



**Surplus Plutonium Disposition
Supplemental Environmental Impact Statement
(SPD Supplemental EIS)**



Surplus Plutonium Disposition Supplemental Environmental Impact Statement

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Surplus Plutonium Disposition Supplemental Environmental Impact Statement (SPD Supplemental EIS)



Presentation Outline

- National Environmental Policy Act (NEPA) process for the SPD Supplemental EIS
- Brief history of plutonium disposition NEPA documentation
- Description of the SPD Supplemental EIS scope and alternatives
- Public comments on the scope of the EIS



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Purpose and Need for Action

- DOE's purpose and need remains, as stated in the Surplus Plutonium Disposition EIS (1999):
 - To reduce the threat of nuclear weapons proliferation worldwide by conducting disposition of surplus plutonium in the U.S. in an environmentally safe and timely manner.
- Surplus plutonium is plutonium no longer needed for defense or other programmatic purposes.
- Actions are needed to ensure that surplus plutonium is converted into a form that cannot be used in a nuclear weapon.



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NEPA Process for the SPD Supplemental EIS

- This EIS is being prepared as required by NEPA
- Published Amended Notice of Intent to prepare SPD Supplemental EIS in July 19, 2010 *Federal Register*; this began the NEPA process
- Tennessee Valley Authority (TVA) is a cooperating agency

NEPA

The National Environmental Policy Act establishes a process for decisionmakers to use in considering the potential environmental impacts (both positive and negative) of major actions before making decisions.

It requires a Federal agency to consider the potential environmental, human health, and socioeconomic effects of a proposed action and a range of reasonable alternatives for implementing the action, including the option of taking no action at all.

The resulting environmental impact statement (EIS) is a detailed environmental analysis of the proposed action.



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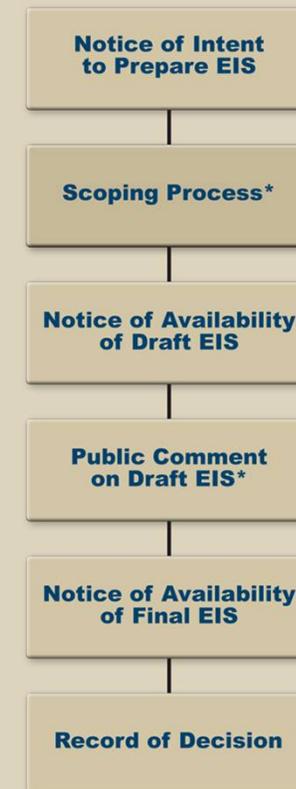


About Tonight's Scoping Meeting

- Scoping is a required step in the NEPA process for preparing an EIS.
- Scoping is the process of determining the subjects that will be considered and evaluated in an EIS.
- Public comments – both oral and written – received during the scoping period will be considered when making decisions about the issues and alternatives to be analyzed in an EIS.
- The scoping period began with publication of DOE's Amended Notice of Intent to prepare the EIS on July 19, 2010; ended on September 17, 2010.
- DOE is now re-opening scoping to consider additional alternatives for the pit disassembly and conversion capability. The scoping period began with the issuance of the amended Notice of Intent on January 12, 2012; scoping ends on March 12, 2012.

Steps in the EIS Process

The process is the same for an EIS or a supplemental EIS. An amended Record of Decision generally follows completion of a final supplemental EIS.



We
Are
Here

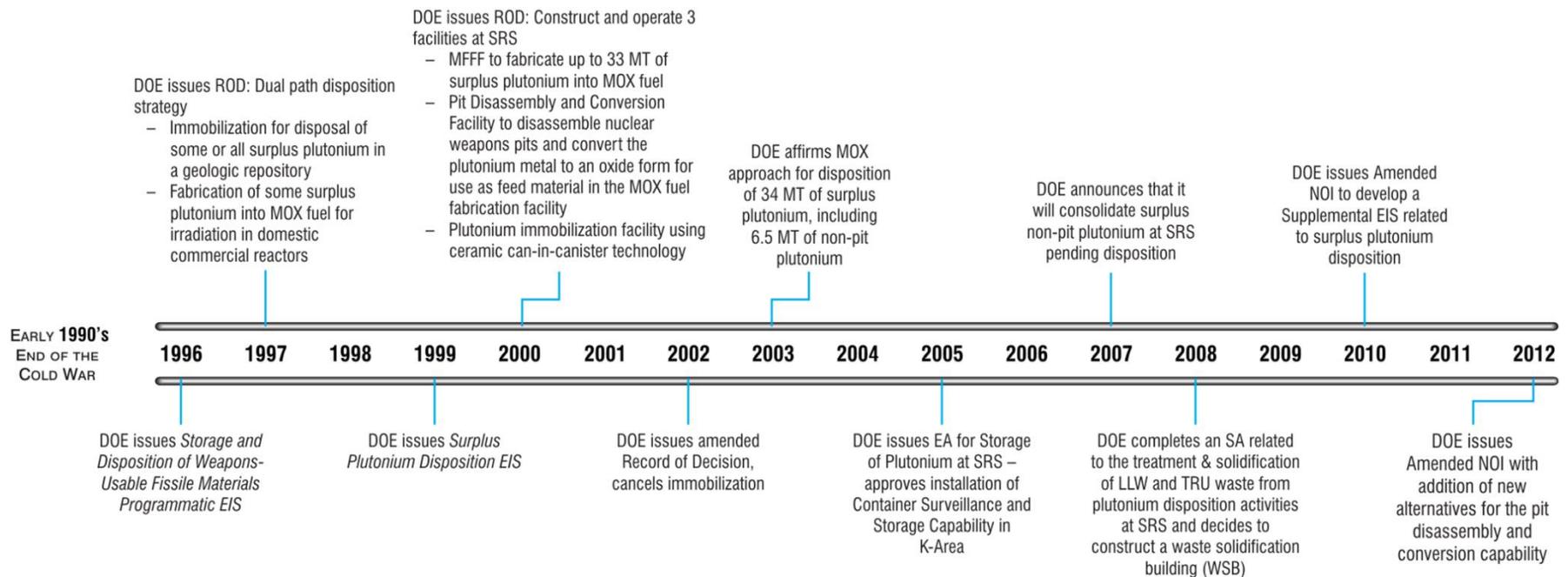
*Opportunities for Public Participation



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Surplus Plutonium Disposition NEPA Documentation



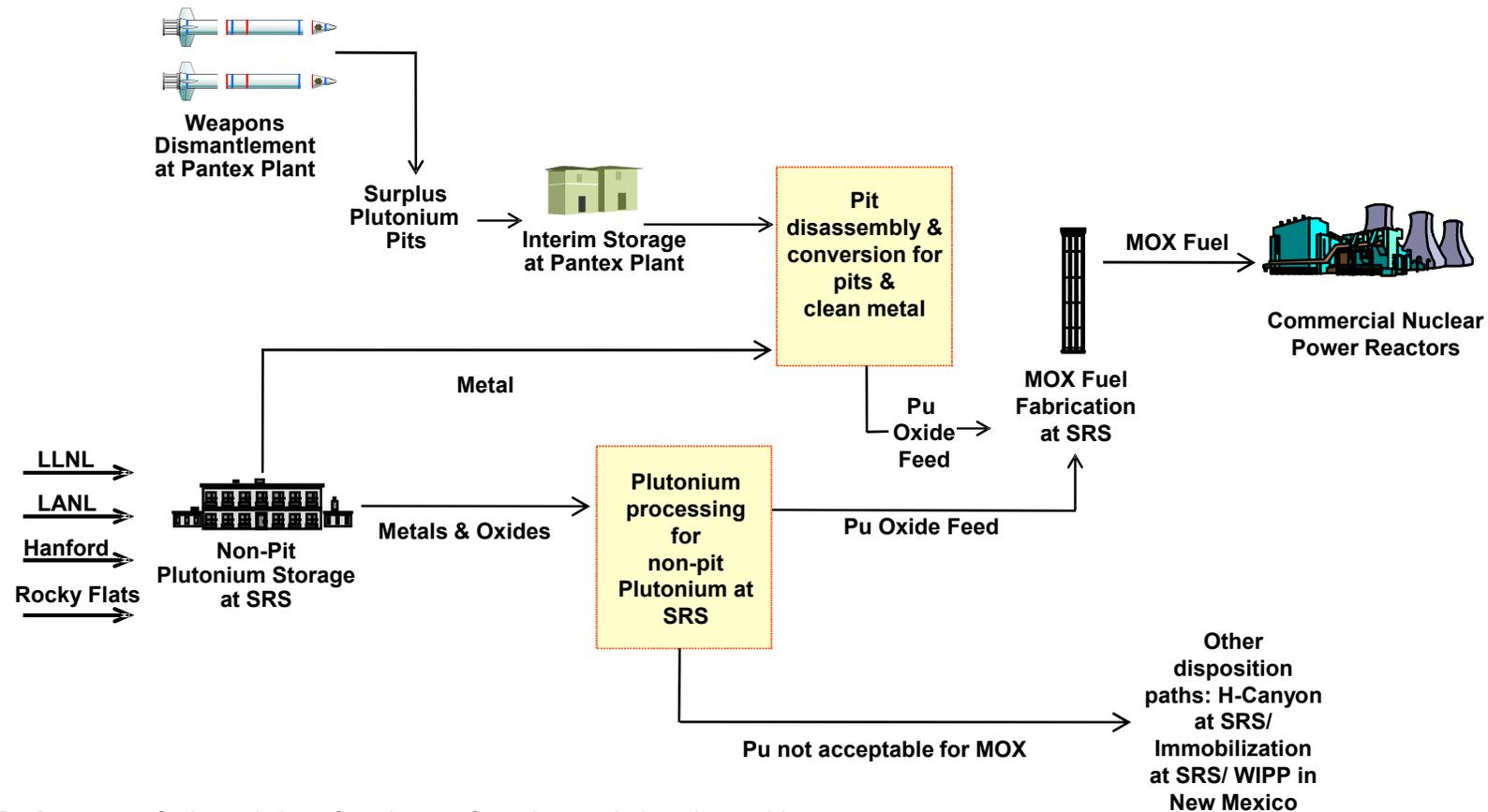
Key: DOE = U.S. Department of Energy; EA = Environmental Assessment; EIS = environmental impact statement; LLW = low-level radioactive waste; MFFF = MOX Fuel Fabrication Facility; MOX = mixed oxide fuel; MT= metric ton; NOI = Notice of Intent; ROD = Record of Decision; SA = Supplement Analysis; SEIS = Supplemental Environmental Impact Statement; SRS = Savannah River Site; TRU = transuranic.



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Surplus Plutonium Disposition Program Schematic



MOX Fuel = reactor fuel consisting of a mixture of uranium and plutonium oxide.
Pit = the plutonium core of a nuclear weapon



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Scope of the SPD Supplemental EIS

- SPD Supplemental EIS will consider:
 - Options to disassemble pits and convert plutonium metal to an oxide for disposition
 - Disposition of 7 MT additional pit plutonium
 - Disposition of 6 MT non-pit plutonium
 - Irradiating Mixed Oxide (MOX) fuel in TVA reactors
- SPD Supplemental EIS will not reconsider decisions to disposition surplus plutonium other than:
 - Decision to construct a stand alone Pit Disassembly and Conversion Facility (PDCF)
 - Evaluation of additional reactors for irradiation of MOX fuel



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Options for Pit Disassembly and Conversion

**Pit Disassembly and
Conversion Facility
in F-Area at SRS**

Pit Disassembly
and Conversion to
Plutonium Oxide

**Pit Disassembly and
Conversion Capability
in K-Area at SRS**

Pit Disassembly
and Conversion to
Plutonium Oxide

**Plutonium
Facility (PF-4)
in TA-55 at LANL¹**

Pit Disassembly
and Conversion to
Plutonium Metal
and/or Oxide

**H-Canyon/HB-Line
in H-Area
at SRS²**

Pit Disassembly
and Conversion to
Plutonium Oxide

¹ Would include metal oxidation in the MOX Fuel Fabrication Facility.

² The H-Canyon/HB-Line option would have to be executed in conjunction with another option.

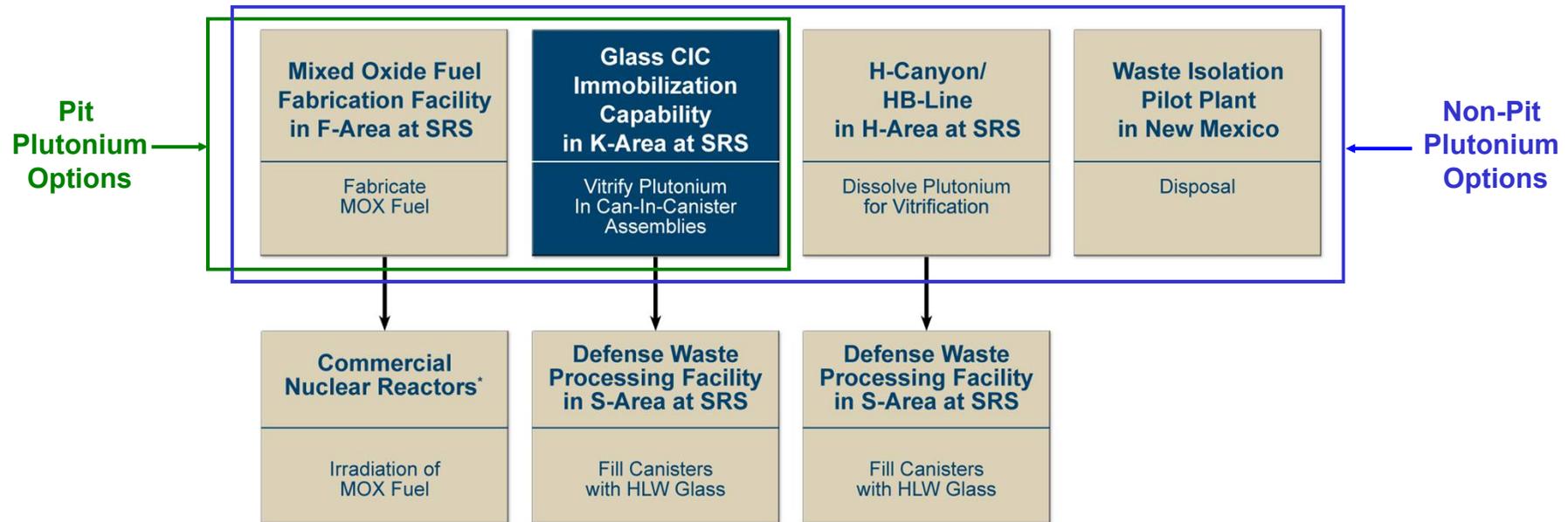
- = new or enhanced capability
- LANL = Los Alamos National Laboratory
- SRS = Savannah River Site
- TA = Technical Area



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Options for Disposition of Surplus Plutonium



* DOE is evaluating impacts of MOX irradiation in 5 TVA reactors.

- = new or enhanced capability
- = existing or facility under construction
- CIC = can-in-canister
- HLW = high-level radioactive waste
- MOX = mixed oxide fuel
- SRS = Savannah River Site
- TVA = Tennessee Valley Authority



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Preferred Alternative

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



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Summary

- DOE must disposition U.S. surplus weapons-usable plutonium in a safe, secure and environmentally sound manner
- Plutonium must be in proliferation-resistant forms that can never again be readily used in nuclear weapons
- The SPD Supplemental EIS will evaluate options for disposition of an additional 7 metric tons of pit plutonium and 6 metric tons of non-pit plutonium
- Public involvement is an important component in the EIS decisionmaking process



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How to Provide Your Comments



Court Reporter

If you provide oral comments tonight, a court reporter will record your comments.



Comment Form

Comment forms are available in the registration area. If you would like to provide written comments on the scope of the SPD Supplemental EIS, please use the comment form and drop it off at the registration table when you leave. Alternatively, you may mail, e-mail, or fax your comments to the Department of Energy at the addresses below.



E-Mail

You may submit your comments electronically to spdsupplementaleis@saic.com



Facsimile

The toll-free fax number to submit your comments is [1-877-865-0277](tel:1-877-865-0277).



U.S. Mail

Written comments on the scope of the SPD Supplemental EIS should be submitted to the Department of Energy at the following address:

*Sachiko McAlhany, NEPA Document Manager
SPD Supplemental EIS
U.S. Department of Energy
P.O. Box 2324
Germantown, MD 20874-2324*

All comments are due by **March 12, 2012**. Comments received by that date will be considered in preparation of the Draft SPD Supplemental EIS. Comments received after that date will be considered to the extent practicable.