teachers who participate in setting the achievement levels. The focus of the study is to assess the correspondence between the teachers' estimates of the performance of their students on this assessment and the empirical performance of the student on the assessment. The teachers who will be asked to participate in this study are familiar with the content of the assessment framework and with the pool of items developed for the 1998 assessment. They also are familiar with the meaning of the achievement levels describing what students should know and be able to do and the abilities of the students who will be assessed. Teachers will not know how their individual students performed on the assessment. If the achievement levels are ''reasonable, valid, and informative,'' there should be relatively high correspondence between the teachers' estimates of performance and the actual performance of students with respect to the achievement levels.

No third party notification or public disclosure burden is associated with this collection.

Burden Statement: The estimated maximum total respondent burden is 6957 hours, and the average burden per student is 1.92 hours. This is a one-time data collection effort. Neither small businesses nor other small entities are included in the survey.

II. Request for Comments

NAGB solicits comments to:

(i) Evaluate whether the proposed data collection is an appropriate method to determine whether the achievement levels are valid.

(ii) Enhance the accuracy, quality, and utility of the information to be collected.

Records are kept of all public comments and are available for public inspection at the U.S. Department of Education, National Assessment Governing Board, Suite 825, 800 North Capitol Street, N.W., Washington, D.C. from 8:30 a.m. to 5:00 p.m.

Dated: November 25, 1998.

Roy Truby,

Executive Director, National Assessment Governing Board.

[FR Doc. 98–31913 Filed 11–30–98; 8:45 am]

BILLING CODE 4000–01–M

DEPARTMENT OF ENERGY

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

AGENCY: Department of Energy.

ACTION: Record of Decision.

SUMMARY: The Department of Energy (DOE) has decided to prepare the categories of plutonium residues and scrub alloy listed below for disposal or other disposition as specified in the Preferred Alternative contained in the Final Environmental Impact Statement on Management of Certain Plutonium Residues and Scrub Alloy Stored at the Rocky Flats Environmental Technology Site (the Final EIS, DOE/EIS–0277F, August 1998). The material categories covered by this Record of Decision are: (1) Sand, slag and crucible residues, (2) Direct oxide reduction salt residues (low plutonium concentration), (3) Combustible residues, (4) Plutonium fluoride residues, (5) Ful Flo filter media residues, (6) Glass residues, (7) Graphite residues, (8) Inorganic (metal and other) residues, and (9) Scrub alloy.

Additional Copies: Copies of the Final EIS and this Record of Decision are available in the public reading rooms and libraries identified in the **Federal Register** Notice that announced the availability of the Final EIS (63 FR 46006, August 28, 1998), or by calling the Center for Environmental Management Information at 1–800–736–3282 (toll free) or 202–863–5084 (in Washington, DC).

FOR FURTHER INFORMATION CONTACT: For information on the management of plutonium residues and scrub alloy currently stored at the Rocky Flats Environmental Technology Site, contact: Ms. Patty Bubar, Acting Director, Rocky Flats Office (EM–64), Office of Nuclear Material and Facility Stabilization, Environmental Management, U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, DC 20585, Telephone: 301–903–7130.

For information concerning development of the Final EIS or this Record of Decision, contact: Mr. Charles R. Head, Senior Technical Advisor, Office of Nuclear Material and Facility Stabilization (EM–60), Environmental Management, U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, DC 20585, Telephone: 202–586–5151.

For information on DOE's National Environmental Policy Act (NEPA) process, contact: Ms. Carol Borgstrom, Director, Office of NEPA Policy and Assistance (EH–42), U.S. Department of Energy, 1000 Independence Avenue, S.W., Washington, DC 20585 Telephone: 202–586–4600, or leave a message at 1–800–472–2756.

SUPPLEMENTARY INFORMATION:

I. Synopsis of the Decision

The U.S. Department of Energy (DOE) announced issuance of the Final Environmental Impact Statement on Management of Certain Plutonium Residues and Scrub Alloy Stored at the Rocky Flats Environmental Technology Site (the Final EIS, DOE/EIS–0277F) on August 28, 1998 (63 FR 46006, August 28, 1998). In the Final EIS, DOE considered the potential environmental impacts of a proposed action to prepare certain plutonium residues and scrub alloy currently stored at the Rocky Flats Environmental Technology Site (Rocky Flats) near Golden, Colorado, for disposal or other disposition. After consideration of the Final EIS, including public comments submitted on the Draft EIS, and public comments submitted following issuance of the Final EIS, DOE has decided to implement the Preferred Alternative specified in the Final EIS for the following categories of material: (1) Sand, slag and crucible residues, (2) Direct oxide reduction salt residues (low plutonium concentration), (3) Combustible residues, (4) Plutonium fluoride residues, (5) Ful Flo filter media residues, (6) Glass residues, (7) Graphite residues, (8) Inorganic (metal and other) residues, and (9) Scrub alloy.

Implementation of the Preferred Alternative will involve the following:

1. Up to approximately 6,587 kg of plutonium residues (containing up to approximately 351 kg of plutonium) will be processed at Rocky Flats and packaged in preparation for disposal at the Waste Isolation Pilot Plant (WIPP) in New Mexico. These residues consist of direct oxide reduction salt residues containing low concentrations of plutonium, combustible residues, Ful Flo filter media residues, glass residues, graphite residues and inorganic (metal and other) residues. The processed residues will remain in storage at Rocky Flats until they are shipped to WIPP for disposal.

2. Approximately 3,377 kg of sand, slag and crucible residues and plutonium fluoride residues (containing approximately 271 kg of plutonium), and approximately 700 kg of scrub alloy (containing approximately 200 kg of plutonium) will be packaged and shipped to the Savannah River Site near Aiken, South Carolina, where these materials will be stabilized in the F-Canyon by chemically separating the plutonium from the remaining materials in the residues and scrub alloy. The separated plutonium will be placed in safe and secure storage, along with a larger quantity of plutonium already in storage at the Savannah River Site, until DOE has completed the Surplus

Plutonium Disposition Environmental Impact Statement (DOE/EIS–0283, under preparation, draft issued in July 1998; see Section VII. A. 2, below, for additional discussion of the plutonium disposition topic) and made final decisions on the disposition of the separated plutonium. Transuranic wastes generated during the chemical separations operations will be sent to WIPP for disposal. Other wastes generated during the chemical separations operations will be disposed of in accordance with the Savannah River Site's normal procedures for disposing of such wastes.

The actions summarized above are scheduled to take place at Rocky Flats between 1998 and 2004, and at the Savannah River Site between 1998 and 2002.

As specified in Section 1.4.2 of the Final EIS, DOE will issue a second Record of Decision in the near future regarding the remaining categories of plutonium residues within the scope of the Final EIS, after consideration of any comments submitted during an additional public comment period from August 28, 1998 through October 12, 1998. The material categories to be covered by the second Record of Decision are: (1) Incinerator ash residues, (2) Graphite fines residues, (3) Inorganic ash residues, (4) Molten salt extraction/electrorefining salt residues, (5) Direct oxide reduction salt residues (high plutonium concentration), (6) High-efficiency particulate air (HEPA) filter media residues, and (7) Sludge residues.

II. Background

During the Cold War, DOE and its predecessor agencies conducted various activities associated with the production of nuclear weapons. Several intermediate products and wastes were generated as a result of those operations, some of which are still in storage at various DOE sites, including Rocky Flats. Now that the Cold War is over and the United States has ceased production of fissile nuclear weapons materials, DOE is conducting activities to safely manage, clean up, and dispose of (where appropriate) the intermediate products and wastes from prior nuclear weapons production activities. Among the intermediate products and wastes requiring proper management and preparation for disposal or other disposition are approximately 106,600 kg of plutonium residues and 700 kg of scrub alloy currently stored at Rocky Flats.

The Defense Nuclear Facilities Safety Board (the Board) in its Recommendation 94–1, addressed health and safety concerns regarding various materials at Rocky Flats, including the plutonium residues and scrub alloy. The Board concluded that hazards could arise from continued storage of these materials in their current forms and recommended that they be stabilized as expeditiously as possible. Approximately 64,400 kg of the plutonium residues in storage at Rocky Flats contain very low concentrations of plutonium and are currently being stabilized and prepared for disposal under the Solid Residue Treatment, Repackaging, and Storage Environmental Assessment/Finding of No Significant Impact (DOE/EA–1120, April 1996). However, the remaining 42,200 kg of plutonium residues, which contain higher concentrations of plutonium, and all 700 kg of scrub alloy still require processing for stabilization and to prepare them for disposal or other disposition. These materials are addressed in the Final EIS.

The approximately 42,200 kg of plutonium residues consist of nine heterogeneous categories of materials (e.g., ashes, salts, combustible materials, sludges, pieces of glass, pieces of graphite). On average, the plutonium residues contain about 6% plutonium by weight, although a small amount of the plutonium residues contains well above the average percentage of plutonium by weight. For example, the 315 kg of plutonium fluoride residues (less than 1 percent of the material addressed in the Final EIS) contains approximately 45% plutonium by weight. The approximately 700 kg of scrub alloy (less than 2 percent of the material addressed in the Final EIS) consists primarily of a metallic alloy of magnesium, aluminum, americium, and plutonium, containing approximately 29% plutonium by weight.

Although the average concentration of plutonium in the 42,200 kg of residues is small, there is still enough plutonium present (about 2,600 kg) to subject the residues to a special set of requirements (referred to as ''safeguards and security'' requirements) to maintain control of the materials and ensure that the plutonium in them is not stolen or diverted for illicit use, perhaps in a nuclear weapon. The 700 kg of scrub alloy, with its greater plutonium concentration, is also subject to safeguards and security requirements. Prior to disposal or other disposition of the residues and scrub alloy, action must be taken to reduce the plutonium concentration in the materials, make the plutonium more difficult to remove from the materials, or otherwise implement steps to ensure that the plutonium would not be stolen or diverted for illicit purposes. This process is referred to as ''termination of safeguards'' or ''meeting safeguards termination limits.''

Accordingly, the Purpose and Need for Agency Action addressed in the Final EIS was to evaluate action alternatives for processing the approximately 42,200 kg of plutonium residues and 700 kg of scrub alloy currently in storage at Rocky Flats to address the health and safety concerns regarding storage of the materials, as raised by the Board in its Recommendation 94–1, and to prepare the materials for offsite disposal or other disposition (including termination of safeguards, when appropriate). The action alternatives evaluated would be implemented in a manner that supports closure of Rocky Flats by 2006 and limits worker exposure and waste production. Disposal or other disposition would eliminate the health and safety concerns associated with indefinite storage of these materials.

Subsequent to completion of the Final EIS, DOE has completed its compliance process under the requirements of the Endangered Species Act. Section 7 of the Endangered Species Act provides Federal agencies with the authority to determine whether a proposed Federal action may affect protected species or habitats and, if the agency determines that it will not (i.e., makes a ''no effect'' determination), then no consultation with the Fish and Wildlife Service is required. Rather than specifying a ''no effect'' determination, the Final EIS concludes that the proposed processing of plutonium residues and scrub alloy is not likely to adversely affect threatened or endangered species or critical habitats in areas involved in this proposal. Although indicating some effect on threatened or endangered species, a ''not likely to adversely affect'' determination falls short of a determination that a species or critical habitat is likely to be adversely affected overall by the proposed action.

Upon further review of the likely impacts of the proposed processing, DOE concludes that a ''no effect'' determination would have been more appropriate in this case because DOE does not believe that the proposed processing will affect protected species or critical habitats overall. Therefore, no consultation with the Fish and Wildlife Service is required.

The decision process reflected in this Record of Decision complies with the requirements of the National Environmental Policy Act (42 U.S.C., Sec. 4321 *et seq.*) and DOE's NEPA implementing regulations at 10 CFR Part 1021. Further, Section 308 of the Fiscal Year 1999 Energy and Water

Development Appropriations Act (Public Law 105–245) specifies that ''None of the funds in this Act may be used to dispose of transuranic waste in the Waste Isolation Pilot Plant which contains concentrations of plutonium in excess of 20 percent by weight for the aggregate of any material category on the date of enactment of this Act, or is generated after such date.'' The decisions specified in this Record of Decision comply with the requirements of Pub. L. 105–245.

III. Alternatives Evaluated in the Final EIS

DOE evaluated the following alternatives for management of the Rocky Flats plutonium residues and scrub alloy covered by this Record of Decision:

III.A. Alternative 1 (No Action—Stabilize and Store)

This alternative consists of stabilization or repackaging to prepare the material for interim storage as described in the Rocky Flats Solid Residue Environmental Assessment (Solid Residue Treatment, Repackaging, and Storage Environmental Assessment/Finding of No Significant Impact, DOE/EA–1120, April 1996). Under this alternative, further processing to prepare the material for disposal or other disposition would not occur. Since scrub alloy was not addressed in the Rocky Flats Solid Residue Environmental Assessment, the ''No Action'' alternative for scrub alloy has been defined as continued storage at Rocky Flats with repackaging, as necessary. Under this alternative, approximately 40 percent of the Rocky Flats plutonium residues and all of Rocky Flats scrub alloy would be left in a form that would not meet the requirements for termination of safeguards, thus making these materials ineligible for disposal. Thus, while implementation of this alternative would address the immediate health and safety concerns associated with near-term storage of the materials, the health and safety risks associated with potential long-term storage of these materials would remain.

III.B. Alternative 2 (Processing Without Plutonium Separation)

Under this alternative, the materials would be processed to convert them into forms that would meet the requirements for termination of safeguards. The materials would be ready for shipment to WIPP in New Mexico for disposal.

The technologies evaluated for use under this alternative for the material categories covered by this Record of Decision are listed in Table 1.

TABLE 1.—ALTERNATIVE 2 PROCESSING TECHNOLOGIES

Material category	Processing technology
Sand, slag and crucible residues	Calcination/vitrification, or blend down.
Direct oxide reduction salt residues (low plutonium concentration)	Blend down.
Combustible residues	Blend down, catalytic chemical oxidation, or sonic wash.
Plutonium fluoride residues	Blend down.
Ful Flo filter media residues	Blend down or sonic wash.
Glass residues	Calcination/vitrification, blend down, or sonic wash.
Graphite residues	Cementation, calcination/vitrification, or blend down.
Inorganic (metal and other) residues	Calcination/vitrification, or blend down.
Scrub alloy	Calcination/vitrification.

All of the technologies specified in Table 1 would be implemented onsite at Rocky Flats. The blend down technology referred to in Table 1 would consist of mixing the plutonium residues within the scope of the Final EIS with other, lower plutonium content residues that are also planned for disposal in WIPP, or with inert material, so that the resulting mixture would be below the safeguards termination limits.

III.C. Alternative 3 (Processing With Plutonium Separation)

Under this alternative, the plutonium residues and scrub alloy would be processed to separate plutonium from the material and concentrate it so that the secondary waste would meet the requirements for termination of safeguards and be ready for disposal, while the separated and concentrated plutonium would be placed in safe and secure storage pending disposition in accordance with decisions to be made under the Surplus Plutonium Disposition Environmental Impact Statement (DOE/EIS–0283, under preparation, draft issued in July 1998). DOE would not use this plutonium for nuclear explosive purposes.

The technologies evaluated for use under this alternative for the material categories covered by this Record of Decision are listed in Table 2. These technologies would be implemented at the sites specified in Table 2.

TABLE 2.—ALTERNATIVE 3 PROCESSING TECHNOLOGIES

Material category	Processing technology	Processing site
Sand, slag and crucible residues	Purex processing	Savannah River Site.
Direct oxide reduction salt residues (low plutonium concentration).	Acid dissolution/plutonium oxide recovery, or	Los Alamos National Lab
	Salt scrub followed by Purex processing, or	Salt scrub at Rocky Flats, Purex at the Savannah River Site.
	Water leach, or	Rocky Flats
	Water leach	Los Alamos National Lab.
Combustible residues	Mediated electrochemical oxidation	Rocky Flats.
Plutonium fluoride residues	Purex processing, or	Savannah River Site
	Acid dissolution/plutonium oxide recovery	Rocky Flats.
Ful Flo filter media residues	Mediated electrochemical oxidation	Rocky Flats.
Glass residues	Mediated electrochemical oxidation	Rocky Flats.

TABLE 2.—ALTERNATIVE 3 PROCESSING TECHNOLOGIES—Continued

Material category	Processing technology	Processing site
Graphite residues	Mediated electrochemical oxidation, or	Rocky Flats
	Mediated electrochemical oxidation	Savannah River Site.
Inorganic (metal and other) residues	Mediated electrochemical oxidation, or	Rocky Flats
	Mediated electrochemical oxidation	Savannah River Site.
Scrub alloy	Purex processing	Savannah River Site.

III. D. Alternative 4 (Combination of Processing Technologies)

Under this alternative, the residues would be stabilized and blended down, if necessary, and repackaged in preparation for shipment of the material to WIPP. Termination of safeguards would be accomplished through use of a variance to the safeguards requirements. A variance is the record of a review process whereby DOE's Office of Safeguards and Security approves a proposal by another part of DOE to terminate safeguards on specific quantities of safeguarded materials because of special circumstances that make the safeguards controls unnecessary. The variance to safeguards termination limits that is required to allow implementation of this alternative was approved by the DOE Office of Safeguards and Security after conducting a detailed review and extensive vulnerability assessment regarding the alternative mechanisms that would be used to protect and control access to the material. The Office of Safeguards and Security concluded that the nature of the residues, the relatively low concentration of plutonium in the residues after blend down (if necessary), and the waste management controls that would be in effect during the transportation to and staging at WIPP prior to disposal would be sufficient to provide a level of protection for the materials comparable to that required by safeguards.

The plutonium fluoride residues and the scrub alloy were not analyzed under this alternative because their higher plutonium content would make application of a safeguards termination limit variance impractical. In addition, the Ful Flo filter media residues were not analyzed under this alternative because they had not been identified in the Draft EIS as materials for which a variance to the safeguards termination requirements had been requested. Accordingly, application of a variance to these materials was not considered in the Final EIS.

III. E. Strategic Management Approaches

Theoretically, it would be possible to process all of the residues using only one of the alternatives listed above (e.g., all the materials would be processed under a single alternative, except for certain material categories for which there is no processing technology under that alternative). Nevertheless, in practice, DOE recognized in preparing the EIS that the most appropriate technologies were likely to be chosen separately for each material category by selecting from among the technologies in all the alternatives. However, there are too many combinations of material categories, processing technologies and processing sites to address each individual combination in the EIS in a manner that would be easily understandable. As a result, in addition to individually evaluating technologies that could be used to implement the alternatives for each material category, DOE also evaluated several ''Strategic Management Approaches''. These approaches involve compilations of sets of processing technologies which would allow a specific management criterion to be met. The management criteria addressed in the Strategic Management Approaches are as follows:

1. No Action (i.e., Alternative 1 discussed above)
2. Preferred Alternative (Discussed in more detail in Section III. F. below)
3. Minimizing Total Processing Duration at Rocky Flats
4. Minimizing Cost
5. Conducting all Processing at Rocky Flats
6. Conducting the Fewest Actions at Rocky Flats
7. Processing with the Maximum Amount of Plutonium Separation
8. Processing without Plutonium Separation

The decisions on which technology to implement have been made separately for each material category covered by this Record of Decision; the Strategic Management Alternatives were merely illustrative. Nevertheless, evaluation of the Strategic Management Approaches allowed presentation of the environmental impacts of the proposed action as one set of data, instead of separate sets of data representing the impacts from management of each of the material categories individually. Examination of the various Strategic Management Approaches also allowed DOE and the public to determine whether there are any significant differences between the impacts that would result from implementation of one Strategic Management Alternative as compared to any other.

III. F. Preferred Alternative

The preferred alternative was constructed by selecting a preferred technology for each material category from among the action alternatives (i.e., Alternatives 2, 3 and 4) described above.

The technologies that comprise the Preferred Alternative for the material categories covered by this Record of Decision are listed in Table 3 (the bases for selection of these technologies are discussed in Section 2.4 of the Final EIS, and again in Section VII. of this Record of Decision). These technologies would be implemented at the sites specified in Table 3.

TABLE 3.—PREFERRED ALTERNATIVE PROCESSING TECHNOLOGIES

Material category	Processing technology	Processing site
Sand, slag and crucible residues	Purex processing (Alternative 3)	Savannah River Site.
Direct oxide reduction salt residues (low plutonium concentration).	Repackage (Alternative 4)	Rocky Flats.
Combustible residues	Stabilize, if necessary, and repackage (Alternative 4) (see Note 1).	Rocky Flats.
Plutonium fluoride residues	Purex processing (Alternative 3)	Savannah River Site.
Ful Flo filter media residues	Blend down (Alternative 2)	Rocky Flats.

TABLE 3.—PREFERRED ALTERNATIVE PROCESSING TECHNOLOGIES—Continued

Material category	Processing technology	Processing site
Glass residues	Stabilize (i.e., neutralize and dry) and repackage (Alternative 4).	Rocky Flats.
Graphite residues	Repackage (Alternative 4)	Rocky Flats.
Inorganic (metal and other) residues	Repackage (Alternative 4)	Rocky Flats.
Scrub alloy	Purex processing (Alternative 3)	Savannah River Site.

Note 1—Aqueous contaminated residues would be stabilized by neutralizing and drying. Organic contaminated residues would be stabilized by thermal desorption/steam passivation.

IV. Other Factors

In addition to comparing the environmental impacts of implementing the various alternatives, DOE also considered other factors in reaching the decisions announced here. These other factors included issues raised by comments received during scoping, or on the Draft and Final versions of the EIS. The other factors considered are briefly summarized in the following paragraphs.

IV.A. Nonproliferation

Preventing the spread of nuclear weapons has been a fundamental national security and foreign policy goal of the United States since 1945. The current U.S. policy is summarized in the White House Fact Sheet on Nonproliferation and Export Control Policy, dated September 27, 1993. This policy makes it clear that the United States does not encourage the civil use of plutonium and, accordingly, does not itself engage in plutonium reprocessing (that is, separation of plutonium from spent nuclear fuel) for either nuclear power or nuclear explosives purposes. In addition, it is U.S. policy to seek to eliminate where possible the accumulation of stockpiles of plutonium.

The alternatives analyzed in the Final EIS, including plutonium separation alternatives, would result in varying levels of risk associated with potential use of the plutonium in nuclear weapons, either by the U.S. or an adversary. None of the alternatives would eliminate the plutonium from the current inventory. Nevertheless, as discussed in Section 4.1.9 of the Final EIS, all of the action alternatives would result in appropriate management of the plutonium residues and scrub alloy to ensure that they are not stolen or diverted for illicit purposes. Furthermore, all of the action alternatives set the stage for ending the proliferation risk posed by the plutonium in the plutonium residues and scrub alloy by preparing these materials for disposal or other disposition in a form that is proliferation resistant (i.e., a form which contains very little plutonium per unit weight, from which the plutonium would be especially difficult to extract, or for which other measures are taken to ensure sufficient security). In addition, because of the potential concern regarding any processing and consolidating of plutonium that might be accomplished by DOE, the Secretary of Energy has committed that any separated or stabilized plutonium-239 would be prohibited from use for nuclear explosive purposes (Secretarial Action Memorandum approved December 20, 1994). This prohibition would apply to plutonium-239 separated as a result of actions implemented under this Record of Decision.

IV.B. Technology Availability and Technical Feasibility

DOE considered technology availability and technical feasibility in identifying processing technologies to be evaluated in the Final EIS and in making the decisions specified in Section VI of this Record of Decision. DOE considered the extent to which technology development would be required and the likelihood of success of such endeavors. All of the technologies evaluated in the Final EIS are technically feasible. In general, however, the more that processing technologies vary from the historical processes and facilities used by DOE, the greater the technical uncertainty and extent to which new facilities or modifications to existing facilities would have to be made (as discussed in Section 4.17.7 of the Final EIS).

IV.C. Timing

DOE considered the degree to which the various technologies that could potentially be used in management of the plutonium residues and scrub alloy would support DOE's plans for cleanup of the radioactive, chemical and other hazardous wastes left after 50 years of nuclear weapons production by the United States, as outlined in the document titled Accelerating Cleanup: Paths to Closure (DOE/EM–0362, June 1998), including the goal of closing Rocky Flats by 2006.

IV.D. Cost

In reaching decisions on processing technologies, an important consideration for DOE was cost. DOE evaluated the costs of implementing the various processing technologies for each material category on both an individual basis and collectively. DOE estimates it would cost from approximately $428 Million to $814 Million to implement the Strategic Management Approaches (other than No Action) analyzed in the Final EIS. An even larger expenditure (approximately $1.1 Billion) would be required to pay for continued storage of the nuclear materials if DOE chose to implement the No Action alternative. On the other hand, DOE expects that the annual costs of operating and maintaining Rocky Flats facilities will decrease as nuclear materials are removed from the site. DOE expects further reductions in costs as the Rocky Flats facilities are deactivated.

V. Comments on the Final EIS

After issuing the Final EIS, DOE received two letters commenting on the preferred alternative, one from Alternatives in Action, and the other from the Environmental Evaluation Group. In addition, while DOE was in the process of distributing the Final EIS, DOE received a copy of a letter from the Institute for Energy and Environmental Research to the South Carolina State Department of Health and Environmental Control commenting on an issue that is relevant to this Record of Decision. Finally, during consultations conducted after completion of the Final EIS, DOE received a comment on the Final EIS from the U.S. Fish and Wildlife Service of the Department of the Interior. DOE's responses to these comments are as follows:

V.A.

The letter from Alternatives in Action (signed by Virginia Dollar and dated September 23, 1998) expressed a

preference for implementation of the No Action alternative because it would not involve separation of plutonium; would reduce the number of people who would move, handle, treat and repackage the materials; and would result in management of the materials close to their point of origin. The No Action alternative is fully evaluated in the Final EIS, along with the action alternatives. Section VII. of this Record of Decision specifies the technologies that DOE has decided to implement for each material category addressed in the Final EIS and explains why DOE chose those technologies. DOE did not choose to implement the No Action alternative for any material category because implementation of the No Action alternative would leave the plutonium residues and scrub alloy in forms that could not be disposed of or otherwise dispositioned. Such an action would only postpone eventual action necessary to terminate storage of these materials and would result in continuation of the risks and costs associated with their indefinite storage.

V.B.

The letter from the Environmental Evaluation Group [1] (signed by Robert H. Neill and dated October 6, 1998) contained several comments on two topics, (1) safeguards termination limits, and (2) treatment of ash residues and other residues containing fines or powder. DOE's responses to the Environmental Evaluation Group comments are provided below:

V.B.1. Safeguards Termination Limits

The Environmental Evaluation Group letter raised several issues that relate to ''safeguards termination limit variances''. The comments requested more details regarding the process used to review and approve applications for variances, and raised issues relating to the basis for any variances.

The Office of Safeguards and Security is the organization within DOE that is responsible for determining when special nuclear materials (such as plutonium) must be subject to physical safeguards to prevent theft or diversion. To that end, the Office of Safeguards and Security has established concentrations of plutonium that DOE organizations use to determine which materials containing plutonium must be safeguarded and which can be held or disposed of without maintaining physical safeguards. However, the Office of Safeguards and Security recognizes that there are circumstances under which the threat of theft or diversion would be very small even if these concentrations were exceeded. Accordingly, it has a procedure under which a DOE site may petition for a variance from the safeguards termination limits. To obtain a variance, the site must demonstrate that '' given the nature of the materials, their plutonium concentrations, and the other management controls that would be in effect during their transportation and storage—safeguards controls would not be needed to adequately ensure that the material would not be stolen or diverted for illicit purposes. This process was discussed in Section 1.3.1 of the Final EIS.

The Environmental Evaluation Group letter states that some of the residues are above the Economic Discard Limits for plutonium. With the termination of plutonium production in the United States, the Economic Discard Limit concept has become obsolete and has been replaced by criteria that comprise DOE's current plutonium disposition methodology. These criteria include consideration of security and nonproliferation, waste minimization and costs. All of these criteria were satisfied in the development of the safeguards termination limit variance associated with Alternative 4, the Combination Alternative analyzed in the Final EIS (see Section III. D.).

The Environmental Evaluation Group letter also refers to the Office of Safeguards and Security Version 1.2 formula supposedly used to calculate safeguards termination limits. The Version 1.2 formula was a draft proposal developed in 1995 that was not used in the development of the safeguards termination limits established in 1996. After detailed technical evaluations of the Version 1.2 formula, DOE concluded that the formula had no relationship to actual capability to recover plutonium from plutonium residues and other plutonium bearing materials. Therefore, the formula is not pertinent to making decisions regarding the plutonium contained in the Rocky Flats plutonium residue inventory.

Current DOE policies allow a variance to safeguards termination limits to be approved for materials containing plutonium above the limits when vulnerability assessments conclude that no additional significant risk would occur by approving a variance. To support a variance request for certain categories of plutonium residues, Rocky Flats conducted vulnerability (or risk) assessments. The vulnerability assessments for the residues and their disposition paths were conducted to evaluate risks and determine acceptable protection measures needed to mitigate any unacceptable risks. These vulnerability assessments were thoroughly reviewed by the DOE Office of Safeguards and Security and were a primary basis for DOE's decision to grant the safeguards termination limit variance for the Rocky Flats plutonium residues. These assessments included consideration of all design based threats and adversary capabilities for diversion, theft and sabotage, not only at Rocky Flats, but also during transportation and final staging and disposal at WIPP.

The Environmental Evaluation Group opposes granting a variance to safeguards termination limits until there is a review by affected state technical oversight agencies of the Rocky Flats application, the Office of Safeguards and Security review and decision, and the vulnerability assessments. Normally DOE does not involve outside organizations, including state government agencies, in the nuclear safeguards and security vulnerability review process. Furthermore, the governments of states potentially impacted by the issuance of safeguards termination limit variances have expressed no concerns on this matter to DOE. Moreover, the Office of Safeguards and Security received a letter from the Director of the State of Colorado Department of Public Health and Environment, dated December 30, 1997, that strongly endorsed DOE's approval of Rocky Flats request for variances to safeguards termination limits. The letter states that ''* * * approval of the proposal [a Safeguards Termination Limit (STL) variance] would result in processing which is strictly designed to stabilize residue material and meet the WIPP Waste Acceptance Criteria rather than requiring further processing only to meet STLs.'' Comments on the Draft EIS from the State of New Mexico Environment Department (see Chapter 9 of the Final EIS) include no mention of variances to safeguards termination limits.

V.B.2. Treatment of Residues Containing Fines and Powders

The Environmental Evaluation Group recommends that certain residues that contain fines and powders be ''fixed'' to minimize dispersibility in the event of accidents, reduce their attractiveness for diversion, or improve short and long term performance in WIPP. The Environmental Evaluation Group specifically identifies incinerator ash,

[1] The Environmental Evaluation Group is an independent group established in 1979 as a part of the New Mexico Institute of Mining and Technology with funds provided to the State of New Mexico by DOE. Pursuant to Pub.L. 100–456, the Environmental Evaluation Group conducts an independent technical evaluation of WIPP to assist in ensuring protection of the environment and the public health and safety.

graphite fines, inorganic ash, molten salt extraction salt/electrorefining salts, sludges and HEPA filter residues as being subject to this comment and mentions cold ceramification and vitrification as potential fixation processes.

DOE's decisions on future management of each material category covered by these comments will be included in the second Record of Decision, as discussed in Section I of this Record of Decision (above). Nevertheless, DOE is responding to these comments in this Record of Decision, thus making the responses available to the public sooner, and addressing the comments in the same document that addresses the preceding comment on safeguards termination limits.

DOE considers that the actions recommended by the Environmental Evaluation Group to control dispersibility in the event of accidents under the preferred alternative are not necessary. As stated in Section 2.6.1 of the Final EIS, the residues would be packaged in multiple layers of sealed packages specifically to preclude dispersion if an accident were to occur. The residues would first be packaged in either metal containers or plastic bags. They would then be placed in stainless-steel pipe components, as appropriate, which in turn would be placed inside 55-gallon drums. When ready for transport to WIPP, the drums would be placed into TRUPACT-II containers, which are Type B shipping packages, certified by the Nuclear Regulatory Commission and approved by the Department of Transportation. The multiple containment afforded the residues would virtually eliminate the possibility for their dispersion into the environment, even in the unlikely event of an accident.

Concerning the improvement of short and long term performance in WIPP, the specific residues identified by the Environmental Evaluation Group (and certain other residues) do not require further stabilization prior to repackaging to meet the WIPP waste acceptance criteria (WIPP WAC), except that some of the sludges would have to be filter-dried and some of the HEPA filters neutralization-dried prior to being repackaged in order to meet the WIPP WAC. This is discussed in Section 2.1 of the Final EIS. Compliance with the WIPP WAC would demonstrate that requirements for disposal at WIPP have been met. While ''fixing'' some of the residues, as evaluated in the Final EIS under several of the Alternative 2 technologies, could improve performance at WIPP, the improvement would be modest, and would be accompanied by additional costs, delays in the time when the residues would be ready to leave Rocky Flats, and additional hazards to workers who would perform the ''fixing'' process. Although the ''fixing'' would make extraction of the plutonium from these residues more difficult, DOE's analyses (see Section V. B. 1, above) demonstrate that the residues are suitable for termination of safeguards (including consideration of the potential for diversion of the material) without such additional processing. Furthermore, conducting the operations necessary to ''fix'' the residues would subject workers to unnecessary radiation exposure. Nevertheless, DOE will consider all of the alternatives evaluated for these material categories in the Final EIS in the process of preparing the second Record of Decision.

V. C.

The letter from the Institute for Energy and Environmental Research to the South Carolina Department of Health and Environmental Control (signed by Brian Costner and dated September 24, 1998) questioned whether the proposal in the Draft EIS to ship the plutonium fluoride residues from Rocky Flats to the Savannah River Site for processing through the canyons is consistent with the requirements of the Resource Conservation and Recovery Act (RCRA) and asserted that the public has been largely excluded from the decision making process in this matter.

DOE's management of the plutonium fluoride residues will comply with all applicable RCRA requirements. DOE will transport the plutonium fluoride residues to the Savannah River Site in compliance with RCRA transportation requirements, and will store them there pursuant to RCRA storage requirements prior to processing. The applicability of RCRA requirements to the processing of the plutonium fluoride residues in the canyons is the subject of ongoing discussions between DOE and the South Carolina Department of Health and Environmental Control.

DOE currently is in the process of preparing the Surplus Plutonium Disposition Environmental Impact Statement (DOE/EIS–0283), which addresses the extent to which two surplus plutonium disposition approaches (immobilization and use in mixed oxide fuel [MOX]) would be implemented. Even after completion of the Surplus Plutonium Disposition Environmental Impact Statement, currently scheduled for early 1999, DOE does not expect to make decisions about which, if any, of the plutonium to be separated in the canyons would be used in MOX fuel until shortly before the material would be transferred to a MOX fabrication facility. Those decisions are not expected to be made until the plutonium separation operations under this Record of Decision have been completed.

DOE does not believe that the public has been excluded from the decision making process regarding the management of the plutonium fluorides. The public was provided an opportunity to comment on management of the plutonium fluoride residues through this NEPA process. The Draft EIS discussed processing of the plutonium fluorides in the Savannah River Site canyons, followed by either immobilizing the separated plutonium or using it in MOX fuel.

V. D.

The comment from the Fish and Wildlife Service (from Craig Miller of the Fish and Wildlife Service office in Lakewood, Colorado on September 4, 1998) pertained to the listing of Federal threatened, endangered and candidate species that may be found on or in the vicinity of Rocky Flats, as provided in Section 3.1.6, Table 3–6 of the Final EIS. During discussions on the Final EIS between DOE and the Fish and Wildlife Service office in Lakewood, Colorado, the Fish and Wildlife Service requested that DOE update the list of Federal threatened, endangered and candidate species in Table 3–6 as follows (new entries are marked with an *, other changes are noted in italics):

Revise the list of Federal Endangered Species to read as follows:

American peregrine falcon
whooping crane*
eskimo curlew*
black-footed ferret*

Revise the list of Federal Threatened Species to read as follows:

bald eagle
pawnee mountain skipper*
Mexican spotted owl*
Preble's meadow jumping mouse
greenback cutthroat trout*
utes ladies-tress orchid*
Colorado butterfly plant (proposed)* *[moved from ''Candidate Species'' list]*
Canada lynx (proposed)*

Revise the list of Federal Candidate Species to read as follows:

mountain plover
boreal toad*
swift fox*
[the Southwest willow flycatcher has been deleted from this list]

VI. New Information

Since the Final EIS was issued, DOE has improved its estimate of the number of shipments that would be required to transport certain residues off-site for processing. While the amount of residues (and the amount of plutonium in the residues, both measured in terms of their weight) that would be shipped under the Preferred Alternative has not changed, the number of shipments that would be required to implement the Preferred Alternative is now projected to be greater than the number discussed in the Final EIS (Chapter 2, ''Alternatives'').

Specifically, routine characterization of the sand, slag and crucible residues that was conducted in parallel with preparation of the Final EIS found these residues to be less dense (i.e., they occupy more volume per unit mass) than had been assumed during preparation of the Final EIS. As a result, less sand, slag and crucible residues could be placed in any shipping container, resulting in a projected increase in the number of shipments that would be required from Rocky Flats to the Savannah River Site.

In addition, the precise radiation levels being emitted by the plutonium fluoride residues are not known at the present time. If the radiation level emitted by the plutonium fluoride residues is found to be higher than had been assumed during preparation of the Final EIS, then the amount of plutonium fluoride residues that could be included in any shipment would have to be reduced to avoid exceeding a transportation regulatory limit, thus also requiring the number of shipments to be increased. The actual radiation levels being emitted by the plutonium fluoride residues would not be known until they were repackaged for shipment. To avoid unnecessary radiation exposures to workers, DOE has deferred taking these measurements until the repackaging operation, when personnel would have to be near the material in any case.

Finally, if it becomes necessary to change from use of the 6M shipping container, the container assumed in the Final EIS, to the 9975 shipping container, the number of scrub alloy shipments could also increase. This is due to the fact that, after the 9975 container is certified, DOE will phase out use of the 6M containers as sufficient numbers of 9975 containers become available, and the 9975 container can hold less scrub alloy than the 6M container could.

Overall, the changes in the number of shipments, as discussed above, increase shipments that might be made under the Preferred Alternative from 39, as estimated in the Final EIS, to a current estimate of between 60 and 90 shipments.

DOE has considered the environmental implications of this increase in the estimated number of shipments that would be necessary to implement the Preferred Alternative and has concluded that there would be no significant change to the small impacts as estimated in the Final EIS for the following reasons:

VI. A.

First, the estimate of the incident free radiological impacts from each individual shipment would remain the same as in the Final EIS. Such impacts were calculated under a simple, but conservative, assumption that all shipments emit radiation at the regulatory limit. Accordingly, the total of the incident free radiological impacts for all shipments would increase, in proportion to the increased number of shipments. However, the incident free radiological impacts would remain low. For example, the highest incident free radiological impact (that of the transportation crew for 90 shipments) would be 0.0055 latent cancer fatalities (as opposed to 0.0024 latent cancer fatalities as estimated in the Final EIS).

VI. B.

Second, the radiological impacts associated with accidents would remain unchanged because the increased likelihood of an accident (due to the increased number of shipments) is offset by the decrease in the amount of radioactive material that would be present in an accident [2].

VI. C.

Third, although the nonradiological impacts (incident free and accident) would be increased in proportion to the increased number of shipments, the estimate remains small (approximately 0.0012 emission related latent cancer fatalities and approximately 0.010 traffic accident related fatalities for the new shipment values, as opposed to 0.00051 and 0.0039, respectively, as estimated in the Final EIS).

In summary, the transportation impacts from the current estimated number of shipments from Rocky Flats to the Savannah River Site would be small, and the current impact estimates differ insignificantly from corresponding estimates presented in the Final EIS.

VII. Decision

DOE has decided to implement the proposed action in the manner described in this section. The alternatives that DOE has decided to implement are presented separately below for each material category because the decisions on the selected technology were based on considerations that are unique to the chemical and physical characteristics of the individual material categories. Furthermore, these decisions are independent of one another and are not connected to the decisions to be made in the upcoming second Record of Decision. Although alternative technologies analyzed in the EIS might use certain common facilities or personnel, sufficient facility capacity and personnel are available to allow use of any technology without interfering with any other.

For clarity and brevity, this section also includes the discussion of the environmentally preferable alternative (as required by CEQ regulations [40 CFR 1505.2]) and the basis for selection of the alternative to be implemented.

The analysis of alternative technologies presented in the Final EIS indicates that all of the alternative technologies, including those in the Preferred Alternative and the No Action alternative, would have only small impacts on the human environment on or around the DOE management sites and on the populations along transportation routes (see Sections 4.23 and 4.24 of the Final EIS). Using conservative assumptions (i.e., assumptions that tend to overestimate risks), the potential risks from incident-free operations and postulated accidents that are of most interest would be (1) Those associated with radiation exposure to workers performing processing operations on the plutonium residues and scrub alloy or near loaded transportation containers, and (2) radiation risks to the general public in and around the DOE management sites and along the transportation routes. The Final EIS also estimates (1) the risks from incident-free operations and postulated accidents associated with chemical releases and transportation accidents; (2) the amounts of various wastes and other materials that would result from implementation of the various alternative technologies; (3) the cost of implementing the various

[2] Note that the radiological impacts of incident free transportation and transportation accidents are calculated differently. As noted above, incident free impacts are calculated under the simplifying assumption that all shipments contain enough radioactive material to cause them to emit radiation at the regulatory limit. This assumption overstates impact estimates for some shipments, but more precise calculations were not needed in this case to estimate the nature of the impacts. Accident impacts, however, are estimated based on the likely contents of the shipping containers.

alternative technologies; (4) the effect on nuclear weapons nonproliferation; and (5) air quality impacts.

Environmentally Preferable Alternative—Although there are differences among the estimated impacts for the various alternatives, the impacts would be small for any of the alternative technologies, and the magnitude of the differences in potential impacts between alternatives is small. In addition, the nature of the potential impacts is such that comparing them is a very judgmental process. For example, under the preferred alternative for scrub alloy (plutonium separation), only 61 drums of transuranic waste would be generated; whereas the other action alternative for this material (calcination and vitrification) would generate 2,809 drums of transuranic waste. However, the plutonium separation would also result in generation of 200 kg of separated plutonium; whereas calcination and vitrification would result in no separated plutonium. Comments received from members of the public on the Draft EIS demonstrate that different individuals would make different value judgments as to which of these product/waste materials is of most concern. Furthermore, in addition to having no indisputable means of identifying which waste or product stream would be most important to minimize, there is no indisputable way to trade off differences between the amounts of various types of waste and separated plutonium against differences in levels of radiological risk or chemical hazards; or between risks to workers versus risks to the public (risks to the public would be lower than those to workers for all technologies evaluated in the Final EIS).

In general, because of the small risks that would result from any of the action alternatives (as demonstrated by Tables 2–9 through 2–26, and 4–8 through 4–54 of the Final EIS) and the absence of any clear basis for discerning an environmental preference, DOE concludes that no one of the action alternatives is clearly environmentally preferable over any other action alternative.

On the other hand, under the No Action alternative, the materials would be left in storage at Rocky Flats with no defined disposal path. There would be additional risk associated with both the indefinite storage and whatever processing may ultimately be determined to be necessary to prepare the material for ultimate disposition. There would also be risks from potential degradation of storage facilities and containers. Accordingly, in consideration of the long term risks that would be associated with implementation of the No Action alternative, DOE considers that all of the action alternatives are environmentally preferable over the No Action alternative.

The processing technologies that DOE has decided to implement are as follows for each material category addressed in this Record of Decision:

VII.A. Sand, Slag and Crucible Residues

VII.A.1. Selected Alternative

DOE has decided to preprocess the sand, slag and crucible residues at the Rocky Flats site and then transport them to the Savannah River Site for stabilization in the F-Canyon. The Purex process will be used to chemically separate the plutonium from the other residue constituents (i.e., Alternative 3). The separated plutonium will then be placed in storage at the Savannah River Site until it is dispositioned as determined by DOE after completion of the Surplus Plutonium Disposition Environmental Impact Statement (DOE/EIS–0283, under preparation, draft issued in July 1998).

VII.A.2. Basis for the Decision

Transporting the residues and processing them at the Savannah River Site was chosen as the technology to be implemented for this material category because it provides the most expeditious approach for stabilization of these residues. The Savannah River Site is now processing in the canyons sand, slag, and crucible residues that were produced at the Savannah River Site. Consideration of alternative processing technologies that would result in sending the Rocky Flats sand, slag and crucible residues directly to WIPP for disposal as transuranic waste revealed that significant further characterization of the material would be required to verify its suitability for disposal in WIPP, due to the presence of reactive calcium in the residues. Resolution of the issues raised by the reactive calcium would require (1) Further testing to demonstrate that no more than 5 percent of the residues contain enough reactive calcium to be pyrophoric, (2) approval by the Nuclear Regulatory Commission of a change to the WIPP TRUCON Shipping Code to change the allowable passivated calcium metal content from a trace (i.e., less than 1 percent) to a minor (i.e., 1 to 10 percent) constituent, and (3) obtaining WIPP certification of the material. This strategy, if successful, would take about one year longer to implement than processing at the Savannah River Site. Therefore, in conformance with Defense Nuclear Facilities Safety Board Recommendation 94–1 concerning expeditious stabilization of plutonium bearing materials to resolve health and safety concerns, DOE has decided to stabilize the sand, slag and crucible residues as quickly as possible by transporting them to the Savannah River Site for processing, even though this technology would cost $25 Million more than the more technically uncertain calcination/vitrification technology (see Section 4.17.7 of the Final EIS).

The Final EIS specified that any plutonium separated under any alternative analyzed in this EIS would be disposed of using the immobilization process. (Final EIS, page 2–2.) Upon further review, DOE has decided for the following reasons not to make a determination at this time on the disposition of any plutonium separated under the decisions announced in this ROD. In December 1996, DOE published the Storage and Disposition of Weapons-Usable Fissile Materials Final Programmatic Environmental Impact Statement (DOE/EIS–0229, the PEIS). That PEIS analyzed, among other things, the potential environmental consequences of alternative strategies for the long term storage and disposition of weapons-usable plutonium that has been or may be declared surplus to national security needs. DOE announced the Record of Decision for that PEIS in January 1997, which outlines an approach to plutonium disposition that would allow for both the immobilization of some of the surplus plutonium, and the use of some of the surplus plutonium as MOX fuel in existing domestic, commercial reactors (62 FR 3014).

As a follow-on analysis to that PEIS, DOE is in the process of preparing the Surplus Plutonium Disposition Environmental Impact Statement (DOE/EIS–0283, draft issued July 1998), which addresses the extent to which each of the two surplus plutonium disposition approaches (immobilization and MOX) would be implemented. Thus, at the present time, DOE has not decided the extent to which either the immobilization or the MOX approach to surplus plutonium disposition would be implemented. Moreover, as noted above, even after completion of the Surplus Plutonium Disposition Environmental Impact Statement, DOE does not expect to make decisions about which, if any, of the surplus plutonium would be used in MOX fuel until shortly before any such material would be transferred to a MOX fabrication facility. Thus, DOE believes at this time it is appropriate not to make any commitment as to which

approach would be implemented for the disposition of any plutonium to be separated under the decisions announced in this Record of Decision.

The plutonium declared to be surplus includes any weapons-useable plutonium resulting from the stabilization (for health and safety reasons) of the Rocky Flats plutonium residues and scrub alloy discussed under this Record of Decision. As a result, weapons-useable plutonium that is separated under actions from this Record of Decision is a candidate for both of the surplus weapons-useable plutonium disposition alternatives that have been identified by DOE (i.e., MOX and immobilization).

VII. B. Direct Oxide Reduction Salt Residues (low plutonium concentration)

VII. B. 1. Selected Alternative

DOE has decided to repackage the low plutonium concentration direct oxide reduction salt residues to prepare them for disposal in WIPP (Alternative 4). A portion of these residues may be pyro-oxidized, if this additional processing is found to be necessary during examination of the residues prior to repackaging. During the repackaging operation, the residues may be mixed with other, lower plutonium concentration residues from the same material category, or with an inert material.

VII. B. 2. Basis for the Decision

Repackaging at Rocky Flats was chosen as the technology to be implemented for this material category because it is the simplest and least costly of all processing technologies considered, and the one that will allow DOE to complete processing and ready the material for disposal most expeditiously. This approach will also allow use of resources that would otherwise be required to manage these residues to speed up other activities required to close the site.

VII. C. Combustible Residues

VII. C. 1. Selected Alternative

DOE has decided to stabilize, if necessary, and repackage the combustible residues to prepare them for disposal in WIPP (Alternative 4). Aqueous-contaminated combustible residues will be neutralized and dried, with any fines stabilized by cementation or repackaging. Organic contaminated combustible residues will be stabilized with a combination of washing, low-temperature thermal desorption, stabilization of plutonium fines, mixing with an absorbent material, and cementation. Dry combustible residues will just be repackaged because they are in a form that does not require stabilization. During the repackaging operation, the residues may be mixed with other, lower plutonium concentration residues from the same material category, or with an inert material.

VII. C. 2. Basis for the Decision

Stabilizing and repackaging at Rocky Flats was chosen as the technology to be implemented for this material category because it is the simplest of all processing technologies considered and the one that will allow the site to complete processing and ready the material for disposal most expeditiously. This approach will also allow use of the resources that would otherwise be required to manage these residues to speed up completion of other activities required to close the site. Finally, selection of stabilization and repackaging avoids the technical uncertainty (discussed in Section 4.17.7 of the Final EIS) that would be associated with implementation of the $10 Million less expensive blend down alternative.

VII. D. Plutonium Fluoride Residues

VII. D. 1. Selected Alternative

DOE has decided to transport the plutonium fluoride residues to the Savannah River Site and use the F-Canyon to stabilize the material (i.e., Alternative 3). The separated plutonium will then be placed in storage at the Savannah River Site until it is dispositioned as determined by DOE after completion of the Surplus Plutonium Disposition Environmental Impact Statement (under preparation—see Section VII. A. 2. above). No decision concerning the final disposition of any plutonium separated from the plutonium fluoride residues, however, is expected in the near future, and not until after completion of the plutonium separation operations at the Savannah River Site. Even after completion of the Surplus Plutonium Deposition Environmental Impact Statement, currently scheduled for early 1999, DOE expects to make decisions about which, if any, of the plutonium would be used in MOX fuel shortly before the material would be transferred to a MOX fabrication facility. As a result, DOE does not expect to know soon whether the separated plutonium will be used in MOX fuel and will keep it in storage pending such a decision.

VII. D. 2. Basis for the Decision

Purex plutonium separation at the Savannah River Site was chosen as the technology to be implemented for this material category because it poses less technical risk and will cost less than would establishment of a new acid dissolution/plutonium oxide recovery capability at Rocky Flats. Blend down, while technically feasible, would result in a very large increase in the amount of transuranic waste requiring disposal, and would result in higher costs.

VII. E. Ful Flo Filter Media Residues

VII. E. 1. Selected Alternative

DOE has decided to shred and blend down the Ful Flo filter media residues with an inert material to below the safeguards termination limits, and to repackage the product for disposal in WIPP (Alternative 2).

VII. E. 2. Basis for the Decision

Shred and blend down at Rocky Flats was chosen as the technology to be implemented for this material category because the other alternatives are aqueous processes that would be more difficult and more costly to implement. The increase in the amount of material to be disposed of after blend down is much less of a concern because of the relatively small amount of material in this category and the small amount of plutonium it contains (about 800 kg of residues containing about 20 kg of plutonium).

VII. F. Glass Residues

VII. F. 1. Selected Alternative

DOE has decided to stabilize (i.e., neutralize and dry) and repackage the glass residues to prepare them for disposal in WIPP (Alternative 4). During the repackaging operation, the glass residues may be mixed with other, lower plutonium concentration residues from the same material category, or with an inert material.

VII. F. 2. Basis for the Decision

Stabilizing and repackaging at Rocky Flats was chosen as the technology to be implemented for this material category because it is the simplest and least costly of all processing technologies considered, and the one that will allow the site to complete processing and ready the material for disposal most expeditiously. This approach will also allow use of the resources that would otherwise be required to manage these residues to speed up other activities required to close the site.

VII. G. Graphite Residues

VII. G. 1. Selected Alternative

DOE has decided to repackage the graphite residues to prepare them for disposal in WIPP (Alternative 4). During

the repackaging operation, these residues may be mixed with other, lower plutonium concentration residues from the same material category, or with an inert material.

VII. G. 2. Basis for the Decision

Repackaging at Rocky Flats was chosen as the preferred processing technology for this material category because it is the simplest and least costly of all processing technologies considered, and the one that will allow the site to complete processing and ready the material for disposal most expeditiously and at least cost. This approach will also allow use of the resources that would otherwise be required to manage these residues to speed up other activities required to close the site.

VII. H. Inorganic (Metal and Other) Residues

VII. H. 1. Selected Alternative

DOE has decided to repackage the inorganic (metal and other) residues to prepare them for disposal in WIPP (Alternative 4). During the repackaging operation, these residues may be mixed with other, lower plutonium concentration residues from the same material category, or with an inert material.

VII. H. 2. Basis for the Decision

Repackaging at Rocky Flats was chosen as the preferred processing technology for this material category because it is the simplest and least costly of all processing technologies considered, and the one that will allow the site to complete processing and ready the material for disposal most expeditiously, and at the least cost. This approach will also allow use of the resources that would otherwise be required to manage these residues to speed up other activities required to close the site.

VII. I. Scrub Alloy

VII. I. 1. Selected Alternative

DOE has decided to package the scrub alloy, transport it to the Savannah River Site and use the F-Canyon to stabilize the material (i.e., Alternative 3). The separated plutonium will then be placed in storage at the Savannah River Site until it is dispositioned as determined by DOE after completion of the Surplus Plutonium Disposition Environmental Impact Statement (under preparation—see Section VII. A. 3. above).

VII. I. 2. Basis for the Decision

Purex plutonium separation at the Savannah River Site was chosen as the preferred processing technology for this material category because this alternative will allow the most expeditious and least expensive removal of the scrub alloy from Rocky Flats. Furthermore, scrub alloy has traditionally been processed at the Savannah River Site using the Purex technology, and it is a well understood operation that has been demonstrated to work. By comparison, the calcine and vitrify technology (Alternative 2) would involve more technical risk because vitrification operations have never been conducted at Rocky Flats on a production basis.

VIII. Use of All Practical Means to Avoid or Minimize Harm

Implementation of this decision will result in low environmental and health impacts. However, DOE will take the following steps to avoid or minimize harm wherever possible:

VIII. A.

DOE will use current safety and health programs and practices to reduce impacts by maintaining worker radiation exposure as low as reasonably achievable and by meeting appropriate waste minimization and pollution prevention objectives.

VIII. B.

DOE will provide a level of health and safety for DOE transportation operations that is equivalent to or greater than that provided by compliance with all applicable Federal, State, Tribal, and local regulations. In addition to meeting applicable shipping containment and confinement requirements of the Nuclear Regulatory Commission regulations on Packaging and Transportation of Radioactive Material (10 CFR Part 71) and Department of Transportation regulations at 49 CFR, all packaging for transportation of the material covered by this Record of Decision will also be certified by DOE. DOE also provides Federal, State, Tribal and local authorities with access to training and technical assistance necessary to allow them to safely, efficiently, and effectively respond to any incident involving transportation of the materials covered by this Record of Decision.

Items A and B above will be accomplished under existing business practices in the normal course of implementing this Record of Decision.

VIX. Conclusion

DOE has decided to implement the Preferred Alternative specified in the Final EIS to prepare the plutonium residue categories and scrub alloy specified in Sections I and VII. of this Record of Decision for disposal or other disposition. This decision is effective upon being made public, in accordance with DOE's NEPA implementation regulations (10 CFR 1021.315). The goals of this decision are to prepare the plutonium residues and scrub alloy for disposal or other disposition in a manner that addresses immediate health and safety concerns associated with storage of the materials and to support Rocky Flats' closure. Disposal or other disposition of these materials will also eliminate health and safety concerns and costs that would be associated with indefinite storage of these materials.

Issued in Washington, D.C. this 25th day of November, 1998.

James M. Owendoff,

Acting Assistant Secretary for Environmental Management.

[FR Doc. 98–32011 Filed 11–30–98; 8:45 am]

BILLING CODE 6450–01–P

DEPARTMENT OF ENERGY

Office of Energy Efficiency and Renewable Energy

Energy Conservation Program for Consumer Products: Petition for Waiver of Sanyo Electric Co., Ltd., From the Department of Energy Central Air Conditioner and Central Air Conditioning Heat Pump Test Procedure. (Case No. CAC–009)

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Notice.

SUMMARY: Today's notice publishes a ''Petition for Waiver'' from Sanyo. Sanyo's Petition for Waiver requests the Department of Energy (Department or DOE) to grant relief from the DOE heat pump test procedure for the Sanyo lines of gas source heat pumps, which operate in both the cooling and heating modes. Sanyo requests that the heating mode tests be waived for its gas burner-assisted heat pumps because the DOE procedure has no provision for testing gas burner-assisted heat pumps. The Department is soliciting comments, data, and information respecting the Petition for Waiver.

DATES: DOE will accept comments, data, and information not later than December 31, 1998.

ADDRESSES: Written comments and statements shall be sent to: U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Case No. CAC–009, Mail Stop EE–43, Room