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Office of the White House Press Secretary

THE WHITE HOUSE

FACT SHEET

PRESIDENT'S NUCLEAR WASTE MANAGEMENT PLAN

As one part of his comprehensive statement on nuclear policy, the President today announced new steps to assure that the U.S. has in place when needed, the facilities for long-term management of nuclear wastes from our commercial power plants.

BACKGROUND

-- In his 1977 Budget, the President proposed a four-fold increase in the funding of the Energy Research and Development Administration's program for dealing with the long-term management of nuclear wastes.

-- In March 1976, a review of Federal nuclear waste management activities was undertaken by an interagency task force.

-- The President's actions today were based on the findings of that review.

THE PRESIDENT'S ACTION ON NUCLEAR WASTE MANAGEMENT

In one part of his comprehensive nuclear policy statement, the President directed that actions be taken to speed up the program to demonstrate all components of waste management technology by 1978, and to demonstrate a complete respository by 1985. He also directed that plans for the repository be submitted to the NRC for licensing to assure its safety and acceptability.

BACKGROUND INFORMATION AND DETAILS OF THE PLAN

A. Nuclear Waste Requiring Long-Term Management

U.S. commercial nuclear power reactors "burn" low enriched uranium fuel and produce in spent fuel rods a mixture of plutonium, low enriched uranium and waste products. Certain of these waste products are highly radioactive and could constitute a hazard for tens of thousands of years if they escaped to the biosphere.

. If spent fuel rods are reprocessed, the wastes would be separated from the uranium and plutonium (which could be saved and recycled as fuel), put into solid form and encased in metal canisters, and sent to a repository for disposal.

. If there is no reprocessing, the spent fuel rods themselves must be packaged and disposed of in a repository.

Under either alternative, nuclear wastes must be isolated from the environment for centuries and the President's plan will accommodate both alternatives.

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B. The Nuclear Waste Problem and Alternatives for Dealing With It That Have Been Considered.

The principle problem in safely managing the waste is confining the radioactivity rather than finding enough storage space. Recent calculations using realistic assumptions regarding numbers of reactors and disposal technology indicate the total volume of solidified high-level wastes produced by commercial nuclear power in the U.S. through 2000 will be equivalent to a cube about 70 feet on each side.

Technology or means for nuclear waste disposal and management have been developed and demonstrated on a small scale. However, we do not yet have available a repository for nuclear waste disposal. Most spent fuel rods are continuing to be stored safely in temporary storage basins at reactor sites.

A wide variety of methods for permanent disposal of these wastes has been considered:

- Experts have concluded that the most practical method is geologic storage in repositories in stable formations deep underground.

- Other methods under study, but which do not seem practical at present, are deep geologic disposal under the ocean floor, transmutation, and launching them into space.

Considerable public concern has been expressed that the Federal Government has not yet demonstrated that it can fulfill its responsibility to provide a repository for safe disposal of nuclear waste.

Tasks ahead include further demonstration of the technology, selecting an acceptable site, and proceeding with a coordinated program to assure that a facility will be available, when needed, about 1985.

C. The Federal Government's Waste Management Responsibility.

The Federal Government has assumed the responsibility for long-term disposal of high-level wastes because of the limited incentives for private parties to engage in commercial storage of these wastes. Private industry is responsible for packaging and delivering the waste in a prescribed form to a Federal repository.

D. Principal Actions Needed and the Status of Those Actions

1. Generic Environmental Impact Statement (GEIS)

Because the program to build and operate a repository will represent a major Federal action with potentially significant environmental impact, the ERDA is required to prepare a generic environmental impact statement (GEIS) on its waste management program.

- The GEIS will examine the impacts of all the major waste management alternatives.

- Statement will cover all types of nuclear wastes from the light water reactor fuel cycle.

- Other environmental impact statements (EIS's) will be required when (i) regulations are proposed, and (ii) when construction funds are requested from Congress.

Status - ERDA has been at work for some time on the GEIS. No major problems are anticipated in completing the statement by late 1977.

2. General Environmental Standards

The Atomic Energy Act, as amended, requires the EPA to issue general environmental standards for releases to the biosphere from nuclear facilities. These standards will include a numerical limit to long-term radiation releases outside the boundaries of the repository -- above the natural background radiation. The standards need to be available as early as possible during the process of locating and constructing the repository.

Status - EPA will propose the general standards covering high level waste in 1977 and publish them in final form by mid-1978, in time for the Nuclear Regulatory Commission (NRC) to issue its regulations and prior to site selection and construction.

3. Licensing of Waste Repository

The Energy Reorganization Act of 1974 requires that high-level commercial waste repositories be licensed by the NRC prior to operation. The NRC is also responsible for issuing the appropriate criteria and standards to assure that the respository is constructed and operated in a safe and environmentally acceptable manner.

Status - ERDA has been directed to ask the NRC to subject the repository to a licensing procedure before the first commercial wastes are shipped. NRC will produce criteria and standards by 1978 governing the construction and operation of the repository prior to the time the site is finally determined and construction begins.

4. Construction and Operation of a Repository

ERDA, supported by other Federal agencies, has the responsibility to construct and operate the repository, including:

- finding an acceptable site
- acquiring the land
- designing the repository
- constructing, operating, and sealing the repository

Status

- FY 1977 appropriations increased funding for this program to $66 million, up from $12 million in FY 1976.

- The President today directed the Administrator to assure the small scale demonstration by 1978 of the process technologies (such as waste solidification, transuranic volume reduction, canister design, etc.), and by 1985 to have the repository in operation.

E. Timetable for Actions

The principle actions and dates for their accomplishment are listed below.

1976 - ERDA issued for public review the Technical Alternatives Document which explains the current state of waste management technology.

1977 - ERDA issues draft generic environmental impact statement on waste management no later than the early part of the year and begins extensive program to identify, test and select a site.

- EPA proposes draft generally applicable standards for permanent storage of high-level wastes.

- NRC publishes draft standards for solidified high-level wastes and draft siting, engineering and operating criteria for repositories for high-level wastes. Each element will include the appropriate draft environmental impact statements.

1978 - ERDA will complete initial demonstration work on canister design, waste solidification, and preliminary repository design, and continue site selection process.
- NRC finalizes proposed site selection criteria, solidification criteria, waste definitions and operating criteria and regulations.
- EPA issues final general ambient standards for high level waste disposal.

1979 - ERDA selects a particular repository site, issues a draft site specific EIS, and begins intensive site and design work.
- NRC performs early site review of ERDA repository; issues next phase of draft regulations for canister design, transportation, etc.

1980 - ERDA completes site and design studies, submits preliminary safety analysis and environmental report to NRC in support of construction permit.

1981 - ERDA begins construction with approval of NRC.

1984 - Construction completed, repository tested with "cold" wastes.

1985 - NRC issues repository license.
- Repository begins initial commercial-scale operations.

F. The Interagency Review of Nuclear Waste Management.
The review of nuclear waste management was completed by an interagency Task Force led by the Office of Management and Budget (OMB) and including participants from the agencies having a role in nuclear waste management. Specifically: the Council on Environmental Quality (CEQ), the Energy Research and Development Administration (ERDA), the Environmental Protection Agency (EPA), U.S. Geological Survey (Interior Department), and the National Science Foundation (NSF). The independent Nuclear Regulatory Commission (NRC) participated as an observer.

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