

revised strategy contemplates the fabrication of additional material into MOX, as the detailed design for the MOX facility has progressed in conjunction with the NRC licensing process, some of the facility design parameters originally assumed in preparing the SPD EIS have changed.

Second, the MOX-only program DOE is now contemplating would entail fabricating into MOX slightly more plutonium than previously analyzed (34 MT rather than 33 MT, a difference of approximately 3%). It would also include in the MOX program a portion (approximately 6.5 MT) of the 17 MT of plutonium originally destined for immobilization.⁴ This latter plutonium, referred to as "alternate feedstock," is currently in storage at various sites around the DOE complex. The majority of this material is now at RFETS, and DOE/NNSA is in the process of shipping it to SRS.⁵ The remainder is located primarily at the Hanford Reservation, SRS, the Lawrence Livermore National Laboratory, and the Los Alamos National Laboratory. This alternate feedstock has more impurities and some larger particles sizes than the plutonium originally analyzed. This means

⁴ In its original February 15, 2002 Report to Congress, DOE/NNSA indicated that it believed that 6.4 MT of impure surplus plutonium, previously intended for immobilization, could reasonably be purified and used as feedstock for MOX fuel fabrication. That report also indicated that an additional 2 MT of impure surplus plutonium was too heavily contaminated to be cost-effectively used as MOX feedstock, and would therefore be disposed of as waste. A March 5, 2002 letter supplementing the February 15 Report noted that, while disposal of the 2 MT as waste remains a possibility, DOE was evaluating other disposal options, including additional processing that might result in the recovery of additional plutonium suitable for fabrication as MOX fuel. DOE recently determined that a small portion of this material, currently stored at RFETS, would most appropriately be disposed of as waste at the Waste Isolation Pilot Plant near Carlsbad, New Mexico. See Supplemental Analysis for the Disposal of Certain Rocky Flats Plutonium-Bearing Materials at the Waste Isolation Pilot Plant (DOE/EIS-0026-SA-3, November 2002); Amendment to the Record of Decision on Waste Isolation Pilot Plant Disposal Phase Supplemental Environmental Impact Statement (67 FR 69512, November 18, 2002). DOE is still evaluating options to determine the most cost-effective manner for disposing of the remainder of the 2 MT of impure plutonium, and at present this plutonium is not included in the surplus plutonium that will be used to implement the U.S.-Russia Agreement. If that remains the case, this 2 MT would be replaced with an equivalent amount of additional weapons-grade plutonium to be identified in a future surplus declaration.

⁵ In the April 19, 2002 amended ROD, DOE decided to transfer the non-pit surplus plutonium at RFETS to SRS for long-term storage, in order to facilitate the closure of RFETS. It otherwise left unmodified its earlier decision to continue to store the non-pit material at the sites where it is currently located. Today's decision likewise leaves unmodified that earlier decision to leave that material in place.

additional equipment will need to be incorporated into the MOX facility to homogenize and reduce the particle size of some of the new feedstock and to remove the additional impurities.

III. NEPA Process for Amending ROD

The Council on Environmental Quality (CEQ) regulations implementing NEPA at 40 CFR 1502.9(c) require Federal agencies to prepare a supplement to an EIS when an agency makes substantial changes in the proposed action that are relevant to environmental concerns or when there are significant new circumstances or information relevant to environmental concerns and bearing on the proposed action or its impacts. DOE regulations at 10 CFR 1021.314(c) direct that when it is unclear whether a supplement to an EIS is required, an SA be prepared to assist in making that determination. DOE/NNSA has recently prepared the Supplement Analysis for Changes Needed to the Surplus Plutonium Disposition Program (DOE/EIS-0283-SA1) in accordance with these CEQ and DOE regulations.

In the SPD EIS ROD, DOE selected the Preferred Alternative (SPD EIS Alternative 3), which involves the construction and operation of three disposition facilities at SRS. The SA evaluates the proposed changes to the MOX facility within the context of the SPD EIS Preferred Alternative, and recognizes that, with the cancellation of the immobilization facility, only two disposition facilities are to be constructed and operated at SRS. The analysis also reflects the design changes in the MOX facility proposed during the NRC licensing process. The SA also evaluates the proposed processing of 34 MT of surplus plutonium, including the alternate feedstock, and compares the impacts of that proposal to the associated impacts presented in the SPD EIS. The conclusions from the SA are summarized in Section IV of this amended ROD. Section IV also discusses the effect of using the alternate feedstock to fabricate MOX fuel on DOE/NNSA's decision in the April 19, 2002 amended ROD to consolidate long-term storage at SRS of surplus non-pit plutonium stored separately at RFETS (*see* Section I).

IV. Summary of Impacts

None of the changes to the program described above would result in impacts significantly different from, or significantly greater than, those described in the SPD EIS. For most of the resource areas analyzed, no differences or only very minor differences in impacts were identified.

Where there are differences in impacts, they are relatively small and are well within DOE's capacity to manage.

Increased impacts result from increases in the volume of low-level radioactive waste, transuranic (TRU) waste, and nonradioactive, nonhazardous wastewater from the MOX facility over levels identified in the SPD EIS. However, there is sufficient capacity within the waste management infrastructure at SRS, and available disposal capacity within the DOE complex, to accommodate the additional waste. Moreover, the total number of shipments of TRU waste from SRS to the Waste Isolation Pilot Plant (WIPP) remains within the number of shipments evaluated in the Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact Statement (WIPP SEIS) when the additional shipments of TRU waste generated by MOX facility operations are included. Finally, from a programmatic perspective (*i.e.*, construction and operation of only two facilities rather than three), overall generation of non-radioactive, non-hazardous wastewater decreases.

The amount of land estimated to be temporarily and permanently disturbed for construction of the MOX facility would increase from that identified in the SPD EIS. However, construction of the MOX facility in F-Area is consistent with other SRS uses and with the surrounding industrial land use.

Changes to the MOX facility and associated operations would result in only minor additional impacts on other resource areas, including an overall decrease in water use and a small positive socioeconomic benefit from the need for a slightly larger workforce. No new or different bounding accident scenarios or impacts have been identified, and operation of the MOX facility continues to pose no more than a small risk to human health and the environment.

Prior to issuing the April 19 amended ROD to provide for the transfer of RFETS surplus non-pit plutonium to SRS, DOE prepared an SA entitled Supplement Analysis for Storage of Surplus Plutonium Materials in the K-Area Material Storage Facility at the Savannah River Site (KAMS SA), DOE/EIS-0229-SA-2, February 2002. That SA analyzed the impacts of storing up to 15 MT of plutonium in the KAMS facility for up to 50 years. Like the rest of the non-pit plutonium, this material will have to be sampled before any final decision can be made whether it can be fabricated into MOX, but DOE/NNSA anticipates that, depending on system performance and actual material