

Why did the initial EIS [refers to the scoping process] not explore or identify all possible alternatives for using the Fuels and Materials Examination Facility (FMEF)? Alternatives were added later, why not from the beginning?

1

DOE should take advantage of the existing complex infrastructure by considering the following combination as an alternative option/ alternative: locate pit disassembly and conversion at Pantex; locate MOX fuel fabrication mission at FMEF; locate plutonium conversion and immobilization at the Savannah River Site (SRS).

2

Why does the preferred alternative consider infrastructure and the workforce if the MOX facility is being privatized? Optics are that the EIS is biased toward SRS.

3

RICHLD-1

General SPD EIS and NEPA Process

The SPD Draft EIS evaluated all alternatives for FMEF at Hanford considered reasonable by DOE. FMEF was identified as a candidate location in the NOI for the SPD EIS, which starts the scoping process. The possible mix of activities that might be located in FMEF was refined during the scoping process. In fact, the number of alternatives considering FMEF was increased during scoping, even though collocation of all three proposed surplus plutonium disposition facilities in FMEF was eliminated because DOE concluded that the available space in FMEF would not be sufficient to accommodate the efficient operation and maintenance of all three facilities. Analyses do not begin until completion of the scoping process, so these alternatives were evaluated from the earliest possible time, along with all the other SPD EIS alternatives.

RICHLD-2

Alternatives

DOE acknowledges the commentor's suggestion to locate the proposed surplus plutonium disposition facilities at three different sites. As discussed in Section 2.3.1 of the SPD Draft EIS, the range of reasonable alternatives analyzed was developed using equally weighted screening criteria. Over 64 options were evaluated, yielding a range of 23 reasonable alternatives that met all the criteria. Options that involved siting the proposed surplus plutonium disposition facilities at three different sites were eliminated because the goals of minimizing worker and public exposure to radiation, minimizing proliferation concerns associated with transportation, and reducing infrastructure costs would not be met. Alternatives considered reasonable were further reduced to 15 that are analyzed in the SPD Final EIS because the 8 alternatives that included using portions of Building 221-F at SRS for immobilization were eliminated based on the increased size requirements.

RICHLD-3

Alternatives

DOE's proposed action for surplus plutonium disposition is not a privatization effort, although the acquisition of MOX fuel fabrication and irradiation services has some similarities to DOE's privatization initiative. While the necessary infrastructure may be available in a number of places, only certain DOE sites and other facilities have the security infrastructure and radiological

Environmental cleanup and plutonium conversion missions are not exclusive of each other; one can work effectively with the other [at Hanford]. | 4

What are the increased costs associated with three separate sites? | 5

monitoring services and systems in place to protect special nuclear materials. Although SRS has been identified as the preferred site for the MOX facility, this is only DOE's preference; it is not a decision. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPDEIS ROD.

RICHLD-4

Alternatives

DOE acknowledges the commentor's view that environmental cleanup and plutonium conversion missions can work effectively together. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

RICHLD-5

Cost

Section 2.3.1 explains the development of the facility siting alternatives that were analyzed in this SPD EIS. The equally weighted criteria used were worker and public exposure to radiation, proliferation concerns due to transportation of materials, and infrastructure cost. These criteria would not be met if DOE were to build one facility at each of three candidate sites.

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

Unions are concerned that DOE has not adequately considered costs and the potential impacts presented by overextending limited funds.

6

DOE is not including the total cost as a consideration in selecting its preferred alternative. The U.S. Nuclear Regulatory Commission (NRC) said cost benefits should be prepared. This is not in keeping with the spirit of the law in applying NEPA. I believe the EIS is incomplete.

7

<http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

RICHLD-6

Cost

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

RICHLD-7

Cost

DOE has prepared this SPD EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively), which do not require that a cost benefit analysis be performed. The primary objective of the EIS is a comprehensive description of proposed surplus plutonium disposition actions and alternatives and their potential environmental impacts.

Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. A separate cost report, *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium*

Benton County supports the plutonium disposition process and MOX mission, but feels the EIS has not adequately addressed the cost issue; cost savings are more attractive when viewing the overall DOE funding picture.

8

The national security threat needs further discussion [*this refers to the presentation*]. Focusing on reducing the national security threat posed by surplus plutonium alone is too restrictive to be the program's primary goal.

9

Disposition (DOE/MD-0009, July 1998), which analyzes the site-specific cost estimates for each alternative, was made available around the same time as the SPD Draft EIS. This report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

RICHLD-8

Cost

DOE acknowledges the commentator's support for the surplus plutonium disposition program at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

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

RICHLD-9

DOE Policy

DOE acknowledges the commentator's concerns regarding national security. The goal of the surplus plutonium disposition program is to reduce the threat of nuclear weapons proliferation worldwide by conducting disposition of surplus plutonium in the United States in an environmentally safe and timely

All communities will be working to ensure DOE that they are the best location for performing the MOX and immobilization mission. Hanford's ability to manufacture and produce MOX fuel and to meet nonproliferation concerns is not reflected in the current SPD EIS.

10

DOE has not adequately considered the budget and technical realities of Hanford's existing facilities in favor of building new facilities down south.

11

The Hanford workforce is already at a critical low; we can't perform work now when two people are on vacation. Further workforce reductions place the site's ability to perform necessary work in jeopardy. Hanford's workforce is well trained and well versed in the type of work required by the MOX mission. Hanford's workforce is the most efficient workforce in the DOE system and is capable and ready to work on the MOX fuel program. A *Scientific American* study shows a 16 percent productivity level above baseline by using union workers. Nonunion is 11 percent below. Moving to SRS will reflect that level of reduction in efficiency.

12

manner. By working in parallel with Russia to reduce stockpiles of excess plutonium, the United States can reduce the chance that weapons-usable nuclear material could fall into the hands of terrorists or rogue states and help ensure that nuclear arms reductions will never be reversed.

RICHLD-10

Alternatives

DOE acknowledges the commentor's support for siting the immobilization and MOX facilities at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

RICHLD-11

Alternatives

DOE acknowledges the commentor's support for siting the proposed surplus plutonium disposition facilities at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

RICHLD-12

Alternatives

DOE acknowledges the commentor's support for siting the MOX facility at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

Hanford’s workforce is recognized by industry leaders for their specialized abilities and skills. Hanford workers can establish relationships with any employers who come there. 13

FMEF can handle multiple functions/missions effectively. 14

Have there been other analyses conducted that consider pit disassembly and conversion at Pantex with a cost analysis for transporting materials to either SRS or Hanford? The transportation argument falls short. SRS biases are very apparent in the technical documents. Analyses highlighting benefits at other sites were not conducted at Hanford. 15

RICHLD-13

Alternatives

DOE acknowledges the commentor’s support of the Hanford workforce. DOE believes that Hanford’s efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

RICHLD-14

Alternatives

DOE acknowledges the commentor’s support for using FMEF at Hanford. DOE believes that Hanford’s efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

RICHLD-15

General SPD EIS and NEPA Process

For a better understanding of cost and transportation issues, consult the following reports: *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998), the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), and *Fissile Materials Disposition Program SST/SGT Transportation Estimation* (SAND98-8244, June 1998). These documents are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

DOE has prepared this SPD EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively). The primary objective of the EIS is a comprehensive description of proposed surplus plutonium disposition actions and alternatives and their potential environmental impacts. DOE has analyzed each environmental resource area in a consistent manner across all the alternatives to allow for a fair comparison among the alternatives and among the candidate sites for surplus plutonium disposition facilities.

I am involved with four different organizations monitoring the program's progress and have made several trips to Washington, D.C., to discuss the issue with various government officials. The barriers and inefficient communication channels that exist at DOE Headquarters block effective cross-fertilization. The communication process has failed, and the message is not getting through.

16

The decision is not about money, it's about political expediency. I wish the decision was based more on the health and safety of the American people.

17

There is a concern that the Portland meeting, attended primarily by Hanford opponents, will disrupt and distort DOE's perception of Hanford's willingness and ability to do the job. The Portland meeting stacks the deck against Hanford. There are no other places where meetings are being held 200 miles from the site.

18

RICHLD-16

DOE Policy

DOE acknowledges the commentor's concern regarding effective communication channels at DOE Headquarters. Since its creation, MD has supported a vigorous public participation policy. This policy is facilitated by the availability of a substantial amount of information and the implementation of numerous communication mechanisms (e.g., hearings, workshops, toll-free telephone and fax line, Web site).

DOE gave equal consideration to all comments received during the comment period on the SPD Draft EIS and incorporated changes, as appropriate, in this SPD EIS. Each environmental document is prepared and reviewed by qualified professionals and is subjected to independent review within DOE to ensure that all actions are properly coordinated.

RICHLD-17

DOE Policy

DOE acknowledges the commentor's concern regarding the criteria used in the decisionmaking process. The health and safety of both workers and the public is a priority of the surplus plutonium disposition program. DOE would comply with all pertinent Federal, State, and local laws and regulations and would meet all required standards. Chapter 5 summarizes the pertinent environmental regulations and permits required by the disposition program. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

RICHLD-18

Alternatives

DOE acknowledges local support for new missions at Hanford and the commentor's concern that other areas in Washington and the State of Oregon do not support new missions. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

DOE needs to consider the technical knowledge of the people when going to Portland. 19

I dislike DOE responding to each comment or remark. I am familiar with the opinions from the officials, and it takes time away from the public comments. 20

Are comments being received as part of a public meeting or a public hearing? Will the testimony be recorded? DOE needs to clearly state at the beginning of the meeting what type of format is in effect. 21

I have been a citizen of Richland for 40 years and am a retired member of the American Nuclear Society. I agree with other statements that there is a bias in the decision process, as well as other comments offered by previous speakers. I want to see an advance agenda prior to the meetings taking place. 22

Dividing up the EIS into environmental impact topics is faulty. 23

RICHLD-19 **General SPD EIS and NEPA Process**

DOE acknowledges the commentor's concern about the hearing in Portland.

RICHLD-20 **General SPD EIS and NEPA Process**

In the opening remarks, the facilitator announced that DOE was using an interactive meeting format so that members of the public could obtain immediate answers to their questions and provide DOE with comments that truly represented their concerns. Written comments were also accepted at these hearings from those members of the public who preferred not to speak. The hearings continued until all participants desiring to speak had the opportunity.

RICHLD-21 **General SPD EIS and NEPA Process**

The format of SPD EIS hearings was described in a fact sheet presented to participants at the start of each hearing and was announced by the facilitator who conducted the hearing. In opening remarks, the facilitator explained that all comments were to be recorded by trained notetakers and that an electronic recording was to be made of the hearing as a backup.

RICHLD-22 **General SPD EIS and NEPA Process**

DOE does not have a bias against placing the proposed plutonium disposition facilities at Hanford. The preferred alternative was chosen based on the best information and analyses available to allow for a fair comparison among the candidate sites for the proposed surplus plutonium disposition facilities. In the case of Hanford, DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

RICHLD-23 **General SPD EIS and NEPA Process**

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

From my review of records from past meetings, I feel that DOE is proceeding on a predetermined path. If you don't listen to us, do not come here and waste our time and yours.

24

The SPD EIS should be withdrawn, revised, and reissued from a balanced perspective.

25

intended as a source of environmental information for the DOE decisionmakers and the public. The primary objective of the EIS is a comprehensive description of proposed surplus plutonium disposition actions and alternatives and their potential environmental impacts. As with any EIS, technical information is included to the extent that it is required to understand those actions and impacts. DOE has analyzed each environmental resource area in a consistent manner across all the alternatives to allow for a fair comparison among the alternatives and among the candidate sites for surplus plutonium disposition facilities.

RICHLD-24

General SPD EIS and NEPA Process

The preferred alternative was chosen based on the best information and analyses available to allow for a fair comparison among the candidate sites for the proposed surplus plutonium disposition facilities. In the case of Hanford, DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

Since its creation, MD has supported a vigorous public participation policy. This policy is facilitated by the availability of a substantial amount of information and the implementation of numerous communication mechanisms (e.g., hearings, workshops, toll-free telephone and fax line, Web site).

DOE gave equal consideration to all comments received during the comment period regardless of how they were submitted. Further, the hearings continued until all participants desiring to speak had the opportunity to do so.

RICHLD-25

General SPD EIS and NEPA Process

DOE has prepared this SPD EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementation regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively). DOE has analyzed each environmental resource area in a consistent manner across

Why was privatization not discussed during the presentation? Has privatization been excluded from further consideration?	26
I am skeptical about relying on the consortium contract; doesn't the handling of special nuclear material fall under NRC regulation?	27
The cleanup function [<i>resulting from plutonium disposition</i>] is left out of the EIS.	28
There is a total of 12 DOE sites. How much plutonium is at SRS? The EIS should look at where the plutonium is.	29

all the alternatives to allow for a fair comparison among the alternatives and among the candidate sites for surplus plutonium disposition facilities.

RICHLD-26

DOE Policy

DOE conducted a procurement process to acquire MOX fuel fabrication and irradiation services. The selected team, DCS, would design, request a license, construct, operate, and deactivate the MOX facility as well as irradiate the MOX fuel in domestic, commercial reactors. However, these activities are subject to the completion of the NEPA process. Section 4.28 was revised to discuss the procurement process as well as the potential environmental impacts of the reactors that would use the MOX fuel. Regarding pit disassembly and conversion and immobilization, neither process is sufficiently defined or understood to enable the Government to privatize these activities. Plutonium pits of various designs would be disassembled and converted to oxide. The multiplicity of designs may present uncharacterized scopes of work. There are also uncertainties associated with the nature and forms of materials to be immobilized.

RICHLD-27

NRC Licensing

NRC is responsible for regulating special nuclear material in the private sector; DOE, for the safe handling and regulation of its own special nuclear material. Under the MOX contract, the possession and use of plutonium by both the MOX facility and the commercial reactors selected to use the MOX fuel would be regulated by NRC.

RICHLD-28

General SPD EIS and NEPA Process

Deactivation and stabilization of the surplus plutonium disposition facilities on completion of their mission are discussed in Section 4.31. Options for D&D would be assessed at the end of the useful life of the facilities. The assessments would include engineering evaluations, environmental studies, and NEPA review of various courses of action.

RICHLD-29

Transportation

The amount of surplus plutonium at each DOE site is shown in Chapter 1 of Volume I. These amounts and locations are the starting points for determining

Does constructing a new MOX fuel fabrication facility at SRS adjacent to the Actinide Packaging and Storage Facility (APSF) mean that most of the material will be immobilized in a ceramic versus a glass form and not be used for fuel? | 30

Is APSF a major factor in determining the preferred alternative? | 31

the potential transportation impacts for each of the alternatives analyzed in this SPD EIS. Should DOE decide to implement one of these alternatives, all of the surplus plutonium at each of these sites would eventually be sent to a potential geologic repository. None of the alternatives involve moving Hanford materials to Pantex.

RICHLD-30 **MOX Approach**

A MOX facility would only be constructed to convert the surplus plutonium into MOX fuel. Under the preferred alternative, the immobilization and MOX facilities would be sited next to APSF, if built, at SRS, and a hybrid approach to surplus plutonium disposition would be implemented. MOX fuel would be made from all but the approximately 17 t (19 tons) of surplus plutonium that is unsuitable for such use because of the complexity, timing, and cost that would be involved in purifying the material. All the plutonium unsuitable for use as MOX fuel would be immobilized, preferably in the ceramic rather than the glass form.

RICHLD-31 **Alternatives**

APSF was a factor, but not a major consideration, in selection of the preferred alternative. As discussed in the revised Section 1.6, SRS is preferred for the proposed surplus plutonium disposition facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure. Section 2.4 of the SPD Draft EIS discusses the alternatives that considered locating pit conversion or immobilization facilities at SRS and using APSF as the site of a receiving facility for SST/SGT shipments, nondestructive assay facilities, and storage vaults for plutonium dioxide and metal. However, DOE has recently decided to delay the construction of APSF, so this SPD EIS was revised to exclude any benefit of APSF.

The location of DWPF was the major factor in the preference for SRS as the site of the immobilization facility. DOE is presently considering a replacement process for the in-tank precipitation (ITP) process at SRS. The ITP process was intended to separate soluble high-activity radionuclides (i.e., cesium, strontium, uranium, and plutonium) from liquid HLW before vitrifying the high-activity fraction of the waste in DWPF. The ITP process as presently configured cannot achieve production goals and safety requirements for

Could the Fast Flux Test Facility (FFTF) be used? The draft document evaluated FFTF as the sole venue for surplus plutonium disposition. If FFTF is used to produce tritium, plutonium could not be disposed of in the indicated timeframe. Previous reports said that FFTF could dispose of plutonium in 19 years.

32

The SRS decision for MOX fuel fabrication is based on administrative issues. Is it logical to site MOX at SRS considering the site has no previous MOX experience?

33

There are no other alternatives that also ship oxides to Hanford and the Idaho National Engineering and Environmental Laboratory (INEEL). Alternatives also did not consider a MOX-only function at FMEF. All alternatives consider the cost of creating a MOX facility with one new stand-alone facility.

34

processing HLW. Three alternative processes are being evaluated by DOE: ion exchange, small tank precipitation, and direct grout. DOE's preferred immobilization technology (can-in-canister) and immobilization site (SRS) are dependent upon DWPF providing vitrified HLW with sufficient radioactivity. DOE is confident that the technical solution will be available at SRS by using radioactive cesium from the ion exchange or small tank precipitation process. A supplemental EIS (DOE/EIS-0082-S2) on the operation of DWPF and associated ITP alternatives is being prepared.

RICHLD-32

MOX Approach

As discussed in Section 1.7.4, Appendix D was deleted because none of the proposals to restart FFTF currently consider the use of surplus plutonium as a fuel source. In December 1998, the Secretary of Energy decided that FFTF would not play a role in producing tritium.

RICHLD-33

Alternatives

The selection of SRS as the site of the MOX facility was not an administrative issue. As indicated in Section 1.6, SRS is preferred for the MOX facility because this activity complements existing missions and takes advantage of existing infrastructure and staff expertise. While SRS does not possess previous MOX experience, it possesses, like Hanford, a wealth of plutonium processing experience. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input. DOE will announce its decisions regarding facility siting and approach to surplus plutonium disposition in the SPD EIS ROD.

RICHLD-34

Alternatives

Section 2.3.1 explains the development of the facility siting alternatives that were analyzed in this SPD EIS. A range of 15 reasonable alternatives remained after evaluating over 64 options against the three screening criteria, which are analyzed in the SPD Final EIS. The equally weighted criteria used were worker and public exposure to radiation, proliferation concerns due to transportation of materials, and infrastructure cost. The resulting reasonable facility and building combinations did not include those options involving shipments of oxides to Hanford and INEEL, or a MOX-only function in FMEF at Hanford because those options do not meet all the screening criteria.

Converting pits and other plutonium sources into MOX fuel is a wise use of resources; why not use all, or as much as possible, in fuel? Why immobilize any plutonium?	35
Who will operate the MOX facilities?	36
Wasn't MOX eliminated as a commercial product a number of years ago?	37

RICHLD-35

Alternatives

All of the surplus plutonium would not be made into MOX fuel because some of it is not suitable for fabrication due to the complexity, timing, and cost that would be involved in purifying those plutonium materials to make them suitable for use in MOX fuel. As described in this SPD EIS, DOE has identified 17 t (19 tons) of impure plutonium. Therefore, fabricating all 50 t (55 tons) of surplus plutonium into MOX fuel is not considered a reasonable alternative at this time. In order to simplify the manufacture of MOX fuel and help produce a consistent product, DOE considers it advantageous to use a feed stream consisting of only plutonium from clean metal, pits, and clean oxide. Sending the remaining materials to the immobilization facility avoids extensive characterization and purification of materials. While it is possible to use impure plutonium, the incremental burden to do so is unnecessary and complicates the MOX approach.

RICHLD-36

MOX Approach

DOE conducted a procurement process to acquire MOX fuel fabrication and irradiation services. As discussed in the revised Section 4.28, it would be the selected team, DCS' responsibility to design, request a license, construct, operate, and deactivate the MOX facility, and to irradiate the MOX fuel in a domestic, commercial reactor. The MOX facility would be subject to DOE and NRC safety requirements.

RICHLD-37

MOX Approach

R&D efforts involving MOX fuel were halted in the 1970s when fuel reprocessing and breeder reactor programs were eliminated. However, these were political decisions based on proliferation concerns, and did not reflect the viability of the technologies. The use of MOX fuel as an approach to surplus plutonium disposition does not run counter to this position. Consistent with the U.S. policy of discouraging the civilian use of plutonium, a MOX facility would be built and operated subject to the following strict conditions: construction would take place at a secure DOE site, it would be owned by the U.S. Government, operations would be limited exclusively to the disposition of surplus plutonium, and the MOX facility would be shut down at the completion of the surplus plutonium disposition program.

Page 27 of the SPD Draft EIS Summary indicates that DOE plans to irradiate MOX fuel only until it reaches the Spent Fuel Standard. Some commercial companies may resist running partial rather than full fuel cycles. | 38

Most utilities will argue that receiving plutonium for free alone is insufficient compensation for conducting the MOX program; utilities will want additional compensation (e.g., domestic reactors requiring highly enriched uranium that the utility had to buy). | 39

Is this material [*MOX fuel*] going to go to foreign reactors? | 40

RICHLD-38**MOX Approach**

As discussed in Chapter 2 of Volume I, MOX fuel would be left in the reactor for a full cycle. Under the current reactor options, there are no plans to leave it there only long enough to meet the Spent Fuel Standard. The statement in the Draft Summary refers to an analysis from the *Storage and Disposition PEIS* that assumed MOX fuel would be removed from the reactor as soon as it had been irradiated sufficiently to meet the Spent Fuel Standard. The point being made in that PEIS was that even if this were the plan, there would still be enough space at the reactor sites to store the spent fuel until it could be sent to a potential geologic repository.

RICHLD-39**MOX Approach**

DOE conducted a procurement process to acquire MOX fuel fabrication and irradiation services. The MOX facility would produce nuclear fuel that would displace LEU fuel that utilities would have otherwise purchased. If the effective value of the MOX fuel exceeds the cost of the LEU fuel that it displaced, then the contract provides that money would be paid back to the U.S. Government by DCS based on a formula included in the DCS contract. Furthermore, to ensure that taxpayers would not underwrite what might be uneconomical electricity-generating costs, DOE specifically excluded from the contract reimbursement of any costs for continuing operation of any plant unless those costs are solely and exclusively related to MOX fuel irradiation.

RICHLD-40**MOX Approach**

This SPD EIS addresses the use of MOX fuel only in domestic, commercial reactors. In the SPD Draft EIS, DOE retained the option to use some of the surplus plutonium as MOX fuel in CANDU reactors, which would have only been undertaken in the event that a multilateral agreement were negotiated among Russia, Canada, and the United States. Since the Draft was issued, DOE determined that adequate reactor capacity is available in the United States to disposition the portion of the U.S. surplus plutonium that is suitable for MOX fuel and, therefore, while still reserving the CANDU option, DOE is no longer actively pursuing it. However, DOE, in cooperation with Canada and Russia, proposes to participate in a test and demonstration program using U.S. and Russian MOX fuel in a Canadian test reactor. A separate environmental review, the *Environmental Assessment for the Parallex Project*

Have any commercial reactors been identified by DOE? MOX fuel can be irradiated in a commercial domestic reactor (Gore/Korenko meeting).	41
Will the provider conduct the analysis for the core reactor?	42
Has DOE considered the use of existing commercial facilities such as the Siemens plant for manufacturing MOX fuel?	43

Fuel Manufacture and Shipment (DOE/EA-1216, January 1999), analyzes the fabrication and proposed shipment of MOX fuel rods for research and development activities involving the use of limited amounts of U.S. MOX fuel in a Canadian test reactor. A FONSI was signed on August 13, 1999. Both of these documents can be viewed on the MD Web site at <http://www.doe-md.com>. If a decision is made to dispose of Russian surplus plutonium in Canadian CANDU reactors in order to augment Russia's disposition capability, shipments of the Russian MOX fuel would take place directly between Russia and Canada.

RICHLD-41 **MOXRFP**

DOE conducted a procurement process to acquire MOX fuel fabrication and irradiation services. The selected team, DCS, would design, request a license, construct, operate, and deactivate the MOX facility as well as irradiate the MOX fuel in domestic, commercial reactors. However, these activities are subject to the completion of the NEPA process. As a result of its procurement process, DOE identified the reactors proposed to irradiate MOX fuel, Catawba, McGuire, and North Anna, as part of the proposed action in this SPD EIS. Section 4.28 was revised to discuss the potential environmental impacts of operating those reactors.

RICHLD-42 **MOXRFP**

One of the inherent responsibilities of the reactor licensee is assurance that the fuel inserted into its reactors meets all licensing requirements. This responsibility is not isolable from the reactor license. Many utilities choose to subcontract core analysis to fuel vendors, but some perform their own analyses; the decision, whether LEU or MOX fuel is involved, is the utility's alone to make.

RICHLD-43 **MOXRFP**

Consistent with the U.S. policy of discouraging the civilian use of plutonium, a MOX facility would be built and operated subject to the following strict conditions: construction would take place at a secure DOE site, it would be owned by the U.S. Government, operations would be limited exclusively to the disposition of surplus plutonium, and the MOX facility would be shut down at the completion of the surplus plutonium disposition program. For

Time is critical for reducing weapons materials; using existing facilities [rather than taking time to build new ones] will reduce the timeframe for dispositioning this material. 44

Has DOE considered doing a pilot scale of plutonium conversion? Should DOE test 1-1/2 to 2 tons as a trial run? Existing Hanford facilities could be used as a pilot plant to test the process. 45

Cost was left out of the EIS. 46

reactor irradiation, the NRC license would authorize only the participating reactors to use MOX fuel fabricated from surplus plutonium, and the irradiation would be a once-through cycle with no reprocessing. Therefore, the use of the Siemens Plant approach is beyond the scope of the alternatives evaluated for this SPD EIS.

RICHLD-44

Purpose and Need

Although use of existing facilities might save some time in the disposition process, such facilities would still require considerable modification. Timeliness, however, is only one of many factors in decisionmaking with respect to surplus plutonium disposition. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

RICHLD-45

Pit Disassembly and Conversion

DOE is currently in the process of testing the plutonium conversion process as an integrated system at LANL. Up to 250 pits will be disassembled and converted to plutonium dioxide using the same techniques proposed in this SPD EIS. Details of this test may be found in the *Pit Disassembly and Conversion Demonstration EA* (DOE/EA-1207, August 1998), which is available on the MD Web site at <http://www.doe-md.com>. The resulting experience from this demonstration would be used to supplement information developed to support the design of the full-scale pit conversion facility should DOE decide to construct that facility. There is no need to duplicate this effort at any other DOE site.

RICHLD-46

Cost

Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. A separate cost report, *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998), which analyzes the site-specific cost estimates for each alternative, was made available around the same time as the SPD Draft EIS. This report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013,

Where are the funds for MOX coming from? | 47

DOE needs to compare the cost of using existing facilities against the costs of building a new facility. I can't believe that the preferred site is cheaper than Hanford. FMEF cost \$200 million to build 20 years ago. The National Academy of Sciences estimates that it will cost \$500 million to \$1 billion to build a new MOX facility. It would cost only \$150 million to \$175 million to modify the existing FMEF. Funds generated from FMEF could run FFTF to produce medical isotopes. | 48

The current cost analysis is in conflict with an independent cost analysis, and this will have future ramifications. | 49

November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

RICHLD-47 **Cost**

Funding for MOX fuel fabrication and the rest of the surplus plutonium disposition program comes from DOE's budget, which is authorized and appropriated by the U.S. Congress. The MOX facility would produce nuclear fuel to displace the LEU fuel that utilities otherwise would have purchased. If the effective value of the MOX fuel exceeds the cost of the LEU fuel that it displaced, then the contract provides that money would be paid back to the U.S. Government by DCS based on a formula included in the DCS contract.

RICHLD-48 **Cost**

Because cost issues are beyond the scope of this SPD EIS, this comment has been forwarded to the cost analysis team for consideration. The *Cost Analysis in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition* (DOE/MD-0009, July 1998) report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

RICHLD-49 **Cost Report**

Because this comment relates directly to the cost analysis report, it has been forwarded to the cost analysis team for consideration. The *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, is available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

Are the United States and Russia close to a bilateral agreement on the disposition of plutonium?	50
Is the United States getting close on the Spent Fuel Standard (15 percent/240)?	51
I understand that Russia prefers to burn, not immobilize. The General Accounting Office (GAO) said the Russian mission will not fly without funding. Will the United States wait on disposition until Russia is ready to begin?	52

RICHLD-50

Nonproliferation

In September 1998, the United States and Russia, in a joint statement, affirmed the intention of each country to remove, by stages, approximately 50 t (55 tons) of plutonium from its stockpile and to convert this material so that it can never be used in nuclear weapons. The two countries also agreed to seek to develop appropriate international verification measures and stringent standards of physical protection, control, and accounting for the management of plutonium.

RICHLD-51

DOE Policy

The Spent Fuel Standard does not require a specific plutonium 240 isotopic content of 15 percent. Although isotopic dilution of the surplus plutonium resulting in a higher plutonium 240 content would support nonproliferation objectives, it is not necessarily required to make the material as inaccessible and unattractive for weapons use as the plutonium that exists in highly radioactive spent nuclear fuel from commercial reactors. Other factors considered in attaining the Spent Fuel Standard include the incorporation of physical (size and weight) and radioactive barriers to reduce the possibility of proliferation.

RICHLD-52

Nonproliferation

To date, Russia has not made a final decision on which disposition option it will use. DOE is working diligently to ensure that Russia continues to pursue plutonium disposition with the same vigor as the United States. Understanding the economic dilemma in Russia, the U.S. Congress has appropriated funding for a series of small-scale tests and demonstrations of plutonium disposition technologies jointly conducted by the United States and Russia. For fiscal year 1999 (starting October 1998), Congress further appropriated funding to assist Russia in design and construction of a plutonium conversion facility and a MOX fuel fabrication facility. This funding would not be expended until the presidents of both countries signed a new agreement. Although the amount appropriated by Congress is not sufficient to fund the entire Russian surplus plutonium disposition program, the United States is working with Russia and other nations to resolve this issue. The United States does not currently plan to implement a unilateral program; however, it will retain the option to begin certain surplus plutonium disposition activities in order to encourage the Russians and set an international example.

Who is funding the Russian component of the plutonium disposition process? The DOE or the G-7? 53

The largest store of weapons-grade plutonium is here at Hanford. The location of plutonium should be looked at. This was not included in the EIS. 54

Hanford was not treated fairly in the SPD EIS. Of eleven alternatives, only one considered Hanford for all three facilities, and in this one alternative (2), the MOX facility at Hanford would be a new facility, while ignoring FMEF capabilities. I feel that this is a clear example of the inherent bias reflected in the SPD EIS. Alternatives 4A and 4B calls for a new facility for MOX and immobilization, respectively. There is no case presented that allows Hanford to do more than two of three tasks, and Hanford is always required to build a new facility. 55

RICHLD-53

Nonproliferation

DOE is working diligently to ensure that Russia continues to pursue plutonium disposition with the same vigor as the United States. The U.S. Congress has appropriated funding for a series of small-scale tests and demonstrations of plutonium disposition technologies jointly conducted by the United States and Russia. For fiscal year 1999 (starting October 1998), Congress further appropriated funding to assist Russia in design and construction of a plutonium conversion facility and a MOX fuel fabrication facility. This funding would not be expended until the presidents of both countries signed a new agreement. Although the amount appropriated by Congress is not sufficient to fund the entire Russian surplus plutonium disposition program, the United States is working with Russia and other nations to resolve this issue.

RICHLD-54

Transportation

Pantex has the largest volume of surplus plutonium, in the form of pits and metal; Hanford, most of the nonpit surplus plutonium. Appendix L was revised to show the number of shipments for each alternative. Alternatives 2, 4, 6, 8, and 10 in this SPD EIS involve siting one or more of the proposed surplus plutonium disposition facilities at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

RICHLD-55

Alternatives

DOE acknowledges the commentor's concern regarding the development and evaluation of the surplus plutonium disposition alternatives. Section 2.3.1 explains the development of the facility siting alternatives that were analyzed in this SPD EIS. A range of 15 reasonable alternatives remained after evaluating over 64 options against the three screening criteria, which are analyzed in the SPD Final EIS. The equally weighted criteria used were worker and public exposure to radiation, proliferation concerns due to transportation of materials, and infrastructure cost. Every alternative that considered Hanford used, to

The MOX mission should be located at Hanford because Hanford has an experienced workforce with the technical skills and knowledge to perform the MOX mission.

56

The plutonium disposition mission will help to maintain a highly skilled workforce [at Hanford].

57

Hanford's dry climate is better suited for conducting the MOX mission.

58

Cheap power should be considered when looking to site mission; power is much more expensive in the south.

59

the maximum extent possible, FMEF. In the case of Alternative 2, it was determined that the available space in FMEF would not be sufficient to accommodate the efficient operation and maintenance of all three proposed facilities. Therefore, the MOX facility was proposed to be located in a new building in part because, unlike the other facilities, it would be licensed by NRC.

RICHLD-56**Alternatives**

DOE acknowledges the commentor's support for siting the MOX facility at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

RICHLD-57**Alternatives**

DOE acknowledges the commentor's support for the surplus plutonium disposition program at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

RICHLD-58**Alternatives**

DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

RICHLD-59**Cost**

Although cost will be a factor in the decisionmaking process, this SPD EIS contains environmental impact data and does not address the costs associated with the various alternatives. A separate cost report, *Cost Analysis*

FMEF is an ideal facility for performing the MOX mission. It is the best choice for achieving an optimal timeframe for startup. FMEF is built to NRC standards, is ready to license, is clean, and can be easily modified to meet the demands of a MOX mission. Infrastructure considerations are offered by existing facilities, FMEF, over new facilities. It makes sense to use the facility rather than walking away from it in order to build a similar facility elsewhere. The National Academy of Sciences has pointed this out.

60

DOE should apply Hanford's assets to emerging national and international needs. I would like to reemphasize the importance of plutonium disposition: it's critical to withdraw surplus plutonium from the weapons supply. The SPD EIS is an extremely important document, and it needs to be technically sound.

61

FFTF, if dedicated to the plutonium disposition mission, could dispose of the plutonium within 25 years as required while at the same time producing medical isotopes.

62

in Support of Site Selection for Surplus Weapons-Usable Plutonium Disposition (DOE/MD-0009, July 1998), which analyzes the site-specific cost estimates for each alternative, was made available around the same time as the SPD Draft EIS. This report and the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which covers recent life-cycle cost analyses associated with the preferred alternative, are available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

RICHLD-60

Alternatives

DOE acknowledges the commentor's support for siting the MOX facility in FMEF at Hanford. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

RICHLD-61

Alternatives

DOE agrees with the commentor's views on the importance of plutonium disposition. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

RICHLD-62

Alternatives

DOE acknowledges the commentor's support for the surplus plutonium disposition program using FFTF at Hanford. As discussed in Section 1.7.4, Appendix D was deleted because none of the proposals to restart FFTF currently consider the use of surplus plutonium as a fuel source.

DOE should give further consideration that FFTF could handle burning 33 tons. I think that all excess plutonium could be burned and FMEF could produce MOX fuel. The taxpayers would save a lot.

63

DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

RICHLD-63

Alternatives

DOE acknowledges the commentator's support for the surplus plutonium disposition program using FFTF and FMEF at Hanford. As discussed in Section 1.7.4, Appendix D was deleted because none of the proposals to restart FFTF currently consider the use of surplus plutonium as a fuel source.

DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission, especially in regard to the use of existing facilities.

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

I am concerned that with cleanup as the only mission at Hanford, it is a signal that no new missions will be given to Hanford. The plutonium disposition mission is consistent with the cleanup mission, contrary to EIS findings. Hanford can handle more than one mission at a time.

64

SRS also has an extensive cleanup mission to consider; why is DOE only penalizing Hanford and INEEL?

65

The SPD EIS misrepresents Hanford by claiming additional facility requirements while ignoring dual-mission capability, which incurs additional costs.

66

RICHLD-64

Alternatives

DOE acknowledges the commentor's view that the surplus plutonium disposition program is consistent with the cleanup mission. DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

RICHLD-65

Alternatives

Cleanup is, and will remain, a priority at SRS and will be unaffected by other DOE initiatives. As indicated in the revised Section 1.6, SRS is preferred for the proposed surplus plutonium disposition facilities because the site has extensive experience with plutonium processing, and these facilities complement existing missions and take advantage of existing infrastructure.

RICHLD-66

Alternatives

DOE acknowledges the commentor's concern regarding DOE's assessment of Hanford's capabilities relative to the other candidate sites for the surplus plutonium disposition program. The preferred alternative was chosen based on the best information and analyses available to allow for a fair comparison among the candidate sites for the proposed surplus plutonium disposition facilities.

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

What were the discriminating factors for selecting SRS? If there were no major differences in the environmental impacts at the sites, then the mission should be given to Hanford. Hanford is the most contaminated site; therefore, it should have a priority in receiving new missions.

67

DOE would be shipping out more plutonium from Hanford than it would take in if the plutonium mission were to be sited at SRS. We would be shipping more plutonium to SRS than they would be shipping here. That was left out of the EIS.

68

Locating a MOX facility at SRS requires an extra step in moving materials from Hanford to Pantex.

69

I would like to address the political side of the decision. The Northwest community sent a message to DOE during the scoping process that they expected an objective, unbiased assessment of all options and opportunities, and that the previous PEIS should not drive the current SPD EIS. The SPD EIS is not balanced and objective. Hanford deserves fair and unbiased consideration.

70

RICHLD-67

Alternatives

The preferred alternative was chosen based on the best information and analyses available to allow for a fair comparison among the candidate sites for the proposed surplus plutonium disposition facilities. In the case of Hanford, DOE believes that Hanford's efforts should remain focused on its current high-priority cleanup mission. The importance of cleanup at Hanford was taken into consideration in identifying preferred sites for surplus plutonium disposition activities. However, no decision has been made, and DOE will continue to consider Hanford for surplus plutonium disposition or other programs that are compatible with the Hanford mission.

RICHLD-68

Transportation

The amount of surplus plutonium at each DOE site is shown in Chapter 1 of Volume I. These amounts and locations are the starting points for determining the potential transportation impacts for each of the alternatives analyzed in this SPD EIS. Should DOE decide to implement one of these alternatives, all of the surplus plutonium at each of these sites would eventually be sent to a potential geologic repository.

RICHLD-69

Transportation

None of the alternatives involve moving Hanford materials to Pantex.

RICHLD-70

General SPD EIS and NEPA Process

DOE has prepared this SPD EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementing regulations (40 CFR 1500 through 1508 and 10 CFR 1021, respectively). The primary objective of the EIS is a comprehensive description of proposed surplus plutonium disposition actions and alternatives and their potential environmental impacts. DOE has analyzed each environmental resource area in a consistent manner across all the alternatives to allow for a fair comparison among the alternatives and among the candidate sites for surplus plutonium disposition facilities. Decisions on the surplus plutonium disposition program will be based on environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

I am disappointed in DOE’s process for developing this EIS; I feel that it is a predetermined process. It could be litigated.	71
I hope DOE recognizes that there is more than one voice speaking for the Northwest. Not everyone agreed or supported the recent lawsuit, so don’t hold that lawsuit against Hanford.	72
Will public comments on the cost analysis be accepted?	73
Can domestic facilities be licensed to produce MOX fuel? Will MOX be licensed by the NRC?	74
The SPD EIS added additional spent fuel difficulties (americium, high-heat levels, etc.). DOE has a questionable record when it comes to storing spent fuel. How will DOE help the sites store spent fuel?	75

RICHLD-71 **General SPD EIS and NEPA Process**

DOE prepared this SPD EIS in accordance with the provisions of NEPA (42 U.S.C. 4321 et seq.) and the related CEQ and DOE implementing regulations (40 CFR 1500 through 1508 and 10 CFR 21, respectively). Decisions on the surplus plutonium disposition program are not predetermined; they will be based on the environmental analyses, technical and cost reports, national policy and nonproliferation considerations, and public input.

RICHLD-72 **General SPD EIS and NEPA Process**

DOE acknowledges the commentor’s concern for equal representation. DOE provided opportunities and means for public comment on the surplus plutonium disposition program and gave equal consideration to all comments.

RICHLD-73 **Cost Report**

Public comments on the cost analysis are addressed in the *Plutonium Disposition Life-Cycle Costs and Cost-Related Comment Resolution Document* (DOE/MD-0013, November 1999), which is available on the MD Web site at <http://www.doe-md.com> and in the public reading rooms at the following locations: Hanford, INEEL, Pantex, SRS, and Washington, D.C.

RICHLD-74 **NRC Licensing**

Domestic facilities can be licensed to produce MOX fuel. Both the MOX facility and the domestic, commercial reactors selected to use the MOX fuel would be licensed and monitored by NRC.

RICHLD-75 **MOX Approach**

MOX fuel assemblies would be the same size and shape as the LEU fuel for the specific reactor. The only difference would be the additional decay heat from the higher actinides, especially americium, in the MOX fuel. Dry casks are designed and certified for a maximum heat load, so the additional decay heat would contribute to the total heat load and not require any redesign. The additional heat load may result in less spent fuel stored per cask. A more likely option is that the MOX fuel would be selectively packaged with cooler LEU fuel to obviate any overall heat output restriction.

If there are to be no new missions at the DOE Hanford facility, is DOE prepared to give up their space in the Federal Building [*in Richland*]? I suggest transitioning the Federal Building from DOE use to the City of Richland use.

76

As described in Sections 2.18.3 and 4.28.2.8, additional spent fuel would be produced by using MOX fuel instead of LEU fuel in domestic, commercial reactors. Spent fuel management at the proposed reactor sites is not expected to change dramatically due to the substitution of MOX assemblies for some of the LEU assemblies. Likewise, the additional spent fuel would be a very small fraction of the total that would be managed at the potential geologic repository.

RICHLD-76

Other

The use of the DOE space in the Federal Building is beyond the scope of this SPD EIS.