DISPOSAL OF HIGH-LEVEL RADIOACTIVE WASTE IN NEVADA

Bulletin No. 85-6

LEGISLATIVE COMMISSION
OF THE
LEGISLATIVE COUNSEL BUREAU
STATE OF NEVADA

July 1984

D I S P O S A L O F H I G H - L E V E L
R A D I O A C T I V E W A S T E
I N N E V A D A

BULLETIN NO. 85-6

LEGISLATIVE COMMISSION
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LEGISLATIVE COUNSEL BUREAU

STATE OF NEVADA

JULY 1984

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Senate Concurrent Resolution No. 52—Committee on Legislative Affairs

FILE NUMBER...135

SENATE CONCURRENT RESOLUTION—Directing an interim study of the disposal of highly radioactive waste in Nevada.

WHEREAS, The Nuclear Waste Policy Act of 1982 establishes a procedure for selection of sites to be used as repositories for the disposal of high-level radioactive waste which has been generated in nongovernmental activities; and

WHEREAS, The United States Secretary of Energy must study at least five possible sites for the location of such a repository and recommend to the President three of the sites before January 1, 1985; and

WHEREAS, The President must, before March 31, 1987, recommend to Congress one site to be the first national repository for the disposal of high-level radioactive waste; and

WHEREAS, The federal act authorizes states in which possible sites are located to participate in the study of the sites by the Department of Energy, and provides grants to states to help pay the cost of their participation; and

WHEREAS, The Secretary of Energy is considering a site near Yucca Mountain in Nye County, Nevada, as one of the final five sites to receive intensive study, and has already held initial public hearings on the subject; now, therefore, be it

Resolved by the Senate of the State of Nevada, the Assembly concurring, That the legislative commission is hereby directed to appoint an interim subcommittee to observe and participate in any study by the United States Secretary of Energy of possible sites in this state for a repository of high-level radioactive waste if the Department of Energy grants money to this state to participate in the federal study; and be it further

Resolved, That the interim subcommittee, if appointed, shall study and evaluate:

1. The information and policies applicable to the location of such a repository in this state; and

2. Any potentially adverse consequences to this state which may result from the construction and operation of such a repository and ways of mitigating any such consequences; and be it further

Resolved, That the legislative commission is directed to submit a report of its findings, with any recommended policies and proposed legislation, to the 63rd session of the Nevada legislature.

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REPORT OF THE LEGISLATIVE COMMISSION

TO THE MEMBERS OF THE 63RD SESSION OF THE NEVADA LEGISLATURE:

This report is submitted in compliance with Senate Concurrent Resolution No. 52 of the 62nd session of the Nevada legislature. Senate Concurrent Resolution No. 52 directed the legislative commission to study the possible location of a repository for disposal of high-level radioactive waste in Nevada and potentially adverse impacts associated with the project.

In order to conduct the study, the legislative commission appointed a subcommittee with the following members:

Senator Thomas J. Hickey, Chairman
Assemblyman James W. Schofield, Vice Chairman
Assemblyman Kenneth K. Redelsperger

Activities of the legislative subcommittee were financed through a contract with the governor's office. This money constituted a portion of the funding received by the State of Nevada from the United States Department of Energy (DOE) to facilitate study of the issue.

The following report presents the subcommittee's recommendations as they were approved by the legislative commission. A description of relevant activities at the federal, state and local level is also included. All supporting documents and minutes of meetings are on file with the research division of the legislative counsel bureau.

This report is transmitted to the members of the 63rd session of the Nevada legislature for their consideration and appropriate action.

Respectfully submitted,

Legislative Commission
Legislative Counsel Bureau
State of Nevada

Carson City, Nevada
July 1984

* *

LEGISLATIVE COMMISSION

Senator James I. Gibson, Chairman

Senator Thomas J. Hickey
Senator Robert E. Robinson
Senator Randolph J. Townsend
Senator Sue Wagner

Assemblyman Louis W. Bergevin
Assemblyman Joseph E. Dini, Jr.
Assemblyman John E. Jeffrey
Assemblyman Michael O. Malone
Assemblyman David D. Nicholas
Assemblyman John M. Vergiels

SUMMARY OF RECOMMENDATIONS

The legislative commission's subcommittee to study disposal of high-level radioactive waste in the state makes the following recommendations:

I. STRUCTURE OF THE STATE'S PROGRAM

A. General Policy

1. That a policy statement be placed in the statutes indicating that it is the legislature's intent to create a unified program for analysis of high-level radioactive waste in the state, and that this program include participation by the executive branch of state government, the legislative branch of state government and local governments in the affected areas of the state.

2. That the director of the nuclear waste project office be assigned responsibility for administration and coordination of the state's program.

B. State Office - Basic Structure

3. That the nuclear waste project office be established by statute within the governor's office.

4. That the basic responsibilities of the nuclear waste project office be defined as follows:

   a. To advise the governor and the legislature on matters concerning the potential disposal of high-level radioactive materials in the state;

   b. To develop and administer coordinated programs of planning and evaluation in the state;

   c. To work closely and consult with affected local governmental entities and state agencies;

   d. To assist local governmental entities in communicating with the United States Department of Energy and its contractors; and

   e. To perform the duties and responsibilities of the State of Nevada as described in the Nuclear Waste Policy Act of 1982 (Public Law 97-425).

5. That a division of technical programs and a division of planning be established within the nuclear waste project office.

   a. Assign the division of technical programs responsibility for:

      (1) Environmental evaluation,

      (2) Engineering evaluation,

      (3) Geotechnical evaluation,

      (4) Quality assurance,

      (5) Radiological health assessments, and

      (6) Other duties as assigned by the director.

   b. Assign the division of planning responsibility for:

      (1) Coordination with local governments and other state agencies,

      (2) Information dissemination to local governments and other affected entities,

      (3) Public information programs,

      (4) Transportation and socioeconomic studies,

      (5) Assessment of potential impacts of the proposed project and means of mitigating the negative aspects of these impacts, and

      (6) Other duties as assigned by the director.

6. That the senate committee on finance and the assembly committee on ways and means authorize staffing for the nuclear waste project office to include at least a director, heads of the two divisions, a senior-level planner and two secretaries.

C. State Office - Detailed Aspects

7. That the following definitions, unless the context otherwise requires, be included in statute:

   a. "Office" means the nuclear waste project office within the office of the governor.

b. "Director" means the director of the nuclear waste project office.

c. "Nuclear Waste Policy Act of 1982" or "Act" means the Nuclear Waste Policy Act of 1982 enacted by Congress and signed into law by the President on January 7, 1983 (Public Law 97-425), which sets forth the provisions by which the Federal Government will manage the transportation, storage, and disposal of high-level radioactive waste materials, and other related provisions.

d. "High-level radioactive waste" means:

(1) The highly radioactive material resulting from the reprocessing of spent nuclear fuel, including liquid waste produced directly in reprocessing and any solid material derived from such liquid waste that contains fission products in sufficient concentrations;

(2) Spent nuclear fuel that has been withdrawn from a nuclear reactor following irradiation, the constituent elements of which have not been separated by reprocessing; and

(3) Other highly radioactive material that the U.S. Nuclear Regulatory Commission (NRC), consistent with existing law, determines by rule requires permanent isolation.

8. That the following provisions relative to the director be established in statute:

a. The governor shall appoint the director, who serves at the pleasure of the governor in the unclassified service of the state.

b. A person who is selected to serve as director must have had at least 5 years of responsible experience in public or business administration, or possess broad management skills in areas related to the functions of the office.

c. The governor shall select the director on the basis of his training, his commitment to working with local governments, and his experience and aptitude for coordinating agencies which perform

duties relating to planning, management, and coordination between governments. The knowledge and abilities of the director must include some or all of:

(1) A comprehensive knowledge of the principles of administration and a working knowledge of matters which will be under his direction;

(2) Ability to assess the operations of the office and protect the interests of the public in areas covered by the duties of his office;

(3) Ability to organize and present oral and written communications to the governor, legislature, local governmental entities, and other officials and members of the public.

d. The director is entitled to be reimbursed for travel expenses and expenses of subsistence in amounts provided by law for state officers and employees.

e. The director shall devote his full time to the duties of his office and not engage in any other gainful employment or occupation.

9. That the statutes require that the director:

a. Appoint, with the consent of the governor, a head of each division of the office.

b. Carry out duties as prescribed by law.

c. Accept grants from and cooperate with any governmental agency or other person to further the purposes of this Act.

d. Consult with regularly and seek advice from:

(1) Legislature;

(2) Affected local governmental entities;

(3) Other state agencies; and

(4) Relevant university departments, agencies, and institutes.

10. That the statutes allow the director to:

    a. Employ, without regard to the provisions of chapter 284 of Nevada Revised Statutes (NRS), within the limitations of legislative authorization, technical consultants, specialists, investigators, and other professional and clerical employees to enable the office to carry out its duties.

    b. Make and execute contracts and all other instruments necessary or convenient for the exercise of the duties of the office with any governmental agency, company, or other person.

    c. Rent, lease, purchase, or contract for property, equipment and supplies necessary to carry out the purposes of this act.

    d. Adopt regulations necessary to carry out the duties of the office.

    e. Perform other functions necessary to the proper discharge of the duties of the office.

11. That the statutes provide that the head of each division of the department:

    a. Is in the unclassified service of the state and is entitled to be reimbursed for travel expenses and expenses of subsistence in amounts provided by law for state officers and employees.

    b. Shall administer the provisions of law relating to his division under the administrative supervision of the director.

    c. Shall devote his entire time and attention to the business of his division and not pursue any other business or occupation or hold any other office of profit.

12. That the statutes indicate that the attorney general:

    a. Is the counsel and attorney for the office.

    b. Shall designate deputies to be counsel and attorney for the office in all actions, proceedings, and hearings. The deputies so designated:

(1) Are the legal advisors to the office in all matters relating to the office and to the powers and duties of its officers.

(2) Are in the unclassified service of the state.

13. That the governor be allowed, by executive order, to abolish the nuclear waste project office whenever he determines it is no longer needed.

C. Local Governments

14. That a policy statement be placed in the statutes indicating that local governments are direct participants in the development and conduct of the state's program for analysis of high-level radioactive waste in the state.

15. That the director of the nuclear waste project office be required to consult regularly with and seek advice from local governments in the affected areas.

16. That the director of the nuclear waste project office be required regularly to provide information relevant to the state's program to interested governmental entities, including local governments.

D. Legislative Subcommittee

17. That a legislative committee be established by statute to perform the general duties outlined in Senate Concurrent Resolution No. 52 from the 1983 legislative session. Specify the membership to consist of two senators appointed by the majority leader of the senate and three assemblymen appointed by the speaker of the assembly. Provide that the committee elect its chairman from the membership.

18. That the legislative leadership consult with the members of the committee before making appointments to the National Conference of State Legislature's "Legislative Working Group on Disposal of High-Level Radioactive Waste."

II. THE FEDERAL PROGRAM

A. General Policy

19. That a resolution be adopted stating that the Federal Government should:

    a. Bear the total financial responsibility for mitigation of all adverse effects associated with the study, site characterization, construction, operation and closure, including related transportation activities, of any repository for high-level radioactive waste which might be located in the state. Indicate that mitigation of adverse effects should be undertaken at the time that these effects are determined to be occurring.

    b. Purchase and obtain in Nevada the materials and equipment used in connection with all phases of the high-level radioactive waste project.

    c. Include in all construction contracts provisions to assure that materials and equipment purchased for the repository project in Nevada will be subject to state sales and use taxes.

    d. Assume all liability, without limit, for accidents or injuries associated with the transportation, handling, construction, operation, decommissioning, closure, or long-term use of facilities to store or dispose of high-level radioactive waste.

B. Mitigation of Negative Impacts

20. That a resolution be adopted stating that:

    a. A mechanism for developing a combined request from all governmental entities in the State of Nevada for assistance in mitigation of adverse effects associated with the repository project will be established; and

    b. The Federal Government should recognize this organization as the final authority on state and local needs and priorities.

21. That a resolution be adopted urging the Federal Government to establish a special fund consisting of money to be used to mitigate adverse effects associated with the study and characterization of sites as possible locations for a repository. Indicate that mitigation of the adverse effects should be undertaken at the time that these effects are determined to be occurring.

22. That a resolution be adopted stating that, if a repository is located in Nevada, the Federal Government should provide assistance for mitigation of the adverse effects of the repository project in each of the following areas, as well as others that may be identified in the planning processes at local, state and federal levels:

    a. Education, including facilities and personnel for the elementary and secondary levels, community colleges, vocational and technical education, and universities;

    b. Public health, including facilities and personnel for programs of water treatment and distribution, sewerage and sewage treatment, pest control, sanitary land fill and sanitation;

    c. Law enforcement and criminal justice, including facilities and personnel for the functions of prosecution and defense, for the courts, for corrections and for training of administrative personnel;

    d. Fire protection, including early location and construction of stations, acquisition of fire-fighting equipment and communications equipment and personnel;

    e. Emergency medical services, including equipment, facilities and personnel;

    f. Medical care, including hospitals, equipment and personnel;

    g. Cultural needs, including facilities and personnel for libraries, management of cultural resources, museums, recreational facilities and acquisition and expansion of parks;

h. Disposal of public lands in a timely fashion to allow the expansion of existing communities, the possible creation of new ones and the construction of needed residential and commercial facilities;

i. Utilization of labor, including facilities and personnel for employment services and for vocational training;

j. Social services, including facilities and personnel for welfare programs, services to the aging, services to youth, rehabilitation programs, programs relating to health and mental hygiene and programs relating to the abuse of alcohol and controlled substances;

k. Transportation, including full responsibility for any road, rail or air facilities built for the repository project and assistance for the repair and maintenance of any facilities used or damaged by vehicles and equipment associated with the construction or operation of the repository project;

l. Training and equipment for local and state public safety, emergency medical and firefighting personnel for the handling of radioactive or hazardous waste accidents;

m. Establishment of appropriate methods and equipment, including computer capability, to observe and assess long-term effects of the repository project over the entire life of the project, including study, site characterization, construction, closure and postclosure phases until the waste is no longer radioactive;

n. Energy needs, including requisite facilities, created by all activity induced by the repository project, recognizing that the payment for such needs should not be subsidized by current residents of the area affected by construction of the facility;

o. Funds to compensate the state for loss of revenue from tourism and economic development potential, and funds necessary to mitigate the effects of limiting the state's potential for economic diversification and development;

p. A special account containing funds to mitigate unforeseen effects associated with the project; and

q. Such other facilities and personnel of state or local governments as may be required to meet needs that would not have occurred except for the construction, operation and closure of the repository project.

III. COORDINATION BETWEEN STATE AND FEDERAL PROGRAM

Consultation and Cooperation Agreement

23. That the governor be authorized to enter negotiation with the Secretary of the U.S. Department of Energy to develop a written agreement regarding the interaction between the state's program and the U.S. Department of Energy, as outlined in section 117 (c) of the Nuclear Waste Policy Act of 1982. Further, provide that the governor may initiate the negotiations at any time, or at such time as required by the Act. Direct the governor to consult with and seek advice from the legislature and affected local governments before and during negotiation of the agreement.

24. That the authority to sign the consultation and cooperation agreement be assigned to the governor or his designee and the chairman of the legislative commission. Require that the legislative commission hold a public hearing on the written agreement before it is signed by the chairman of the commission.

IV. FEES

Permits and Fees for Transportation

25. That legislation similar to Assembly Bill 679 from the 1983 legislative session be enacted to require permits and impose fees for transport of high-level radioactive waste in the state.

REPORT TO THE 63RD SESSION OF THE NEVADA LEGISLATURE BY THE LEGISLATIVE COMMISSION'S SUBCOMMITTEE TO STUDY DISPOSAL OF HIGH-LEVEL RADIOACTIVE WASTE IN NEVADA

I. INTRODUCTION

The 62nd session of the Nevada legislature, in 1983, adopted Senate Concurrent Resolution No. 52 (File 135, Statutes of Nevada 1983) which directed the legislative commission to appoint an interim subcommittee:

1. To observe and participate in the United States Department of Energy's study of possible sites within the state for location of a repository for disposal of high-level radioactive waste;

2. To study the information and policies applicable to location of a repository in the state; and

3. To study any potentially adverse consequences which may result from construction and operation of such a repository and ways of mitigating these impacts.

Subcommittee Meetings and Funding

The subcommittee which conducted the study held meetings in Carson City, Las Vegas, and Tonopah. The members also participated in briefings and informational meetings in Washington, D.C., on two occasions. Staff to the subcommittee functioned as a member of the state-local technical working group and attended the annual Waste Management Symposium in Tucson, Arizona.

Financing for the activities of the subcommittee was provided through a contract with the governor's office (Appendix A). This money constituted a portion of the funding received by the State of Nevada from the U.S. Department of Energy to facilitate study of the issue.

Subcommittee Objectives

In conducting the study to date, the subcommittee's major objectives have been:

1. To become familiar with the federal program for study of potential locations for a repository, and

2. To establish a structure within the State of Nevada to analyze and address the issues associated with the possibility of location of a repository in the state.

II. HIGH-LEVEL RADIOACTIVE WASTE

High-level radioactive waste is the byproduct which results from the fission reaction that generates power in commercial, electricity-producing reactors and in military and research reactors. In a nuclear reaction, uranium atoms release heat as they split into new, lighter atoms called fission products. These fission products are the remnants, or "wastes," of the nuclear reaction. The wastes continue the process of decay by emitting radioactivity. They decay at different rates. Eventually, in time frames ranging from minutes to thousands of years, the wastes lose their radioactive characteristics.

Pellets consisting of uranium oxide (enriched to 3 percent U_{235}) are the fuel for commercial plants generating electrical power in the United States. These pellets are sealed in metal tubes slightly larger than the diameter of a pencil and approximately 12 to 13 feet long. The tubes are bundled together into assemblies, each containing between 50 and 270 tubes, depending on the design of the reactor in which they are to be used. About one-third of the assemblies in a typical power reactor are "spent" and replaced each year. This activity produces between 65 and 180 spent fuel assemblies per reactor each year.

Most of the spent fuel is produced at nuclear reactors located in the Eastern and upper Midwestern States. Some waste is also derived from reactors located along the west coast of the United States. No nuclear reactors have been constructed in Nevada, and none are currently being planned.

When it leaves the reactor, spent fuel is thermally hot and highly radioactive. Most of this heat and radiation dissipates after about 5 years of storage. However, spent fuel remains potentially dangerous for longer periods of time. The danger exists because exposure to even low levels of radiation over time may cause harmful health effects. Some of the waste products also could be chemically poisonous if ingested. However, spent fuel is not explosive from either a chemical or a nuclear standpoint.

After removal from a reactor, spent fuel is stored in a pool of water at the power plant site. This method of storage was originally intended to be a temporary measure. Some spent fuel, however, has been held in this type of storage for more than 30 years. Many power plants are reaching their capacity to store spent fuel on-site.

It has been concluded that the best way to dispose of spent fuel and other forms of high-level radioactive waste is within an underground repository. The repository currently being designed to contain high-level nuclear waste will resemble a large mining complex. It will combine two types of industrial facilities--a waste handling facility at the surface and a large mine constructed 1,000 to 4,000 feet below the surface.

A central area of about 400 surface acres will contain buildings and other repository facilities during the expected 30- to 40-year operating period. An additional 50 acres may be required during the 5- to 8-year construction period for temporary buildings, parking lots for vehicles of construction workers, storage of materials, and a concrete batch plant.

The underground area of the repository will cover approximately 2,000 acres. Separate shafts with hoists will lead below ground for personnel and equipment and for lowering nuclear waste canisters. Other shafts will provide ventilation. Tunnels will spread out into the underground area. Canisters of solidified high-level waste will be lowered to the repository emplacement area where a transport vehicle will carry them into a tunnel for emplacement. The canisters will then be lowered into holes drilled in the tunnel floor or walls.

As each storage zone is filled, the holes, tunnels, and shafts will be backfilled and sealed. However, provisions are being made to accommodate retrieval of the waste canisters for up to 50 years following emplacement of the last canister.

Studies are presently being undertaken by the U.S. Department of Energy in order to identify an appropriate rock type and the best geographic location for construction of a geological repository.

III. THE FEDERAL LAW

On December 20, 1982, Congress passed the Nuclear Waste Policy Act of 1982 (42 U.S.C. 10101, and following; 96 Stat 2201). It was signed into law by the President on January 7, 1983. The act contains 53 sections, and the printed version is 67 pages in length.

The Table of Contents for the Nuclear Waste Policy Act is provided in Figure 1.

FIGURE 1

TABLE OF CONTENTS
NUCLEAR WASTE POLICY ACT

GENERAL PROVISIONS

Sec. 1. Short title and table of contents.
Sec. 2. Definitions.
Sec. 3. Separability.
Sec. 4. Territories and possessions.
Sec. 5. Ocean disposal.
Sec. 6. Limitation on spending authority.
Sec. 7. Protection of classified national security information.
Sec. 8. Applicability.
Sec. 9. Applicability.

TITLE I--DISPOSAL AND STORAGE OF HIGH-LEVEL RADIOACTIVE WASTE, SPENT NUCLEAR FUEL, AND LOW-LEVEL RADIOACTIVE WASTE

Sec. 101. State and affected Indian tribe participation in development of proposed repositories for defense waste.

Subtitle A--Repositories for Disposal of High-Level Radioactive Waste and Spent Nuclear Fuel

Sec. 111. Findings and purposes.
Sec. 112. Recommendation of candidate sites for site characterization.
Sec. 113. Site characterization.
Sec. 114. Site approval and construction authorization.
Sec. 115. Review of repository site selection.
Sec. 116. Participation of States.
Sec. 117. Consultation with States and Indian tribes.
Sec. 118. Participation of Indian tribes.
Sec. 119. Judicial review of agency actions.
Sec. 120. Expedited authorizations.
Sec. 121. Certain standards and criteria.
Sec. 122. Disposal of spent nuclear fuel.
Sec. 123. Title to material.
Sec. 124. Consideration of effect of acquisition of water rights.
Sec. 125. Termination of certain provisions.

FIGURE 1 - (continued)

Subtitle B--Interim Storage Program

Sec. 131. Findings and purposes.
Sec. 132. Available capacity for interim storage of spent nuclear fuel.
Sec. 133. Interim at-reactor storage.
Sec. 134. Licensing of facility expansions and transshipments.
Sec. 135. Storage of spent nuclear fuel.
Sec. 136. Interim Storage Fund.
Sec. 137. Transportation.

Subtitle C--Monitored Retrievable Storage

Sec. 141. Monitored retrievable storage.

Subtitle D--Low-Level Radioactive Waste

Sec. 151. Financial arrangements for site closure.

TITLE II--RESEARCH, DEVELOPMENT, AND DEMONSTRATION REGARDING DISPOSAL OF HIGH-LEVEL RADIOACTIVE WASTE AND SPENT NUCLEAR FUEL

Sec. 211. Purpose.
Sec. 212. Applicability.
Sec. 213. Identification of sites.
Sec. 214. Siting research and related activities.
Sec. 215. Test and evaluation facility siting review and reports.
Sec. 216. Federal agency actions.
Sec. 217. Research and development on disposal of high-level radioactive waste.
Sec. 218. Research and development on spent nuclear fuel.
Sec. 219. Payments to States and affected Indian tribes.
Sec. 220. Study of research and development needs for monitored retrievable storage proposal.
Sec. 221. Judicial review.
Sec. 222. Research on alternatives for the permanent disposal of high-level radioactive waste.
Sec. 223. Technical assistance to non-nuclear weapon states in the field of spent fuel storage and disposal.

FIGURE 1 - (continued)

TITLE III--OTHER PROVISIONS RELATING TO RADIOACTIVE WASTE

Sec. 301. Mission plan.
Sec. 302. Nuclear Waste Fund.
Sec. 303. Alternate means of financing.
Sec. 304. Office of Civilian Radioactive Waste Management.
Sec. 305. Location of test and evaluation facility.
Sec. 306. Nuclear Regulatory Commission training authorization.

Major Provisions

The primary purpose of the Nuclear Waste Policy Act is to establish a national policy, mechanism and schedule for siting, licensing and constructing geologic repositories for disposal of high-level radioactive waste. It creates an Office of Civilian Radioactive Waste Management within the U.S. Department of Energy. This office is responsible for implementing the Act and developing a comprehensive mission plan to guide the program.

In addition to repository siting and construction, the Act also establishes programs for federal interim storage of spent fuel and monitored retrievable storage facilities. A Nuclear Waste Fund financed through a tax on electricity generated or sold by nuclear power plants is created to pay for the costs of the program.

Subtitles A, B and C of Title I of the Act outline most of the substantive provisions concerning storage and disposal of high-level radioactive waste. Significant declarations of the purposes of these three subtitles are outlined in Figure 2.

FIGURE 2

STATEMENTS OF PURPOSE AND DIRECTION FROM SELECTED SUBTITLES OF THE NUCLEAR WASTE POLICY ACT

Subtitle A, Title I--Purposes

1. To establish a schedule for the siting, construction, and operation of repositories that will provide a reasonable

FIGURE 2 - (continued)

able assurance that the public and the environment will be adequately protected from the hazards posed by high-level radioactive waste and such spent nuclear fuel as may be disposed of in a repository;
2. To establish the federal responsibility, and a definite federal policy, for the disposal of such waste and spent fuel;
3. To define the relationship between the Federal Government and the state governments with respect to the disposal of such waste and spent fuel; and
4. To establish a Nuclear Waste Fund, composed of payments made by the generators and owners of such waste and spent fuel, that will ensure that the costs of carrying out activities relating to the disposal of such waste and spent fuel will be borne by the persons responsible for generating such waste and spent fuel.

Subtitle B, Title I--Purposes

1. To provide for the utilization of available spent nuclear fuel pools at the site of each civilian nuclear power reactor to the extent practical and the addition of new spent nuclear fuel storage capacity where practical at the site of such reactor; and
2. To provide, in accordance with the provisions of this subtitle, for the establishment of a federally owned and operated system for the interim storage of spent nuclear fuel at one or more facilities owned by the Federal Government with not more than 1,900 metric tons of capacity to prevent disruptions in the orderly operation of any civilian nuclear power reactor that cannot reasonably provide adequate spent nuclear fuel storage capacity at the site of such reactor when needed.

Subtitle C, Title I--Findings

1. Long-term storage of high-level radioactive waste or spent nuclear fuel in monitored retrievable storage facilities is an option for providing safe and reliable management of such waste or spent fuel;
2. The executive branch and the Congress should proceed as expeditiously as possible to consider fully a proposal for construction of one or more monitored retrievable storage facilities to provide such long-term storage;

FIGURE 2 - (continued)

3. The Federal Government has the responsibility to ensure that site-specific designs for such facilities are available as provided in this section;
4. The generators and owners of the high-level radioactive waste and spent nuclear fuel to be stored in such facilities have the responsibility to pay the costs of the long-term storage of such waste and spent fuel; and
5. Disposal of high-level radioactive waste and spent nuclear fuel in a repository developed under this Act should proceed regardless of any construction of a monitored retrievable storage facility pursuant to this section.

State Participation

The Nuclear Waste Policy Act specifies procedures through which states may participate in the program. Schedules are established for state and public review of program documents, environmental assessments and environmental impact statements.

The law requires the U.S. Department of Energy to notify each state within 90 days of identifying a "potentially acceptable site" within its boundaries. The Act also directs the federal agency to consult with relevant states during the program and provide requested information on a timely basis. If a state is identified as one of three sites for intensive analysis, the law requires that a "consultation and cooperation agreement" between the state and the U.S. Department of Energy be drafted. This agreement is to specify the procedures and rules for interactions between the state and the federal agency during the remainder of the program.

The federal Act also establishes a procedure whereby states may obtain funding to support independent research and analyses. If a site is nominated within a state, section 116 (c)(1)(A) of the law authorizes grants for state planning and participation.

When a location for construction of a repository is determined, the law provides that measures should be undertaken to mitigate adverse impacts related to the program. Section 116 (c)(2)(B) of the Act provides for a contract between

the Secretary of Energy and the state which receives the repository to specify the amount of assistance that will be provided by the Federal Government to mitigate the adverse impacts associated with the project. The state is required to submit "a report on any economic, social, public health and safety, and environmental impacts" which are expected. However, the procedural mechanisms for obtaining authorization of funding to mitigate the impacts are not clearly specified.

Most significantly, the Nuclear Waste Policy Act provides a limited veto power to states. Within 60 days after the President recommends a construction site to Congress, the governor or legislature may submit to Congress a notice of disapproval. The notice must contain an explanation of the reasons for submitting the disapproval. The state's veto stands unless it is overturned within 90 days of continuous congressional session by a majority vote in both houses of Congress.

Specified Dates and Products

As part of establishing the schedule for the program, the Nuclear Waste Policy Act specifies several major dates for completion of certain activities. The program has already fallen behind some of these required deadlines, and projections indicate additional delays in the future. However, an outline of required dates and products is still useful in understanding the overall schedule of the program.

An outline of the major dates and products follows in Figure 3.

FIGURE 3

DATES AND PRODUCTS REQUIRED BY THE NUCLEAR WASTE POLICY ACT

	Date or Time	Action
1.	Within 90 days of enactment.	Secretary of Energy's identification of "potentially acceptable sites."
2.	Within 90 days after Secretary's identification of sites.	DOE notification of states with "potentially acceptable sites."
3.	Within 180 days of enactment.	DOE issurance of guidelines for choosing potential sites for a repository, after obtaining concurrence of the Nuclear Regulatory Commission.

FIGURE 3 - (continued)

	Date or Time	Action
4.	Within 17 months of enactment.	DOE submittal to Congress of Mission Plan outlining overall program design.
5.	After issuing guidelines and consulting with states.	DOE nomination of at least five sites for further study as possible sites for the first repository, accompanied by environmental assessments.
6.	January 1, 1985.	DOE recommendation to the President of three sites for "characterization" as candidate sites for the first repository.
7.	June 1, 1985.	DOE submittal to Congress of a detailed study of the need for and a proposal to build one or more monitored retrieval storage facilities, including three alternative sites.
8.	March 31, 1987.	Presidential submittal to Congress of a recommendation for the site of the first repository, including a complete environmental impact statement. The recommendation becomes effective after 60 days unless the state submits a notice of disapproval. (The President may extend this date by up to 12 months.)
9.	Within 60 days of presidential recommendation.	Gubernatorial or legislative submittal to Congress of a notice of disapproval (optional), accompanied by statement explaining reasons for disapproval.
10.	Within 90 days of continuous congressional session after receipt of the state disapproval.	Congressional overturning of the state's disapproval by a majority vote of both houses (optional). The state's veto is upheld unless Congress acts within this time.

FIGURE 3 - (continued)

	Date or Time	Action
11.	Within 90 days of the effective date of site designation.	DOE submittal of application for construction authorization to the NRC.
12.	January 1, 1989, or within 3 years of DOE's submittal of an application, whichever is later.	NRC action on construction license for the first repository.
13.	July 1, 1989.	DOE recommendation to the President of three possible sites for a second repository.
14.	March 31, 1990.	Presidential submittal to Congress of a recommendation for the site of the second repository. The same requirements, state authority for disapproval, and congressional authority to overturn the veto apply as in the case of the first repository. (The President may extend this date by up to 12 months.)
15.	January 1, 1992, or within 3 years of DOE's submittal of an application, whichever is later.	NRC action on construction license for the second repository.
16.	January 31, 1998.	DOE initiation of disposal of spent fuel in the first repository.

Summaries of the Federal Act

Several summaries of the Nuclear Waste Policy Act have been compiled. Two summaries prepared by people from different

perspectives are included as appendices to this report. Appendix B is a briefing paper compiled by Julie Jordan of the National Conference of State Legislatures (NCSL). She emphasizes information of special significance to legislators. Appendix C, entitled "Selected Highlights--Nuclear Waste Policy Act of 1982," was prepared by George Russ of the Atomic Industrial Forum, Inc.

IV. THE FEDERAL PROGRAM

Identification of "Potentially Acceptable Sites"

The Nuclear Waste Policy Act requires the U.S. Department of Energy to notify each state within 90 days of identifying a "potentially acceptable site" within its boundaries. On February 2, 1983, letters were sent to the governors of six states notifying them that "potentially acceptable sites" had been identified within their jurisdictions. Nine potential sites were identified--one in Louisiana, two in Mississippi, one in Nevada, two in Texas, two in Utah, and one in Washington. Information documents were prepared for each site, and public hearings were held in all six states.

Following is a list of the "potentially acceptable sites" and the composition of the geologic media associated with each repository location.

FIGURE 4

POTENTIALLY ACCEPTABLE SITES
(Listed Generally from East to West)

Site	Host Material
Richton Dome, Mississippi	Salt Dome
Cypress Creek Dome, Mississippi	Salt Dome
Vacherie Dome, Louisiana	Salt Dome
Swisher County, Texas	Bedded Salt
Deaf Smith County, Texas	Bedded Salt
Davis Canyon, Utah	Bedded Salt
Lavender Canyon, Utah	Bedded Salt
Yucca Mountain, Nevada	Tuff
Hanford, Washington	Basalt

Initial studies are also being undertaken in 17 other states to determine if the crystalline (granitic) rocks in these

states would constitute a suitable host material for a repository. All of these states are in the eastern portion of the United States. Although these localities have not been officially identified as "potentially acceptable sites," they are part of a regional characterization study. They will be considered as possible locations for the second repository.

Status of Program Documents

Several program documents required under the Nuclear Waste Policy Act are in the process of being completed. After many drafts and amendments, the Department of Energy's "guidelines" for the program received concurrence from the Nuclear Regulatory Commission on June 22, 1984. The law specifies that the "guidelines" should have been completed by July 6, 1983.

The Act also declares that the Mission Plan should have been submitted to Congress by June 3, 1984. The second draft of this document is presently being circulated for review. Significant negative responses concerning the content and quality of the plan have been submitted by the states.

Draft environmental assessments are being prepared for the nine locations which have been identified as "potentially acceptable sites." The projected date for official distribution of these environmental assessments for public review, originally set for August 1984, has been postponed and is now expected to be September or October of 1984. Public hearings will be held during the review period. It is anticipated that extensive comments will necessitate revision of some, if not all, of the environmental assessments.

Federal Activities in Nevada

Study of the Nevada Test Site as a possible location for a repository was initiated in 1977, prior to enactment of the Nuclear Waste Policy Act. In 1978, the possibility of constructing a repository in tuff was proposed and drilling was initiated at Yucca Mountain. Tests and analyses continued through the time of enactment of the Nuclear Waste Policy Act of 1982.

Under provisions of the Act, Governor Richard H. Bryan was notified by letter, dated February 2, 1983, that Yucca Mountain was being classified as a "potentially acceptable site." Yucca Mountain is on and adjacent to the Nevada Test Site in Nye County, Nevada (see Figure 5). The site is approximately 85 miles northwest of Las Vegas and 20 miles

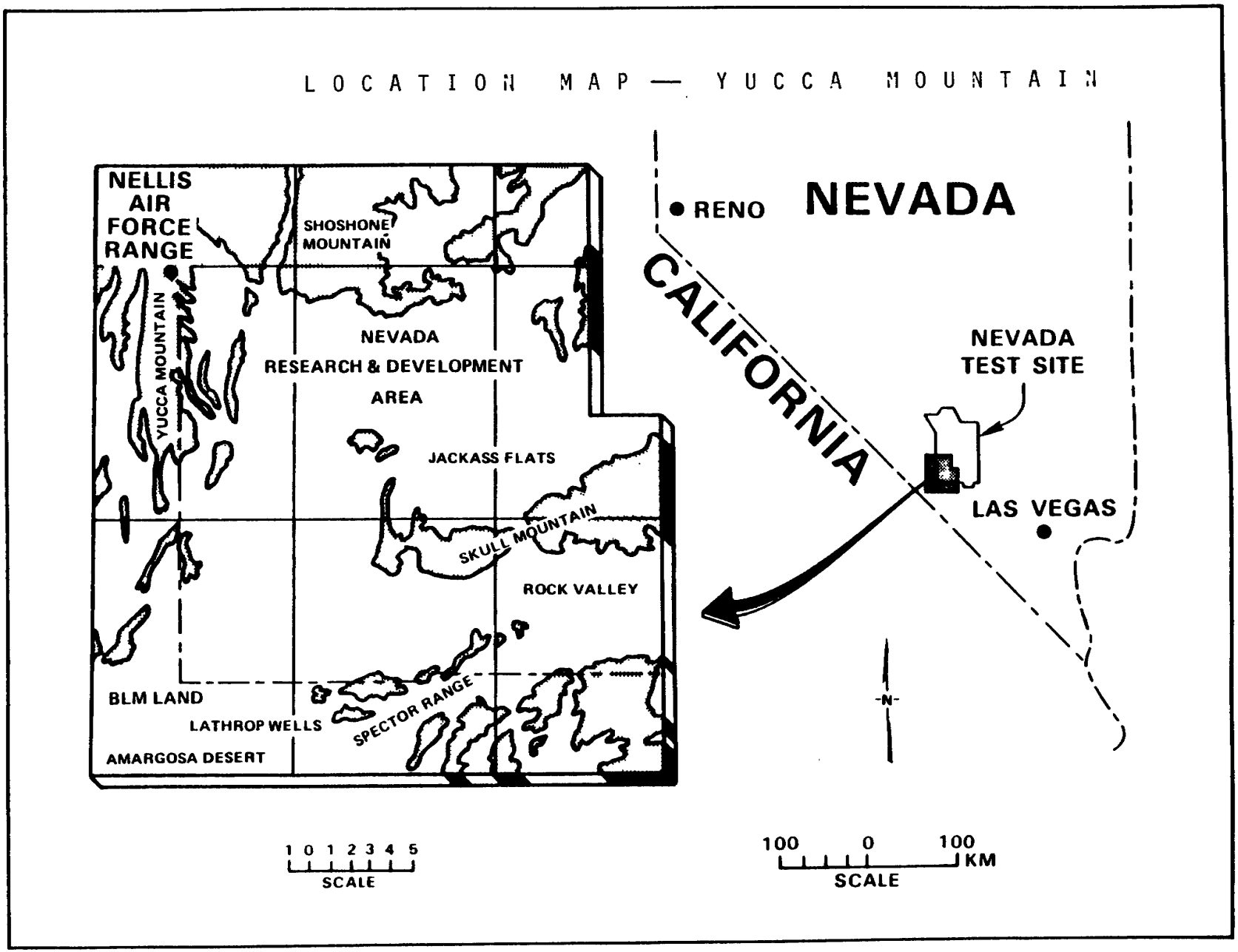

LOCATION MAP — YUCCA MOUNTAIN
NELLIS AIR FORCE RANGE
SHOSHONE MOUNTAIN
YUCCA MOUNTAIN
NEVADA RESEARCH & DEVELOPMENT AREA
JACKASS FLATS
SKULL MOUNTAIN
ROCK VALLEY
BLM LAND
LATHROP WELLS
SPECTOR RANGE
AMARGOSA DESERT
1 0 1 2 3 4 5
SCALE
RENO
NEVADA
CALIFORNIA
NEVADA TEST SITE
LAS VEGAS
N
100 0 100 KM
SCALE

FIGURE 5

east of Beatty, Nevada. All of the land being considered is owned by the Federal Government, with portions being managed by the U.S. Department of Energy (Nevada Test Site), the U.S. Air Force (Nellis Air Force Base Bombing and Gunnery Range), and the U.S. Bureau of Land Management (public domain).

Because investigations were initiated in Nevada in 1977, budgets and expenditures for the federal program date from that point. Appendices D, E and F contain budgetary information for the federal project in Nevada. Appendix D summarizes the Nevada project's annual budgets. Appendix E categorizes the Nevada project's budgets for fiscal years 1983 and 1984 by work element. Appendix F outlines the operating expenditures of contractors.

In addition to the analyses of the Yucca Mountain site, two other major research activities are reflected in the budgets. Westinghouse Electric Corporation has conducted temporary storage tests in shallow dry wells, a surface silo, and in the lag storage pit at the E-MAD facility on the Nevada Test Site. The Lawrence Livermore National Laboratory has also completed tests related to storage of spent fuel canisters in granite 1,400 feet below ground level in the "Climax" facility on the test site.

Headquarters Structure

The Nuclear Waste Policy Act established the Office of Civilian Radioactive Waste Management within the U.S. Department of Energy to administer the federal program. Since its inception, this office has been subject to a considerable amount of organizational instability. Two acting directors have headed the office for relatively short periods of time. The overall structure of the headquarters office in Washington, D.C., was reorganized in July of 1984. A permanent director, Bernard C. Rusche, was confirmed. Figure 6 depicts this new organizational structure.

Structure of Federal Program in Nevada

The structure of the federal program in Nevada has evolved over time. The weapons testing program at the Nevada Test Site has been under the direction of the Nevada Operations Office of the U.S. Department of Energy for many years. When nuclear waste storage investigations were initiated at the test site in 1977, the project was placed within the Nevada Operations Office. After enactment of the Nuclear Waste Policy Act, the Waste Management Project Office continued within the Nevada Operations Office.

The organizational structure of the federal program in Nevada is depicted in Figure 7. Direct, ongoing management of the

FIGURE 6

STRUCTURE OF THE HEADQUARTERS OFFICE OF THE OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT - UNITED STATES DEPARTMENT OF ENERGY

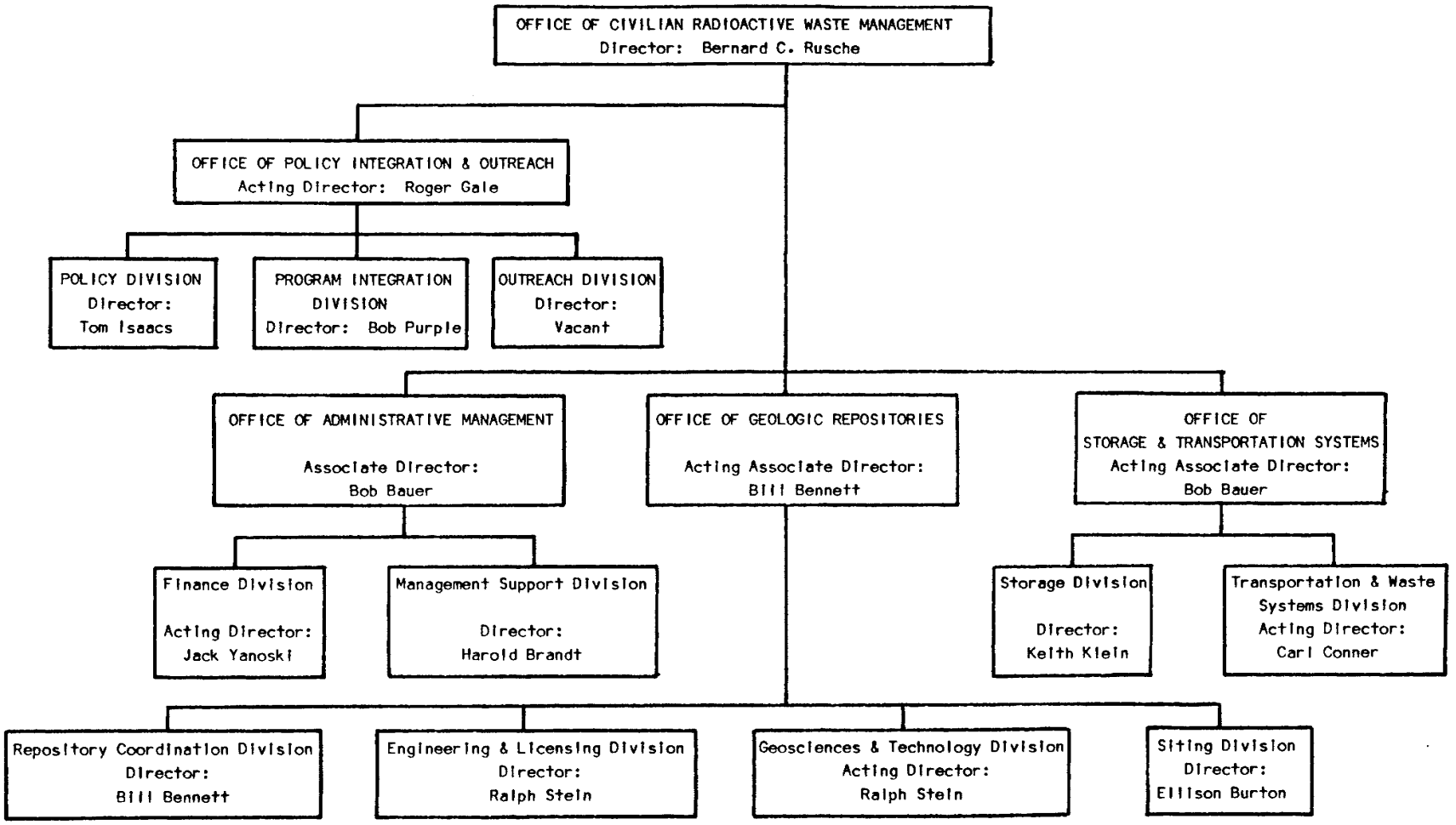
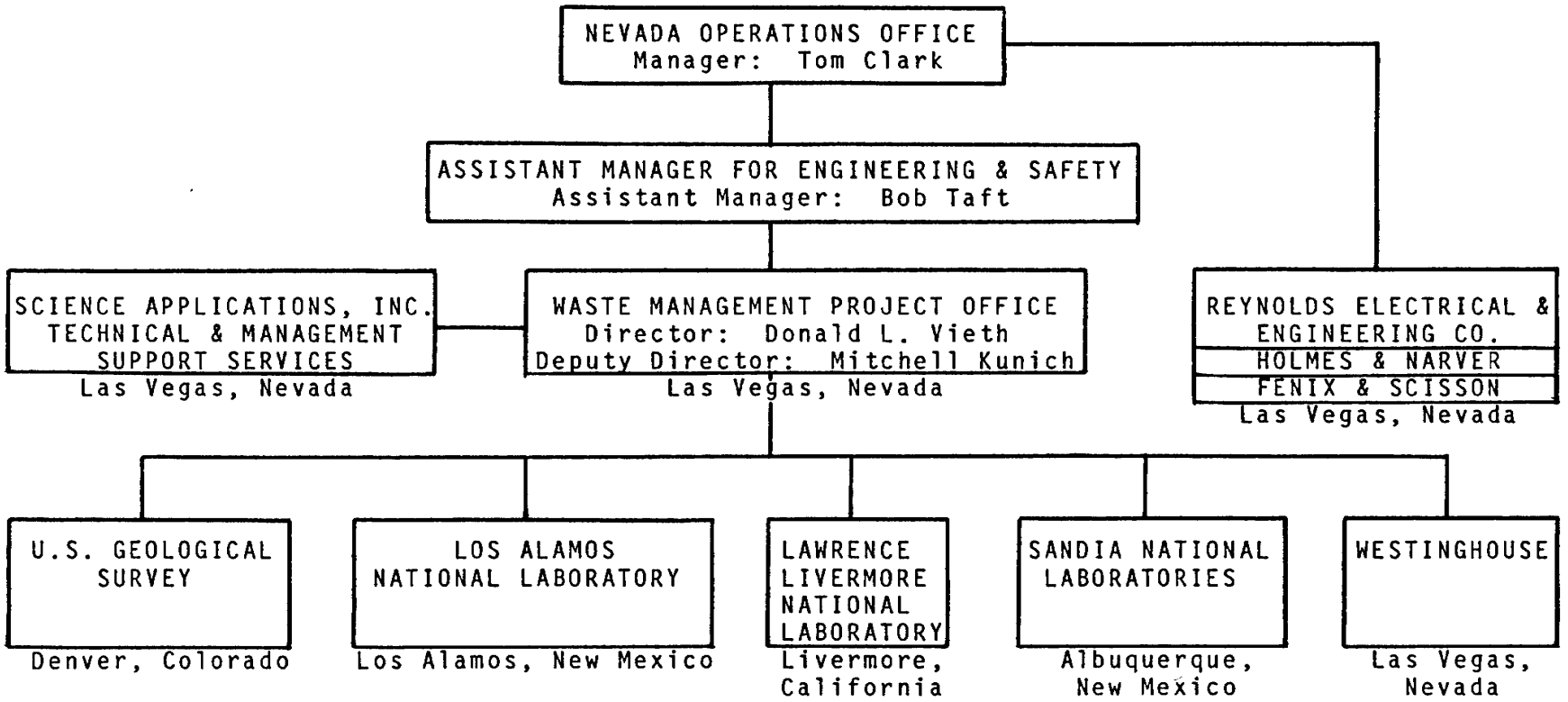


FIGURE 7

STRUCTURE OF THE UNITED STATES DEPARTMENT OF ENERGY'S PROGRAM IN NEVADA



program is the responsibility of Dr. Donald L. Vieth, director of the Waste Management Project Office within the U.S. Department of Energy in Las Vegas, Nevada.

As is evident from the budgets provided in the previous section entitled "Federal Activities in Nevada," much of the analysis of disposal of high-level radioactive waste in Nevada is being performed by consultants under contract to the Nevada Operations Office. A chart which shows the general scope of work for these contractors appears in Appendix G.

V. STATE PROGRAMS IN OTHER STATES

Various management structures have been developed within the relevant states in order to handle the issue of high-level radioactive waste. Enactment of the Nuclear Waste Policy Act with its attendant grant program influenced many states to become more actively involved with the program.

The following discussion of state programs is derived from comments made by John H. Gervers, consultant and previous technical advisor to the State Working Group on High-Level Nuclear Waste Management (National Governors' Association). He spoke to the legislative subcommittee in November of 1983.

Trends Among the States

Among the states being considered for the first repository, three trends have emerged relative to management structures.

1. There is a movement toward closer involvement of the governor's office in the state review program as the repository siting activity becomes more politically sensitive.

2. There is an increasing realization that full-time staff scientists or competent contractors will be necessary if the state is to monitor the U.S. Department of Energy's field activities adequately.

3. States are exhibiting a growing tendency to establish legislative oversight capabilities.

Potential Management Structures

The principal management structures adopted by states have included:

1. An office attached to the governor's office. (Nevada, Texas and Utah have linked their nuclear waste programs directly to the governors' offices.)

2. A "lead" executive agency. (Louisiana, Mississippi and Minnesota have adopted this approach.)

3. An executive task force. (New Mexico has established a cabinet-level task force.)

4. An advisory committee composed of agencies, administrators, legislators, local officials and public members. (This approach was utilized in the early stages of site identification by Mississippi and Utah, but both states subsequently determined that it was impractical.)

5. A state review board or council consisting of senior agency officials, legislators and public members. (Washington and Wisconsin have created state review boards to assist in coordination of their programs.)

6. A legislative committee. (State legislatures in all states being considered as locations for the first repository have established joint ad hoc committees--Nevada and Texas, or delegated authority for oversight of nuclear waste activities to existing committees--Louisiana, Mississippi, Utah and Washington.)

Each of these potential management structures has apparent advantages and potential disadvantages.

Coordination of the nuclear waste review program by the governor's office, or a nuclear waste office attached to the governor's office, offers the best opportunity for timely decisionmaking. However, it is also closely associated with the political process and may be less suited to undertaking assessments of repository siting based upon their technical merits.

The lead agency approach provides firm policy direction but may not represent relevant viewpoints from other state agencies, the legislature or the public. A balance of viewpoints might be achieved by combining the lead agency approach with an interagency committee, a citizen's advisory committee or a legislative oversight committee.

An executive task force diversifies policy direction among several state agencies and retains proximity to the governor for purposes of timely decisionmaking and effective negotiation. It does not, however, provide a role for legislators, local officials or members of the public, unless other structures are created for this purpose. Conversely, a state advisory committee includes all points of view, but the pressures for expanding the membership can result in a cumbersome and ineffective decisionmaking body.

A state review board offers broad representation by including executive, legislative and public members. However, the diversity of its membership makes it less efficiently structured than an executive task force for making timely decisions and participating in negotiations.

A legislative committee provides maximum opportunity for legislative oversight and input to the siting process. Its effectiveness, however, depends on maintenance of a close working relationship with the executive branch. In the absence of a coordinated legislative/executive approach, the state government can be perceived as being divided and indecisive.

State-by-State Descriptions

1. New Mexico

The State of New Mexico is the location of the U.S. Department of Energy's Waste Isolation Pilot Plant (WIPP). This facility is being constructed to accommodate disposal of high-level (transuranic) radioactive waste from U.S. defense programs. The repository, currently under construction, will be mined out of bedded salt 2,150 feet beneath ground surface. Technical studies at the site have been underway since 1975.

It is significant that the activities of the State of New Mexico and the U.S. Department of Energy concerning WIPP are not subject to the provisions of the Nuclear Waste Policy Act.

New Mexico utilizes an executive task force composed of four cabinet officials from the Energy and Minerals Department, the Health and Environment Department, the Highway Department and the Department of Finance and Administration. The task force was created by legislation and is responsible for negotiating on behalf of the state, identifying impacts of disposal facilities, and coordinating state investigations and studies. The task force has policy coordination responsibilities and works very closely with the governor's office. It was instrumental in negotiating a consultation and cooperation agreement and several supplemental agreements with the U.S. Department of Energy. It is staffed and funded by the participating state agencies.

At the technical level, the state has established an environmental evaluation group consisting of a director, six staff scientists, a liaison officer, and a librarian. This group reviews all technical documentation relative

to the Waste Isolation Pilot Plant disposal site and carries out independent analyses. It has published 25 technical reports over the past 6 years and was instrumental in bringing about major changes in the U.S. Department of Energy's field program.

The state legislature created a joint ad hoc interim committee in 1979 to monitor events at WIPP and to provide oversight for the state review program. The membership of this committee consists of eight legislators, four from each house. It has met regularly over the past 4 years to hear testimony from the U.S. Department of Energy and the state task force. The committee is composed of representatives from the affected area and other areas involved with nuclear activities.

The State of New Mexico's relations with local governments have been largely through the legislative committee which has served as a channel for local government views. More recently this function also has been served by three citizens' task forces appointed by the governor to study socioeconomic, health and safety, transportation and mineral resource impacts.

2. Washington

The State of Washington has utilized several organizational structures. In 1982, an executive task force was appointed by the governor. This body was replaced by a lead agency in 1983 which, in turn, was supplanted by a state review board in 1984. Under the 1984 act, the legislature gave primary responsibility for directing the state's nuclear waste program to the Nuclear Waste Board and permitted the board to delegate responsibility for day-to-day liaison and monitoring activities to the Office of High-Level Nuclear Waste Management in the Department of Ecology. The board has, in fact, delegated the line responsibilities to the department, but it continues to exercise a policy overview function for the Washington nuclear waste program. The board also plays a lead role in the ongoing negotiations of a consultation and cooperation agreement with the U.S. Department of Energy.

The Nuclear Waste Board is composed of a chairman, six agency heads, and eight ex officio legislative members. It is assisted by a 15-member Citizens Advisory Council which is chaired by the same person as the Nuclear Waste Board and which provides input to the board on local government and public concerns. The board and the council

rely on the Department of Ecology for all staffing requirements, including technical review which is largely carried out by outside contractors.

The state legislature has established a joint ad hoc science and technology committee which has received independent funding from the U.S. Department of Energy to hire staff and consultants for its own legislative review program. This committee supplements the strong representation by the legislature on the Nuclear Waste Board.

3. Mississippi

The State of Mississippi has adopted a lead agency structure with the Energy and Transportation Board being designated in state legislation as the agency responsible for the state review program. The board has broad authority to negotiate for the state, to monitor congressional and Federal Government activities, to advise the congressional delegation, and to call on the attorney general to initiate judicial proceedings. A nuclear waste division has been established which reports directly to the executive director of the Energy and Transportation Board.

The legislation also created a Nuclear Waste Policy Advisory Council composed of state legislators, local government officials, citizens, public interest groups, the attorney general's office, and the governor's office. This council is directed to advise the Energy and Transportation Board concerning all nuclear waste policy issues.

Also created was a Nuclear Waste Technical Review Committee which includes representatives of 12 affected state agencies. This committee provides critical review of all data and documents produced by the Department of Energy and advises the Energy and Transportation Board on technical matters. In addition, the state is contracting with university groups to compile indepth reviews of geotechnical issues.

The state legislature has designated two existing committees to exercise oversight of nuclear waste activities, the House Committee on Conservation and Water Resources and the Senate Committee on Public Health and Welfare. These legislative committees have worked closely with the Energy and Transportation Board to produce authorizing legislation for executive actions and to define the state's relationship with the U.S. Department of Energy.

4. Louisiana

The State of Louisiana also relies on a lead agency to manage its nuclear waste program. Louisiana's approach has been influenced by the state's successful negotiation of an agreement in 1978 which gave the state a "veto" over repository development. Successive governors and the state congressional delegation have defended the "Principles of Understanding" since that time and have received assurances from the U.S. Department of Energy that the agreement will be honored. Consequently, state policy has focused upon the anticipated outcome of technical studies performed by the U.S. Department of Energy, rather than emphasizing the process of site investigation. The state has relied extensively on the political veto to complement its evaluation of the technical merits of the program. However, the technical evaluations will be broadened as a result of recent increases in federal funding to carry out review activities.

The Office of Air Quality and Nuclear Energy in the Department of Environmental Quality has been designated by the governor as the principal contact point for the state on nuclear waste matters. A Nuclear Waste Repository Program Office within the Louisiana Geological Survey is responsible for day-to-day monitoring and liaison activities, but coordinates closely with the Office of Air Quality and Nuclear Energy. An informal State Technical Advisory Committee composed of state agencies and the universities has served as the principal mechanism for review and evaluation of documents and as a source of advice on technical matters. The state is currently seeking to strengthen its technical review capabilities by hiring outside technical contractors.

Relations with local governments have been conducted through the medium of periodic workshops and meetings in the affected areas to inform the citizenry and provide a forum for expression of public concerns.

The state legislature has played a leading role in formulating state policy on nuclear waste disposal. Beginning in 1977, the legislature enacted increasingly strong prohibitions against disposal of nuclear waste in Louisiana and tightened the requirements for continued federal testing. In 1982, the legislature authorized the governor to exercise the veto under the "Principles of Understanding." The legislature designated the Joint Committee on Natural Resources as the state mechanism for consultation and cooperation, and federal funding

was obtained to hire staff and scientific support personnel. However, the legislature chose informally to delegate the day-to-day responsibility for state review activities to the department designated by the governor. It allocated a significant portion of its funding for a study of socioeconomic impacts in the affected areas.

5. Texas

The State of Texas employed a lead agency structure until 1983. At that time, the legislature did not reauthorize the Texas Energy and Natural Resources Advisory Council, and the High-Level Nuclear Waste Programs Office was shifted to the governor's office. Like Louisiana, the Nuclear Waste Programs Office is responsible for all aspects of the Texas nuclear waste program and reports through the governor's general counsel directly to the governor.

The Nuclear Waste Programs Office has a consulting geologist to review federal studies and has contracted with other state agencies for specific expertise. It also has had access to technical information from the Texas Bureau of Economic Geology which has been under contract to the U.S. Department of Energy since 1976 to carry out portions of the department's area geologic characterization program. This unique relationship has ensured state access to geotechnical information for the Texas study area.

Representatives of the State of Texas anticipate creation of a task force to advise the Nuclear Waste Programs Office and to comment on documents and decisions. This task force will be composed of legislators, local government officials, public interest groups, and representatives of industry and the universities.

A joint interim study committee on hazardous waste includes in its mandate the responsibility for reviewing high-level nuclear waste issues and reporting to the legislature. The Senate Natural Resources Committee and the House Energy Committee have jurisdiction over the nuclear waste matters, and their activities will soon be supported by funding obtained through the Nuclear Waste Programs Office.

6. Utah

The State of Utah has experimented with a number of organizational structures, including a 30-member task

force which was disbanded in June 1982, and an Office of Nuclear Waste reporting directly to the governor which was dismantled in December 1982, when the state chose to discontinue federal grant funding. Utah currently is employing an interagency committee approach and has created a High-Level Nuclear Waste Policy Work Group which includes seven government agencies and the governor's office. This work group is chaired by the representative of the governor's office and is responsible for coordinating policy and technical aspects of the Utah program. The governor's office plays a strong role in policy development and implementation. The committee's primary focus has been upon coordination of technical review activities.

The policy work group is assisted by three existing state organizations: the State Science Council, which includes university and industry representatives from the scientific community; the Resource Development Coordinating Council, an interagency group; and the Utah Geological and Minerals Survey. These three groups have representatives on a technical working group which performs document review and advises the state on technical matters.

The state legislature passed a law in 1980 prohibiting disposal of nuclear waste in the state unless the governor and the legislature give their approval. The Joint Committee on Natural Resources has jurisdiction over nuclear waste issues within the state legislature.

VI. NEVADA'S PROGRAM

Historical Perspective

The State of Nevada initially became involved with the issue of disposal of high-level nuclear waste in 1974, when the governor was notified by the U.S. Atomic Energy Commission that the Nevada Test Site was being considered and studied as a location for a retrievable surface storage facility. The Commission released a Draft Environmental Impact Statement entitled "Surface Storage of High-Level and Transuranic Wastes at the Nevada Test Site."

The governor appointed a Nevada radioactive materials storage committee to review the report and develop recommendations. Upon completion of this responsibility, the committee was dissolved.

Shortly thereafter, the surface storage program was deferred by the Atomic Energy Commission, and the concept of deep mined geologic disposal began to receive greater attention. The state was notified in 1976 that the Nevada Test Site was being investigated as a potential location for a geologic repository. The governor officially expressed his opposition to the investigations.

In 1980, Nevada was invited by the U.S. Department of Energy to submit an application for funding to allow the state to participate in an evaluation of the federal waste disposal activities. The governor did not respond to the invitation, but continued to receive semiannual briefings from the U.S. Department of Energy concerning the repository studies and other activities at the Nevada Test Site. At that time, the Nevada department of energy was designated as the lead agency for the state.

Increasing federal activity and consideration of the Nuclear Waste Policy Act of 1982 provided the impetus for Nevada to become more directly involved in the issue of high-level nuclear waste disposal. Governor Richard H. Bryan expressed his opposition to disposal of the waste in Nevada. It was determined, however, that the state should submit a grant application for funding to monitor the federal program and initiate independent investigations. The state received an initial grant of $350,000 in 1983.

A director and a senior-level scientist were employed to design and manage the state's program. In December 1983, the interim finance committee approved transfer of the program from the department of minerals to the governor's office. Subsequently, a senior-level planner and a secretary have been employed.

The State Program--Executive Branch

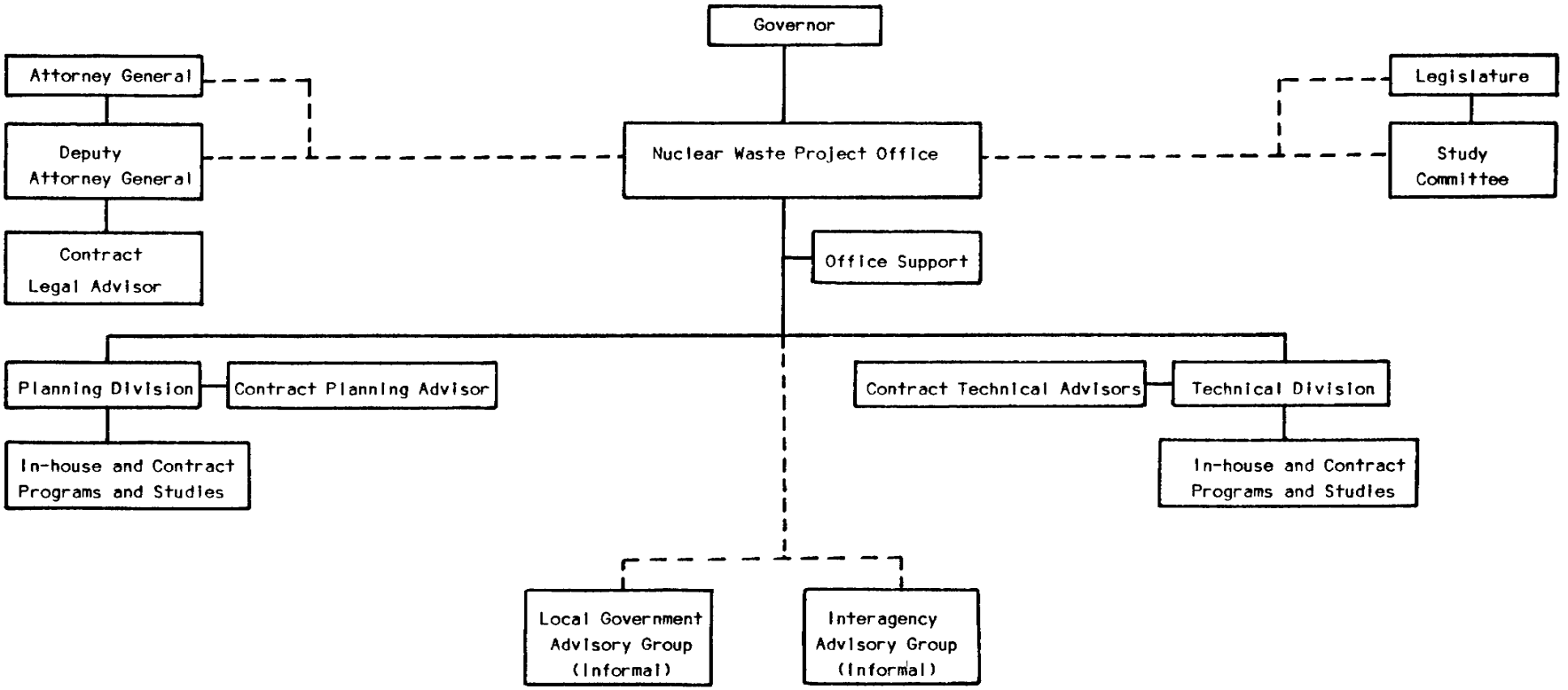
The Nevada nuclear waste project office was established by executive policy. Its location within the governor's office and its budget, however, have been approved by the legislature's interim finance committee. The interim legislative subcommittee to study the subject has determined that the office should be recognized and officially created by statute. Such a recommendation with proposed legislation is included as part of this report.

Figure 8 depicts the organizational structure of the current state program.

As outlined in the organizational chart, the state program may be categorized within two principal areas--technical

FIGURE 8

STRUCTURE OF NEVADA'S NUCLEAR WASTE PROJECT OFFICE



investigations and planning-related responsibilities. The technical concerns have initially been emphasized within the program because it is the consensus of opinion that these factors will be most crucial in determining the basic suitability of a site for a repository. As these technical issues and questions are identified and analyzed, planning and socioeconomic concerns will become more critical.

1. Technical Program

Several objectives have been established within the technical program as follows:

a. To identify health, safety and environmental issues which are of concern to the state.

b. To review and evaluate the U.S. Department of Energy's technical and environmental studies.

c. To perform selective independent studies of critical issues in order to confirm or negate the Department of Energy's analyses.

d. To monitor all of the U.S. Department of Energy's activities.

e. To coordinate programs with other states and federal agencies.

A considerable effort is currently being assigned to the review of federal documents. Several program documents which could have a major influence upon the future of the investigations are presently within the review process. Among these are the siting "guidelines," the "Mission Plan," the environmental assessment for the Nevada site, and the U.S. Nuclear Regulatory Commission's proposed rule concerning disposal in the unsaturated zone.

Within the area of hydrology, five critical issues have been identified. They are:

a. Moisture movement within the unsaturated zone;

b. Relationship between local and regional water flow systems;

c. Long-term future hydrologic conditions;

d. Solute transport--radionuclide movement in the ground water and unsaturated zone; and

e. Water vapor transport which is prevalent in the unsaturated zone.

The state office has contracted with the University of Nevada's desert research institute to study several of these issues relative to hydrology. Additional investigations are also anticipated.

Future studies are being planned to address three critical issues which have been identified in the area of geology. These issues are:

a. Relationship of the site to the regional tectonics;

b. Character and degree of fault activity; and

c. Mineral resource potential.

Within the broad area of technical programs, major consideration will also be given to issues and questions associated with engineering, environmental impacts, radiation-related health risks and quality assurance for the state's activities.

2. Planning Responsibilities

The planning-related responsibilities of the state office may be categorized within several functional areas. Coordination with local governments and other state agencies is of special significance because an effort is being made to utilize broad sources of expertise rather than assembling a large central agency staff. The role of information dissemination also falls within the purview of the planning program. Likewise, review of federal program documents is a significant element within the planning program.

Major aspects of the planning program will also address transportation and socioeconomic studies. Transportation has emerged as a critical issue in the investigations of disposal of high-level radioactive waste. As the program progresses, assessment of potential socioeconomic impacts of the proposed project and means of mitigating the negative aspects of these impacts will become a major activity.

The planning program within the state office is becoming fully operational in the areas of coordination, information dissemination and review of federal program documents. Transportation and socioeconomic analyses are being designed and will be undertaken during the next 2 years.

The activities of the state office are funded through a contract with the U.S. Department of Energy. Figure 9 shows the office's budget and emphasizes that most of the money is allocated to contracts for special studies and services.

FIGURE 9

BUDGET OF NUCLEAR WASTE PROJECT OFFICE
FOR FISCAL YEAR 1984-1985*

Budgetary Item	Amount
Personnel	$ 191,314
Travel (Out-of-State = $22,000 In-State = $20,000)	42,000
Operating Expenses	121,563
Equipment	11,910
Contractual Services	993,493
Total Expenditures	$1,360,280

*Budget as authorized by the legislature's interim finance committee for the state's fiscal year from July 1984 through June 1985.

The budgeted financing for contracts with local governments and the legislature are discussed in subsequent sections of this report. Funds are also budgeted for contracts with other state agencies. As investigations continue, increased participation will be necessary from Nevada's department of transportation, the department of conservation and natural resources, the department of human resources, and the division of emergency management within the state department of the military. Financing to ensure the availability of adequate legal assistance through the attorney general's office is also projected.

Participation of Local Governments

One objective of the state efforts in Nevada is to create a unified program which includes participation by potentially affected local governments. In order to achieve this purpose,

the state's nuclear waste project office has entered into contractual agreements to provide financial assistance to five local entities. In this way, the local governments are made a part of the U.S. Department of Energy's grant program to the state. At the present time, this type of direct funding for local entities through the state program is unique to Nevada.

Figure 10 is a summary of the state's contractual agreements with the local entities.

FIGURE 10

FINANCIAL ASSISTANCE PROVIDED TO LOCAL GOVERNMENTS THROUGH NEVADA NUCLEAR WASTE PROJECT OFFICE

Local Government	Amount of Contract	Time Period
Counties:		
Clark County	$ 60,000	1 year
Lincoln County*	30,000	1 year
Nye County	140,000	1 1/2 years
Cities:		
Las Vegas	$ 25,500	1 year
North Las Vegas	24,000	1 year
TOTAL	$279,500	

*The funding in this category is being administered jointly by Lincoln County and the City of Caliente.

The local entities are actively participating in the review of federal programs and documents. In some instances, independent investigations and data gathering activities are also being undertaken. A state-local technical working group has been meeting informally to exchange information and discuss relevant issues.

Participation by the State Legislature

As described previously in this report, the legislature adopted Senate Concurrent Resolution No. 52 in 1983. This resolution directed the legislative commission to appoint a subcommittee to participate in the study of the possibility

of locating a repository for disposal of high-level radioactive waste in Nevada and potentially adverse impacts associated with such a project. The present document constitutes the report of the subcommittee which conducted the study. Activities of the subcommittee were financed through a contract with the state's nuclear waste project office for $21,950.

The subcommittee concluded that the legislature should continue to be actively involved in the state program. For this reason, the present report contains a recommendation and proposed legislation to create a permanent legislative committee on high-level radioactive waste. The committee primarily will perform oversight and policy formulation functions. The legislative staff will continue to participate in the state-local technical working group. The committee and staff will also continue to function as members of the National Conference of State Legislatures' Legislative Working Group.

Communication with Congressional Delegation

Representatives of the state's nuclear waste project office, the legislative subcommittee and some local governments have communicated frequently with the congressional delegation about the program. The lines of communication have been informal, but effective. The congressional delegation has been kept aware of the state's positions and needs. They have provided significant assistance relative to several critical issues.

The legislative subcommittee foresees the desirability of establishing somewhat more formal methods of communication in the future. As the program progresses, it will probably become useful to hold regularly scheduled discussions and briefings. The subcommittee members consider a close working relationship between the state's program and the congressional delegation to be crucial in protecting the state's interests in the area of high-level radioactive waste.

VII. RECOMMENDATIONS

In developing its recommendations, the subcommittee emphasized the structure of the state's program and basic issues within the federal program. Recommendations were also adopted relative to coordination of state and federal activities and fees for transportation of radioactive waste.

STRUCTURE OF THE STATE'S PROGRAM

The subcommittee recognized the importance of establishing an effective structure for addressing the issue of disposal of high-level radioactive waste in the state. The members determined that the state's central responsibility for policy formulation, technical investigations and coordination should be placed in a statutory office within the governor's office. The subcommittee also emphasized that the state's program should include direct participation by the local governments and the legislature.

Recommendations concerning the structure of the state's program are outlined on pages ix through xiv of this report.

THE FEDERAL PROGRAM

The subcommittee invested a considerable amount of effort in familiarizing themselves with the federal program. The members determined that the Federal Government should be made aware of several basic points relative to the issue of disposal of high-level radioactive waste in Nevada.

First, the Federal Government should bear total financial responsibility for mitigation of all adverse impacts associated with the study and the program. There is evidence that simply declaring that the Yucca Mountain site is being investigated has resulted in adverse economic conditions in one rural area. The subcommittee concluded that efforts to mitigate these and other adverse impacts should be undertaken when the effects are determined to be occurring, rather than several years later when the repository construction may be approved.

The subcommittee also determined that the Federal Government should be made aware of the state's positions concerning in-state purchase of materials and equipment, payment of sales and use taxes on these materials and equipment, the Federal Government's assumption of all liability for accidents or injuries associated with the project, and mitigation of adverse impacts if the repository were to be located in the state.

The subcommittee's recommendations relative to the federal program are located on pages xv through xviii of this document.

COORDINATION BETWEEN STATE AND FEDERAL PROGRAMS

The subcommittee concluded that the state should establish an official mechanism for negotiating and signing a consultation

and cooperation agreement, if this action becomes necessary pursuant to section 117 (c) of the Nuclear Waste Policy Act. Rather than creating a select committee to participate directly in the negotiations, the subcommittee determined that the governor should be given this responsibility. It would be within the governor's discretion to determine what person or group of people should actually negotiate the agreement. The subcommittee was, however, interested in ensuring that the concerns of local governments and the legislature are considered.

The members felt that the recommendations found on page xviii of this report achieve these objectives.

FEES

The subcommittee concluded that it would be reasonable and prudent for the state to require permits and impose fees for transportation of high-level radioactive waste within its borders. Although it may be necessary to establish fees and charges relative to other aspects of the disposal program in the future, the members felt that a transportation fee should be approved during the 1985 legislative session. The subcommittee, therefore, adopted the recommendation outlined on page xviii of this document.

VIII. LIST OF SELECTED DOCUMENTS

Copies of the following documents are on file in the research library of the legislative counsel bureau in Carson City, Nevada.

The Federal Law

1. The Nuclear Waste Policy Act of 1982 (Public Law 97-425; 96 Stat 2201; 42 U.S.C. 10101 and following).

U.S. Department of Energy Program-Related Documents

2. "Annual Report to Congress," Office of Civilian Radioactive Waste Management, February 1984.

3. "General Guidelines for Recommendation of Sites for Nuclear Waste Repositories," Office of Civilian Radioactive Waste Management (Concurrence by U.S. Nuclear Regulatory Commission), Summer 1984.

4. "Mission Plan for the Civilian Radioactive Waste Management Program," Office of Civilian Radioactive Waste Management, April 1984.

U.S. Department of Energy Issue-Related Documents

5. "An Evaluation of Commercial Repository Capacity for the Disposal of Defense High-Level Waste," Assistant Secretary for Defense Programs, July 1984.

6. "Final Environmental Impact Statement--Waste Isolation Pilot Plant (WIPP)," Assistant Secretary for Defense Programs, October 1980.

7. "Foreign Programs for the Storage of Spent Nuclear Power Plant Fuels, High-Level Waste Canisters and Transuranic Wastes," Harmon and Johnson, Battelle Memorial Institute, April 1984.

8. "Nuclear Materials Transportation: Regulatory Functions Performed by Federal Agencies," Schaefer, Shepherd, Ross and Wells, Sandia National Laboratories, September 1981.

9. "Preliminary Analysis of the Cost and Risk of Transporting Nuclear Waste to Potential Candidate Commercial Repository Sites," Wilmot, Madsen, Cashwell and Joy, Sandia National Laboratories, June 1983.

10. "Proceedings of the 1983 Civilian Radioactive Waste Management Information Meeting - December 12-15, 1983," Office of Civilian Radioactive Waste Management, February 1984.

U.S. Department of Energy Documents Directly Related to Nevada

11. "An Annotated Bibliography of Cultural Resources Literature for the Nevada Nuclear Waste Storage Investigations," Pippin and Zerga, Desert Research Institute, University of Nevada System, November 1983.

12. "Bibliography of the Published Reports, Papers and Articles on the Nevada Nuclear Waste Storage Investigations," Nevada Operations Office, May 1984.

13. "Cultural Resources Overview for the Nevada Nuclear Waste Storage Investigations, Nevada Test Site, Nye County, Nevada," Pippin and Zerga, Desert Research Institute, University of Nevada System, November 1983.

14. "Information Document for the Proposed Nomination of Yucca Mountain as a Potential High-Level Radioactive Waste Repository," Nevada Operations Office, March 1983.

15. "Land Use and Withdrawal Actions Necessary for and in Support of the NNWSI Project," Richards and Vieth, Nevada Operations Office, June 1984.

16. "Public Hearings Panel Report--A Summary of Public Concerns Regarding the Characterization of a Repository Site in Nevada," Nevada Operations Office, November 1983.

17. "Surface Storage of High-Level and Transuranic Wastes at the Nevada Test Site" (Draft Environmental Impact Statement), Atomic Energy Commission, 1974.

18. "Transcript of Proceedings--Public Hearing for the Proposed Nomination of Yucca Mountain as a Potential High-Level Radioactive Waste Repository," Nevada Operations Office, March 1983.

19. "Working Draft of the NNWSI Environmental Assessment," Nevada Operations Office, release tentatively scheduled for October 1984.

Other Documents

20. National Conference of State Legislatures, "State Statutes and Regulations on Radioactive Materials Transportation," Foster, October 1983.

21. National Conference of State Legislatures, "Hazardous Materials Transportation--A Legislator's Guide," Abbott, Bulanowski, Foster and Jordan, February 1984.

22. National Research Council, "Social and Economic Aspects of Radioactive Waste Disposal--Considerations for Institutional Management," Panel on Social and Economic Aspects of Radioactive Waste Management, 1984.

23. Nevada Committee for the Utilization of State Resources to Meet National Needs, "Report" of the Committee, Gibson, October 1978.

24. U.S. Nuclear Regulatory Commission, "Final Environmental Statement on the Transportation of Radioactive Material by Air and Other Modes," December 1977.

IX. APPENDICES

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APPENDIX A

Contract Between the Governor's Office and the Legislative Counsel Bureau

A G R E E M E N T

This Agreement between the Nuclear Waste Project Office of the Office of the Governor and the Legislative Counsel Bureau is entered this 29th day of February, 1984.

W I T N E S S E T H:

WHEREAS, The United States has enacted the Nuclear Waste Policy Act of 1982, hereinafter referred to as "Act," which would site a high-level nuclear waste repository in a state by 1998; and

WHEREAS, The Secretary of the Department of Energy has identified the State of Nevada as containing a potentially acceptable site for the siting of the aforementioned repository; and

WHEREAS, The Sixty-second Session of the Nevada Legislature has resolved, in Senate Concurrent Resolution No. 52 (S.C.R. 52), to study legal, social, economic, political and environmental issues presented by the Act and by the action of the Department of Energy; and

WHEREAS, Section 116(c) of the Act provides that funds be made available to the Legislative and Executive branches of governments of states affected by the Act to study issues presented in the siting of a high-level nuclear waste repository; and

WHEREAS, The Governor of the State of Nevada has created the Nuclear Waste Project Office within his office to act as his liaison with the Department of Energy in matters related to the Act, and to enter agreements pursuant to its terms.

NOW, THEREFORE, based upon the foregoing premises and consideration of the following covenants, the parties agree as follows:

1. This Agreement supersedes a previous Agreement made and entered by the Department of Minerals and the Legislative Counsel Bureau concerning the same matters.

2. A study committee, created by S.C.R. 52, shall study, on behalf of the Legislative Commission, the implications of the Act, as they pertain to the State of Nevada in accordance with the scope of work attached to this Agreement as Attachment "A."

3. The Nuclear Waste Project Office, on behalf of the Governor, shall pay the sum of $13,725 (thirteen thousand seven hundred and twenty-five dollars) to the Legislative Counsel Bureau, in addition to the amount agreed to be paid under the superseded agreement, to fund the study referred to in Section 1, above.

4. The Legislative Counsel Bureau may apply for further funds to complete the study if the sum set forth in § 3 above is inadequate, and this Agreement may be modified to provide for additional funds to be paid to the Legislative Counsel Bureau upon receipt of such application and approval of the Nuclear Waste Project Office.

5. This Agreement shall not become effective until approved by the Board of Examiners. TH

6. The Legislative Counsel Bureau shall use the funds made available under this Agreement only for matters pertinent to the Act and issues arising from that Act.

7. The Legislative Counsel Bureau agrees to comply with and submit Department of Energy Compliance Forms, Attachment "B" to this Agreement, to the United States Department of Energy.

8. The employees, agents and consultants of the Legislative Counsel Bureau shall, for purposes of this Agreement, be deemed to be independent contractors, and not employees of the Nuclear Waste Project Office.

9. This Agreement may not be modified except by mutual assent of the parties expressed in a subsequent written agreement.

10. The term of this Agreement shall be from January 20, 1984, until December 31, 1984.

11. The Legislative Counsel Bureau shall make available to the Nuclear Waste Project Office, upon request, documents, work papers and other written materials associated with the aforementioned study, except any whose disclosure is prohibited by NRS 218.625.

IN WITNESS WHEREOF, the parties below have affixed their respective signatures.

Timothy Hay, Executive Assistant
Office of the Governor

Department of Minerals

Legislative Counsel Bureau

Board of Examiners MAR 0 1 1984

APPROVED AS TO FORM:

James C. Smith, Deputy Attorney General

ATTACHMENT "A"

STATEMENT OF WORK

This statement of work, subject to modification with the approval of the parties to this Agreement, describes the objectives of the study, the schedule and content of the subcommittee meetings, the anticipated travel requirements, and the costs associated in completing the study.

I. OBJECTIVE

To gather and analyze information relative to the study of Nevada as a potential site for a high-level nuclear waste repository and to analyze the potential adverse impacts if the site is located in the State.

II. MEETINGS

Several meetings are projected. General content of the meetings will include the following elements:

A. Organization/Information Meeting - Las Vegas (2 days) - November 1983.

1. Description of federal law and presentation of the schedule for the federal study.

2. Description of activities of the state's executive branch.

3. Bounds of the study.

4. Travel to Yucca Mountain site and Nevada Test Site for tour and inspection.

B. The Department of Energy's (DOE) Civilian Radioactive Waste Management Information Meeting and Initial Meeting of the National Conference of State Legislatures' (NCSL) Legislative Working Group - Washington, D.C. (6 days) - December 1983.

1. Meet federal officials, contractors and representatives of private enterprise who have responsibility for different aspects of the program.

2. Discuss the program with members of Nevada's congressional delegation.

3. Attend the sessions of the conference and the meeting of the NCSL Working Group.

II. MEETINGS (continued)

C. The NCSL Legislative Working Group Meeting and Transportation Conference - Las Vegas (3 days) - May 1984.

1. Assist in setting up and managing the transportation conference.

2. Participate in the meeting of the NCSL Legislative Working Group.

3. Hold subcommittee meeting and public hearing to discuss possible subcommittee actions.

D. Subcommittee Meeting and Public Hearing - Carson City (1 day) - June 1984.

1. Presentations by DOE, state and local government representatives.

2. Public hearing.

3. Review draft subcommittee report and adopt recommendations.

E. The NCSL Legislative Working Group Meeting - Boston, Massachusetts (2 days) - August 1984. (Tentative)

Participate in meeting.

F. The DOE's Annual Informational Meeting - Seattle, Washington (4 days) - December 1984.

1. Meet with relevant officials and representatives of private enterprise.

2. Participate in sessions of the meeting.

III. BUDGET

1. Meeting and Travel Costs

Meeting A (Las Vegas)	$ 900
Meeting B (Washington, D.C.)	6,825
Meeting C (Las Vegas)	1,500
Meeting D (Carson City)	1,200
~~Meeting E (Boston, Massachusetts)~~	5,600
Meeting F (Seattle, Washington OR Chicago, Illinois)	5,425
Subtotal	$21,450
2. Report Printing Costs	500
3. Total Study Costs	$21,950

The schedule of meetings and the number and destinations of trips may be modified as deemed necessary by the subcommittee as the study progresses.

Assurance of Compliance

Nondiscrimination in Federally Assisted Programs

Legislative Counsel Bureau (Hereinafter called the "Applicant")

HEREBY AGREES to comply with Title VI of the Civil Rights Act of 1964 (Pub. L. 88-352), Section 16 of the Federal Energy Administration Act of 1974 (Pub. L. 93-275), Section 401 of the Energy Reorganization Act of 1974 (Pub. L. 93-438), Title IX of the Education Amendments of 1972, as amended, (Pub. L. 92-318, Pub. L. 93-568, and Pub. L. 94-482), Section 504 of the Rehabilitation Act of 1973 (Pub. L. 93-112), the Age Discrimination Act of 1975 (Publ. L. 94-135), Title VIII of the Civil Rights Act of 1968 (Pub. L. 90-284), the Department of Energy Organization Act of 1977 (Pub. L. 95-91), and the Energy Conservation and Production Act of 1976, as amended, (Pub. L. 94-385). In accordance with the above laws and regulations issued pursuant thereto, the Applicant agrees to assure that no person in the United States shall, on the ground of race, color, national origin, sex, age, or handicap, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity in which the Applicant receives Federal assitance from the Department of Energy.

Applicability and Period of Obligation

In the case of any service, financial aid, covered employment, equipment, property, or structure provided, leased, or improved with Federal assistance extended to the Applicant by the Department of Energy, this assurance obligates the Applicant for the period during which Federal assistance is extended. In the case of any transfer of such service, financial aid, equipment, property, or structure, this assurance obligates the Applicant for the period during which it retains ownership or possession of the property. In all other cases, this assurance obligates the Applicant for the period during which the Federal assistance is extended to the Applicant by the Department of Energy.

Employment Practices

Where a primary objective of the Federal assistance is to provide employment or where the Applicant's employment practices affect the delivery of services in programs or activities resulting from Federal assistance extended by the Department , the Applicant agrees not to discriminate on the ground of race, color, national origin, sex, age, or handicap, in its employment practices. Such employment practices may include, but are not limited to, recruitment, advertising, hiring, layoff or termination, promotion, demotion, transfer, rates of pay, training and participation in upward mobility programs, or other forms of compensation and use of facilities.

Subrecipient Assurance

The Applicant shall require any individual, organization, or other entity with whom it subcontracts, subgrants, or subleases for the purpose of providing any service, financial aid, equipment, property, or structure to comply with laws cited above. To this end, the subrecipient shall be required to sign a written assurance form, however, the obligation of both recipient and subrecipient to ensure compliance is not relieved by the collection or submission of written assurance forms.

Data Collection and Access to records

The Applicant agrees to compile and maintain information pertaining to programs or activities developed as a result of the Applicant's receipt of Federal assistance from the Department of Energy. Such information shall include, but is not limited to,

the following: (1) the manner in which services are or will be provided and related data necessary for determining whether any persons are or will be denied such services on the basis of prohibited discrimination; (2) the population eligible to be served by race, color, national origin, sex, age and handicap; (3) data regarding covered employment including use or planned use of bilingual public contact employees serving beneficiaries of the program where necessary to permit effective participation by beneficiaries unable to speak or understand English; (4) the location of existing or proposed facilities connected with the program and related information adequate for determining whether the location has or will have the effect of unnecessarily denying access to any person on the basis of prohibited discrimination; (5) the present or proposed membership by race, color, national origin, sex, age and handicap, in any planning or advisory body which is an integral part of the program; (6) any additional written data determined by the Department of Energy to be relevant to its obligation to assure compliance by recipients with laws cited in the first paragraph of this assurance.

The Applicant agrees to submit requested data to the Department of Energy regarding programs and activities developed by the Applicant from the use of Federal assistance funds extended by the Department of Energy. Facilities of the Applicant (including the physical plants, building, or other structures) and all records, books, accounts, and other sources of information pertinent to the Applicant's compliance with the civil rights laws shall be made available for inspection during normal business hours on request of an officer or employee in the Department of Energy specifically authorized to make such inspections. Instructions in this regard will be provided by the Director, Federally Assisted Programs Division, Office of Equal Opportunity, U. S. Department of Energy.

This assurance is given in consideration of and for the purpose of obtaining any and all Federal grants, loans, contracts (excluding procurement contracts), property, discounts or other Federal assistance extended after the date hereto, to the Applicant by the Department of Energy, including installment payments which are approved before such date. The Applicant recognizes and agrees that such Federal assistance will be extended in reliance upon the representations and agreements made in this assurance and that the United States shall have the right to seek judicial enforcement of this assurance. This assurance is binding on the Applicant, its successors, transferees, and assignees, as well as the person whose signature appears below and who is authorized to sign this assurance on behalf of the Applicant.

Legislative Counsel Bureau

(Name of Applicant)

401 S. Carson Street
Carson City, NV 89710

(Address)

Arthur J. Palmer, Director

(Authorized Official)

(702) 885- 5627

(Applicant's telephone number)

Sept 26, 1983
(Signature of Authorized Official, Date)

APPENDIX B

Briefing Paper - Nuclear Waste Policy Act of 1982

Julie Jordan
National Conference of State Legislatures

BRIEFING PAPER

NUCLEAR WASTE POLICY ACT OF 1982

INTRODUCTION

On January 7, 1983, President Reagan signed the Nuclear Waste Policy Act of 1982 into law, establishing a federal responsibility and policy for the disposal of high-level radioactive waste (HLW) and spent nuclear fuel. Passed in the waning hours of the lame duck session, the act established a schedule for siting, licensing, and constructing geologic repositories for the disposal of these wastes. States and affected Indian tribes will have a greater role in facility siting through the participation procedures outlined in the act. Most significantly, a state's or tribe's objection to hosting a repository will hold unless both houses of Congress vote within 60 days to override the state's or tribe's position.

The act established an Office of Civilian Radioactive Waste Management within the U.S. Department of Energy (DOE), which will be responsible for implementing the act and developing a comprehensive mission plan to guide the program. In addition to repository siting, the act also authorized a program for research and development including an underground test and evaluation facility (TEF). Federal interim storage of spent fuel and monitored retrievable storage facilities are also authorized by the act. A Nuclear Waste Fund financed by user fees that will pay for all the costs of the program is established by the act.

This briefing paper highlights the major provisions of the act. The emphasis will be on state and particularly legislative participation in the implementation of the act.

KEY DATES

January 1, 1985	DOE will recommed to the President three sites for characterization as candidate sites for the first repository.
June 1, 1985	DOE will submit to Congress a proposal to build a monitored retrieval storage facility including three alternative sites.
March 31, 1987	The President will recommend one of the three sites characterized by DOE for the first repository.
January 1, 1989	NRC must act on a construction license for the first repository.

July 1, 1989	DOE will recommend three sites for the second repository.
March 31, 1990	The President will recommend a site for the second repository.
January 1, 1992	NRC must act on the construction license for the second repository.
January 31, 1998	DOE must begin disposing of spent fuel.

Office of Civilian Radioactive Waste Management

The act creates an Office of Civilian Radioactive Waste Management within DOE, which will be headed by a director appointed by the President with the advice and consent of the Senate. The director will be responsible for carrying out the functions assigned to the Secretary of DOE in the act, and will be required to report annually to Congress. The Comptroller General will conduct an annual audit of the office.

Mission Plan

DOE must prepare a mission plan by April 6, 1984, which will provide the information necessary to permit informed decisions on the repository and research, development and demonstration programs. The draft mission plan will be made available to affected states and Indian tribes, the U.S. Nuclear Regulatory Commission (NRC), and other federal agencies. In addition to addressing scientific, engineering, and technical data related to siting of the TEF and repositories, the plan must include a discussion of financial, political, legal, and institutional problems and plans for their resolution.

Nuclear Waste Fund

The act establishes a Nuclear Waste Fund which will be financed through a tax equal to 1.0 mil per kilowatt-hour on electricity generated or sold by nuclear power plants. This tax will take effect on April 6, 1983. For spent fuel or high-level waste generated prior to this date, a one-time charge will be imposed per kilogram of heavy metal and will be equivalent to an average charge of 1.0 mil per kilowatt-hour.

GUIDELINES FOR THE RECOMMENDATION OF SITES FOR NUCLEAR WASTE REPOSITORIES (Sec. 112) AND SITE APPROVAL (Sec. 114)

Within six months of the enactment of the act, the Secretary of Energy must issue guidelines for the recommendations of sites for repositories. Draft guidelines were published in the Federal Register on February 7, 1983 (48 FR 5670). After considering both oral and written comments from the

public and consulting with the Council on Environmental Quality (CEQ), the Environmental Protection Agency (EPA), the U.S. Geological Survey (USGS), and interested governors, and obtaining NRC concurrence, the guidelines will be issued in final form.

Factors that are to be considered are a site's geology, hydrology, geophysics, and seismic activity. Other factors that will be evaluated include the proximity of the site to highly populated areas, valuable natural resources, water supplies, and national parks and forests. DOE must also consider the cost and impact of transporting wastes to the repository site and the advantages of regional distribution in the siting of repositories.

Recommendation of Sites to the President

Following the issuance of the guidelines and after consultation with the governors of affected states, the Secretary of DOE must nominate at least five sites that he considers suitable. By January 1, 1985, the Secretary must recommend three of the nominated sites for characterization as candidate sites. No later than March 31, 1987, one of the three sites must be recommended for the first repository.

Second Repository

For the second repository, DOE must nominate five sites, including three additional sites not recommended in the first set of five sites, by July 1, 1989, and recommend to the President three candidate sites suitable for characterization. If a site in the set of five nominated for the first repository was not recommended as a candidate site, it may not be nominated for consideration for the second repository.

Environmental Impact Assessments

Each nomination of a site will be accompanied by an environmental assessment which must include a statement of the basis of the nomination and the probable impacts of site characterization activities and ways to mitigate those impacts.

Notification of Affected States and Tribes

Before nominating a site, DOE will notify the governor and legislature of a state and the governing body of an affected Indian tribe where the site is located and the basis for its nomination. Also, before nominating a site, DOE must hold public hearings in the vicinity of the site to inform residents and to receive their comments. Residents may make recommendations regarding the elements of the environmental assessment and site characterization plans.

In evaluating the five nominated sites prior to recommending a site as a candidate site, DOE must use available geophysical, geologic, geochemical and hydrologic, and other information, and must not conduct any preliminary borings at a site unless these preliminary borings were in progress when the act was enacted or if the Secretary certifies that borings are necessary because existing information is inadequate.

Presidential Review of Candidate Sites

By March 31, 1987 for the first repository, the President must submit to Congress a recommendation of one site from the three sites initially characterized that is qualified for application for a construction authorization for a repository. By March 31, 1990, the President must recommend a site for a second repository. His decision must be relayed to the Secretary of Energy and to either the governor and legislature of the state where a site is located or the governing body of an affected Indian tribe. A one-year extension of these deadlines is permitted in the act.

If the governor or legislature or governing body of an affected Indian tribe disapproves of the site and Congress does not override the veto pursuant to Sections 116 and 118 (see pages 8 and 13), the President will submit to Congress another site for the first or subsequent repositories. The recommendation of a site by the President will not require an environmental impact statement.

Submission of Application

When a site si approved by Congress, DOE will make application to the NRC for a construction authorization within 90 days. A copy of the application must be provided to the governor and legislature or affected Indian tribe.

Status of Application

Within a year and annually thereafter, NRC is to report to Congress on the progress of the application. The NRC must issue a final decision approving or disapproving the construction authorization application for the first repository by January 1, 1989 and by January 1, 1992 for the second repository. These deadlines may be extended by 12 months. The first repository's capacity will be limited to 70,000 metric tons by NRC until the second repository is in operation.

Continuation of Candidate Site Screening

After recommending the first three candidate sites, DOE may continue to identify and study other sites to determine their suitability for recommendation for site characterization.

DOE may continue ongoing or presently planned site characterization activities at any site on DOE land for which the location of the principal bore hole had been approved by the Secretary by August 1, 1982. For the sites that meet this requirement, an environmental assessment must be prepared and made available to the public before sinking shafts. If a site is not one of the candidate sites recommended to the President, DOE cannot continue site characterization activities.

SITE CHARACTERIZATION (Sec. 113)

Beginning with the approved candidate sites, DOE will carry out appropriate site characterization activities located in various geologic media. DOE must consider fully the comments received through the public hearings and those of the governor and legislature or Indian tribe.

To the maximum extent practicable and in consultation with the governor and legislature or Indian tribe, DOE will conduct site characterization activities in a manner that minimizes any significant adverse environmental impacts identified in all comments received or in the environmental assessment.

Before sinking any shafts, DOE must submit to the governor and legislature or affected Indian tribe for their review and comment a general plan for site characterization activities.

DOE must also describe the possible waste form or packaging to be used, and to the extent practicable, the relationship between the waste form or packaging and the geologic medium of a site, and a description of the DOE activities regarding the waste form packaging of such relationship. DOE must also provide a conceptual repository design that takes into account site-specific requirements.

Before proceeding to sink shafts, DOE must hold public hearings regarding the site characterization plan to receive the comments of residents in the vicinity of a site. During site characterization activities, DOE must report at least every six months to the governor and legislature or Indian tribal council on the nature and extent of the activities.

Restrictions

DOE will conduct only those activities necessary to provide data required for an application submitted to the NRC for a construction authorization. DOE may not use radioactive material at a site unless NRC concurs that it is necessary to provide data. The minimum quantity necessary can be used and must not exceed the curie equivalent of 10 metric tons of spent fuel, and the radioactive material must be fully retrievable.

If site characterization activities are terminated at any site, DOE must notify Congress, the governor and legislature or Indian tribal council in which all candidate sites are located and provide the reasons for the termination. Any radioactive materials used must be removed from the site as promptly as practicable. If a site is determined to be unsuitable for application for a construction authorization for a repository, DOE must take reasonable and necessary steps to reclaim the site and mitigate any significant adverse environmental impacts caused by site characterization activities.

All characterization activities will be considered preliminary decision making activities and will not require the preparation of an environmental impact statement (EIS) under the National Environmental Policy Act of 1969.

SITE APPROVAL (Sec. 114)

DOE must hold public hearings in the vicinity of each site under consideration for recommendation to the President, to inform the residents of the area and receive their comments regarding the possible recommendation of the site. After the hearings are completed, DOE will recommend to the President one of the three characterized sites for development as the first repository. DOE must notify the affected governor and legislature or Indian

tribe. At least 30 days after this notification, the Secretary will make the recommendation to the President. The Secretary, in making the recommendation, and the President, in giving his approval, must consider the need for regional distribution of repositories, and the need to minimize to the extent practicable, the impacts and cost of transporting spent fuel and solidified high-level waste. The Secretary will submit to the President and make available to the public a comprehensive statement of the basis for the recommendation.

By March 31, 1987, the President will submit to Congress a recommendation of one of the three sites initially characterized that he considers qualified for applicaton for an NRC construction authorization. The President must submit a recommendation for a second repository by March 31, 1990. The President may extend both deadlines by 12 months.

If the governor or legislature or governing body of an affected Indian tribe disapproves of the site and Congress does not override the veto pursuant to Sections 116 and 118 (see pages 8 and 13), the President will submit to Congress another site for the first or subsequent repositories. The recommendation of a site by the President will not require an environmental impact statement.

Submission of Application

If a site is approved by Congress, DOE will make application to the NRC for a construction authorization. A copy of the application must be provided to the governor and legislature or affected Indian tribe.

Status of Application

Within a year and annually thereafter, NRC is to report to Congress on the progress of the application. The NRC must issue a final decision approving or disapproving the construction authorization application for the first repository by January 1, 1989 and by January 1, 1992 for the second repository. These deadlines may be extended by 12 months.

REVIEW OF SITE SELECTION (Sec. 115)

If the governor, legislature or Indian tribal council disapproves of the President's decision, Congress must override their objections in a joint resolution during the first 90 days of continuous session. The bill sets out procedures for House and Senate consideration of the disapproval. Debate on a resolution of siting approval will be limited to 10 hours in the Senate and two hours in the House.

PARTICIPATION OF STATES (Sec. 116)

Within 90 days of this identifying of a potentially acceptable site, DOE must notify the governor, legislature, and tribal council in affected states. According to the act, the term "potentially acceptable site" means any site at which, after geologic studies and field mapping but before

detailed geologic data gathering, DOE undertakes preliminary drilling and geophysical testing for the definition of site location.

The governor or legislature can disapprove a site by sending a notice of disapproval to Congress within 60 days of the President's recommendation of the site to Congress. The governor or legislature must explain their reasons for disapproval to Congress. This will not apply if the site is located on an Indian reservation in their state.

DOE will make grants to each state having potentially acceptable sites and for up to one year after site characterization activities cease, states hosting candidate sites will also receive grants to enable the state to:

-- review DOE activities undertaken to determine potential economic, social, public health and safety, and environmental impacts of a repository on the state;

-- develop a request for impact assistance;

-- engage in monitoring, testing, or evaluation activities with respect to site characterization programs;

-- provide information to its residents regarding any activities of the state, DOE, or NRC; and

-- request information from and make comments and recommendations to DOE regarding site characterization activities.

DOE will also provide financial assistance to a state where the NRC has issued a construction authorization. A state desiring assistance from DOE must submit a report on any likely economic, social, public health and safety, and environmental impacts that would result from the development of a repository. This request must be initiated by the state after site characterization activities, but before the President recommends a repository site. After the construction authorization is issued, DOE and the state should seek to enter into a binding agreement to establish the amount of assistance. Until a repository is completed, DOE will also grant to each state and unit of local government where a repository is being developed an annual amount equal to the amount of revenues that would have been collected had site characterization activities been taxable.

Additional Notification and Consultation

If Indian reservation land is being considered as a potential site, DOE must notify or consult with the governor in the affected state.

CONSULTATION WITH STATES AND AFFECTED INDIAN TRIBES (Sec. 117)

DOE, NRC and any other federal agency involved in repository construction, operation, or regulation must provide timely and complete information to the governor and legislature or Indian tribal council. This information

must encompass plans or findings made with respect to the site characterization siting, development, design, licensing, construction, operation, regulation, or decommissioning of the repository.

Within 30 days of a written request for information from states (legislature or governor) and Indian tribal councils, DOE must respond in writing. If the information requested cannot be provided, then DOE must indicate in writing the reasons why the requested information cannot be provided. If DOE fails to meet the 30-day deadline, the state or tribe may direct a formal objection to the President. If DOE and the President fail to respond after a formal objection is lodged, then all repository development activities must cease until a response is provided.

Consultation and Cooperation

In a state or reservation where siting studies, or repository development and operation activities are underway, DOE must consult with the governor and legislature and tribal council regarding the public health and safety, and environmental impacts of a repository.

Written Agreement

Within 60 days after a site has been approved for characterization or the written request of a state or tribal council which has been notified that it hosts a potentially acceptable site, DOE must seek to enter into a binding agreement setting forth the procedures under which the provision of information and consultation and cooperation will be carved out, as well as the agreement itself. These agreements must be completed within six months, if feasible.

The written agreement will specify the procedures by which:

-- states or Indian tribal councils may study, determine, comment on, and make recommendations with regard to the possible public health and safety, environmental, social, and economic impacts of a repository;

-- DOE will consider and respond to comments and recommendations made by states and Indian tribes, including an appropriate response period;

-- DOE and the state or tribe may review or modify the agreement periodically;

-- the state or tribal council is to submit an impact report and request for impact assistance;

-- DOE will assist the state and units of local government in the vicinity of the repository site in resolving any off-site concerns, such as questions of state liability arising from accidents, necessary road upgrading and access to the site, ongoing emergency preparedness and response, monitoring of transportation of wastes through the state, conduct of baseline health studies of inhabitants in neighboring communities and reasonable periodic

monitoring thereafter, and monitoring of the repository site upon any decommissioning and decontamination;

-- DOE will consult and cooperate with the state on an ongoing basis and provide for an orderly process and timely schedule for state review and evaluation, including identification of key events, milestones, and decision points in DOE activities at the potential repository site;

-- DOE will notify the state authorities prior to the transportation of any wastes into the state for disposal;

-- the state may conduct reasonable independent monitoring and testing of activities on the repository site;

-- DOE will share, in accordance with applicable law, all technical and licensing information, the utilization of available expertise, the facilitating of permit procedures, joint project review, and the formulation of joint surveillance and monitoring arrangements to carry out applicable federal and state law;

-- DOE will undertake public notification of the procedures specified under the preceding paragraphs; and

-- DOE will resolve objections of a state and affected Indian tribe at any state of repository planning, development, operation, or closure through negotiation, arbitration, or other appropriate methods.

PARTICIPATION OF INDIAN TRIBES IN REPOSITORY SITING DECISIONS (SEC. 118)

This section addresses steps by which a tribe may veto a site and outlines the financial assistance that will be available to it.

JUDICIAL REVIEW OF AGENCY ACTIONS (Sec. 119)

This provision requires that the U.S. Court of Appeals shall have original and exclusive jurisdiction of any civil action for review of final decisions by the President, DOE, or NRC, and of environmental impact assessments or impact statements.

EXPEDITED AUTHORIZATIONS (Sec. 120)

If any action that relates to site characterization and repository construction or operation requires a permit or other authorization from a federal agency, that agency is to issue the authorization at the earliest practicable date, but within legal requirements. The NRC is excepted under this requirement.

STANDARDS AND CRITERIA (Sec. 121, 122, 123, and 124)

By December 20, 1983, EPA must issue generally applicable standards for protection of the general environment from off-site releases from radioactive materials in repositories.

NRC Requirements and Criteria

By January 1, 1984, the NRC must issue technical requirements and criteria to be applied in approving applications for authorization to construct repositories, licenses to receive and possess spent fuel and high-level waste and authorizations to close and decommission repositories. These criteria must require the use of a system of multiple barriers in the design of the repository. They must also include restrictions on the retrievability of the solidified high-level waste and spent fuel placed in the repository. In issuing these standards, NRC will not be required to prepare an EIS.

Repositories must be designed and constructed to permit over their operating life the retrieval of any emplaced spent nuclear fuel to protect public health and safety, or the environment, or to recover the economically valuable contents.

Delivery to and acceptance of any high-level waste or spent nuclear fuel for a repository by DOE will constitute a transfer of title for these materials.

DOE must consider the need to acquire water rights for repository development, construction, and operation. Any adverse impacts on the present and future development of the area due to this acquisition must be mitigated to the maximum extent possible.

INTERIM STORAGE (Sec. 131 - 137)

Owners and operators of civilian nuclear power plants have the primary responsibility for providing interim storage of their spent fuel through effective use of existing storage facilities or by adding new facilities.

For reactors that cannot reasonably provide storage capacity necessary to maintain orderly operation of the plant, the federal government will provide up to 1,900 metric tons of interim storage capacity at one or more government facilities when needed.

NRC will establish procedures for the licensing of any NRC-approved technology for use of on-site storage at civilian power reactors. Storage may be expanded through the use of high-density fuel storage racks, fuel rod compaction, the transshipment of spent fuel to another reactor within the same utility system, or the construction of additional pool capacity or dry storage capacity. In any NRC hearing to expand on-site storage capacity, matters in controversy among the parties (as determined by NRC) will be introduced only as oral arguments based on sworn testimony or written submissions.

At the conclusion of any oral agreement, any remaining questions of fact or law may be resolved in an adjudicatory hearing if NRC determines that a substantial dispute of fact exists that can be resolved only through such a procedure and that its decision is dependent on the resolution of the dispute.

In evaluating the proposed license for increased capacity, NRC will not consider any issue relating to the design, construction, or operating of a nuclear power plant already licensed for construction unless NRC determines that the issue substantially affects the expansion proposal being considered. However, this limitation will not be applicable if the proposed expansion employs a new technology not previously approved by NRC.

Courts cannot set aside a decision of NRC made pursuant to this subsection even if the commission fails to use a particular procedure, unless an objection to the procedure was made to the Commission in a timely fashion and the court finds that such failure has precluded a fair consideration and informed resolution of a significant issue.

FEDERAL INTERIM STORAGE (Sections 135-137)

DOE will provide up to 1,900 metric tons of storage capacity for spent fuel from commercial nuclear power plants. Storage will be provided at one or more existing government facilities. These facilities may be expanded or modified if NRC gives approval; however, they will not be licensed by NRC or an environmental impact statement will not be required unless more than 300 metric tons are stored at one location.

Storage capacity may also be provided through the acquisition of spent fuel storage casks by DOE for use at reactor sites or at government facilities. DOE may also construct additional storage capacity at a civilian reactor site.

If a federal or non-federal facility hosts a candidate site for a repository, it cannot be used for interim storage.

In evaluating alternatives to provide for interim storage, DOE must consider the timeliness of each proposal and must seek to minimize the transportation of spent fuel, the public health and safety impacts, and the costs.

DOE may enter into contracts with utilities to provide spent fuel storage only if NRC determines, within six months of a request, that sufficient capacity to maintain operations cannot be provided at the reactor site and that licensed alternatives to federal storage are being pursued. In determining the sufficiency of reactor storage capacity, NRC must ascertain the necessity of maintaining a full-core reserve storage at the site to enable continued orderly reactor operation.

If DOE provides more than 300 metric tons of storage capacity at a federal facility, it will be considered a major federal action and will require the preparation of an EIS. An environmental impact assessment will be required for the provision of less than 300 metric tons of storage capacity that requires the modification or expansion of any facility at the site.

Alternative activities to avoid any probable impacts must be addressed. The regional and local impact of providing this storage capacity must be assessed, including the impacts on transportation.

State Participation

The governor and legislature (and tribal council) must be notified in writing by DOE of the intention to investigate a potentially acceptable site or facility for interim storage. During the course of the investigation, DOE must keep the governor, legislature, and tribal council informed of the progress of the investigation. Prior to selecting a site, the governor, legislature, and tribal council must be notified, and once a site is selected, DOE is required to enter into negotiations with states or tribes on an agreement for consultation and cooperation and on arrangements for public participation before any work can be done. At a minimum, the cooperative agreement must include the sharing of all technical and licensing information (within applicable law), the utilization of available expertise, the facilitating of permit procedures, joint project review, and the formation of joint surveillance and monitoring arrangements to carry out applicable state and federal laws. The cooperative agreement must also include a detailed schedule of milestones, decision points, and opportunities for state and eligible tribal review and objection. Consultation and cooperation does not include the grant of a right to any state or tribal council to exercise an absolute veto of any aspect of the planning, development, modification, expansion, or operation of the project.

If DOE decides to provide 300 or more tons of storage capacity at any one site, the appropriate governor, legislature, or tribal council must be notified, and within 60 days, these bodies may submit a notice of disapproval to Congress. This veto must be overridden within 90 days by a joint resolution of Congress.

Any spent fuel stored under these provisions must be removed from the storage facility within three years following the opening of a repository or monitored retrievable storage facility.

Within 90 days of the enactment of the act, NRC must propose criteria for determining that an owner or operator of a civilian reactor cannot provide adequate spent fuel storage.

Interim Storage Fund

By January 1, 1990, DOE must enter into contracts with utilities to take title to spent fuel at the reactor site that cannot be stored on-site and transport the spent fuel to a federal facility for storage until further processing or disposal.

By July 6, 1983, DOE must establish fees for these services which will begin on January 1, 1984. The fees will be evaluated annually. Costs to be covered by the Interim Storage Fund include acquisition, construction, operation, and decommission of facilities at an interim storage site, the cost of transportation, and administration of the program.

If federal government wastes are stored at the facilities developed under this act, fees will be charged to the government equivalent to those paid by utilities.

Transportation of spent fuel to interim storage facilities will be subject to NRC licensing, and to the fullest extent possible, DOE must contract with private industry to provide transportation services.

From the storage fund, annual impact assistance to states and units of local government will also be provided to mitigate social and economic impacts.

MONITORED RETRIEVABLE STORAGE (Section 141)

Congress has determined that long-term storage of high-level radioactive waste or spent fuel is an option for providing safe and reliable management of these wastes. The federal government is responsible for ensuring that site-specific designs for monitoring retrievable storage (MRS) are available. The MRS program will proceed independently of the program to develop high-level waste and spent fuel repositories, and will be paid for by generators of high-level waste and spent fuel.

By June 1, 1985, DOE must submit to Congress a proposal on the need for and feasibility of one or more MRS facilities. Congress must authorize the construction of an MRS.

An environmental impact assessment based on available information regarding alternative technologies must be prepared by DOE, and an EIS relating to the construction of the facility would be prepared. NRC would license an MRS, and impact assistance would be made available to units of local governments. AN EIS would be prepared if an MRS is authorized by Congress.

An MRS facility cannot be constructed in a state hosting a site approved for characterization under Section 112.

Participation of States and Indian Tribes

Development of an MRS will be subject to the same provisions covering state and tribal consultation and cooperation (Sections 115, 116(a), 116(b), 116(d), 117, and 118) established for the repository program. States or tribal councils may object to an MRS.

Test and Evaluation Facility

Congress authorized DOE to provide for a focused and integrated high-level radioactive waste and spent fuel research and development program including the development of a test and evaluation facility (TEF) to carry out research and provide a demonstration of the technology for deep geologic disposal of high-level waste and the dry storage of spent fuel. Since legislatures are omitted from the consultation and cooperation process outlined in the act, this paper will have a limited discussion of Title II -- Research, Development, and Demonstration Regarding Disposal of High-Level Radioactive Waste and Spent Nuclear Fuel.

By January 6, 1983, DOE will identify three or more candidate sites in at least two geologic media and at least one not in salt. Congress must be notified if the TEF will be located at a potential site for a repository,

and if the TEF and repository are to be co-located, the TEF must follow the selection and development procedures established for a repository site.

The TEF cannot contain more than 100 full-size canisters of high-level waste or spent fuel. Prior to recommending a site for a TEF, DOE must prepare an environmental assessment, and DOE is required to prepare an EIS before conducting any tests with radioactive materials at the TEF. Because the TEF is a research and demonstration facility, it will not be licensed by NRC.

By June 6, 1986, DOE will select one site for a TEF, and by May 6, 1988, the agency is authorized to begin mining and construction for a TEF, and by May 6, 1990, the facility can begin in-site testing.

States and affected Indian tribes will be compensated for expenses related to monitoring, testing, evaluation, and other activities or other consultation and cooperation activities with respect to a TEF. Up to $3 million is available annually, but states must share 10 percent with each unit of general local government within the jurisdiction boundaries of a potential or actual site.

DEFENSE WASTES (Sec. 8)

Within two years after the passage of the act, the President must evaluate the need for additional repositories for defense-related wastes. If one or more repositories are needed, then DOE is to proceed with developing them using the same procedures prescribed for commercial waste repositories outlined in Title I, Subtitle A. (See pages 3 et seq.)

Before proceeding with any site-specific investigations for a defense waste repository, DOE must notify the governor and legislature or the governing body of the affected Indian tribe. With regard to defense waste repositories, states and Indian tribes will have the same rights of participation and consultation outlined in Sections 115 through 118. Any financial assistance provided to a state or tribe will be made from amounts appropriated to DOE rather than from the nuclear waste fund.

TRANSPORTATION (Sec. 9)

The act does not affect federal, state, and local laws pertaining to the transportation of spent fuel or high-level radioactive waste.

--Julie Jordan, National Conference of State Legislatures

APPENDIX C

Selected Highlights - Nuclear Waste Policy Act of 1982

George Russ
Atomic Industrial Forum, Inc.

Background

INFO

Public Affairs and Information Program

January 1983

SELECTED HIGHLIGHTS NUCLEAR WASTE POLICY ACT OF 1982

Enactment of the Nuclear Waste Policy Act establishes a system for disposing of radioactive waste from nuclear power plants and brings to an end 25 years of political indecision on how to solve the problem. The legislation, signed into law January 7, 1983, by President Reagan, has been called the most complicated piece of legislation on nuclear energy ever passed. Selected highlights of the law are set forth on the following pages in an effort to better understand the legislation and learn how it is to be implemented in the coming years.

DISPOSAL AND STORAGE OF HIGH-LEVEL RADIOACTIVE WASTE

Purposes

- To provide a schedule on developing repositories for the disposal of high-level radioactive waste and spent fuel,
- To set forth a research, development and demonstration program for disposal of radioactive waste and spent fuel,
- To establish federal policy and responsibility for disposal of radioactive waste and spent fuel,
- To devise fees ensuring that the cost of disposal is borne by the owners and generators of radioactive waste and spent fuel

Repository Siting and Development

- By 6 April 1983 DOE will identify states with sites potentially acceptable for a repository based on geologic studies and field mapping Within 90 days thereafter, affected states and Indian tribes will be notified of site locations
- By 5 July 1983 DOE will issue guidelines on choosing potential sites for a repository, after consulting with CEQ, EPA, USGS and interested governors as well as obtaining concurrence by NRC
- Among factors to be considered are a site's geology, hydrology, geophysics and seismicity, proximity to valuable natural resources, water supplies, population centers and national parks as well as the safety and cost of transportation
- Using these guidelines, DOE will nominate at least fives sites for characterization for the first repository By 1 January 1985, three will be recommended to the President for characterization as candidate sites
- By 1 July 1989, three from among five sites — three or more must be new, two may be chosen from among candidates in the first round — will be recommended to the President for characterization as candidates for the second repository
- Before nominating a site for characterization, DOE must notify the affected state or tribe and hold a public hearing in the local area
- Each nomination of a site must be accompanied by an environmental assessment

Atomic Industrial Forum, Inc
7101 Wisconsin Avenue
Bethesda, MD 20814
Telephone (301) 654-9260

- By 3 March 1985 and 31 August 1989, the President must approve or disapprove each recommendation for a candidate site. A delay of six months for further information is permitted. Affected states and tribes will be notified of the decision
- Characterization may proceed on sites which are part of DOE lands if the location of the principal borehole had been approved by 1 August 1982 and if other requirements for candidate sites are met.
- Before sinking shafts at any candidate site, DOE must make available to NRC, state or tribe and the public a site characterization plan, a description of the waste form and package to be emplaced and their interaction with the geologic medium as well as a conceptional repository design.
- A public hearing on these matters would be held within the local area, DOE would report on activities to NRC, the state or tribe every six months.
- With agreement by NRC, radioactive material equivalent to the curie content of 10 metric tons of spent fuel may be placed retrievably at a candidate site if needed for environmental reports or a construction application.
- Following characterization of three sites for the first repository and of all sites for the second — as well as notification of the affected state or tribe and public hearings — DOE may recommend one as a site for development as a repository

KEY DATES

Jan. 6, 1984	DOE identifies three or more sites for test-and-evaluation facility (optional)
Jan 1, 1985	DOE recommends three sites for first geologic repository to President
Jun. 1, 1985	DOE proposes to Congress three to five sites for monitored, retrievable storage facility
Mar. 31, 1987	President selects site for first permanent repository
Jan. 1, 1989	NRC decides on license for geologic repository
May 1990	Deadline for start of *in situ* testing program at TEF facility (optional)
Jan. 31, 1998	DOE deadline for disposal of spent fuel

- Accompanying this recommendation to the President are a preliminary engineering description of the facility, discussion of the waste form, package and geologic medium, review of site safety data, final environmental impact statement and comments by federal agencies, NRC comments on at-depth site characterization and on waste form proposal as well as comments and impact reports by the affected state or tribe.
- Not later than 31 March 1987, the President shall recommend to Congress a site qualified for an application for a construction authorization for the first repository Recommendation of a site for the second repository will be made by 31 March 1990 Extensions of one year are permitted.
- Within 60 days after this recommendation, the affected state or Indian tribe may submit to Congress a notice of disapproval This veto stands unless it is overturned within 90 days by a majority vote in both houses of Congress

- Within 90 days after the recommendation takes effect, DOE will submit to NRC an application for a construction authorization
- NRC must issue a final decision on the construction application no later than 1 January 1989 for the first repository, 1 January 1992 for the second, or within three years, whichever is later Extensions of one year are permitted.
- The first construction authorization would prohibit emplacing more than 70,000 MTHM of spent fuel or about 20,000 MT of solidifed high level waste in the first repository — or repository and monitored retrievable storage facility if located within 50 miles — until the second repository is in operation.

Participation by States

- Grants of financial and technical assistance will be made by DOE to affected states and Indian tribes at various stages of repository development, beginning with initial notification of potentially acceptable sites, continuing with characterization of candidate sites and granting of a construction authorization.
- Once a site for a repository is approved, state and local governments are also eligible for tax equivalent compensation.
- Within 60 days of approving a site for characterization or upon request following notification, DOE will begin negotiations, to be completed within six months, with states or tribes on a binding written agreement of consultation and cooperation.
- These agreements specify procedures by which DOE will furnish information on and resolve concerns about state liability for accidents, upgrading of roads and access to the site, emergency preparedness and response, monitoring of transportation, conduct of baseline health studies in the vicinity and monitoring of the repository after decommissioning and decontamination
- Under this agreement, DOE must respond to written requests for information within 30 days. If the agency does not reply within this time, an objection may be filed with the President If a response still is not forthcoming within 30 days, DOE must suspend all activities until a written reply is received.

Other Provisions

- The U.S. Courts of Appeal shall have original and exclusive jurisdiction over any civil action for review of final decisions by the President, DOE or NRC and of environmental assessments or impact statements
- Not later than 20 December 1983, EPA will issue generally applicable standards for protection of the general environment against offsite releases from radioactive material in repositories
- Before 1 January 1984, NRC will issue technical requirements and criteria that will be applied in approving applications for authorizations to construct repositories, licenses to receive and possess spent fuel and high-level radioactive waste and authorizations to close and decommission repositories
- These criteria must require the use of a system of multiple barriers in the repository design and will restrict as appropriate the retrievability of emplaced spent fuel and high-level waste
- Repositories will be designed and constructed to permit over their operating life the retrieval of spent fuel to protect the public and the environment or to recover its economically valuable content
- Delivery to or acceptance of spent fuel or high-level waste by DOE constitutes a transfer of title for these materials

- DOE will continue and accelerate a research and development program investigating alternative means and technologies for the permanent disposal of high-level radioactive waste

INTERIM STORAGE PROGRAM

Findings

- Owners and operators of civilian nuclear power reactors have the primary responsibility for providing interim storage of spent fuel through effective use of existing on-site facilities and timely addition of new capacity where practical.
- The federal government will encourage effective use of available storage facilities and expedite additional storage capacity at the site of each commercial power reactor.
- A federally owned and operated system will provide up to 1900 metric tons of interim storage capacity at one or more government facilities to prevent disruptions in operation at power reactors unable to provide on-site storage capacity when needed.

Licensing of Storage Capacity Expansions

- In any NRC hearing to expand on-site storage capacity, matters in controversy among the parties will be introduced only as oral arguments based on sworn testimony or written submissions
- Remaining questions of fact or law may be resolved in an adjudicatory hearing if NRC determines that a substantial dispute of fact exists that can be resolved only through such a procedure and that its decision depends on such a resolution.
- The NRC will not entertain any issue relating to the design, construction or operation of a nuclear power reactor already licensed for construction or operation unless it substantially affects the expansion of storage capacity being considered.
- This limitation will not apply to the first application to expand on-site spent fuel storage capacity using a technology not previously approved by NRC.

Storage of Spent Nuclear Fuel

- To provide storage capacity, DOE can make use of available government facilities, including their modification and expansion, if NRC finds the public health and safety are protected, acquire spent fuel storage casks for use at reactor sites or on government lands, or construct new storage capacity at reactor sites.
- Providing storage capacity at existing government facilities does not render them subject to licensing; if under 300 metric tons at any one location, an environmental impact statement is not required. For all other methods, DOE will comply with licensing requirements
- Spent fuel storage capacity cannot be provided within any federal or non-federal site which already is a candidate for a repository
- DOE will enter into contracts to provide spent fuel storage capacity only after NRC has determined, within six months of a request, that capacity adequate to ensure continued orderly operation cannot reasonably be provided at the reactor site and that licensed alternatives to federal storage are being pursued.
- Providing less than 300 metric tons of storage capacity by modifying or expanding a federal facility requires an environmental assessment
- DOE will notify affected states and Indian tribes of its intent to investigate sites or facilities potentially acceptable for interim storage of spent fuel
- Once a site is selected but before site-specific work can begin, DOE is required to negotiate with states or tribes on an agreement of consultation and cooperation and on arrangements for public participation

- If 300 or more metric tons of storage capacity is to be provided at any one site, DOE must notify the appropriate state or tribe Within 60 days these bodies may submit a notice of disapproval to Congress This veto stands unless overturned within 90 days by a joint resolution of Congress.
- Any spent fuel stored under these provisions will be removed from the facility or site as soon as practicable but no later than three years after a monitored retrievable storage facility or repository becomes available
- By 6 April 1983, NRC will issue proposed procedures and criteria for making its determination that reactor operators cannot resonably provide adequate on-site spent fuel storage capacity as needed to ensure continued orderly operation. A full core reserve capacity will be maintained if necessary

Interim Storage Fund

- DOE is authorized until 1 January 1990 to execute contracts with utilities for taking title to spent fuel at the reactor site, transporting spent fuel to a federally owned and operated AFR and storing spent fuel until further processing or disposal
- Fees for these services will be established by 5 July 1983 and take effect on an annual basis by 1 January 1984 These charges will recover full costs of the program including the acquisition, construction, operation and maintenance of any storage facilities
- If spent fuel owned by the government is placed into any storage capacity provided by this program, a fee will be collected equivalent to that charged to utilities
- DOE will make annual payments for impact assistance to any state or local government within whose jurisdiction any interim storage capacity is established and operated
- Transportation of spent fuel by DOE will remain subject to licensing by NRC and the Department of Transportation and will utilize private industry contracts whenever possible

MONITORED RETRIEVABLE STORAGE

Findings

- Long-term storage in monitored retrievable storage (MRS) facilities is an option for safe and reliable management of high-level radioactive waste and spent nuclear fuel
- The federal government is responsible for ensuring that site-specific designs for MRS's are available, owners and generators of high-level waste and spent fuel will bear the costs of long-term storage
- Disposal of high-level waste and spent fuel in repositories should proceed independently of the MRS program

Monitored Retrievable Storage Program

- By 1 June 1985, DOE will submit to Congress a proposal on the need for and feasibility of one or more MRS's
- Each MRS will be designed to accommodate spent fuel or high-level waste, to permit continuous monitoring, management and maintenance for the foreseeable future, to provide ready retrieval for further processing or disposal, to store spent fuel or high-level waste for as long as necessary through maintenance or replacement
- DOE's proposal will include establishing a federal program for developing MRS's, a plan for the owners and generators of spent fuel and high-level waste to bear program costs, detailed site-specific designs and specifications to support authorization and facilitate completion and operation, a plan for integrating MRS's with other storage and disposal facilities
- Comments of the NRC and EPA will be submitted along with the proposal

- The proposal will consider at least three sites and at least five combinations of facility design and proposed site
- An environmental assessment, fully analyzing all five combinations, will accompany the proposal to Congress
- If Congress authorizes construction of an MRS, an environmental impact statement is necessary; not to be considered are the need for the facility, alternative sites and alternative design criteria.
- Any MRS will be licensed by NRC, excluded from consideration are the need for such a facility and design criteria not already set forth.
- When Congress authorizes construction of an MRS, DOE will begin making annual payments for impact assistance to local governments within whose jurisdiction the facility is located
- Development of an MRS authorized by Congress will be subject to the same process of state and tribal consultation and cooperation established for the repository program, including notification of site disapproval.
- No MRS may be located in a state where there is a site approved for characterization as part of the repository program.

RESEARCH, DEVELOPMENT AND DEMONSTRATION ON DISPOSAL OF SPENT FUEL AND HIGH-LEVEL WASTE

- To authorize a focused, integrated program, including a test and evaluation facility (TEF), for demonstrating the deep geologic disposal of spent fuel and high-level waste and the dry storage of spent fuel.

Identification of Sites

- By 6 July 1983 DOE, after consulting with NRC, USGS, EPA, CEQ and other federal agencies, will issue general guidelines on identifying sites for a TEF.
- By 6 January 1984, three or more sites will be identified, at least two in different geologic media, at least one not in salt.
- Congress must be notified if the TEF will be located at a potential site for a repository.
- If colocated, the TEF must follow the selection and development procedures established for a repository site.
- No surface facility for a colocated TEF may be built before a construction permit is issued for a repository at the site
- No TEF may be converted to a repository unless selection and development procedures established for a repository are followed
- All sites identified should be farther than 15 miles from a town of more than 1,000 population unless they already contain high-level waste
- Each identification of a site must be accompanied by an environmental assessment.
- Affected states and Indian tribes will be notified of each site identification A written agreement for consultation and cooperation will be executed, with provision for necessary payments
- By 6 January 1984, DOE and NRC must execute a written agreement establishing the procedures, including access to the facility, by which NRC will participate in the planning, construction and operation of the TEF to ensure public health and safety No shafts may be excavated until this understanding is reached
- As an RD&D facility, the TEF is not subject to licensing by NRC
- By 5 July 1984, DOE must hold at least one public hearing in the vicinity of each site
- By 6 June 1986, DOE will select one site for a TEF

- An environmental assessment must precede the beginning of construction for a TEF
- By 6 May 1988, DOE is authorized to begin mining and construction for a TEF
- The TEF facility will
  - supplement and focus the repository site characterization process,
  - integrate technological components to demonstrate a functioning repository-like system,
  - resolve repository potential licensing issues,
  - validate under actual conditions the scientific models used in repository design,
  - refine the design and engineering of repository components and systems and confirm their behavior,
  - supplement generic and specific geologic characteristics relating to isolation of waste in a repository,
  - evaluate design concepts for packaging, handling and emplacing waste,
  - establish operating capability without exposing workers to excess radiation
- Each TEF will be designed to accept not more than 100 canisters of high-level radioactive waste or spent fuel for retrievable short-term storage in such a way that initial isolation is provided by engineered barriers functioning as a system with the geologic environment
- By 6 May 1990, an in-situ testing program will begin at the TEF, including,
  - sealing of bore holes, geologic fractures and rooms,
  - evaluating with radioactive sources the migration, absorption and containment of radionuclides within engineered barriers and geologic media;
  - improving models for the flow of ground water and brine through fractured geologic media,
  - testing the behavior of engineered barriers under conditions of real and accelerated time,
  - evaluating the effects of heat and pressure on geologic media, area hydrology and disposal packages,
  - establishing safe design limits for disposal packages under normal and abnormal conditions,
  - determining the effects of a gross release of radionuclides,
  - determining the effects of various failure modes, including seismic events, thermal pulses, human intrusion
- The in-situ testing program will be designed to ensure that the suitability of the site for licensing as a repository is not jeopardized
- During siting research for the TEF and thereafter, existing DOE facilities may be used for generic tests of packaging, handling and emplacing technology
- The system of engineered barriers and selected geology used in a TEF should have a design life at least as long as that required by NRC for repositories
- An environmental impact statement is required before radioactive materials can be used in the TEF testing program
- If the TEF is not located at a repository site, DOE must obtain NRC's concurrence for decommissioning and decontamination
- Operation of the TEF will terminate five years after the first repository begins operation or when it no longer is required

RESEARCH AND DEVELOPMENT ON SPENT NUCLEAR FUEL

- DOE will establish with private utilities a cooperative program demonstrating the dry storage — in casks, caissons or silos — of spent fuel at reactor sites and the consolidation of fuel rods in existing water basins
- By 6 January 1984, DOE will select at least one and not more than three reactor sites, giving preference to those with an imminent shortage of spent fuel storage capacity
- Under these agreements DOE will provide, on a cost-sharing basis, consultative and technical assistance, including design support and generic licensing documentation
- As part of this assistance, DOE may establish, at existing federal facilities, an RD&D program for the dry storage of spent fuel, provided from the interim storage program

MISSION PLAN

- By 6 April 1984, DOE will prepare a mission plan providing the information needed for decisions to carry out the RD&D and repository programs. To be included
  - primary scientific, technical and engineering data related to siting and construction of the TEF and repositories,
  - schedules and costs of RD&D programs to acquire needed information,
  - financial, political, legal and institutional problems and plans for their resolution;
  - purpose and program of the TEF,
  - RD&D results and their implication on selection of geologic media,
  - siting guidelines,
  - known sites and associated characterization activities,
  - processes for solidifying high-level waste and packaging spent fuel,
  - estimate of the number, capacity, cost and schedule of repositories required, with and without reprocessing, through 31 December 2020,
  - possible adverse economic and other impacts of the TEF and repository
- The draft mission plan will be made available to affected states and tribes, the NRC and other federal agencies and the public
- By 6 June 1984, DOE will submit a final mission plan to Congress, by 6 July 1984, begin its implementation

NUCLEAR WASTE FUND

- DOE is authorized to enter into contracts with owners and generators for accepting title to, transporting and disposing of high level radioactive waste and spent nuclear fuel
- For electricity generated and sold after 6 April 1983, the fee for these services is one mill per kilowatt-hour
- For spent nuclear fuel or high-level waste generated before this date, a one-time charge will be imposed per kilogram of heavy metal that is equivalent to an average charge of one mill kwh
- By 5 June 1983, DOE will establish procedures for the collection and payment of these fees
- DOE will review these fees annually and propose to Congress adjustments to ensure full cost recovery by the federal government
- Once a repository is operating, DOE will accept title as expeditiously as practicable and, beginning not later than 31 January 1998, dispose of spent fuel or high-level waste
- The NRC may require as a condition for issuing or renewing a license for a nuclear power reactor that the applicant has executed a contract with DOE or is actively and in good faith negotiating with DOE

- No spent fuel or high-level waste may be disposed of in a repository unless its owner or generator has executed a contract with DOE by 30 June 1983, or by the date on which generation of spent fuel or waste begins or title is accepted

DEFENSE WASTE PROGRAM

- The Nuclear Waste Policy Act does not apply to defense nuclear activities or to a repository used exclusively for disposal of high-level waste or spent fuel from defense programs or DOE RD&D programs Such a repository, however, is subject to licensing by NRC
- By 5 January 1985, the President will evaluate the use of capacity at civilian repositories for the disposal of high-level waste resulting from defense activities
- Unless the President finds that a defense-only repository is required, DOE will proceed promptly with arrangements to use civilian repositories for the disposal of defense wastes.
- High-level waste or spent fuel from defense activities may be disposed of in a civilian repository only on payment of a fee equivalent to that charged private clients
- Before any site-specific investigation for a defense-only repository begins, affected states or Indian tribes must be notified, after which they are entitled to rights of participation and consultation.

— Highlights prepared by George Russ, PAIP Communications Resources staff

APPENDIX D

Budgets of Nevada Project (Federal Program)

BUDGETS OF NEVADA PROJECT
(FEDERAL PROGRAM)
(In Thousands of Dollars)

	FY 76	FY 77	FY 78	FY 79	FY 80	FY 81	FY 82	FY 83	EST. FY 84
OPERATING									
EXPENDITURES	800	5,500	15,800	24,800	25,700	32,100	45,400	61,200	67,300
CAPITAL EQUIPMENT									
EXPENDITURES	____	____	200	1,300	1,000	2,600	2,900	1,300	3,100
TOTAL									
EXPENDITURES	800	5,500	16,000	26,100	26,700	34,700	48,300	62,500	70,400
CUMULATIVE									
TOTAL	800	6,300	22,300	48,400	75,100	109,800	158,100	220,600	291,000

SOURCE: Nevada Operations Office, U.S. Department of Energy

APPENDIX E

Budgets of Nevada Project by Work Element (Federal Program)

BUDGETS OF NEVADA PROJECT BY WORK ELEMENT
(FEDERAL PROGRAM)
(In Millions of Dollars)

WORK ELEMENT	FY 1983	FY 1984
SYSTEMS	3.1	3.5
WASTE PACKAGE	3.5	5.0
SITE CHARACTERIZATION	28.4	25.3
REPOSITORY DESIGN	7.2	12.3
REGULATORY AND INSTITUTIONAL	1.6	4.1
EXPLORATORY SHAFT	5.0	2.6
TEST FACILITIES	5.9	6.3
PROJECT MANAGEMENT	6.5	8.2
TOTAL*	61.2	67.3

*Expenditures for capital equipment are projected to be an additional $2.9 million in fiscal year 1983, and $3.2 million in fiscal year 1984.

SOURCE: Nevada Operations Office
U.S. Department of Energy

APPENDIX F

Operating Expenditures of Contractors - Nevada Project (Federal Program)

OPERATING EXPENDITURES OF CONTRACTORS - NEVADA PROJECT
(FEDERAL PROGRAM)
(In Thousands of Dollars)

	FY76	FY77	FY78	FY79	FY80	FY81	FY82	EST. FY83	EST. FY84
Holmes & Narver*	135	65	298	645	276	169	627	1,545	565
Westinghouse*									
(Part. 76-81/Full 82-84)	200	978	4,990	4,862	4,305	2,991	2,663	2,474	2,746
EG&G	-	-	-	40	68	45	67	74	75
Reynolds Electrical and									
Engineering Co.*	317	2,939	4,375	9,798	7,584	12,447	17,300	21,056	13,304
Fenix & Scisson*	31	209	275	575	519	1,055	2,153	1,554	1,420
Science Applications, Inc.*									
(Partial)	-	-	-	-	-	-	-	2,162	5,901
University of Nevada -									
Desert Research Institute	-	-	-	20	-	90	127	267	150
U.S. Geological Survey	97	749	2,332	2,265	2,693	3,302	4,115	5,579	8,171
Los Alamos									
National Laboratory	-	-	601	895	1,745	2,931	4,689	5,848	9,255
Lawrence Livermore									
National Laboratory	-	177	1,125	3,385	4,361	2,461	3,392	6,013	8,786
Sandia National Laboratories	-	269	1,678	2,160	3,408	5,267	8,583	13,027	18,299
Argonne National Laboratories	-	-	-	-	-	199	51	-	-
Other*	-	117	123	86	507	770	1,480	1,728	702
Total	780	5,503	15,797	24,731	25,466	31,727	45,247	61,327	69,374

*Expended and staffed in Nevada.

Source: Nevada Operations Office, U.S. Department of Energy.

APPENDIX G

Scope of Work for Contractors - Nevada Project (Federal Program)

SCOPE OF WORK FOR CONTRACTORS - NEVADA PROJECT
(FEDERAL PROGRAM)

Contractor	Scope of Work
EG&G	Environmental studies at the site.
Fenix and Scisson	Engineering for mining and drilling, support to U.S. Geological Survey in field geology.
Holmes and Narver	Site preparation for drilling, exploratory shaft design, surveying.
Lawrence Livermore National Laboratory	Spent fuel test at Climax; waste package design, testing and analysis.
Los Alamos National Laboratory	Geochemical, mineralogical and petrographic properties of host rock; volcanism studies; coordination of exploratory shaft design and test plan.
Reynolds Electrical and Engineering Co.	Nevada Test Site support services including drilling, roads, trenching, and radiological monitoring.
Science Applications, Inc.	Technical and management support services including reporting, scheduling, licensing, project quality assurance, institutional issues, and transportation and socioeconomic investigations.
Sandia National Laboratory	Thermal and mechanical properties of host rock, conceptual design of repository, performance assessment of system, development of seals for repository, and development of equipment.
University of Nevada, Desert Research Institute	Archeological studies at the site.
U.S. Geological Survey	Geologic and hydrologic exploration and data analysis.
Westinghouse	Operation of E-MAD facility.

APPENDIX H

Suggested Legislation

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BDR 40-178...Creates office for study and evaluation of federal program for disposal of radioactive waste..... 95

BDR 40-180...Requires permit and imposes fee for transport of high-level radioactive waste..... 101

BDR 40-181...Establishes legislative committee on high-level radioactive waste..... 105

BDR 182.....Urges the Federal Government to mitigate adverse effects of facility for disposal of high-level radioactive waste..... 107

BDR 183.....Urges Federal Government to assume financial responsibility for facility for disposal of high-level radioactive waste.. 111

BDR S-179....Authorizes agreement with United States on disposal of high-level radioactive waste.. 113

SUMMARY--Creates office for study and evaluation of federal program for disposal of radioactive waste. (BDR 40-178)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: Yes.

AN ACT relating to radioactive waste; creating the office for the study and evaluation of the federal program for disposal of radioactive waste; providing for a director of that office and prescribing his duties; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. The legislature hereby finds, and declares it to be the policy of this state, that the study of the disposal of high-level radioactive waste in the State of Nevada and related activities is essential to the preservation of the public health and welfare. This study must involve the governor, the legislature and local governments as direct participants.

Sec. 2. Chapter 459 of NRS is hereby amended by adding thereto the provisions set forth as sections 3 to 12, inclusive, of this act.

Sec. 3. <u>As used in sections 3 to 12, inclusive, of this act, unless the context otherwise requires:</u>

1. "Director" means the director of the office.

2. "Office" means the office for the study and evaluation of the federal program for disposal of radioactive waste.

3. "Radioactive waste" is limited to:

(a) The highly radioactive material resulting from the reprocessing of spent nuclear fuel, including liquid waste and any solid material derived from the liquid waste that contains concentrations of matter produced by nuclear fission sufficient to require permanent isolation, as determined by the Nuclear Regulatory Commission;

(b) Spent nuclear fuel that has been withdrawn from a reactor following irradiation and has not been separated into its constituent elements by reprocessing; and

(c) Other material that the Nuclear Regulatory Commission determines must be permanently isolated.

Sec. 4. 1. The office for the study and evaluation of the federal program for disposal of radioactive waste is hereby created.

2. The office consists of the director and:

(a) The division of technical programs.

(b) The division of planning.

Sec. 5. 1. The governor shall appoint the director, who serves at the pleasure of the governor.

2. A person who is selected to serve as director must possess broad management skills related to the functions of the office and must have the ability to coordinate planning and communication among the Federal Government, the state and local governments on issues related to radioactive waste.

Sec. 6. The director shall:

1. Appoint, with the consent of the governor, an administrator of each division of the office.

2. Advise the governor and the legislature on matters relating to the potential disposal of radioactive waste in this state.

3. Evaluate the potentially adverse effects of a facility for the disposal of radioactive waste in this state.

4. Consult frequently with local governments and state agencies that may be affected by a facility for the disposal of radioactive waste and appropriate legislative committees.

5. Assist local governments in their dealings with the Department of Energy and its contractors on matters relating to radioactive waste.

6. Carry out the duties imposed on the state by 42 U.S.C. §§ 10101 to 10226, inclusive, as those sections existed on January 1, 1985.

7. Cooperate with any governmental agency or other person to carry out the provisions of sections 3 to 12, inclusive, of this act.

Sec. 7. The director may:

1. Provide information relating to radioactive waste to the legislature, local governments and state agencies that may be affected by the disposal of radioactive waste in this state.

2. Consult departments, agencies and institutes of the University of Nevada System or other institutions of higher education on matters relating to radioactive waste.

3. Employ, within the limitations of legislative authorization, technical consultants, specialists, investigators and other professional and clerical employees as are necessary to the performance of his duties.

4. Make and execute contracts and all other instruments necessary for the exercise of the duties of the office.

5. Obtain equipment and supplies necessary to carry out the provisions of sections 3 to 12, inclusive, of this act.

6. Adopt regulations and perform other duties necessary to carry out the provisions of sections 3 to 12, inclusive, of this act.

Sec. 8. Employees of the office are exempt from the provisions of chapter 284 of NRS.

Sec. 9. 1. The administrator of each division shall administer the provisions of law relating to his division under the supervision of the director.

2. The director and the administrator of each division:

(a) Are in the unclassified service of the state and are entitled to be reimbursed for travel expenses and expenses of subsistence in amounts provided by law for state officers and employees.

(b) Shall devote their full time to the business of the office and not engage in any other gainful employment or occupation.

Sec. 10. The administrator of the division of technical programs shall:

1. Evaluate the:

(a) Potential effects of radioactive waste upon the physical environment;

(b) Potential health hazards from the disposal of radioactive waste; and

(c) Design of and engineering techniques involved in a facility for the disposal of radioactive waste.

2. Assure the quality of techniques and procedures used

in research involving radioactive waste and of any information developed as a result of the research.

3. Analyze the geological and technical information which would affect the feasibility and safety of locating a facility for the disposal of radioactive waste in this state.

4. Perform any other duties assigned to him by the director.

Sec. 11. The administrator of the division of planning shall:

1. Coordinate activities between the office, political subdivisions of the state and affected state agencies.

2. Disseminate information to the state, interested political subdivisions of the state or any agency of either and members of the public regarding radioactive waste.

3. Study the effects of a facility for the disposal of radioactive waste upon transportation and social and economic conditions in this state.

4. Assess the means of mitigating the adverse effects of a facility for the disposal of radioactive waste.

5. Perform any other duties assigned to him by the director.

Sec. 12. The governor may, by executive order, abolish the office whenever he determines it is no longer needed.

SUMMARY--Requires permit and imposes fee for transport of high-level radioactive waste. (BDR 40-180)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: No.

AN ACT relating to high-level radioactive waste; requiring persons who transport the waste in this state to obtain a permit and pay a fee; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. Chapter 459 of NRS is hereby amended by adding thereto a new section to read as follows:

1. Any person who transports high-level radioactive waste into or within this state by any means must, in addition to any permit required in chapter 706 of NRS, first apply for and obtain a permit from the health division by applying for the permit at least 30 days before he intends to transport the waste into or within this state.

2. The health division shall issue a permit to an applicant who:

(a) Registers with the health division any certificate or permit issued to the applicant by the Federal Government which allows him to transport the waste;

(b) Pays the fee fixed by the state board of health for issuing the permit;

(c) Demonstrates to the satisfaction of the health division that he complies and will continue to comply with all laws and regulations of this state and the Federal Government respecting the handling and transport of the waste;

(d) Provides the health division any information which the state board of health deems necessary for the protection of the health and safety of the public;

(e) Provides evidence of liability insurance sufficient to protect the state, its political subdivisions and the public from possible injury to persons or damage to property from the transport of the waste; and

(f) Certifies to the health division that he will hold the State of Nevada harmless from any claims arising out of the transport of the waste into or within this state and will pay all costs of defending against such claims.

3. The state board of health shall establish a schedule of fees for issuing the permits. The fees must reflect the potential threat to the public health and safety from the waste and the degree of protection required, based on the weight, volume or amount of ionizing radiation.

4. The person who is issued a permit for such a shipment

shall notify the health division at least 48 hours before beginning to transport the waste into or within this state.

5. As used in this section, "high-level radioactive waste" means highly radioactive material, other than that generated as a result of any activities of the Federal Government, which:

(a) Results from the reprocessing of spent nuclear fuel, including liquid waste and any solid material derived from the liquid waste that contains concentrations of matter produced by nuclear fission sufficient to require permanent isolation, as determined by the Nuclear Regulatory Commission;

(b) Is spent nuclear fuel that has been withdrawn from a reactor following irradiation, where the constituent elements have not been separated by reprocessing; or

(c) The state board of health determines must be permanently isolated.

SUMMARY--Establishes legislative committee on high-level radioactive waste. (BDR 40-181)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: Yes.

AN ACT relating to high-level radioactive waste; establishing the legislative committee on high-level radioactive waste; prescribing its powers and duties; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. Chapter 459 of NRS is hereby amended by adding thereto a new section to read as follows:

1. There is hereby created a committee on high-level radioactive waste. It is a committee of the legislature composed of:

(a) Two members of the senate, appointed by the majority leader of the senate.

(b) Three members of the assembly, appointed by the speaker.

2. The members of the committee shall select a chairman and a vice chairman from its members.

3. The committee on high-level radioactive waste shall meet at the call of the chairman to study and evaluate:

(a) Information and policies regarding the location in this state of a facility for the disposal of high-level radioactive waste;

(b) Any potentially adverse effects from the construction and operation of a facility and the ways of mitigating those effects; and

(c) Any other policies relating to the disposal of high-level radioactive waste.

4. The committee may recommend any appropriate legislation to the legislature and the legislative commission.

5. The director of the legislative counsel bureau shall provide a secretary for the committee on high-level radioactive waste. Each member of the committee is entitled to a salary of $80 for each day or part of a day during which he attends a committee meeting or is otherwise engaged in the work of the committee. Per diem allowances, salary and travel expenses of members of the committee must be paid from the legislative fund.

SUMMARY--Urges the Federal Government to mitigate adverse effects of facility for disposal of high-level radioactive waste. (BDR 182)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: No.

JOINT RESOLUTION--Urging the Congress and the President of the United States to take all measures necessary to mitigate the adverse effects of a facility for the disposal of high-level radioactive waste in this state.

WHEREAS, The Nuclear Waste Policy Act of 1982 established a procedure for the selection of a site for a facility for the disposal of high-level radioactive waste; and

WHEREAS, The Secretary of Energy is considering an area near Yucca Mountain in Nye County, Nevada, for selection as the site for such a facility; and

WHEREAS, If Nevada is chosen to be the location for the facility, it would severely strain the financial, environmental and human resources of this state; now, therefore, be it

RESOLVED BY THE AND OF THE STATE OF NEVADA, JOINTLY, That this legislature strongly urges the Federal Government to provide assistance to mitigate the adverse effects of such a facility in the following areas:

1. Education, including facilities and personnel for elementary and secondary schools, community colleges, vocational and technical schools and universities.

2. Public health, including the facilities and personnel for treatment and distribution of water, the treatment of sewage, the control of pests and the disposal of solid waste.

3. Law enforcement, including facilities and personnel for the courts, police and sheriff's departments, district attorneys and public defenders and prisons.

4. Fire protection, including personnel, the construction of fire stations and the acquisition of equipment.

5. Medical care, including emergency services and hospitals.

6. Cultural and recreational needs, including facilities and personnel for libraries and museums and the acquisition and expansion of parks.

7. Distribution of public lands to allow for the timely expansion of existing or creation of new communities and the construction of necessary residential and commercial facilities.

8. Vocational training and employment services.

9. Social services, including public assistance programs,

vocational and physical rehabilitation programs, mental health services and programs relating to the abuse of alcohol and controlled substances.

10. Transportation, including any roads, terminals, airports or railways built for or in any way associated with the facility and the repair and maintenance of roads, terminals, airports or railways damaged as a result of the construction, operation and closure of the facility.

11. Equipment and training for state and local personnel in the management of accidents involving high-level radioactive waste.

12. Availability of energy.

13. Tourism and economic development, including the loss of revenue and future economic growth.

14. Other needs of the state and local governments that would not have arisen but for the construction, operation and eventual closure of the facility; and be it further

RESOLVED, That the mitigation of these adverse effects should begin as soon as they become known; and be it further

RESOLVED, That the Federal Government should provide whatever assistance is necessary, including equipment for data processing, to allow the state to establish appropriate methods to observe and assess the effects of the facility

from the planning stages until the waste is no longer radioactive; and be it further

RESOLVED, That the entity to be established to coordinate the requests for assistance from the state and its political subdivisions be recognized by the Federal Government as the final authority on the needs and priorities of this state and its political subdivisions in the mitigation of the adverse effects of the facility; and be it further

RESOLVED, That the Federal Government should establish a special fund to be used to mitigate any adverse effects of the study of the site including, without limitation, the effects of physical exploration if the project is abandoned; and be it further

RESOLVED, That the legislative counsel shall forthwith transmit copies of this resolution to the President of the United States, the Vice President of the United States as presiding officer of the Senate, the Speaker of the House of Representatives, each member of the Nevada congressional delegation and the Secretary of Energy; and be it further

RESOLVED, That this resolution becomes effective upon passage and approval.

SUMMARY--Urges Federal Government to assume financial responsibility for facility for disposal of high-level radioactive waste. (BDR 183)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: No.

JOINT RESOLUTION--Urging the Federal Government to assume the total financial responsibility for the mitigation of all adverse effects of any facility for the disposal of high-level radioactive waste in this state.

WHEREAS, It is possible that Nevada will be chosen as the location of a national facility for the disposal of high-level radioactive waste; and

WHEREAS, The construction and operation of the facility will have a significant effect upon the economy of this state; and

WHEREAS, Under the provisions of the Nuclear Waste Policy Act of 1982, 42 U.S.C. §§ 10101 to 10226, inclusive, the Federal Government is responsible for the safe and permanent disposal of high-level radioactive waste; now, therefore, be it

RESOLVED BY THE AND OF THE STATE OF NEVADA, JOINTLY, That this legislature strongly urges the

President and the Congress of the United States to use their power to ensure that the Federal Government:

1. Bears the total financial responsibility for the mitigation of all adverse effects associated with the preliminary study, construction, operation and eventual closure of any such facility as soon as an injury is perceived;

2. Requires all materials and equipment for the facility to be purchased, if possible, in Nevada and subject to state and local sales and use taxes; and

3. Assumes all liability, without limitation, for any injuries resulting from the transportation of high-level radioactive waste to the facility, the construction, operation and eventual closure of the facility and any activity associated with the facility after its closure; and be it further

RESOLVED, That the legislative counsel shall forthwith transmit copies of this resolution to the President of the United States, the Vice President of the United States as presiding officer of the Senate, the Speaker of the House of Representatives, each member of the Nevada congressional delegation and the Secretary of Energy; and be it further

RESOLVED, That this resolution becomes effective upon passage and approval.

SUMMARY--Authorizes agreement with United States on disposal of high-level radioactive waste. (BDR S-179)

FISCAL NOTE: Effect on Local Government: No.
Effect on the State or on Industrial Insurance: No.

AN ACT relating to high-level radioactive waste; authorizing the governor to negotiate for an agreement with the United States concerning disposal of such waste; requiring a public hearing and the signatures of the governor and the chairman of the legislative commission to make the agreement effective; and providing other matters properly relating thereto.

THE PEOPLE OF THE STATE OF NEVADA, REPRESENTED IN SENATE AND ASSEMBLY, DO ENACT AS FOLLOWS:

Section 1. 1. The governor may negotiate with the Secretary of Energy to develop a written agreement pursuant to 42 U.S.C. § 10137(c) as it existed on January 1, 1985. The governor may initiate the negotiations at any time, or at the time required under 42 U.S.C. § 10137(c). The governor shall consult the legislature, or the legislative commission when the legislature is not in session, and any affected local governments before and during the negotiations.

2. The legislative commission shall hold a public hearing on the final agreement before it is signed.

3. The agreement is not effective unless signed by the governor and the chairman of the legislative commission.

Sec. 2. This act becomes effective upon passage and approval.