.

As stated in the 2010 Amended NOI, DOE and TVA are evaluating use of MOX fuel in up to five TVA reactors at the Sequoyah and Browns Ferry Nuclear Plants. TVA will determine whether to pursue irradiation of MOX fuel in TVA reactors, and will determine which reactors to use initially for this purpose, should TVA and DOE decide to use MOX fuel in TVA reactors.

Potential Environmental Issues for Analysis

DOE has tentatively identified the following environmental issues for analysis in the SPD Supplemental EIS. The list is presented to facilitate comment on the scope of the SPD Supplemental EIS, and is not intended to be comprehensive or to predetermine the potential impacts to be analyzed.

- Impacts to the general population and workers from radiological and nonradiological releases, and other worker health and safety impacts.
- Impacts of emissions on air and water quality.
- Impacts on ecological systems and threatened and endangered species.
- Impacts of waste management activities, including storage of DWPF canisters and transuranic waste pending disposal.
- Impacts of the transportation of radioactive materials, reactor fuel assemblies, and waste.
- Impacts that could occur as a result of postulated accidents and intentional

destructive acts (terrorist actions and sabotage).

- Potential disproportionately high and adverse effects on low-income and minority populations (environmental justice).
- Short-term and long-term land use impacts.
- Cumulative impacts.

NEPA Process

The first scoping period for the SPD Supplemental EIS began on March 28, 2007, and ended on May 29, 2007, with scoping meetings in Aiken and Columbia, SC. DOE began a second public scoping period with publication of an Amended NOI on July 19, 2010, and continuing through September 17, 2010. Public scoping meetings were held in Tanner, AL; Chattanooga, TN; North Augusta, SC; and Carlsbad and Santa Fe, NM.

Following the scoping period announced in this second Amended NOI, and after considering all scoping comments received, DOE will prepare a Draft SPD Supplemental EIS. DOE will announce the availability of the Draft SPD Supplemental EIS in the **Federal Register** and local media outlets. Comments received on the Draft SPD Supplemental EIS will be considered and addressed in the Final SPD Supplemental EIS. DOE currently plans to issue the Final SPD Supplemental EIS in late 2012. DOE will issue a record of decision no sooner than 30 days after publication by the Environmental Protection Agency of a Notice of

Availability of the Final SPD Supplemental EIS.

Other Agency Involvement

The Tennessee Valley Authority is a cooperating agency with DOE for preparation and review of the sections of the SPD Supplemental EIS that address operation of TVA reactors using MOX fuel assemblies. DOE invites Federal and non-Federal agencies with expertise in the subject matter of the SPD Supplemental EIS to contact the NEPA Document Manager (see **ADDRESSES**) if they wish to be a cooperating agency in the preparation of the SPD Supplemental EIS.

Issued at Washington, DC, on January 6, 2012.

Thomas P. D'Agostino,

Undersecretary for Nuclear Security.

[FR Doc. 2012-445 Filed 1-11-12; 8:45 am]

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DEPARTMENT OF ENERGY

Amended Notice of Intent to Modify the Scope of the Surplus Plutonium Disposition Supplemental Environmental Impact Statement and Conduct Additional Public Scoping

AGENCY: U.S. Department of Energy, National Nuclear Security Administration.

ACTION: Amended Notice of Intent.

SUMMARY: The U.S. Department of Energy (DOE) announces its intent to modify the scope of the *Surplus Plutonium Disposition Supplemental Environmental Impact Statement* (SPD Supplemental EIS, DOE/EIS-0283-S2) and to conduct additional public scoping. DOE issued its Notice of Intent¹ (NOI) to prepare the SPD Supplemental EIS on March 28, 2007 (72 FR 14543). DOE now intends to revise the scope of the SPD Supplemental EIS to refine the quantity and types of surplus weapons-usable plutonium material, evaluate additional alternatives, and no longer consider in detail one alternative identified in the NOI (ceramic can-in-canister immobilization). Also, DOE had identified a glass can-in-canister immobilization approach as its preferred alternative in the NOI; DOE will continue to evaluate that alternative but currently does not have a preferred alternative.

DOE now proposes to analyze a new alternative to install the capability in K-Area at the Savannah River Site (SRS) to, among other things, disassemble nuclear weapons pits (a weapons component) and convert the plutonium metal to an oxide form for fabrication into mixed uranium-plutonium oxide (MOX) reactor fuel in the Mixed Oxide Fuel Fabrication Facility (MFFF); under this alternative, DOE would not build the Pit Disassembly and Conversion Facility (PDCF), which DOE previously decided to construct. This K-Area project also would provide capabilities needed to prepare plutonium for other disposition alternatives evaluated in the SPD Supplemental EIS and to support the ongoing plutonium storage mission in K-Area. DOE also proposes to evaluate a new alternative to dispose of some surplus non-pit plutonium as transuranic waste at the Waste Isolation Pilot Plant (WIPP) in New Mexico, provided the plutonium would meet the criteria for such disposal. In addition, DOE will analyze the potential

¹ The NOI identified the title of the document as the *Supplemental Environmental Impact Statement for Surplus Plutonium Disposition at the Savannah River Site*.

environmental impacts of using MOX fuel in up to five reactors owned by the Tennessee Valley Authority (TVA) at the Sequoyah (near Soddy-Daisy, TN) and Browns Ferry (near Decatur and Athens, AL) nuclear stations. TVA will be a cooperating agency with DOE for preparation and review of the sections of the SPD Supplemental EIS that address operation of TVA reactors.

DATES: DOE invites Federal agencies, state and local governments, Native American tribes, industry, other organizations, and members of the public to submit comments to assist in identifying environmental issues and in determining the scope of the SPD Supplemental EIS. The public scoping period will end on September 17, 2010. DOE will consider all comments received or postmarked by September 17, 2010. Comments received after that date will be considered to the extent practicable. Also, DOE asks that Federal, state, and local agencies that desire to be designated cooperating agencies on the SPD Supplemental EIS contact the National Environmental Policy Act (NEPA) Document Manager at the addresses listed under **ADDRESSES** by the end of the scoping period. DOE will hold five public scoping meetings:

- August 3, 2010 (5:30 p.m. to 8 p.m.) at Calhoun Community College, Decatur Campus, Aerospace Building, 6250 Highway 31 North, Tanner, AL 35671
- August 5, 2010 (5:30 p.m. to 8 p.m.) at Chattanooga Convention Center, 1150 Carter Street, Chattanooga, TN 37402
- August 17, 2010 (5:30 p.m. to 8 p.m.) at North Augusta Municipal Center, 100 Georgia Avenue, North Augusta, SC 29841
- August 24, 2010 (5:30 p.m. to 8 p.m.) at Best Western Stevens Inn, 1829 S. Canal Street, Carlsbad, NM 88220
- August 26, 2010 (5:30 p.m. to 8 p.m.) at Courtyard by Marriott Santa Fe, 3347 Cerrillos Road, Santa Fe, NM 87507

ADDRESSES: Please direct written comments on the scope of the SPD Supplemental EIS to Ms. Sachiko McAlhany, SPD Supplemental EIS NEPA Document Manager, U.S. Department of Energy, P.O. Box 2324, Germantown, MD 20874-2324. You may also send comments on the scope of the SPD Supplemental EIS via e-mail to spd_supplementaleis@saic.com, or via the Web site, <http://www.spdsupplementaleis.com>; or by toll-free fax to 877-865-0277. DOE will give equal weight to written, e-mail, fax, and oral comments. Questions regarding the scoping process and requests to be placed on the distribution list for this Supplemental EIS should be directed to

Ms. McAlhany by any of the means given above or by calling toll-free 877-344-0513.

For general information concerning the DOE NEPA process, contact: Carol Borgstrom, Director, Office of NEPA Policy and Compliance (GC-54), U.S. Department of Energy, 1000 Independence Avenue, SW, Washington, D.C. 20585-0103; telephone 202-586-4600, or leave a message at 1-800-472-2756; fax 202-586-7031; or send an e-mail to AskNEPA@hq.doe.gov. This Amended NOI will be available on the Internet at nepa.energy.gov.

SUPPLEMENTARY INFORMATION:

Background

To reduce the threat of nuclear weapons proliferation, DOE is engaged in a program to disposition its surplus, weapons-usable plutonium in a safe, secure, and environmentally sound manner by converting such plutonium into proliferation-resistant forms that can never again be readily used in nuclear weapons. The SPD Supplemental EIS will analyze the potential environmental impacts of reasonable alternatives² to disposition approximately 7 metric tons (MT)³ of additional plutonium from pits ("pit plutonium"; a pit is the core of a nuclear weapon) which were declared surplus to national defense needs after publication of the NOI and were not included in DOE's prior decisions. The SPD Supplemental EIS also will analyze reasonable disposition alternatives for approximately 6 MT⁴ of non-pit plutonium. DOE also intends to evaluate the potential impacts associated with disposition of additional plutonium to account for the possibility that the United States may declare additional

² The disposition alternatives to be analyzed in the SPD Supplemental EIS are not expected to change the type of material to be processed into MOX fuel or to change the annual throughput, annual environmental impacts, or the types of waste generated by the MFFF.

³ In 2007, the United States declared 9 MT of pit plutonium as surplus to U.S. defense needs. Approximately 2 MT are included in the 34 MT of surplus and future-declared surplus plutonium that DOE previously decided to fabricate into MOX fuel (68 FR 20134, April 24, 2003), leaving approximately 7 MT of additional surplus pit plutonium for disposition.

⁴ The 2007 NOI for the SPD Supplemental EIS stated that the scope would include up to 13 MT of surplus non-pit plutonium that DOE had previously planned to immobilize, although of that 13 MT, DOE had decided in 2003 to fabricate approximately 6.5 MT of this non-pit plutonium into MOX fuel (68 FR 20134, April 24, 2003). Since publication of the NOI in 2007, DOE has decided to disposition approximately 0.6 MT of non-pit plutonium via H-Canyon and the Defense Waste Processing Facility (see footnote 6). Thus, DOE now plans to analyze disposition options for approximately 6 MT of surplus non-pit plutonium.

plutonium to be surplus in the future and, as analyzed in the *Environmental Assessment for the U.S. Receipt and Storage of Gap Material—Plutonium* (DOE/EA-1771, May 2010), small quantities of plutonium (totaling up to 100 kilograms) that the United States may accept from at-risk foreign locations as part of the Global Threat Reduction Initiative.

The SPD Supplemental EIS will not reconsider decisions already made to disposition surplus plutonium, other than the decision discussed below to construct a stand-alone PDCF. DOE already has decided to fabricate 34 MT of surplus plutonium into MOX fuel in the MFFF (68 FR 20134, April 24, 2003), currently under construction at SRS, and to irradiate the MOX fuel in commercial nuclear reactors used to generate electricity, thereby rendering the plutonium into a spent fuel form not readily usable in nuclear weapons. DOE has set aside approximately 4 MT of surplus plutonium in the form of unirradiated reactor fuel for non-defense programmatic use (e.g., reactor fuels research and development) as explained in the 2007 NOI (72 FR 14543, March 28, 2007), and approximately 7 MT of surplus plutonium is contained in irradiated reactor fuel and, thus, already is in a proliferation-resistant form (see 65 FR 1608, January 11, 2000). Finally, DOE already has disposed of approximately 3 MT of surplus plutonium scrap and residues at WIPP as transuranic waste⁵ and has decided to process approximately 0.6 MT at SRS through the H-Canyon, ultimately to be incorporated into vitrified high-level waste at the Defense Waste Processing Facility (DWPF).⁶

Previously Completed NEPA Analyses and Decisions Made

In the *Storage and Disposition of Weapons-Usable Fissile Materials Programmatic EIS* (Storage and Disposition PEIS, DOE/EIS-0229, December 1996), DOE evaluated six candidate sites for plutonium disposition facilities and three categories of disposition technologies that would convert surplus plutonium into a form that would meet the Spent

⁵ Disposal of certain plutonium scrap and residues at WIPP was undertaken pursuant to several records of decision (63 FR 66136, December 1, 1998; 64 FR 8068, February 18, 1999; 64 FR 47780, September 1, 1999; 66 FR 4803, January 18, 2001; 68 FR 44329, July 28, 2003).

⁶ The decisions to process approximately 0.6 MT of surplus non-pit plutonium through H-Canyon and DWPF are contained in two interim action determinations approved at SRS on December 8, 2008, and September 25, 2009.

Fuel Standard.⁷ The three categories were: Deep Borehole Category (two options); Immobilization Category (three options); and Reactor Category (four options). DOE also analyzed a No Action Alternative. DOE selected a dual-path strategy for disposition that would allow immobilization of some or all of the surplus plutonium in glass or ceramic material for disposal in a geologic repository, and fabrication of some surplus plutonium into MOX fuel for irradiation in existing domestic commercial reactor(s), with subsequent disposal of the spent fuel in a geologic repository⁸ (62 FR 3014, January 21, 1997). DOE also decided that an immobilization facility would be located either at the Hanford Site in Washington or at SRS.

In November 1999, DOE issued the *Surplus Plutonium Disposition EIS* (SPD EIS, DOE/EIS-0283). The SPD EIS tiered from the Storage and Disposition PEIS and included an analysis of the potential environmental impacts associated with alternative technologies and sites to implement the dual-path plutonium disposition strategy. The SPD EIS also analyzed the impacts of using MOX fuel in certain domestic commercial reactors to generate electricity. In January 2000, DOE decided to construct and operate three disposition facilities at SRS: (1) the MFFF to fabricate up to 33 MT of surplus plutonium into MOX fuel⁹; (2)

⁷ Under that standard, the surplus weapons-usable plutonium should be made 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.

⁸ DOE has since decided to terminate the program to develop a Yucca Mountain repository for geologic disposal of spent nuclear fuel and high-level waste. DOE has established a Blue Ribbon Commission on America's Nuclear Future (Blue Ribbon Commission) to develop and recommend alternative storage and disposal approaches for spent nuclear fuel and high-level waste. Notwithstanding termination of the Yucca Mountain program, DOE remains committed to meeting its obligations to manage and ultimately dispose of spent nuclear fuel and high-level waste. The Blue Ribbon Commission will conduct a comprehensive review of the back-end of the fuel cycle and evaluate alternative approaches for meeting these obligations. The Blue Ribbon Commission will provide the opportunity for a meaningful dialogue on how best to address this challenging issue and will provide recommendations to DOE for developing a safe, long-term solution to managing the Nation's spent nuclear fuel and high-level waste.

⁹ In the 2000 Record of Decision (ROD), DOE noted that it had awarded a contract to Duke Engineering & Services, COGEMA Inc., and Stone & Webster (known as DCS) that included reactor irradiation of MOX fuel at Duke Energy's Catawba and McGuire Nuclear Stations. The SPD EIS and ROD also addressed two Virginia Power reactors at the North Anna Nuclear Station in Virginia. Virginia Power's involvement in the MOX program ended soon thereafter.

a PDCF to disassemble nuclear weapons pits and convert the plutonium metal to an oxide form for use as feed material for the MFFF; and (3) an immobilization facility using ceramic can-in-canister technology that would allow for the immobilization of approximately 17 MT of surplus plutonium (65 FR 1608, January 11, 2000). Using the can-in-canister technology, DOE was to immobilize plutonium in a ceramic form, seal it in cans, and place the cans in canisters to be filled with borosilicate glass containing intensely radioactive high-level waste at DWPF.

In 2002, DOE cancelled the immobilization portion of the plutonium disposition strategy (67 FR 19432, April 19, 2002). In 2003, DOE affirmed the MOX-only approach for plutonium disposition, in which 34 MT (increased from 33 MT) of surplus plutonium, including approximately 6.5 MT of the non-pit plutonium originally intended for immobilization, would be dispositioned by fabrication into MOX fuel for use in power reactors (68 FR 20134, April 24, 2003).

In 2005, DOE completed an *Environmental Assessment for the Safeguards and Security Upgrades for Storage of Plutonium Materials at SRS* (DOE/EA-1538, 2005) and issued a Finding of No Significant Impact. Among other things, this Environmental Assessment analyzed impacts associated with installation of a Container Surveillance and Storage Capability (CSSC) in an existing facility in K-Area at SRS. The CSSC capabilities are encompassed within what DOE refers to as the Plutonium Preparation Project (PuP). One phase of the PuP would provide stabilization and packaging capabilities, including direct metal oxidation, to fulfill plutonium storage requirements pursuant to DOE-STD-3013, Stabilization, Packaging, and Storage of Plutonium-Bearing Materials.

In 2007, DOE decided to consolidate surplus non-pit plutonium stored separately at the Hanford Site, the Los Alamos National Laboratory (LANL), and the Lawrence Livermore National Laboratory (LLNL) to a single storage location in K-Area at SRS, pending disposition (72 FR 51807, September 11, 2007). Shipments from Hanford have been completed, and shipments from LANL and LLNL to SRS for consolidated storage are continuing.

In 2008, DOE completed a supplement analysis (DOE/EIS-0283-SA-2) related to the treatment and solidification of certain liquid low-level radioactive waste and transuranic waste to be generated by the MFFF and PDCF. DOE decided to construct and operate a stand-alone waste solidification

building in the F-Area at SRS (73 FR 75088, December 10, 2008); this facility is now under construction.

2007 Notice of Intent and Public Scoping Comments

On March 28, 2007, DOE issued an NOI (72 FR 14543) to prepare the SPD Supplemental EIS in order to evaluate the potential environmental impacts of disposition alternatives for up to approximately 13 MT of surplus, non-pit weapons-usable plutonium originally planned for immobilization. In the 2007 NOI, DOE stated that its preferred alternative was to construct and operate a new vitrification facility within an existing building at SRS to immobilize some of the surplus, non-pit plutonium, and to process some of the surplus, non-pit plutonium in the existing H-Canyon and DWPF at SRS. That NOI also explained that DOE would analyze the impacts of fabricating some (up to approximately one-third) of the surplus, non-pit plutonium into MOX fuel.

The original scoping period for the SPD Supplemental EIS began on March 28, 2007, and ended on May 29, 2007. Scoping meetings were held in Aiken, SC, and in Columbia, SC, on April 17 and 19, 2007, respectively. Some commentors favored the glass can-in-canister alternative for the entire surplus plutonium inventory, while others favored use of as much surplus plutonium as possible as feed material for the MFFF. One commentor asked that DOE identify the quantities of surplus plutonium by form and proposed disposition pathway. DOE will consider these comments, and others received during the upcoming scoping period, when preparing the Draft SPD Supplemental EIS.

Purpose and Need for Action

DOE's purpose and need remains, as stated in the SPD EIS, 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. Comprehensive disposition actions are needed to ensure that surplus plutonium is converted into proliferation-resistant forms.

Proposed Action and Alternatives

In the SPD Supplemental EIS, DOE will analyze the potential environmental impacts of alternatives for the disposition of approximately 7 MT of surplus pit plutonium and approximately 6 MT of surplus non-pit plutonium. DOE also will analyze the impacts of irradiating MOX fuel in TVA reactors at the Sequoyah and Browns

Ferry nuclear stations and will analyze options for the construction and operation of the PDCF and PuP capabilities at SRS. Brief descriptions of the alternatives DOE proposes to evaluate in the SPD Supplemental EIS are provided below.

- PDCF—DOE would construct and operate a stand-alone PDCF facility in F-Area at SRS to convert plutonium pits and other plutonium metal to an oxide form suitable for feed to the MFFF, as described in the SPD EIS and consistent with DOE's decision announced in the 2000 Record of Decision (ROD) for that EIS (65 FR 1608, January 11, 2000).

- PuP—DOE would install and operate the plutonium processing equipment required to store and prepare non-pit plutonium for disposition through any of the alternative pathways (MOX fuel, H-Canyon/DWPF, Glass Can-in-Canister, and WIPP). Differences in required capabilities for the alternatives will be evaluated in the SPD Supplemental EIS. The PuP project would be installed in K-Area at SRS.

- Combined PDCF/PuP Capability—DOE would install and operate a capability in K-Area at SRS necessary to perform the functions of both PDCF and PuP. The analysis will include reconfiguration of ongoing K-Area operations necessary to accommodate construction and operation of the combined capability.

- H-Canyon/DWPF—DOE would use the H-Canyon facility to process surplus non-pit plutonium for disposition. Plutonium materials would be dissolved, and the resulting plutonium-bearing solutions would be sent to a sludge batch feed tank and then to DWPF for vitrification. Within this alternative, DOE will analyze the potential environmental impacts of adding additional plutonium to the DWPF feed, which may increase the amount of plutonium in some DWPF canisters above historical levels.

- Glass Can-in-Canister—DOE would establish and operate a glass can-in-canister capability in K-Area at SRS. The analysis will assume that both surplus pit and non-pit plutonium would be vitrified within small cans, which would be placed in a rack inside a DWPF canister and surrounded with vitrified high-level waste. This alternative is similar to one evaluated in the SPD EIS, except that the capability would be installed in an existing rather than a new facility. Within this alternative DOE will analyze the potential environmental impacts of adding cans of vitrified plutonium to some of the DWPF canisters, which would increase the amount of

plutonium in those DWPF canisters above historical levels.

- **WIPP**—DOE would establish and operate a capability to prepare and package non-pit plutonium using PuP (or the combined PDCF/PuP capability) and other existing facilities at SRS for disposal as transuranic waste at WIPP, provided that the material would meet the WIPP waste acceptance criteria. This alternative may include material that, because of its physical or chemical configuration or characteristics, could not be prepared for MFFF feed material.

- **MOX Fuel**—PDCF, PuP, or the combined PDCF/PuP capabilities would be used to prepare some surplus plutonium as feed for the MFFF, and the resultant MOX fuel would be irradiated in commercial nuclear reactors. The analysis will assume that all of the surplus pit and some of the surplus non-pit plutonium would be dispositioned in this manner.

- **Reactor Operations**—DOE will evaluate the impacts of construction of any reactor facility modifications¹⁰ necessary to accommodate MOX fuel operation at five TVA reactors—the three boiling water reactors (BWRs) at Browns Ferry and the two pressurized water reactors (PWRs) at Sequoyah. DOE will evaluate the impacts of operation of these reactors using a core loading with the maximum technically and economically viable number of MOX fuel assemblies.

DOE no longer proposes to evaluate in detail the ceramic can-in-canister alternative identified in the 2007 NOI for the SPD Supplemental EIS. In the SPD EIS, DOE identified no substantial differences between the ceramic can-in-canister and glass can-in-canister approaches in terms of expected environmental impacts to air quality, waste management, human health risk, facility accidents, facility resource requirements, intersite transportation, and environmental justice. DOE infrastructure and expertise associated with the ceramic technology has not substantially evolved or matured since 2003. In contrast, DOE has maintained research, development, and production infrastructure capabilities for glass waste forms. Therefore, DOE has decided that the glass can-in-canister technology is sufficiently representative of both technologies in terms of understanding potential environmental impacts and that the relative technical maturity of the glass can-in-canister

¹⁰ The SPD Supplemental EIS also will evaluate environmental impacts from potential minor modifications to the MFFF that may be needed to accommodate fabrication of TVA reactor MOX fuel.

approach gives it a greater chance of meeting DOE mission needs.

Potential Decisions

Since initiating the SPD Supplemental EIS process in 2007, DOE has continued to evaluate alternatives for disposition of surplus plutonium. DOE is evaluating the advantages and disadvantages of combining the PDCF and the PuP to accomplish the functions of both projects in an existing facility in K-Area at SRS. DOE will decide, based on programmatic, engineering, facility safety, cost, and schedule information, and the environmental impact analysis in the SPD Supplemental EIS, whether to implement the combined project in K-Area at SRS (PDCF/PuP) or to separately construct and operate PDCF in F-Area and PuP in K-Area at SRS.

DOE also will decide which alternatives to use for disposition of approximately 7 MT of surplus weapons-usable pit plutonium and approximately 6 MT of surplus weapons-usable non-pit plutonium for which DOE has not made a disposition decision.

DOE is evaluating alternatives for surplus non-pit plutonium that currently does not meet the specification for disposition through the MFFF. While this material could be immobilized for disposition using the glass can-in-canister alternative, DOE is evaluating three other alternative disposition paths: processing through H-Canyon and incorporation into vitrified high-level waste at DWPF; preparation for disposal at WIPP; and pretreatment to make the material suitable as feed for the MFFF.

In addition, the contract with Duke Energy Company to irradiate MOX fuel in four of its reactors terminated in late 2008. At present, DOE and TVA are evaluating use of MOX fuel in up to five TVA reactors at the Sequoyah and Browns Ferry nuclear stations, near Soddy-Daisy, TN, and Decatur and Athens, AL, respectively. DOE and TVA will determine whether to pursue irradiation of MOX fuel in TVA reactors and will determine which reactors to use initially for this purpose should DOE and TVA decide to use MOX fuel in TVA reactors.

Potential Environmental Issues for Analysis

DOE has tentatively identified the following environmental issues for analysis in the SPD Supplemental EIS. The list is presented to facilitate comment on the scope of the SPD Supplemental EIS and is not intended to be comprehensive or to predetermine the potential impacts to be analyzed.

- Impacts to the general population and workers from radiological and nonradiological releases, and other worker health and safety impacts.

- Impacts of emissions on air and water quality.

- Impacts on ecological systems and threatened and endangered species.

- Impacts from waste management activities, including from storage of DWPF canisters and transuranic waste pending disposal.

- Impacts from the transportation of radioactive materials, reactor fuel assemblies, and waste.

- Impacts of postulated accidents and from terrorist actions and sabotage.

- Potential disproportionately high and adverse effects on low-income and minority populations (environmental justice).

- Short-term and long-term land use impacts.

NEPA Process

Following the scoping period announced in this Amended Notice of Intent, and after consideration of comments received during scoping, DOE will prepare a Draft SPD Supplemental EIS. DOE will announce the availability of the Draft SPD Supplemental EIS in the **Federal Register** and local media outlets. Comments received on the Draft SPD Supplemental EIS will be considered and addressed in the Final SPD Supplemental EIS. DOE will issue a ROD no sooner than 30 days after publication by the Environmental Protection Agency of a Notice of Availability of the Final SPD Supplemental EIS.

Other Agency Involvement

The Tennessee Valley Authority will be a cooperating agency with DOE for preparation and review of the sections of the SPD Supplemental EIS that address operation of TVA reactors using MOX fuel assemblies. DOE invites Federal and non-Federal agencies with expertise in the subject matter of the SPD Supplemental EIS to contact the NEPA Document Manager (*see ADDRESSES*) if they wish to be a cooperating agency in the preparation of the SPD Supplemental EIS.

Issued in Washington, DC, on 13 July, 2010.

Thomas P. D'Agostino,

Administrator, National Nuclear Security Administration.

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BILLING CODE 6450-01-P

plutonium disposition capabilities that would be constructed and operated at the Savannah River Site (SRS) near Aiken, South Carolina. DOE completed the *Surplus Plutonium Disposition (SPD) EIS* (DOE/EIS-0283) in November 1999, and on January 11, 2000, published a Record of Decision (ROD) in the **Federal Register** (65 FR 1608). DOE decided to dispose of approximately 17 metric tons of plutonium surplus to the nation's defense needs using an immobilization process and up to 33 metric tons by using the surplus plutonium as feedstock in the fabrication of mixed oxide (MOX) fuel to be irradiated in commercial reactors. DOE selected the SRS as the site for all surplus plutonium disposition facilities. Subsequently, DOE cancelled the immobilization portion of its disposition strategy due to budgetary constraints (ROD, 67 FR 19432, April 19, 2002). The selection of the SRS as the location for disposition facilities for up to 50 metric tons of surplus plutonium remains unchanged. Site preparation for the MOX Fuel Fabrication Facility at the SRS began in November 2005.

The 2002 decision left DOE with about 13 metric tons of surplus plutonium that does not have a defined path to disposition (about 4 metric tons of the 17 metric tons originally considered for immobilization has been designated for programmatic use). DOE has been investigating alternative disposition technologies and will now prepare an *SEIS for Surplus Plutonium Disposition at the SRS* (DOE/EIS-0283-S2) to evaluate the potential environmental impacts of those alternatives. DOE's preferred alternative is to construct and operate a vitrification facility within an existing building at the SRS. This facility would immobilize plutonium within a lanthanide borosilicate glass inside stainless steel cans. The cans then would be placed within larger canisters to be filled with vitrified high-level radioactive waste in the Defense Waste Processing Facility (DWPF) at the SRS. The canisters would be suitable for disposal in a geologic repository. DOE also would prepare some of the surplus plutonium for disposal by processing it in the H-Canyon at the SRS, then sending it to the high-level waste tanks and DWPF. DOE seeks to take this action to reduce the threat of nuclear weapons proliferation worldwide by disposing of surplus plutonium in the United States in a safe and environmentally sound manner. The preferred vitrification technology, along with processing in H-Canyon, would fulfill this need for

DEPARTMENT OF ENERGY

Notice of Intent To Prepare a Supplemental Environmental Impact Statement for Surplus Plutonium Disposition at the Savannah River Site

AGENCY: Department of Energy.
ACTION: Notice of Intent.

SUMMARY: The U.S. Department of Energy (DOE) intends to prepare a Supplemental Environmental Impact Statement (SEIS) to evaluate the potential environmental impacts of

disposition of surplus plutonium materials that are not planned for disposition via fabrication into MOX fuel.

DATES: DOE invites Federal agencies, state and local governments, Native American tribes, industry, other organizations, and members of the public to submit comments to assist in identifying environmental issues and in determining the appropriate scope of the SEIS. The public scoping period starts with the publication of this notice in the **Federal Register** and will continue until May 29, 2007. Comments received after this date will be considered to the extent practicable. Also, DOE requests Federal, State, and local agencies that desire to be designated as cooperating agencies on the SEIS to contact the NEPA Document Manager at the addresses listed under **ADDRESSES** by the end of the scoping period. DOE will hold two public scoping meetings:

- April 17, 2007 (5:30 p.m.–10 p.m.) at Newberry Hall, 117 Newberry Street, SW., Aiken, SC.

- April 19, 2007 (5:30 p.m.–10 p.m.) at the Columbia Marriott Hotel, 1200 Hampton Street, Columbia, SC.

DOE officials will be available to answer questions about plutonium disposition and the proposed alternatives at both locations beginning at 5:30 p.m. DOE will provide a brief presentation on the SEIS, then, beginning about 6:30 p.m., accept public comments on the scope of the SEIS.

ADDRESSES: Comments or questions regarding the scoping process, requests to be placed on the SEIS distribution list, and comments on the scope of the SEIS should be addressed to Mr. Andrew R. Grainger, NEPA Document Manager, Savannah River Operations Office, P.O. Box B, Aiken, SC 29802; toll-free telephone 1-800-881-7292; fax 803-952-7065; or e-mail drew.grainger@srs.gov.

For general information concerning the DOE NEPA process, contact: Carol Borgstrom, Director, Office of NEPA Policy and Compliance (GC-20), U.S. Department of Energy, 1000 Independence Avenue, SW., Washington, DC 20585-0103; telephone 202-586-4600, or leave a message at 1-800-472-2756; fax 202-586-7031; or send an e-mail to askNEPA@eh.doe.gov. This NOI will be available on the Internet at <http://www.eh.doe.gov/nepa>.

SUPPLEMENTARY INFORMATION:

Background

After the end of the Cold War, the United States declared 50 metric tons of plutonium surplus to the defense needs

of the nation. At that time, plutonium materials were in various forms and various stages of the material manufacturing and weapons fabrication processes and were located at several weapons complex sites that DOE had operated in the preceding decades. DOE began the process of placing these materials in safe, stable configurations for storage until disposition strategies could be developed and implemented.

In the *Storage and Disposition of Weapons-Usable Fissile Materials Programmatic EIS* (Storage and Disposition PEIS, DOE/EIS-0229, December 1996), DOE evaluated six candidate sites for siting plutonium disposition facilities and three categories of disposition technologies that would convert surplus plutonium into a form that would meet the Spent Fuel Standard.¹ The three categories were: Deep Borehole Category (two options); Immobilization Category (three options: vitrification, ceramic immobilization, electrometallurgical treatment); and Reactor Category (four options). DOE also analyzed a No Action Alternative. DOE selected a dual-path strategy for disposition involving immobilization of surplus plutonium in glass or ceramic material for disposal in a geologic repository, and burning other surplus plutonium as MOX fuel in existing domestic commercial reactor(s) with subsequent disposal of the spent fuel in a geologic repository (ROD, 62 FR 3014, January 21, 1997). DOE also decided that an immobilization facility would be located at Hanford in Washington or at the SRS.

In November 1999, DOE issued the *Surplus Plutonium Disposition EIS*. The SPD EIS tiered from the Storage and Disposition PEIS and included an analysis of alternative technologies and sites to implement the dual-path plutonium disposition strategy. In January 2000, DOE decided to construct and operate a MOX Fuel Fabrication Facility at the SRS to use up to 33 metric tons of surplus plutonium to fabricate MOX fuel and to construct and operate a new immobilization facility at the SRS (referred to as the Plutonium Immobilization Plant) using the ceramic can-in-canister technology allowing for the immobilization of approximately 17 metric tons of surplus plutonium (ROD, 65 FR 1608, January 11, 2000). Using this technology, DOE would immobilize plutonium in a ceramic form, seal it in cans, and place the cans in canisters filled with borosilicate glass containing

¹ Under that standard, the surplus weapons-usable plutonium should be made 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.

intensely radioactive high-level waste at the existing DWPF. DOE stated that the can-in-canister approach would complement existing site missions, take advantage of existing infrastructure and staff expertise, and enable DOE to use an existing facility, DWPF.

In 2002, DOE cancelled the immobilization portion of the plutonium disposition strategy (ROD, 67 FR 19432, April 19, 2002). The selection of the SRS as the location for disposition facilities for up to 50 metric tons of surplus plutonium remains unchanged. In November 2005, DOE began site preparation at SRS for the MOX Fuel Fabrication Facility.

For purposes of this NEPA analysis, DOE will assume that the surplus plutonium to be disposed of will include some of the plutonium already stored at the SRS and some that DOE could move to the SRS from other sites (e.g., Hanford in Washington, Los Alamos National Laboratory in New Mexico, and Lawrence Livermore National Laboratory in California). DOE previously evaluated the transfer and storage of surplus plutonium from other sites in the Storage and Disposition PEIS and the SPD EIS. In addition, DOE will analyze the potential environmental impacts of these proposed shipments to, and subsequent storage in, the K-Area at the SRS in a supplement analysis (pursuant to 10 CFR 1021.314(c)). Upon completion of the supplement analysis, DOE will determine whether to issue an Amended ROD or conduct additional NEPA review, as appropriate. As explained in a prior ROD, "in addition to achieving the ultimate goal of permanent disposition of surplus plutonium materials, DOE independently needs to improve the configuration of the storage system for these materials, pending disposition" (67 FR 19433, April 19, 2002).

In addition to completing appropriate environmental reviews in compliance with NEPA, prior to shipping surplus weapons-usable plutonium to the SRS that would have been disposed of in the Plutonium Immobilization Plant, DOE must comply with Section 3155, Disposition of Defense Plutonium at the Savannah River Site, of Public Law 107-107, National Defense Authorization Act for Fiscal Year 2002. Section 3155(d) of this law requires that DOE prepare a plan that identifies a disposition path for such surplus plutonium.

Purpose and Need for Action

DOE's purpose and need for proposing this immobilization process has not changed since the SPD EIS was prepared. DOE needs to reduce the threat of nuclear weapons proliferation

worldwide by disposing of surplus plutonium in the United States in a safe and environmentally sound manner. As stated in the ROD for the SPD EIS, DOE needs to ensure that plutonium produced for nuclear weapons and declared surplus to national security needs, now and in the future, is never again used for nuclear weapons. In addition, because of the cancellation of the immobilization portion of the disposition strategy in 2002, DOE is responsible for approximately 13 metric tons of declared surplus plutonium that does not have a defined disposition path. This situation needs to be addressed in light of DOE's ongoing responsibility to ensure the safe disposition of surplus plutonium.

Potential Range of Alternatives

In September 2005, DOE approved the Mission Need for a Plutonium Disposition Project at the SRS to address up to approximately 13 metric tons of surplus plutonium without an identified disposition path. The Mission Need is the first step in DOE's project management process, in accordance with DOE Order 413.3A, Program and Project Management for the Acquisition of Capital Assets.

DOE completed a technical review of alternative technologies in May 2006, which identified four potentially viable alternatives for completing the disposition of surplus plutonium. Three of these four alternatives will be evaluated in the SEIS.

- A glass can-in-canister approach installed in K-Area at the SRS. Plutonium would be vitrified within small cans, which would be placed in a rack inside a DWPF canister and surrounded with vitrified high-level waste. This alternative is similar to one evaluated in the SPD EIS, except that the capability would be installed in an existing rather than a new facility. Also, the currently proposed facility would be designed to immobilize approximately 13 metric tons of surplus plutonium rather than 17 metric tons as evaluated in the SPD EIS. (This is DOE's Preferred Alternative.)

- A ceramic can-in-canister approach installed in K-Area at the SRS. Plutonium would be incorporated in a ceramic material and placed in small cans, which would be placed in a rack inside a DWPF canister and surrounded with vitrified high-level waste. This alternative is similar to that initially selected by DOE following analysis in the SPD EIS. As with the glass can-in-canister approach, the two primary differences are that the SEIS will evaluate installing the capability in an existing rather than a new facility, and

the SEIS will assume the disposition of approximately 13 metric tons of surplus plutonium, rather than 17 metric tons.

- Disposition using the MOX Fuel Fabrication Facility. This alternative would rely on facilities to be constructed at the SRS for disposition by using the surplus plutonium as feedstock in the fabrication of MOX fuel to be irradiated in commercial reactors. DOE anticipates that less than a third of the 13 metric tons of surplus plutonium that are the subject of this SEIS would meet the specifications for use as MOX Fuel Fabrication Facility feedstock.

Under each of the three alternatives, DOE would process some surplus plutonium for disposal using the H-Canyon. Plutonium materials would be dissolved, and the resulting plutonium-bearing solutions would be sent to the SRS liquid radioactive waste tanks then to DWPF for vitrification. DOE is evaluating the continued use of H-Canyon for uranium processing in a separate NEPA document—a supplement analysis scheduled for completion in 2007. Decisions regarding future operations of H-Canyon have a bearing on the availability of the facility to process surplus plutonium (i.e., processing for plutonium disposition would occur while H-Canyon is operating primarily for uranium processing).

The SEIS also will evaluate a No Action alternative of continued storage of the surplus plutonium.

DOE has determined that the fourth alternative identified in the May 2006 technical review is not reasonable, and thus, it will not be evaluated in detail in the SEIS. This alternative involved disposing of the entire 13 metric tons of surplus plutonium through H-Canyon and DWPF. Disposing of the entire 13 metric tons of surplus plutonium by using the H-Canyon facilities would result in extending operation of those facilities many years beyond the estimated 2019 date for completion of its currently approved mission of preparing spent nuclear fuel and highly-enriched uranium materials for disposition, and would also extend the planned operation of DWPF and the high-level waste system. Furthermore, implementation of this alternative would require security upgrades to make H-Canyon a Category I nuclear facility, which is inconsistent with the Department's plans to enhance security and reduce costs throughout the complex by reducing the number of such facilities. The additional cost of these security upgrades and extended operations are estimated to be several billion dollars.

Invitation to Comment

DOE invites Federal agencies, state and local governments, Native American tribes, industry, other organizations, and members of the public to provide comments on the proposed scope, alternatives, and environmental issues to be analyzed in the *Supplemental EIS for Surplus Plutonium Disposition at the SRS*. DOE will consider all such comments and other relevant information in defining the scope and analyses for the SEIS. Comments should be submitted as described under **DATES** and **ADDRESSES** above.

Potential Environmental Issues for Analysis

DOE has tentatively identified the following environmental issues for analysis in the *Supplemental EIS for Surplus Plutonium Disposition at the SRS*. The list is presented to facilitate comment on the scope of the SEIS and is not intended to be comprehensive nor to predetermine the alternatives to be analyzed or their potential impacts.

- Impacts to the general population and workers from radiological and nonradiological releases.
- Worker health and safety, including impacts from the use of chemicals.
- Long-term health and environmental impacts.
- Impacts of emissions on air and water quality.
- Impacts on ecological systems and threatened and endangered species.
- Impacts from waste management activities.
- Impacts from the transportation of radioactive materials and waste.
- Impacts of postulated accidents and from terrorist actions and sabotage.
- Potential disproportionately high and adverse effects on low-income and minority populations (environmental justice).
- Short-term and long-term land use impacts.

NEPA Process

Following the scoping period announced in this Notice of Intent, and after consideration of comments received during scoping, DOE will prepare a Draft *SEIS for Surplus Plutonium Disposition at the SRS*. DOE will announce the availability of the Draft SEIS in the **Federal Register** and local media outlets. DOE plans to issue the Draft SEIS by January 2008. Comments received on the Draft SEIS will be considered and addressed in the Final SEIS, which DOE anticipates issuing by July 2008. DOE will issue a ROD no sooner than 30 days after

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publication by the Environmental
Protection Agency of a Notice of
Availability of the Final SEIS.

Issued in Washington, DC, on March 21,
2007.

Eric J. Fygi,

Acting General Counsel.

[FR Doc. E7-5591 Filed 3-27-07; 8:45 am]

BILLING CODE 6450-01-P

A.4.2 Other Related *Federal Register* Notices

Surplus Plutonium Disposition

73 FR 75088, December 10, 2008

Amended Record of Decision: Surplus Plutonium Disposition; Waste Solidification Building

72 FR 51807, September 11, 2007

Amended Record of Decision: Storage of Surplus Plutonium Materials at the Savannah River Site

70 FR 6047, February 4, 2005

Nuclear Regulatory Commission; Duke Cogema Stone and Webster's Proposed Mixed Oxide Fuel Fabrication Facility; Notice of Availability of Final Environmental Impact Statement

68 FR 64611, November 14, 2003

Amended Record of Decision: Surplus Plutonium Disposition Program

68 FR 20134, April 24, 2003

Amended Record of Decision: Surplus Plutonium Disposition Program

67 FR 19432, April 19, 2002

Amended Record of Decision: Surplus Plutonium Disposition Program

65 FR 1608, January 11, 2000

Record of Decision for the Surplus Plutonium Disposition Final Environmental Impact Statement

63 FR 43386, August 13, 1998

Notice of Amended Record of Decision: Storage and Disposition of Weapons-Usable Fissile Materials

62 FR 3014, January 21, 1997

Record of Decision for the Storage and Disposition of Weapons-Usable Fissile Materials Final Programmatic Environmental Impact Statement

Defense Waste Processing Facility at the Savannah River Site

71 FR 3834, January 24, 2006

Amended Record of Decision: Savannah River Site Salt Processing Alternatives

66 FR 52752, October 17, 2001

Record of Decision: Savannah River Site Salt Processing Alternatives

60 FR 18589, April 12, 1995

Record of Decision; Defense Waste Processing Facility at the Savannah River Site, Aiken, South Carolina

47 FR 23801, June 1, 1982

Record of Decision: Defense Waste Processing Facility, Savannah River Plant, Aiken, South Carolina

Interim Management of Nuclear Materials at the Savannah River Site

68 FR 44329, July 28, 2003

Amended Record of Decision: Interim Management of Nuclear Materials; Savannah River Site Waste Management

67 FR 45710, July 10, 2002

Supplemental Record of Decision: Interim Management of Nuclear Materials

66 FR 55166, November 1, 2001

Amended Record of Decision: Interim Management of Nuclear Materials

66 FR 7888, January 26, 2001

Amended Record of Decision: Interim Management of Nuclear Materials

62 FR 61099, November 14, 1997

Supplemental Record of Decision: Savannah River Operations Office; Interim Management of Nuclear Materials at the Savannah River Site

62 FR 17790, April 11, 1997

Supplemental Record of Decision and Supplement Analysis Determination: Savannah River Operations Office; Interim Management of Nuclear Materials at the Savannah River Site

61 FR 48474, September 13, 1996

Supplemental Record of Decision: Savannah River Operations Office; Interim Management of Nuclear Materials at the Savannah River Site

61 FR 6633, February 21, 1996

Supplemental Record of Decision: Savannah River Operations Office; Interim Management of Nuclear Materials at the Savannah River Site

60 FR 65300, December 19, 1995

Record of Decision and Notice of Preferred Alternatives: Savannah River Operations Office; Interim Management of Nuclear Materials at Savannah River Site

Plutonium Facility at the Los Alamos National Laboratory

74 FR 33232, July 10, 2009

Record of Decision: Site-Wide Environmental Impact Statement for the Continued Operation of Los Alamos National Laboratory, Los Alamos, NM

73 FR 55833, September 19, 2008

Record of Decision: Site-Wide Environmental Impact Statement for the Continued Operation of Los Alamos National Laboratory, Los Alamos, NM

Waste Isolation Pilot Plant

69 FR 39456, June 30, 2004

Revision to the Record of Decision for the Department of Energy's Waste Isolation Pilot Plant Disposal Phase

67 FR 69512, November 18, 2002

Amendment to a Record of Decision: Waste Isolation Pilot Plant Disposal Phase Supplemental Environmental Impact Statement

66 FR 4803, January 18, 2001

Amended Record of Decision: Management of Certain Plutonium Residues and Scrub Alloy Stored at the Rocky Flats Environmental Technology Site

64 FR 47780, September 1, 1999

Amendment to a Record of Decision: Management of Certain Plutonium Residues and Scrub Alloy Stored at the Rocky Flats Environmental Technology Site

64 FR 8068, February 18, 1999

Second Record of Decision on Management of Certain Plutonium Residues and Scrub Alloy Stored at the Rocky Flats Environmental Technology Site

63 FR 66136, December 1, 1998

Record of Decision on Management of Certain Plutonium Residues and Scrub Alloy Stored at the Rocky Flats Environmental Technology Site

63 FR 3624, January 23, 1998

Record of Decision for the Department of Energy's Waste Isolation Pilot Plant Disposal Phase

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