

physically stabilize the storage conditions and reduce the potential for accidents. All of the stabilization alternatives, upon completion of the actions required, are estimated to reduce the potential for accidents and the associated consequences. Several of the stabilization alternatives would involve a short-term increase in the risks from accidents until the required actions are completed.

Emissions of hazardous air pollutants and releases of hazardous liquid effluents for any of the alternatives would be within applicable federal standards and existing regulatory permits for the SRS facilities. Similarly, high level liquid waste, transuranic waste, mixed hazardous waste and low level solid waste generated by implementation of any of the alternatives would be handled by existing waste management facilities. All of the waste types and volumes are within the capability of the existing SRS waste management facilities for storage, treatment or disposal.

SRS facilities that will be used to stabilize and store the nuclear materials incorporate engineered features to limit the potential impacts of facility operations to workers, the public and the environment. All of the engineered systems and administrative controls are subject to DOE Order requirements to ensure safe operation of the facilities. No other mitigation measures have been identified; therefore DOE need not prepare a Mitigation Action Plan.

VI. Other Factors

In addition to comparing the environmental impacts of implementing the various alternatives, DOE considered other factors in reaching the decisions announced here. These other factors included issues addressed by the National Academy of Sciences in the 1994 report, *Management and Disposition of Excess Weapons Plutonium*; the Office of Technology Assessment's 1993 report, *Dismantling the Bomb and Managing the Nuclear Materials*; comments received during the scoping period for the EIS on the Interim Management of Nuclear Materials, and comments received on the Draft and Final EIS's. The other factors considered are briefly summarized in the following paragraphs.

Implementation of certain alternatives would require construction and operation of new facilities. The new facilities described in the EIS are: (1) F-Canyon Vitrification Facility (for the Vitrification (F-Canyon) Alternative), (2) a Dry Storage Facility (for the Improving Storage Alternative for degraded reactor

fuel and targets currently stored in basins), (3) a Uranium Solidification Facility (for the Processing to Oxide Alternative for highly enriched uranium solutions in H-Area and the Mark-16 and -22 fuel stored in basins), (4) an Actinide Packaging and Storage Facility (for the Processing to Metal and Processing to Oxide Alternatives for plutonium-bearing materials, for the Improving Storage Alternative for plutonium-bearing vault materials, for the Processing to Oxide Alternative for neptunium-237 materials, and for the Vitrification (F-Canyon) Alternative for materials containing plutonium and neptunium). Implementation of some alternatives would require minor modifications of existing facilities, as described in the EIS. Examples include minor modifications to the F-Canyon and H-Canyon facilities to provide the capability to load and unload radioactive solutions into containers for transport between facilities and installation of a spare dissolver in the FA-Line facility.

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 highly enriched uranium and plutonium. The stabilization alternatives vary in regard to the attractiveness of the stabilized plutonium or highly enriched uranium for use in nuclear weapons (either by the U.S. or an adversary). None of the alternatives would denature or eliminate the plutonium from the current inventory; it would still exist in some form. Of the alternatives for stabilization of highly enriched uranium, only Processing and Storage for Vitrification in the Defense Waste Processing Facility and Blending Down to Low Enriched Uranium would reduce the inventory of highly enriched uranium. Because of the potential concern regarding any processing and consolidating plutonium or highly enriched uranium from the SRS inventory, the Secretary of Energy has committed that any separated or stabilized plutonium-239 and highly

enriched uranium would be prohibited from use for nuclear explosive purposes. This prohibition would apply to plutonium-239 and highly enriched uranium stabilized through actions implemented by this Record of Decision.

In the EIS on the Interim Management of Nuclear Materials, DOE examined the potential impacts associated with an integrated implementation schedule for management of nuclear materials. DOE examined several combinations of alternatives, or management scenarios, including continued storage of all the materials (No Action), stabilization using the preferred alternatives for each material, and alternatives requiring a minimum of chemical processing. DOE expects that it will take at least 6 to 7 years to stabilize all of the nuclear materials at SRS under any scenario due to the resources (primarily trained personnel) required and the time required to make facility modifications or construct new facilities. DOE has developed an optimum schedule of proposed actions in response to DNFSB Recommendation 94-1. DOE will revise and update the schedule as stabilization actions proceed and as future budget considerations dictate.

DOE considered technology availability and technical feasibility in reaching decisions on management alternatives. DOE considered the extent to which technology development would be required and the likelihood of success of such endeavors. All of the alternatives are technically feasible. In general, however, the more alternatives vary from the historical processes and facilities used at SRS, the greater the technical uncertainty and extent to which new facilities or modifications to existing facilities would have to be made.

DOE evaluated labor availability and the existence of core competency at the SRS in reaching decisions on management alternatives. DOE expects to use the existing workforce at SRS to implement the management alternatives selected. There would be differences between the level of personnel knowledge and training required for each alternative. In general, as an alternative varies from historical processes and facilities used at the SRS for material management, additional training of personnel may be required. The more unique or extensive the differences from past facility operations, the more training may be required.

In reaching decisions on management alternatives, DOE considered the fact that many SRS facilities are 30 to 40 years old and do not meet all current DOE requirements for the design and