Committee on High-Level Radioactive Waste

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LEGISLATIVE COMMITTEE ON HIGH-LEVEL RADIOACTIVE WASTE

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TABLE OF CONTENTS

ACRONYMS USED BULLETIN NO. 05-25

AULG ..... Affected Units of Local Government

DOE. ..... United States Department of Energy

EIS ..... Environmental Impact Statement

EM ..... Environmental Management

EPA ..... United States Environmental Protection Agency

HLRW ..... High-Level Radioactive Waste

LCB ..... Legislative Counsel Bureau

ANP ..... Nevada's Agency for Nuclear Projects

NCSL ..... National Conference of State Legislatures

NRC ..... United States Nuclear Regulatory Commission

NTS ..... Nevada Test Site

NWPA ..... Nuclear Waste Policy Act of 1982

OCRWM ..... Office of Civilian Radioactive Waste Management
United States Department of Energy

S.J.R. ..... Senate Joint Resolution

WIPP ..... Waste Isolation Pilot Plant

REPORT TO THE 73RD SESSION OF THE NEVADA LEGISLATURE BY NEVADA'S LEGISLATIVE COMMITTEE ON HIGH-LEVEL RADIOACTIVE WASTE

I. INTRODUCTION

Nevada's Legislative Committee on High-Level Radioactive Waste is a permanent committee of the Nevada Legislature whose authorization and duties are set forth under *Nevada Revised Statutes* 459.0085 (See Appendix A). Created in 1985, the Committee is responsible for performing legislative oversight responsibilities to study and evaluate the following:

- Information and policies regarding the location of a facility for the disposal of high-level radioactive waste in the State of Nevada;
- Any potential adverse effects from the construction and operation of a facility and the ways of mitigating those effects;
- Any other policies relating to the disposal of high-level radioactive waste; and
- Recommendations concerning appropriate legislation to be presented to the Legislature and the Legislative Commission.

The Committee also provides a forum for the discussion of high-level radioactive waste matters with federal, state, and local officials; representatives of special interest groups; and other interested individuals.

A. Committee Members and Staff

The following legislators served on the Committee during the 2003-2004 Legislative Interim:

Senator Mike McGinness, Chairman
Assemblyman Harry Mortenson, Vice Chairman
Senator Joseph M. Neal Jr.
Senator Dean A. Rhoads
Senator Raymond C. Shaffer
Assemblywoman Sharron Angle
Assemblywoman Peggy Pierce
Assemblyman Roderick (Rod) Sherer

The Legislative Counsel Bureau (LCB) provided staff services to the Committee. Research Division staff included Patrick Guinan, Senior Research Analyst; and Nenita Wasserman, Senior Research Secretary. R. René Yeckley, Principal Deputy

Legislative Counsel; and Ann M. Iverson, Senior Deputy Legislative Counsel, provided staff services from the Legal Division.

B. Meetings and Activities

The Committee held three meetings during the 2003-2004 Legislative Interim. As well as performing its mandated oversight functions, the Committee monitored the actions of the 108th Session of the United States Congress, and the progress of the State of Nevada's legal challenges to the Yucca Mountain Project. Committee members participated in the National Conference of State Legislatures' (NCSL) Environmental Management Legislative Roundtables, which included visits to Washington D.C., the Hanford Site in Washington State, and the Waste Isolation Pilot Project in New Mexico (the only operating nuclear waste repository in the United States). Additionally, members monitored meetings of the United States Nuclear Waste Technical Review Board (NWTRB), the Advisory Committee on Nuclear Waste of the United States Nuclear Regulatory Commission (NRC), Nevada's Commission on Nuclear Projects, and technical exchange meetings between the United States Department of Energy (DOE) and the NRC.

At this time, the Committee does not recommend legislative action. However, in addition to the Committee's legislative oversight responsibilities it will continue to monitor: (1) the State of Nevada's legal cases against the Federal Government; and (2) other activities including transportation issues pertaining to the nation's high-level radioactive waste program. If deemed appropriate, the Committee will recommend relevant action to the Nevada Legislature or Legislative Commission.

The purpose of this report is to provide general information on: (1) the Federal Nuclear Waste Program; (2) the DOE's choice of the "Caliente Corridor" through which to build a rail line for the transportation of high-level nuclear waste by train to Yucca Mountain; (3) the activities of the Committee on High-Level Radioactive Waste (HLRW); and (4) the activities of state and local government oversight organizations.

II. BACKGROUND INFORMATION

In 1957, the first nuclear power plant in the United States began operation. Since that time, more than 100 nuclear power plants have been constructed and, in 1999 they produced more than 20 percent of the nation's electricity. However, the benefits of nuclear power are connected with the enormous challenge of safely managing the temporary storage and permanent disposal of spent fuel and high-level radioactive waste (See Appendix B).

In 1982, the United States Congress passed the Nuclear Waste Policy Act (NWPA) (42 *United States Code* 10101 *et seq*.), which was crafted to provide for the safe and permanent disposal of spent nuclear fuel from the nation's civilian power plants and defense high-level radioactive waste, in a deep geological repository. This policy was based primarily on recommendations

from the scientific community, including a 1957 report by the National Academy of Sciences, which recommended the burial of high-level and transuranic radioactive waste in geologic formations. High-level radioactive waste is a byproduct of nuclear power and requires permanent isolation from the environment. Transuranic waste consists primarily of equipment, protective clothing, sludge, soil, and tools that have been contaminated with trace amounts of manmade radioactive elements, such as plutonium.

In the NWPA, Congress designated the three agencies responsible for implementing this policy and their specified roles. First, the DOE must characterize, site, design, build, and manage a federal waste repository. Second, the United States Environmental Protection Agency (EPA) must set the public health standards for a waste repository. Finally, the NRC must license the construction, operation, and closure of a waste repository.

In 1985, the Nevada Legislature created the Committee on High-Level Radioactive Waste, Nevada Commission on Nuclear Projects, and Nevada's Agency for Nuclear Projects (ANP) to conduct state oversight of the Yucca Mountain Site Characterization Program. Subsequently, in 1987, Congress amended the NWPA and directed the DOE to study only Yucca Mountain to determine its suitability as a geologic high-level nuclear waste repository.

III. PROGRAM OVERVIEW

A. Federal Historical Perspective

The site characterization of Yucca Mountain began in 1977 when the DOE initiated an investigation to determine the viability of disposing of high-level radioactive waste in a geologic repository at the Nevada Test Site (NTS). Over the next two years, the DOE investigated a number of locations at the NTS and ultimately selected Yucca Mountain as a potentially acceptable repository site.

The enactment of the NWPA in 1982 established the national policy for the disposal of high-level radioactive waste. This waste consists primarily of spent nuclear fuel from commercial power reactors and defense-related high-level radioactive waste. The NWPA created a federal obligation to accept spent nuclear fuel and dispose of it in a geologic facility. The act also required the Federal Government to develop a national program to accept, transport, store, and permanently dispose of high-level radioactive waste in a timely manner that would assure public and worker health, protect the environment, merit public confidence, and be economically viable.

The NWPA created the Office of Civilian Radioactive Waste Management (OCRWM) within the DOE and assigned it the responsibility for developing a waste management system. The NWPA also:

- Established a Nuclear Waste Fund to finance the system through a surcharge on electricity produced by nuclear power plants;

- Specified the process for siting repositories for the permanent deep geologic disposal of spent nuclear fuel and high-level radioactive waste;

- Required the DOE to submit a proposal to construct a facility for monitored interim storage of spent nuclear fuel;

- Required the President of the United States to evaluate the use of the repositories to be developed under the NWPA for the disposal of high-level waste from defense activities; and

- Included specific provisions for the participation of states and Indian Tribes in the waste management program.

The DOE developed guidelines for evaluating the suitability of proposed repository sites, obtained concurrence on the guidelines from the NRC, and began the site screening process. Nine possible repository sites located throughout the nation were initially evaluated. Three of them ([1] Yucca Mountain, Nevada; [2] Deaf Smith, Texas; and [3] Hanford, Washington) were ranked as being the most suitable for detailed study and analysis (site characterization) as possible repository sites.

In 1987, amendments to the NWPA specified Yucca Mountain as the only site to be characterized to determine its suitability as a geologic repository. Under the NWPA, the DOE had to complete several important stages in evaluating the site before a Secretarial recommendation could occur. The NWPA directed the Secretary of Energy to develop a site characterization plan to guide test programs for the collection of site evaluation data, and to conduct any necessary site suitability characterization studies. It also directed the Secretary to hold public hearings in the vicinity of the prospective site to inform local residents and receive their comments.

If the Secretary of Energy found the site suitable, the NWPA directed him to recommend it to the President for development as a permanent repository. However, if the DOE found Yucca Mountain unsuitable, the agency would be forced to halt all site characterization activities, mitigate any significant adverse environmental impacts, and recommend further action to Congress to assure the safe, permanent disposal of spent fuel and high-level radioactive waste.

In accordance with the NWPA, the DOE developed a Site Characterization Plan in 1988. The Yucca Mountain Project Office, OCRWM, conducted scientific investigations to determine if Yucca Mountain would be suitable for a permanent repository. The Draft Environmental Impact Statement (EIS) for a repository at Yucca Mountain was released to the public on August 13, 1999. Approximately 2,800 individuals attended 21 public hearings held

by the DOE; 716 people commented at the hearings. Ten hearings were held in Nevada with the remainder being held at different locations throughout the country. The Final EIS considered both individually and collectively more than 11,000 comments received either at the hearings or via electronic mail, facsimile or United States mail. The DOE Web site contains detailed information on the Yucca Mountain Site Characterization Program, and may be accessed at: http://www.ymp.gov.

As previously mentioned, under the NWPA, the DOE was charged with determining if Yucca Mountain was a suitable site for the geologic disposal of spent nuclear fuel and high-level nuclear waste. Under the provisions of the NWPA, DOE had to develop and submit a Site Recommendation Report, which included a Final EIS, to the Secretary of Energy. If the Secretary agreed with the site recommendation, he was required to forward it to the President and the United States Congress.

After spending more than $4 billion over a period of 20 years, the DOE determined that Yucca Mountain was a suitable site, within the meaning of the NWPA, for development as a permanent nuclear waste and spent fuel repository. After reviewing the DOE's extensive analysis of the Yucca Mountain Site, the Secretary of Energy found Yucca Mountain suitable for development as a permanent nuclear waste and spent fuel repository. The Secretary then forwarded the site recommendation to the President and Congress, both of which confirmed the selection of Yucca Mountain. The DOE now must prepare and submit an application to the NRC for a license to construct and operate a repository. This process is currently underway.

Following Presidential and Congressional approval of the site recommendation, however, the Governor of Nevada or the Legislature were allowed under the provisions of the NWPA to submit a notice of disapproval to the United States Congress within 60 days after the President submitted his recommendation to Congress. After receiving the notice of disapproval, Congress, within 90 days of a continuous session, could pass a resolution approving the site, thereby overriding the effect of the state's notice of disproval. However, failure to approve the resolution within the 90-day period would have ended further consideration of Yucca Mountain as the repository site (See Appendix D).

Following is a timeline of events that occurred regarding the recommendation to develop Yucca Mountain as a high-level radioactive waste repository:

- On January 10, 2002, United States Secretary of Energy, Spencer Abraham, notified Nevada Governor Kenny C. Guinn and the Nevada Legislature of his decision to recommend the Yucca Mountain site for development as a nuclear waste repository (See Appendix E).

- On February 14, 2002, the Secretary submitted his site recommendation to President George W. Bush. (No earlier than 30 days after providing such notice to the Governor and the Legislature, the Secretary is required to submit his site recommendation to the President) (See Appendix F).

- On February 15, 2002, President Bush submitted his recommendation to the United States Congress for approval of the Yucca Mountain site (See Appendix G).

- On April 8, 2002, Governor Guinn submitted a notice of disapproval regarding the President's recommendation. However, within 90 days of a continuous session of Congress after receiving the notice of disapproval, Congress may pass a resolution to approve the site, thereby overriding the effect of the state's notice of disapproval (See Appendix H).

- On May 8, 2002, the United States House of Representatives rejected Governor Guinn's notice of disapproval and supported the President's recommendation by a vote of 306 to 117 (See Appendix I).

- On July 9, 2002, the United States Senate voted to override Governor Guinn's notice of disapproval and supported the President's recommendation by a vote of 60 to 39.

Congressional approval of the President's recommendation to move forward with the Yucca Mountain site allowed DOE to begin the application process for a license to construct and operate a facility at Yucca Mountain. The DOE expected to file a license application by December 2004, but announced in October 2004 that submittal of the license application would be delayed until sometime in 2005. If, after a lengthy review process, the NRC approves the DOE's license application, facility construction will begin. The DOE will then have to apply for and obtain a separate operating license from the NRC before any nuclear waste can be received. Further, the EPA is responsible for setting public health standards for the site. The DOE has stated that shipments of nuclear waste to Yucca Mountain could begin as early as 2010 (See Appendix J).

B. State Historical Perspective

The NWPA, as amended, authorizes Nevada's Legislature and Governor to carry out oversight on all aspects of the High-Level Radioactive Waste Program. State legislative oversight began in 1983 with the adoption of Senate Concurrent Resolution No. 52 (File No. 135, *Statutes of Nevada 1983*), which directed the Legislative Commission to appoint an interim committee to observe and participate in the federal study. The Committee's major objectives were to:

- Become familiar with the federal program for study of potential locations of a repository; and

- Establish a structure within the State of Nevada to analyze and address the issues associated with the possibility of locating a repository in the state.

The interim committee recommended to the 1985 Legislature that:

- The Legislature continue to be actively involved in the state's program by creating a permanent legislative committee to perform oversight functions and formulate recommendations concerning the high-level radioactive waste repository issue; and

- An executive branch advisory commission and agency be created by statute.

1. Creation of Permanent Legislative Oversight Committee

The Nevada Legislature's Committee on High-Level Radioactive Waste was created in 1985 by Senate Bill 55 (Chapter 211, *Statutes of Nevada*). This permanent committee was charged with legislative oversight responsibilities as outlined on page 1 of this report.

The Committee is not authorized to undertake technical studies or duplicate efforts of Nevada's Agency for Nuclear Projects (ANP).

2. Creation of Commission and State Agency

Pursuant to the NWPA, the ANP was established in early 1983 by Executive Order of the Governor and placed within the Department of Minerals. In December 1983, the ANP was transferred to the Governor's Office. In 1985, Senate Bill 56 (Chapter 680, *Statutes of Nevada*) created the Commission on Nuclear Projects and the responsibilities of the ANP.

Major functions of the ANP include:

- Identifying health, safety, and environmental issues of concern to Nevada;

- Reviewing and evaluating the DOE's environmental, socioeconomic, and technical studies; and

- Performing selective independent studies of critical issues in order to confirm or negate DOE analyses.

According to Robert Loux, Executive Director, ANP, the agency has aggressively performed its monitoring and oversight responsibilities. Emphasis has been placed on reviewing and commenting on technical studies in the areas of hydrology, groundwater travel time, pneumatic pathways, volcanism, seismology, waste packaging, transportation routes and modes, and socioeconomic impacts, as well as on providing information to the public about the Yucca Mountain Site Characterization Program.

Details of the ANP's oversight activities can be obtained by contacting the office at 1761 East College Parkway, Suite 118, Carson City, Nevada 89706; telephone: 775/687-3744; or by visiting the ANP's Web site at: www.state.nv.us/nucwaste. Copies of ANP reports and studies are available at most public libraries in Nevada.

3. Affected Units of Local Government

The NWPA provides that units of local government that might be affected by a repository may conduct certain types of independent oversight of the High-Level Radioactive Waste Program.

The Affected Units of Local Government (AULG) have been identified as the county in which the proposed repository site is being studied and the counties which surround it. The AULG for the Yucca Mountain Site Characterization Project are Churchill, Clark, Esmeralda, Eureka, Lander, Lincoln, Mineral, Nye, and White Pine Counties in Nevada, and Inyo County in California.

The oversight activities of the AULG include:

- Reviewing studies and materials for the purpose of determining any potential economic, social, public health and safety, and environmental impacts of a repository;

- Developing requests for impact assistance;

- Engaging in monitoring, testing, or evaluating activities with respect to site characterization programs;

- Providing information to residents regarding site-related activities of the DOE, NRC, or state; and

- Requesting information from and making comments and recommendations to the DOE regarding activities undertaken with respect to the site.

Details of the activities and the status of each AULG oversight program may be obtained by contacting a specific AULG directly. (Appendix C is a list of each AULG including contact information.)

IV. ACTIONS OF THE 108TH SESSION OF THE UNITED STATES CONGRESS REGARDING THE DEVELOPMENT OF THE PROPOSED YUCCA MOUNTAIN SITE AS A HIGH-LEVEL RADIOACTIVE WASTE REPOSITORY

The United States Congress took no actions during the 108th Session that directly impacted the Yucca Mountain Project.

V. LEGISLATIVE OVERSIGHT

Below is a summary of recommendations made and actions taken by the committee as a result of its oversight activities during the 2001-2002 interim.

At its January 29, 2002 meeting, the Committee approved a motion recommending that the Legislative Commission transmit a copy of S.J.R. No. 6 to Governor Guinn. The Committee also recommended that the resolution be included with the Governor's expected "Notice of Disapproval," should President Bush submit a Yucca Mountain Project site suitability recommendation to Congress (See Appendix K).

Additionally, the Committee approved a motion to have the chairman of the Committee transmit a letter to Secretary of Energy Abraham requesting that when he submitted the Yucca Mountain site suitability recommendations to the President, that they contain the Final EIS and Record of Decision for Yucca Mountain as required by the NWPA and the National Environmental Protection Act of 1973 (See Appendix L).

In addition, the Committee participated in four meetings of the NCSL's Environmental Management Legislative Roundtables. Committee members also monitored meetings of: (1) the Nuclear Waste Technical Review Board; (2) the NRC's Advisory Committee on Nuclear Waste; (3) Nevada's Commission on Nuclear Projects; and (4) various technical exchange and management meetings between the DOE and the NRC.

A. Committee Oversight Meetings 2003 - 2004

During the 2003-2004 Legislative Interim, the Legislative Committee on High-Level Radioactive Waste held three meetings in Las Vegas, Nevada. All three meetings were public hearings and were videoconferenced between the Grant Sawyer State Office Building in Las Vegas and the Legislative Building in Carson City. All minutes of meetings and their corresponding exhibits are on file in the LCB Research Library (775/684-6827). In addition to the original documents on file with the Research Library, minutes (without exhibits) are available on-line at: www.leg.state.nv.us/72nd/Interim/StatCom/HLRW. (Appendix M provides copies of Committee meeting agendas from the 2003-2004 Legislative Interim.)

Following are summaries of the Committee's discussion and activities at each of its three meetings held in Las Vegas during the 2003-2004 interim:

1. December 10, 2003

At its December 10, 2003, meeting, the Committee received a presentation from the NCSL on its activities relating to high-level nuclear waste, especially in regard to the High-Level Waste Working Group, of which the Committee is a member. The committee was also presented with an overview of the NCSL's recent publication entitled "State Role in Spent Fuel Transportation." The DOE gave a presentation regarding the overall mission of the OCRWM

and the status of scientific studies relating to the Yucca Mountain Site Characterization project. The DOE also provided information on its planning for the potential transport from locations across the country of high-level nuclear waste to Yucca Mountain, including potential modes and routes through Nevada.

Further, the Committee heard testimony from the ANP on the status of Nevada's six pending legal challenges to Yucca Mountain, on the results of scientific studies of Yucca Mountain conducted on the state's behalf, and on preferred rail corridors identified by the ANP for the transport of high-level waste within the state. Representatives of Nye and Clark Counties discussed their respective positions on the establishment of a waste repository at Yucca Mountain. Finally, a member of the public voiced his displeasure that state and local entities are not invited to attend certain meetings held between the DOE and the NRC.

2. April 19, 2004

At this meeting the Committee received testimony on the mission and activities of the NWTRB, including a discussion of the NWTRB's interests regarding the safety of casks in which waste is shipped and regarding the DOE's transportation planning. The Committee also heard testimony from a representative of the City of Caliente relating to the possible construction of a rail line through that city for the transport of nuclear waste to Yucca Mountain. Additionally, the DOE discussed the status of its transportation planning, especially in regard to its stated preference to build a rail line through Caliente. Finally, committee staff offered an overview of topics to be discussed at an upcoming NCSL High-Level Waste Working Group Meeting.

3. August 31, 2004

At its final meeting of the Interim, the Committee heard an update on NCSL's activities related to high-level radioactive waste, including a report on NCSL's research into the current status of and future prospects for spent nuclear fuel reprocessing. Additionally, Marta A. Adams, Senior Deputy Attorney General, provided an analysis of the July 9, 2004, decision handed down by the United States Court of Appeals, Washington D.C. Circuit, concerning Nevada's six consolidated legal challenges to the establishment of a high-level nuclear waste repository at Yucca Mountain. Further, the committee received testimony from the ANP on its current and future activities regarding the Yucca Mountain Project, especially in light of the court decision mentioned above.

B. Legislative High-Level Radioactive Waste Interim Storage and Transportation Working Group of the National Conference of State Legislatures

The members of Nevada's HLRW Committee serve on NCSL's Legislative High-Level Radioactive Waste Working Group and NCSL's Environmental Management Legislative Roundtable. The NCSL Roundtable held two meetings during the 2003-2004 Interim.

Listed below are the dates, locations, and a brief description of each meeting.

- November 16–18, 2003, Washington, D.C. Updates were provided by OCRWM, the Yucca Mountain Project office, the Nuclear Regulatory Commission, the Nuclear Energy Institute and the Private Fuel Storage Project. The working group made changes to the NCSL Radioactive Waste Management Policy and forwarded them to the NCSL Environment Committee for consideration.

- May 10-14, 2004, Las Vegas, Nevada.
  Topics addressed at this meeting included: Spent Fuel Transportation, Nuclear Waste Technical Review Board Update, Research Council's Board on Radioactive Waste Management Overview, and examples of state permit and fee action. Updates were provided by OCRWM, NWTRB, the Yucca Mountain Project office, the Nuclear Regulatory Commission, the Nuclear Energy Institute, Nevada Affected Units of Local Government and the Private Fuel Storage Project.

C. Meetings Monitored

In addition to participating in the meetings listed above, the members of the Committee have monitored meetings of other oversight organizations, which are listed below.

1. The United States Nuclear Waste Technical Review Board

This board was created to advise both Congress and the Secretary of Energy on the technical and scientific validity of the DOE's Civilian Radioactive Waste Program. The members are appointed by the President from a list of nationally recognized scientists who are recommended by the National Academy of Sciences.

2. The Advisory Committee on Nuclear Waste to the Nuclear Regulatory Commission

This committee conducts independent oversight of the nation's high-level radioactive waste program and reports its findings and recommendations to the NRC. The Committee also consists of nationally recognized scientists who are appointed by the NRC.

3. Nevada's Commission on Nuclear Projects

This Commission was created by the Nevada Legislature to review, report, and make recommendations to the Governor and Legislature on matters relating to the disposal of radioactive waste. The Commission is composed of seven members appointed by the Governor (three members chosen by the Governor, two members recommended by the Legislative Commission, and two members recommended by the Nevada Association of Counties and the Nevada League of Cities).

4. Technical Exchange Meetings Between the DOE and the NRC

These meetings are conducted regularly to share information on specific aspects of the Yucca Mountain Site Characterization Project.

5. Miscellaneous Meetings

The Committee also monitors meetings between stakeholders, AULGs, and other interested groups and organizations.

VI. FUTURE OVERSIGHT ACTIVITIES OF THE NEVADA LEGISLATURE'S COMMITTEE ON HIGH-LEVEL RADIOACTIVE WASTE

The Legislative Committee on High-Level Radioactive Waste will continue its oversight and monitoring efforts, and maintain its focus on the topics discussed below.

A. Legal Challenges Made by the State of Nevada Against the Federal Government

The State of Nevada initially filed seven lawsuits against various entities within the Federal Government including the DOE, the President of the United States, the EPA, and the NRC. These lawsuits challenge various aspects of the Federal Government's decision to designate Yucca Mountain as the nation's sole nuclear waste repository. All lawsuits are filed in either the Ninth Circuit Court of Appeals or the District of Columbia Court of Appeals. The State of Nevada has hired Egan and Associates, PLLC, of Virginia to represent its interests in court. Egan and Associates specializes in nuclear law and has handled many high-profile cases throughout the world.

As an example, one of Nevada's legal challenges argues that President Bush's designation of Yucca Mountain was invalid because the DOE, EPA, and NRC violated the law throughout the Yucca Mountain site recommendation and approval process. At the request of attorneys for the State of Nevada, the District of Columbia Court of Appeals in November 2002 agreed to consider "in-tandem" Nevada's three challenges that were pending in that court. The decision to allow "in-tandem" consideration enables all the significant questions concerning the proposed repository to be addressed concurrently. These three cases include: (1) a consolidated challenge to the DOE's site suitability rule and the EIS for Yucca Mountain; (2) a challenge to the NRC's licensing rule; and (3) a challenge to the Yucca Mountain radiation standard set by the EPA. Oral arguments in these cases were heard in January 2004, and the court handed down its decision in July 2004. The court rejected Nevada's first two arguments, but upheld the third, agreeing that the EPA had violated the NWPA by ignoring scientific recommendations when it set the radiation safety standard for Yucca Mountain (See Summary of Ruling, Appendix N). The full text of the court's decision may be viewed on the ANP's Web site at: http://www.state.nv.us/nucwaste.

In March 2004, Nevada filed a new lawsuit against the DOE involving funding for State and AULG oversight activities. According to the suit, the DOE violated federal law by failing to provide oversight funds to both the state of Nevada and local governments affected by the proposed Yucca Mountain nuclear waste repository. Nevada filed a second new lawsuit in September 2004 challenging the DOE transportation plan for shipping nuclear waste to Yucca Mountain (See Appendix P). The suit contends that DOE's plan violates the National Environmental Policy Act, the Interstate Commerce Act, and regulations set by the Council on Environmental Quality, the Surface Transportation Board, and the DOE itself. Both challenges were filed with the District of Columbia Court of Appeals and are pending. They can be accessed on the ANP's Web site at: http://www.state.nv.us/nucwaste. It is also possible that Nevada will appeal the two cases it lost in the appeals court to the United States Supreme Court.

B. Yucca Mountain Project, DOE

Because Congress has made a recommendation to develop Yucca Mountain as the nation's sole nuclear waste repository, important scientific studies and engineering tests will continue in order to augment a license application to the NRC. The ongoing studies and tests include: (1) drift-scale tests; (2) cross-drift tests; (3) lithistratigraphy and hydrogeologic framework; (4) natural convection tests; (5) breached waste package and drip shield experiments; (6) thermal properties investigations; and (7) thermal-mechanical shock properties investigations. These studies and tests are explained on the Yucca Mountain Project Web site at: http://www.ymp.gov.

C. The DOE's Decision to Use "Mostly Rail" for Transport of Nuclear Waste to Yucca Mountain

If the NRC licenses the Yucca Mountain site as the national repository, it will be necessary to transport spent nuclear fuel and high-level radioactive waste located throughout the nation to the site. Anticipating NRC approval of its license application, in April 2004 the DOE announced its decision to proceed with a "mostly rail" waste transportation scenario, and to move forward with plans to construct a 319 mile rail line in Nevada to facilitate those plans (See Appendix O). Commonly referred to as the Caliente corridor, the proposed railway will run from the city of Caliente in southeastern Nevada, northwest across the state and around the NTS to a point near the city of Tonopah, then turn south by southwest eventually entering the NTS from the south, just above the town of Amargosa (See Map, Appendix P). Under DOE's current schedule, 2010 is the earliest date that shipments to Yucca Mountain could begin (See Appendix Q).

D. Additional Oversight Issues

The following are additional issues that will be monitored by the Committee:

- Nevada's ongoing legal challenges to various aspects of the Yucca Mountain Project.

- The submission of a license application by DOE to begin construction of a facility at Yucca Mountain;

- The NRC's review of a license application from DOE to begin construction at Yucca Mountain;

- The progress of the DOE's environmental assessment and related issues surrounding the proposed Caliente corridor rail line and other transportation matters; and

- Liaison with state and local government monitoring agencies.

VII. CONCLUDING REMARKS

The OCRWM believes that the scientific studies and engineering tests of the Yucca Mountain site that began in 1987 generated enough information to make a site recommendation. The Secretary of Energy agreed with that assessment and submitted a site recommendation report to the President, which Congress approved.

However, the recommendation was a preliminary step which merely began the formal safety evaluation process. Before a license is granted to begin construction of a facility at Yucca Mountain, the DOE must submit an application for a construction license. The DOE must defend its application through the formal review, which includes public hearings, and receive construction authorization from the NRC. According to DOE, the NRC licensing process is expected to take at least three years. If the NRC grants this license, it will only authorize initial construction. The DOE will then have to seek and obtain an operating license from the NRC before any waste can be received. Altogether, the process is expected to take at least ten years.

Further, the decision by the District of Columbia Court of Appeals to vacate the EPA's 10,000 year radiation safety standard may cause the Yucca Mountain Project significant delays. As at least two additional lawsuits remain unresolved, more delays are likely, and it is possible that a future legal decision will force the DOE to abandon the project completely.

Therefore, Nevada's Legislative Committee on High-Level Radioactive Waste is of the opinion that it is too soon to make any recommendations to the Nevada Legislature. The Committee will continue to monitor the progress of the DOE, Congress, the Bush Administration, and the federal courts, and will make any recommendations for legislative action at the appropriate time.

VIII. APPENDICES

Page

APPENDIX A

Nevada Revised Statutes 459.0085

NEVADA REVISED STATUTES

COMMITTEE ON HIGH-LEVEL RADIOACTIVE WASTE

NRS 459.0085 Creation; membership; duties; compensation and expenses of members.

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

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

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

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

3. The committee 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 shall report the results of its studies and evaluations to the legislative commission and the interim finance committee at such times as the legislative commission or the interim finance committee may require.

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

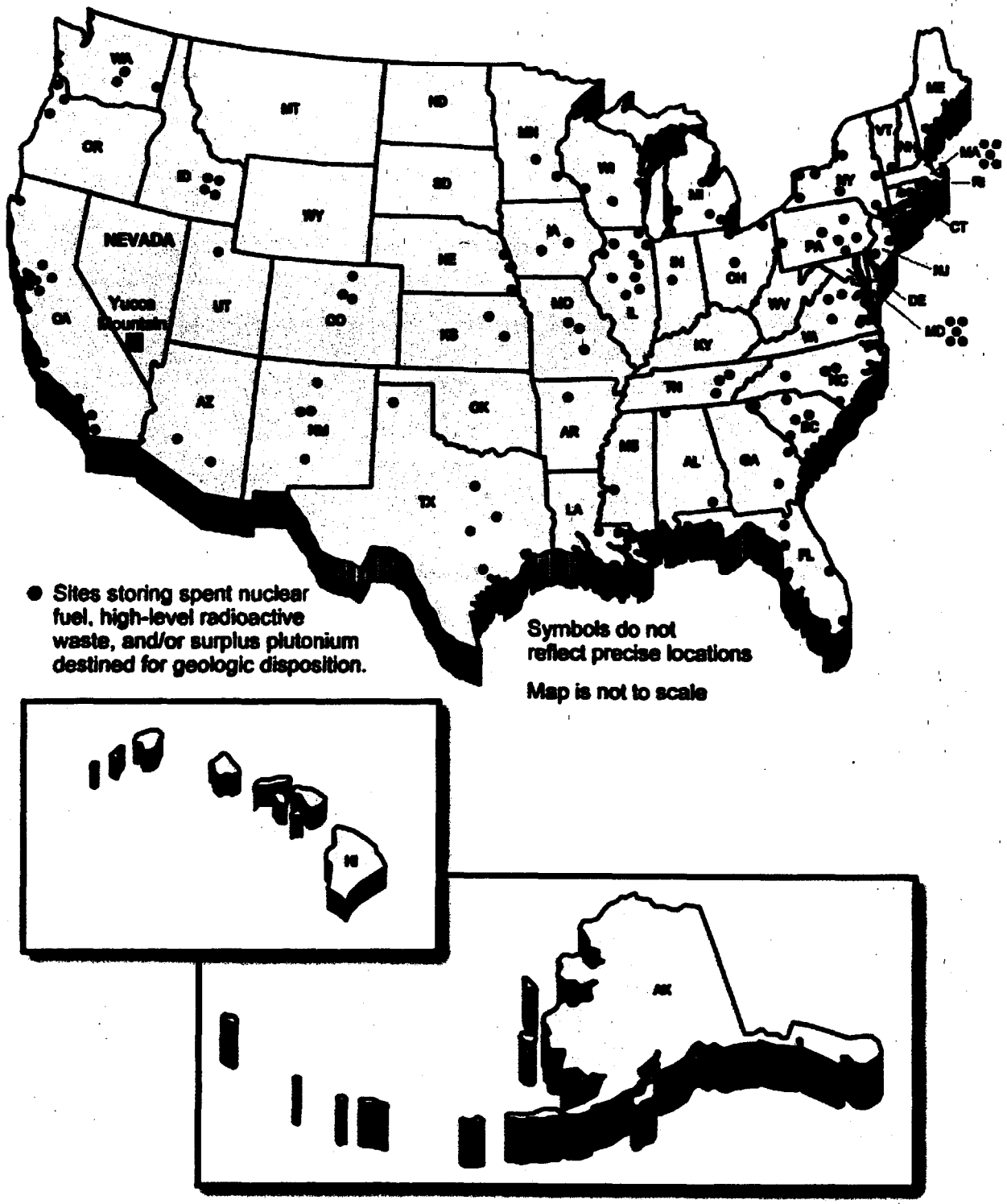
6. The director of the legislative counsel bureau shall provide a secretary for the committee on high-level radioactive waste. Except during a regular or special session of the legislature, each member of the committee is entitled to receive the compensation provided for a majority of the members of the legislature during the first 60 days of the preceding regular session for each day or portion of a day during which he attends a committee meeting or is otherwise engaged in the work of the committee plus the per diem allowance provided for state officers and employees generally and the travel expenses provided pursuant to NRS 218.2207. Per diem allowances, salary and travel expenses of members of the committee must be paid from the legislative fund.

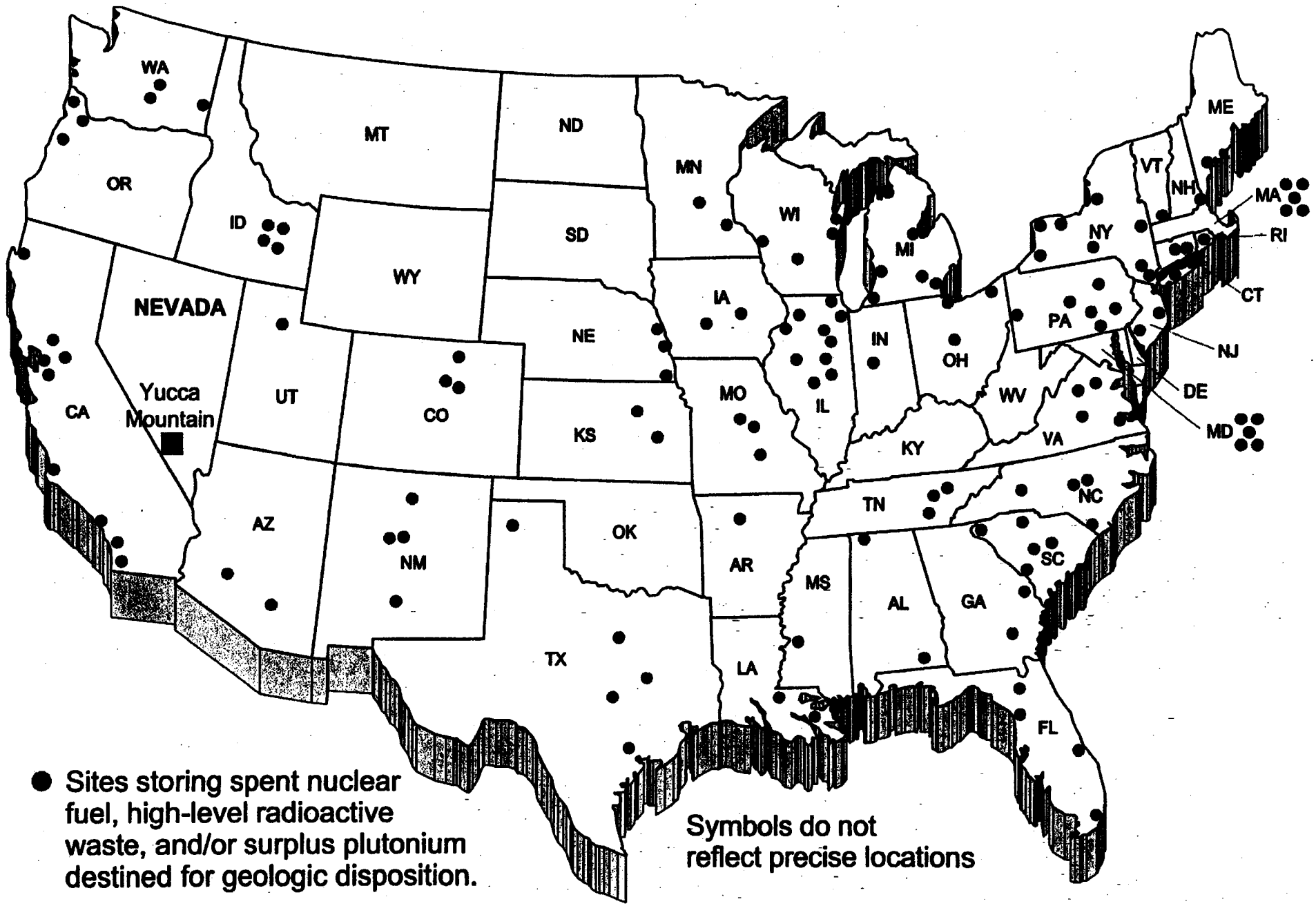
(Added to NRS by 1985, 685; A 1987, 399; 1989, 1221; 1995, 1454)

APPENDIX B

Maps of the United States' Waste Locations

At present, spent nuclear fuel and high-level radioactive waste are temporarily stored at 131 locations in 39 states.




WA
OR
CA
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NEVADA
Yucca Mountain
MT
WY
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NM
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OK
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MN
IA
MO
AR
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KY
TN
AL
OH
WV
GA
FL
SC
NC
VA
PA
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MA
RI
CT
NJ
DE
MD
● Sites storing spent nuclear fuel, high-level radioactive waste, and/or surplus plutonium destined for geologic disposition.
Symbols do not reflect precise locations

APPENDIX C

Contact List for Affected Units of Local Government

CONTACT LIST FOR
Affected Units of LOCAL GOVERNMENT

July 8, 2004

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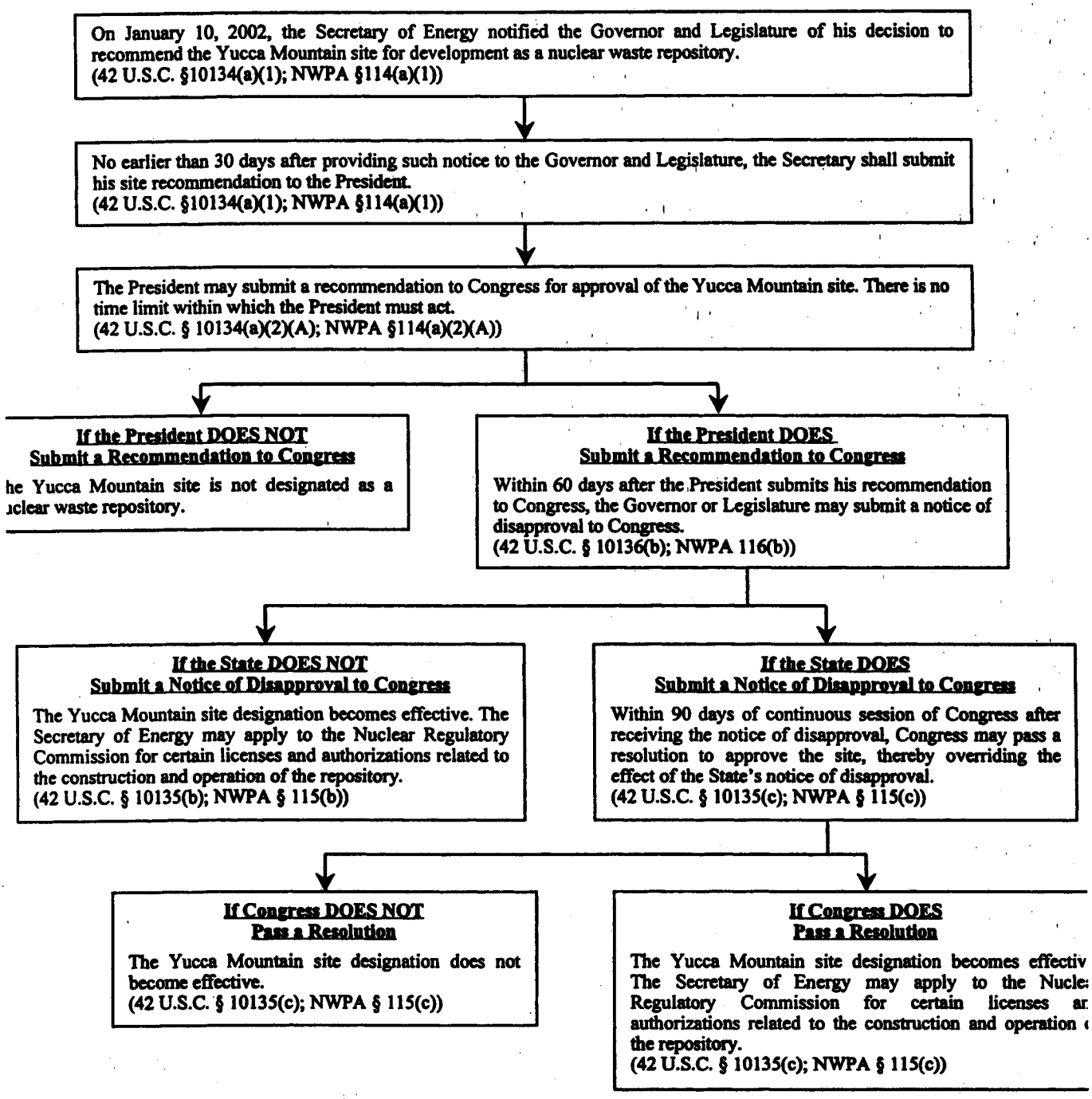
NOTE: This list is maintained by Eureka County. Please call Laurel Marshall at 775/237-5707 or email ecmarshall@eurekanv.org corrections/additions/deletions. Thank you.

APPENDIX D

Federal Statutory Process Concerning the Designation of the Yucca Mountain Site as a Nuclear Waste Repository

Federal Statutory Process Concerning the Designation of the Yucca Mountain Site as a Nuclear Waste Repository

U.S. Secretary of Energy, Spencer Abraham, has decided to recommend to President Bush the approval of the Yucca Mountain site for the development of a nuclear waste repository. On January 10, 2002, Secretary Abraham notified Governor Guinn and the Nevada Legislature of his decision. The following is a brief depiction of the statutory process set forth in the *Nuclear Waste Policy Act* ("the NWPA") concerning the designation of the Yucca Mountain site as a nuclear waste repository.



APPENDIX E

Recommendation to the Legislature: Secretary of Energy

The Secretary of Energy
Washington, DC 20585
January 10, 2002

The Honorable Richard Perkins
Speaker, Nevada State Assembly and
Chair, Nevada Legislative Commission

The Honorable Dean A. Rhoads
Vice Chair, Nevada Legislative Commission
401 S. Carson Street
Carson City, Nevada 89701-4747

Dear Messrs. Perkins and Rhoads:

This letter is to notify you, in accordance with section 114(a)(1) of the Nuclear Waste Policy Act, of my intention to recommend to the President approval of the Yucca Mountain site for the development of a nuclear waste repository. In accordance with the requirements of the Act, I will be submitting my recommendation to the President no sooner than 30 days from this date. At that time, as the Act also requires, I will be submitting to the President a comprehensive statement of the basis for that recommendation.

First, and most important, that recommendation will include the basis for and documentation supporting my belief that the science behind this project is sound and that the site is technically suitable for this purpose.

Second, there are compelling national interests that require us to complete the siting process and move forward with the development of a repository, as Congress mandated almost 20 years ago. In brief, the reasons are these.

- A repository is important to our national security. We must advance our non-proliferation goals by providing a secure place to dispose of any spent fuel and other waste products that result from decommissioning unneeded nuclear weapons, and ensure the effective operations of our nuclear navy by providing a secure place to dispose of its spent nuclear fuel.

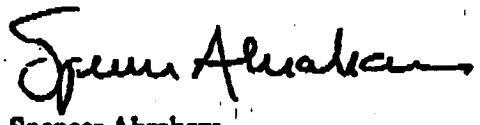
- A repository is important to the secure disposal of nuclear waste. Spent nuclear fuel, high level radioactive waste, and excess plutonium for which there is no complete disposal pathway without a repository are currently stored at over 131 sites in 39 States. We should consolidate the nuclear wastes to enhance protection against terrorists attacks by moving them to one underground location that is far from population centers.

- A repository is important to our energy security. We must ensure that nuclear power, which provides 20% of the nation's electric power, remains an important part of our domestic energy production.

- And a repository is important to our efforts to protect the environment. We must clean up our defense waste sites permanently and safely dispose of other high level nuclear waste.

As I indicated earlier, pursuant to section 114(a) of the NWPA, I will be submitting my recommendation to the President no earlier than 30 days from today, together with the other documentation the statute requires. I will provide you with a copy of those materials at that time.

Sincerely,



Spencer Abraham

APPENDIX F

Recommendation to the President: Secretary of Energy

The Secretary of Energy
Washington, DC 20585

February 14, 2002

The President
The White House
Washington, D.C. 20500

Dear Mr. President:

I am transmitting herewith, in accordance with section 114(a)(1) of the Nuclear Waste Policy Act of 1982 (the "Act"), 42 U.S.C. 10134, my recommendation for your approval of the Yucca Mountain site for the development of a nuclear waste repository, along with a comprehensive statement of the basis of my recommendation. In making this recommendation, I have examined three considerations.

First, and most important, I have considered whether sound science supports the determination that the Yucca Mountain site is scientifically and technically suitable for the development of a repository. I am convinced that it does. This suitability determination provides the indispensable foundation for my recommendation. Irrespective of any other considerations, I could not and would not recommend the Yucca Mountain site without having first determined that a repository at Yucca Mountain will bring together the location, natural barriers, and design elements necessary to protect the health and safety of the public, including those Americans living in the immediate vicinity, now and long into the future.

The Department has engaged in over 20 years of scientific and technical investigation of the suitability of the Yucca Mountain site. As part of this investigation, some of the world's best scientists have been examining every aspect of the natural processes – past, present and future – that could affect the ability of a repository beneath Yucca Mountain to isolate radionuclides emitted from any spent fuel and radioactive waste disposed there. They have been conducting equally searching investigations into the processes that could affect the behavior of the engineered barriers that are expected to contribute to successful isolation of radionuclides. These investigations have run the gamut, from mapping the geologic features of the site, to studying the repository rock, to investigating whether and how water moves through the Yucca Mountain site.

To give just a few examples, Yucca Mountain scientists have: mapped geologic structures, including rock units, faults, fractures, and volcanic features; excavated more than 200 pits and trenches to remove rocks and other material for direct observation; drilled more than 450 boreholes; collected over 75,000 feet of core, and some 18,000 geologic and water samples; constructed six and one-half miles of tunnels to provide access to the rocks that would be used for the repository; mapped the geologic features exposed by the underground openings in the tunnels; conducted the largest known test in history to simulate heat effects of a repository, heating some seven million cubic feet of rock over its ambient temperature; tested mechanical,

chemical, and hydrologic properties of rock samples; and examined over 13,000 engineered material samples to determine their corrosion resistance in a variety of environments.

The findings from these and numerous other studies have been used to expand our knowledge of the rocks beneath Yucca Mountain and the flow of water through these rocks, including amounts, pathways, and rates. Yucca Mountain scientists have used this vast reservoir of information to develop computer simulations that describe the natural features, events and processes that exist at Yucca Mountain and, in turn, have used these descriptions to develop the models to forecast how a repository will perform far into the future. Yucca Mountain scientists have followed a deliberately cautious approach to enhance confidence in any prediction of future performance.

The results of this investigation have been openly and thoroughly reviewed by the Department and oversight entities such as the Nuclear Regulatory Commission (NRC), the Nuclear Waste Technical Review Board, and the U.S. Geological Survey, as well as having been subjected to scientific peer reviews, including a review undertaken by the International Atomic Energy Agency. The Department also has made available the scientific materials and analyses used to prepare the technical evaluations of site suitability for public review by all interested parties. The results of this extensive investigation and the external technical reviews of this body of scientific work give me confidence for the conclusion, based on sound scientific principles, that a repository at Yucca Mountain will be able to protect the health and safety of the public when evaluated against the radiological protection standards adopted by the Environmental Protection Agency and implemented by the NRC in accordance with Congressional direction in the Energy Policy Act of 1992.

Second, having found the site technically suitable, I am also convinced that there are compelling national interests that require development of a repository. In brief, the reasons are these:

- A repository is important to our national security. About 40% of our fleet's principal combat vessels, including submarines and aircraft carriers, are nuclear-powered. They must periodically be refueled and the spent fuel removed. This spent fuel is currently stored at surface facilities under temporary arrangements. A repository is necessary to assure a permanent disposition pathway for this material and thereby enhance the certainty of future naval operational capability.

- A repository is important to promote our non-proliferation objectives. The end of the Cold War has brought with it the welcome challenge of disposing of surplus weapons-grade plutonium as part of the process of decommissioning weapons we no longer need. A geological repository is an integral part of our disposition plans. Without it, our ability to meet our pledge to decommission our weapons could be placed in jeopardy, thereby jeopardizing the commitment of other nations, such as Russia, to decommission its own.

- A repository is important to our energy security. We must ensure that nuclear power, which provides 20% of the nation's electric power, remains

an important part of our domestic energy production. Without the stabilizing effects of nuclear power, energy markets will become increasingly more exposed to price spikes and supply uncertainties, as we are forced to replace it with other energy sources to substitute for the almost five hours of electricity that nuclear power currently provides each day, on average, to each home, farm, factory and business in America. Nuclear power is also important to sustainable growth because it produces no controlled air pollutants, such as sulfur and particulates, or greenhouse gases. A repository at Yucca Mountain is indispensable to the maintenance and potential growth of this environmentally efficient source of energy.

- A repository is important to our homeland security. Spent nuclear fuel, high-level radioactive waste, and excess plutonium for which there is no complete disposal pathway without a repository are currently stored at over 131 sites in 39 States. More than 161 million Americans live within 75 miles of one or more of these sites. The facilities housing these materials were intended to do so on a temporary basis. They should be able to withstand current terrorist threats, but that may not remain the case in the future. These materials would be far better secured in a deep underground repository at Yucca Mountain, on federal land, far from population centers, that can withstand an attack well beyond any that is reasonably conceivable.

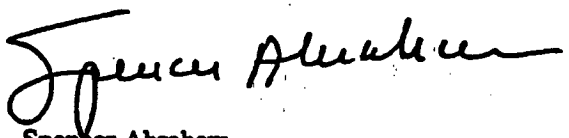
- And a repository is important to our efforts to protect the environment. It is past time for the federal government to implement an environmentally sound disposition plan for our defense wastes, which are located in Tennessee, Colorado, South Carolina, New Mexico, New York, Washington and Idaho. Among the wastes currently at these sites, approximately 100,000,000 gallons of high-level liquid waste are stored in, and in some instances have leaked from, temporary holding tanks. About 2,500 metric tons of solid un-reprocessed fuel from production and other reactors also are stored at these sites. It is also past time for the federal government to begin disposition of commercial spent fuel, a program that was to have begun in 1998. A repository is necessary for accomplishment of either of these objectives.

Third, I have considered carefully the primary arguments against locating a repository at Yucca Mountain. None of these arguments rises to a level that would outweigh the case for going forward. This is not to say that there have not been important concerns identified. I am confident, however, these concerns have been and will continue to be addressed in an appropriate manner.

In short, after months of study based on scientific and technical research unique in its scope and depth, and after reviewing the results of a public review process that went well beyond the requirements of the Act, I reached the conclusions described in the preceding paragraphs – namely, that technically and scientifically the Yucca Mountain site is fully suitable; that development of a repository at the Yucca Mountain site serves the national interest in numerous important ways; and that the arguments against its designation do not rise to a level that would outweigh the case for going forward. Not completing the site designation process and moving forward to licensing the development of a repository, as Congress mandated almost 20 years ago, would be an irresponsible dereliction of duty.

Accordingly, I recommend the Yucca Mountain site for the development of a nuclear waste repository.

Respectfully,



Spencer Abraham

APPENDIX G

Letter to Congress: President George W. Bush

The White House
President George W. Bush

For Immediate Release
Office of the Press Secretary
February 15, 2002

Presidential Letter to Congress
Text of a Letter from the President to the Speaker of the House of Representatives and the President of the Senate
February 15, 2002

Dear Mr. Speaker: (Dear Mr. President:)

In accordance with section 114 of the Nuclear Waste Policy Act of 1982, 42 U.S.C. 10134 (the "Act"), the Secretary of Energy has recommended approval of the Yucca Mountain site for the development at that site of a repository for the geologic disposal of spent nuclear fuel and high level nuclear waste from the Nation's defense activities. As is required by the Act, the Secretary has also submitted to me a comprehensive statement of the basis of his recommendation.

Having received the Secretary's recommendation and the comprehensive statement of the basis of it, I consider the Yucca Mountain site qualified for application for a construc-tion authorization for a repository. Therefore, I now recommend the Yucca Mountain site for this purpose. In accordance with section 114 of the Act, I am transmitting with this recommenda-tion to the Congress a copy of the comprehensive statement of the basis of the Secretary's recommendation prepared pursuant to the Act. The transmission of this document triggers an expedited process described in the Act. I urge the Congress to undertake any necessary legislative action on this recommendation in an expedited and bipartisan fashion.

Proceeding with the repository program is necessary to protect public safety, health, and the Nation's security because successful completion of this project would isolate in a geologic repository at a remote location highly radioactive materials now scattered throughout the Nation. In addition, the geologic repository would support our national security through disposal of nuclear waste from our defense facilities.

A deep geologic repository, such as Yucca Mountain, is important for our national security and our energy future. Nuclear energy is the second largest source of U.S. electricity generation and must remain a major component of our national energy policy in the years to come. The cost of nuclear power compares favorably with the costs of electricity generation by other sources, and nuclear power has none of the emissions associated with coal and gas power plants.

This recommendation, if it becomes effective, will permit commencement of the next rigorous stage of scientific and technical review of the repository program through formal licensing proceedings before the Nuclear Regulatory Commission. Successful completion of this program also will redeem the clear Federal legal obligation safely to dispose of commercial spent nuclear fuel that the Congress passed in 1982.

more

(OVER)

This recommendation is the culmination of two decades of intense scientific scrutiny involving application of an array of scientific and technical disciplines necessary and appropriate for this challenging undertaking. It is an undertaking that was mandated twice by the Congress when it legislated the obligations that would be redeemed by successful pursuit of the repository program. Allowing this recommendation to come into effect will enable the beginning of the next phase of intense scrutiny of the project necessary to assure the public health, safety, and security in the area of Yucca Mountain, and also to enhance the safety and security of the Nation as a whole.

Sincerely,

GEORGE W. BUSH

# # #

APPENDIX H

Statements of Reasons Supporting the Governor of Nevada's Notice of Disapproval of the Proposed Yucca Mountain Project, April, 8, 2002

Statement of Reasons Supporting the Governor of Nevada's Notice of Disapproval of the Proposed Yucca Mountain Project

Kenny C. Guinn
Governor of Nevada

April 8, 2002

Statement of Reasons Supporting the Governor of Nevada's Notice of Disapproval of the Proposed Yucca Mountain Project

Kenny C. Guinn

April 8, 2002

Honorable members of Congress, it is my privilege and duty, under Section 116(b)(2) of the Nuclear Waste Policy Act, to articulate my reasons for issuing a Notice of Disapproval of the designation of Yucca Mountain in Nevada as the site for the nation's high-level nuclear waste repository. I trust you will carefully consider Nevada's views. As a matter of science and the law, and in the interests of state comity and sound national policy, Yucca Mountain should not be developed as a high-level nuclear waste repository.

Introduction

Nevada strongly opposes the designation of Yucca Mountain for nuclear waste disposal because the project is scientifically flawed, fails to conform to numerous laws, and the policy behind it is ever changing and nonsensical. The Department of Energy has so compromised this project through years of mismanagement that Congress should have no confidence in any representation made by DOE about either its purpose or its safety. Nevada is not anti-nuclear and does not oppose nuclear power. Our state is pro-science and pro-common sense.

Because of the state's longstanding opposition to the Yucca Mountain project, some have accused Nevada of being a not-in-my-backyard, or NIMBY, state. Nothing could be further from the truth. Nevada has already borne more than its fair share of this nation's radioactive waste burdens.

During the Cold War, Nevada served as host to hundreds of nuclear weapons tests, most with bombs several times more powerful than the Hiroshima blast. The government misrepresented the risks and impacts of those tests to our citizenry, and many Nevadans were injured as a result. Nearly 300 million curies of toxic radioactive contaminants remain in the ground in our state to this day. We have not forgotten this legacy.

Nevada is also being forced by the Energy Department to play host to the world's largest low-level and mixed radioactive waste disposal facility, at the Nevada Test Site. DOE plans to use this site for the disposal of hundreds of millions of cubic feet of radioactive and hazardous garbage and contaminated soil from the nation's nuclear weapons complex. Tens of thousands of shipments of this waste through our state are anticipated.

Once upon a time not long ago, the concept of "environmental equity" would have made it unthinkable, given the sacrifices already imposed on Nevada, that the state would be forced to play host to yet an additional nuclear waste dump – indeed, the dump to end all dumps. DOE plans to use Yucca Mountain for the disposal of 77,000 tons of high-level radioactive waste and spent fuel from throughout the United States and 42 other countries. And we know if we permit it to happen, it won't end there.

But Nevada will not permit it to happen. Not simply because it is the wrong thing to do, at the wrong time, from the standpoint of environmental equity. Even when carrying the load of others, Nevadans will never tire of serving their country for a worthy cause.

We will not permit Yucca Mountain to happen – and it will not happen – because the project is manifestly *not* a worthy cause. Yucca Mountain is but the latest in a long series of DOE boondoggles – one based on bad science, bad law, and bad public policy. In addition, better, cheaper, and safer alternatives exist. Finally, national security will not be helped, but hindered, by this ill-advised project.

Some say Nevada should acquiesce to the project because the Yucca Mountain repository is now inevitable. Obviously, they fail to understand Nevadans, or the power of the American legal system. I assure you, the only thing inevitable about Yucca Mountain is that it will plot the course of so many other doomed DOE mega-projects.

The Science

Although DOE bureaucrats claim the Yucca Mountain site is suitable for nuclear waste disposal based on "sound science," it is hard to find a *scientist* who agrees. Even the project's apologists know that hundreds of technical issues remain unresolved. Initially, the scientific community was optimistic about the prospects of Yucca Mountain. When Congress selected the site in 1987 for intensive study, preliminary data showed it would likely have good geology. In the past four years, however, DOE's own studies proved the mountain was in fact so porous to water, and otherwise so geologically unfit, that the very concept of geologic isolation of the waste had to be abandoned. But geologic isolation was the very purpose of the federal repository program.

DOE no longer refers to the Yucca Mountain project as a deep "geologic" repository. Rejecting the global scientific consensus that nuclear waste should be disposed of by means of geologic isolation, DOE now calls Yucca Mountain merely a deep "underground" repository. This is no surprise. There is nothing "geologic" about it. As the former director of the Yucca Mountain project, Dr. John Bartlett, recently testified, the project has become nothing more than a series of fancy engineered waste packages that just happens to be located 1000 feet underground. The Nuclear Energy Institute recently bragged that the repository can be licensed "without the mountain."

Which begs several questions: If the mountain itself is irrelevant, and waste packages can now be made to last for 10,000 years, why make tens of thousands of

shipments of lethal radioactive waste through the nation's cities to the seismically adverse, volcanic zone of Yucca Mountain? It can go practically anywhere else – or stay where it is. If the only reason the waste must be buried is to protect it from terrorists, why spend $60 billion putting it 1000 feet underground, when a mere 20 feet would do the job? And this could surely be done at the reactor sites. NRC has recently re-affirmed the safety of on-site storage.

In the absence of geologic isolation, we don't believe for a minute that DOE can demonstrate the long-term safety of the Yucca Mountain repository. We don't believe an agency that, as the General Accounting Office has noted, has rarely succeeded at building anything can now build a first-of-a-kind waste package that will soak in Yucca Mountain groundwater for 10,000 years without a leak.

DOE's computer models of Yucca Mountain repository performance and radiation emissions currently have an uncertainty factor of up to 10,000. This incredible number bears some pondering. Imagine if a salesman with nothing but fancy computer models told you the brakes on his new model car would be safe for 10,000 miles, plus or minus an uncertainty factor of 10,000. Think about it. What this means is, your brakes could be safe for as many as 100 million miles, or as few as *one* mile. We simply can't know.

Maybe we Nevadans are a people of uncommon sense. Because that's a car we simply wouldn't buy. That's a car we wouldn't let on our roads.

DOE has yet to finish the very design of the Yucca Mountain repository. We don't even know whether it will be a high temperature repository (above the boiling point of water) or a low temperature repository (below the boiling point of water), a feature that could change the amount of real estate required for the project by up to a factor of 10. Imagine if you submitted a plan for your new house to local authorities for a building permit. You tell them: It may be a 4,000 square-foot gas-heated house, or a 40,000 square-foot all-electric house; the design is still unfinished. I don't have to tell you what our local authorities would do with that plan.

The scientific uncertainties of the Yucca Mountain project are so numerous as to defy enumeration. Attempting to count them all, the Nuclear Regulatory Commission recently identified 293 unresolved technical issues in 9 critical areas. Though DOE dismisses these as trivial, perfunctory, or problems that will be solved "as we go" over the next 300 years, their mere specification belies this claim.

The unresolved issues include critical matters such as volcanism: DOE's gamblers say the odds of a volcano at Yucca Mountain are only 1 in 70 million per year. Yet, there have actually been three active volcanic eruptions within 50 kilometers of the Yucca Mountain site in the past 80,000 years. Indeed, Nevada's geologic studies indicate Yucca Mountain appears to be at the center of one of the most potentially active volcanic areas in the west.

Unresolved are issues such as the seismic integrity of the site: Yucca Mountain sits dead-center in one of the largest earthquake fault zones east of California. In 1992, a magnitude 5.6 earthquake caused tens of thousands of dollars of damage to DOE's own facilities right at Yucca Mountain. More than 600 earthquakes greater than magnitude 2.5 have been recorded at Yucca Mountain just in the past two decades.

Among other things, there remains a real question whether the above-ground storage facility required to facilitate storage and burial of spent fuel at the site can ever meet Nuclear Regulatory Commission temporary storage standards, given the site's adverse seismicity. In other words, it may not be possible to license an above-ground concrete storage pad at this earthquake-prone location. What does this say about the safety of the complex underground facility? And why is it not necessary for DOE to complete seismic studies before plunging ahead with a site determination?

The plethora of unresolved issues includes critical problems such as rapid groundwater flow through the repository: Flows measured by DOE have been more than 100 times greater than was expected when Congress designated Yucca Mountain in 1987 as the only site to be characterized. Surface water that was supposed to have taken thousands of years to pass through the planned repository area to the underlying water table was found to have actually done so in less than 50 years. One former NRC Commissioner visiting the underground test area at Yucca Mountain described its humid environment as a "tropical rain forest."

Secretary Abraham recently wrote, in a *Washington Post* Op-Ed piece March 26, that "Yucca Mountain has an average precipitation of under 8 inches a year, less than half an inch of which actually makes it below the surface." If that is true, Mr. Secretary, why has DOE posted a sign deep within the mountain informing visitors not to worry about liquid dripping from the ceiling of underground caverns, that this liquid is only water, and that it is normal for the subterranean environment of Yucca Mountain? Why is DOE proposing to build a $5 billion titanium "drip shield" around buried spent fuel to channel away effusive dripping water?

The tangled web of man-made contrivances necessary to compensate for the stunning geological surprises at Yucca Mountain has turned the repository system into a kind of Rube Goldberg contraption. To prevent the unexpected water from corroding spent fuel containers, a titanium drip shield is required for each package to channel water away from the containers. But channeled water is apparently subject to boiling from the decay heat of buried spent fuel. Therefore, say independent experts, the repository must be redesigned to space the fuel packages further apart, vastly increasing the real estate, and of course the amount of titanium, required. But there may not be enough real estate within the Yucca Mountain site boundary to do that. And the titanium itself is subject to corrosion. Therefore, all waste packages must be fabricated from a "miracle metal," Alloy-22, to prevent them from corroding if the drip shield fails.

And what about Alloy 22? You guessed it. As recently as last month, the Chairman of the Nuclear Waste Technical Review Board wrote DOE that so little is

known "it is not currently possible" to assess the likelihood of corrosion of Alloy 22 for the thousands of years that will be required to assure the safety of the facility. Indeed, Nevada's independent laboratory tests of Alloy 22 showed corrosion in less than half a year. And the titanium apparently fares no better. Just two weeks ago, DOE's own Waste Package Materials Performance Peer Review Panel issued its report with the astonishing revelation that, unless the proposed titanium drip shields somehow perform better in the ground than they have in laboratory tests, they *cannot be used* at Yucca Mountain. What's next? Maybe the drip shield will need a drip shield.

Secretary Abraham calls this "sound science." We beg to differ.

The Law

Nevada currently has four legal actions pending against the Yucca Mountain project. These include a challenge to the siting guidelines re-released at the eleventh hour by DOE, and a challenge to the Environmental Protection Agency's gerrymandered health and safety standards for Yucca Mountain licensing. They include a challenge to DOE's misuse of Nevada's precious water resources, and a challenge to the legal soundness of both the Secretary's and the President's Yucca Mountain site recommendations.

At least two additional actions, one challenging DOE's Environmental Impact Statement, and one challenging NRC's Yucca Mountain licensing rule, will be filed imminently by Nevada.

These are each serious lawsuits, raising fundamental, dispositive legal issues – issues that ought to concern every member of Congress. Issues such as whether DOE cavalierly ignored the dictates of your institution and blatantly violated the Nuclear Waste Policy Act or the National Environmental Policy Act. Issues such as whether the repository is fundamentally unsafe even if it is theoretically "licensable." Issues such as whether radioactive emissions from the site can be declared safe by EPA merely by first diluting them in Nevada's drinking water.

We are not suing simply for the sake of suing. We are suing to enforce the law, because, unfortunately, government bureaucrats pushing Yucca Mountain have chosen to ignore it. It is not necessary for us to win them all, though we believe all are legally sound. One and only one will suffice.

It is astounding to Nevada that DOE refused to postpone its site recommendation pending the outcome of any of these lawsuits. After all, DOE itself says it will not be ready to submit a license application to NRC until at least December 2004. What, then, is the rush? It is likely that all of Nevada's cases will have been decided long before that time.

Let me describe to you just one of our lawsuits – the one against DOE. It's really quite remarkable: After 17 *years* of using one set of site suitability rules, DOE made the

surprising determination that Yucca Mountain, unlike the WIPP nuclear waste repository in New Mexico, couldn't pass the "good geology" test. Instead of reporting this bad news to Congress, as the law requires, DOE changed the rules late last fall. A mere 17 *days* or so later, DOE proclaimed the site "suitable" using these new rules, ignoring the bedrock geologic isolation requirements of Congress. "Good geology" – the cornerstone of every high-level nuclear waste repository program in the world – was simply ignored by DOE.

To Nevadans, we are like passengers sitting on the runway in a brand new experimental aircraft for 17 hours while mechanics crawl all over the plane inspecting it. After this enormously long wait, the mechanics finally determine the plane is unfit to fly. At the same time, bureaucrats come on the loudspeakers: "Not to worry, folks. We've just changed the flight fitness rules, and the plane will be taking off in 17 seconds." Needless to say, that's a plane none of us would dare dream of flying. But that is exactly what DOE has done with Yucca Mountain.

The *New York Times* recently published an editorial suggesting Congress should simply approve the Yucca Mountain site recommendation and refer all remaining issues of site suitability to the NRC, which was purported to have the expertise to make appropriate decisions in this regard. Remarkably, notwithstanding his own agency's clear statutory duties, Secretary Abraham likewise adopted this view in his recent editorial.

This approach, however, poses both a scientific and a legal paradox. DOE and NRC have each taken the position, in their respective Yucca Mountain rules, that site suitability is a matter to be assessed by *DOE* and its geologists, not by NRC and its nuclear engineers. Under NRC's current licensing rule for Yucca Mountain (which Nevada will soon fight in court), site suitability is presumed determined the moment the Yucca Mountain application comes in the door. NRC merely determines repository licensability, not Yucca Mountain site suitability. NRC will not evaluate the suitability of Yucca Mountain's geology. That was supposed to have been DOE's job.

Adopting the approach suggested by the *New York Times* would mean DOE's bogus site suitability determination could never be reviewed on the technical merits. On an issue of this magnitude, Nevada and the country as a whole deserve their day in court. And we think Congress should wait until that day has come and gone.

National Security and Public Policy

In the wake of the terrorist attacks of 9/11, DOE has tried to paint the Yucca Mountain project as a badly needed national security measure. A well-financed promotional campaign by the nuclear industry appears to have helped shape the public policy debate in this regard. The Secretary himself, in his *Washington Post* piece last month, strongly urged that "*one safe site*" for the nation's nuclear waste is best for national security, rather than having the waste scattered at numerous reactor sites across

America. This national security myth is one that can and must be debunked. The Yucca Mountain site will contribute nothing to national security.

Even if you believe DOE's optimistic schedule, Yucca Mountain will not be ready even to begin receiving spent fuel from reactor sites for a decade. DOE plans to ship 77,000 tons of high-level waste and spent fuel – the project's design capacity – in up to 98,000 shipments extending through 2046. Once there, the spent fuel will remain stored above ground at Yucca Mountain for up to 100 years while it cools. In the meantime, reactors (many operating on renewed licenses) will continue to generate at least 2000 additional tons of waste each year.

By 2046, even if (in the unlikely event) Yucca Mountain proceeds on schedule, there will be *at least* 77,000 tons of additional waste still stored at reactor sites, awaiting shipment to a supposed second repository. As the waste is removed, it will merely make room for an equivalent amount of newly generated waste that will take its place at the various sites. I'm no nuclear engineer, but this sounds like the status quo to me. I fail to understand how this aids national security.

DOE's Acting Director of the Yucca Mountain project affirmed last month before a House appropriations committee that as long as there are nuclear reactors operating, there will continue to be spent fuel stored above ground at sites all across America. In fact, he confirmed, given the slow pace at which spent fuel will be transported to Yucca Mountain, together with the fact that newly generated waste will continue to pile up almost as fast as the old waste is removed, the current backlog of 46,000 tons at plant sites now *will never be less than 42,000 tons* by the time Yucca Mountain is filled to its design capacity. In short, Yucca Mountain will change nothing.

And that may not be the end, but apparently only the beginning. In its annual strategic plan, "Vision 2020," the Nuclear Energy Institute claims utilities will build as many as 50 new nuclear plants by 2020 if their growing nuclear waste stockpiles are bounded by the availability of Yucca Mountain. More waste is coming to your jurisdictions, not less.

The bottom line is this: Even if Yucca Mountain proceeds, spent fuel will continue to be stored above ground at reactor sites across America for many decades, perhaps centuries, to come. Secretary Abraham's "one safe site" is a figment of DOE's imagination. The Yucca Mountain site is neither "safe" nor will it ever be "one."

The solution to the security issue is to shore up existing storage facilities and increase security at the reactor sites – not to magnify the existing storage facility targets with shipments of tens of thousands of mobile, new targets traversing the country on their way to a geologically flawed Yucca Mountain repository. Not to expose tens of millions of additional citizens to the risks posed by spent fuel packages.

Utilities across the nation are now building interim dry storage facilities, where spent fuel will be stored in casks capable of safely containing the fuel for up to hundreds

of years. Several such interim storage facilities are already operating at various utility sites. Since, in any event, these casks will be stored on site for many decades, some experts say they should be covered in a concrete containment to shield them from terrorist attack. NRC is studying the use of anti-aircraft guns at nuclear sites. Reactor sites already have armed guards and comprehensive security plans. Given these measures, the casks will continue to be far more secure at reactor sites than they will ever be on the streets of St. Louis, Chicago, or Peoria – or on barges cruising the Hudson River.

What really *does* implicate national security is the widespread shipment of spent fuel in casks that, we now know, are not impervious to ubiquitous armor-piercing weapons. It was surprising for us to learn recently from NRC that, since 9/11, the only analysis done by industry or the government of the impacts of terrorism on spent fuel shipments involved merely a computer simulation of a Boeing 767 engine (unaccompanied by aircraft and fuel) striking a railcar shipping cask at 350 miles per hour. Not to worry, said the modelers: the virtual train car moved only a virtual tenth of an inch from the virtual impact, and the virtual lethal waste was contained.

To anyone who watched in horror as the twin towers of the World Trade Center collapsed, this timid virtual test result seems more than a bit incredible. On the other hand, the possibility of a terrorist shooting at a cask from the back of a pickup truck with a small optically-guided armor-piercing missile has been considered by NRC and the industry as "too remote." We once heard the same about suicide bombers.

Thanks to a secret videotape of an industry-sponsored test done by the Army at the Aberdeen Proving Grounds in 1998, obtained last month by Nevada representatives, we now know such a weapon can blow a hole through even the heartiest of spent fuel casks. According to credible sources, there are over 500,000 TOW missiles alone in circulation in at least 36 countries, including over 1700 in Iran. These missiles can penetrate up to 30 inches of armor. Smaller, hand-held weapons in widespread use, like the Stinger, can pierce up to 15 inches of steel.

If Yucca Mountain proceeds, just one of these could potentially give a terrorist access to tens of thousands of radioactive "dirty bombs," with free delivery to hundreds of U.S. targets. Clearly, this is an issue warranting careful investigation by Congress, not a cover-up of the facts by DOE. Many in Congress already share my view; hearings on the security of waste transport to Yucca Mountain are scheduled for later this spring.

In responding to our legitimate concerns, some have accused Nevada of fear-mongering, claiming the Aberdeen test was flawed, that a small missile would "only" blow a six-inch hole in some casks, that few if any people would die in such an event, and that further tests are unnecessary. Since no one has studied the issue in light of current events, however, we don't really know. If DOE will not undertake these studies, surely Congress must. If Nevada's mere mention of the potential event is causing fear, imagine the panic if, God forbid, it actually happens.

The "PECO Alternative"

Though the nuclear industry seems to prefer you didn't know it, there *is* a viable alternative to Yucca Mountain – one that has already been quietly embraced by DOE and at least one utility, PECO Energy, a division of the nation's largest nuclear utility, Exelon Corporation.

In June 2000, PECO signed a deal with DOE that would ultimately have DOE take title to PECO's spent fuel on-site at the Peach Bottom nuclear plant in Pennsylvania. PECO will construct a dry storage facility, ownership of which will also eventually be assumed by DOE. At a date certain, DOE will own, operate, and manage the facility, with the waste stored there in robust, dry casks for the indefinite future. Funds for the deal are provided from the $8 billion Nuclear Waste Fund.

At the time, DOE touted the deal as an arrangement all nuclear utilities should follow. And for good reason. If adopted by the industry, the PECO alternative would solve a host of pressing problems.

First, it would end all utility spent fuel lawsuits against DOE – now estimated to pose up to a $58 billion contingent liability. Second, it would allow utilities to remove spent fuel liabilities from their books and decommission their retired nuclear plants on schedule. Third, it would remove the fuel from utility rate bases and the jurisdiction of state utility commissions, ending their numerous lawsuits against DOE as well. Fourth, it would buy the government time to find a viable new repository or develop new technologies to vastly reduce the dangers of nuclear waste. (Many of these technologies, under development at our national laboratories, already look promising.) Fifth, as Senator Domenici has long indicated, it would preserve the substantial energy content of spent fuel for later use if necessary to supplement the nation's energy needs. Finally, implementing the PECO alternative would cost ratepayers and taxpayers merely pennies on the dollar to the estimated $60 billion (and growing) price tag of Yucca Mountain.

Far from embracing the deal, however, a group of competing utilities sued last year to block it, claiming, ironically, that it gives PECO an unfair economic *advantage* over utilities who choose to sue the government and place their bets on Yucca Mountain. A ruling is expected from the Eleventh Circuit Court of Appeals soon. Rather than await this key decision, DOE pressed forward with its Yucca Mountain site recommendation as if its own PECO deal were nonexistent. The PECO alternative is not even mentioned in the 67 pounds of Yucca Mountain documents DOE recently sent to the President. It is not even mentioned in the so-called "no action" alternative to Yucca Mountain in DOE's voluminous Final Environmental Impact Statement. Yet, when the deal was signed less than two years ago, DOE endorsed it as "a precedent for additional settlement negotiations with other utilities."

I urge Congress to explore DOE's arrangement with PECO in detail. I applaud the deal made by the nation's leading nuclear utility in the state of our new Homeland Security Director, Tom Ridge, while he was a fellow Governor in Pennsylvania. The

PECO arrangement is a convincing and practical alternative to a diseased and utopian Yucca Mountain project. It is a *real* contributor to national security, not a mythical one.

Conclusion

The State of Nevada will redouble its efforts to bring science and the law back to the nation's high-level waste program, and to restore sanity to America's nuclear energy security policy. But we are not alone.

A growing chorus of scientists and independent technical reviewers has voiced grave reservations about the project. These include the NRC's Advisory Committee on Nuclear Waste, the General Accounting Office, the Congressionally-created Nuclear Waste Technical Review Board, the National Academy of Sciences, *Physics Today*, the International Atomic Energy Agency, and the OECD's Nuclear Energy Agency, among others. A recent national poll concludes that those Americans opposed to Yucca Mountain now equal in number those in favor.

I urge each and every one of you to look carefully at the facts. Yes, Yucca Mountain is the most studied piece of real estate in the world. What the studies starkly *concluded*, however, has been overshadowed by the mere fact they occurred. A hundred more years of study will not change the fatally poor geology of Yucca Mountain, or remove the site from an earthquake fault zone. Nor will decades of moving waste across the countryside to Yucca Mountain even dent the amount of spent nuclear fuel stored above ground at nuclear sites throughout America.

We are well beyond the days when Yucca Mountain was simply Nevada's problem. If the project proceeds, high-level nuclear waste shipments will impact as many as 44 states, 703 counties, and 109 cities with populations of 100,000 or greater, including several major metropolitan areas. Nearly 50 million American citizens reside within three miles of a proposed shipping route. There will be more spent fuel shipments in the first year of Yucca Mountain operations than occurred in the entire history of such shipments in this country. We are in this together.

In short order, Congress will have the prerogative to consider my Notice of Disapproval and, under procedures in the Nuclear Waste Policy Act, override it by simple majority vote in both houses, with a signature by the President. I respectfully urge Congress not to take such action. With the proliferation of safe, economical dry storage facilities at reactor sites, we face no spent fuel emergency. Nuclear power plants face no risk of shutdown. We have the time to do this right. And Yucca Mountain is not right.

Nevada deserves better, and so does this nation.

* * * *

For additional information, see Nevada's Yucca Mountain website at *www.state.nv.us/nucwaste*. This Statement of Reasons has been posted there.

APPENDIX I

House Joint Resolution No. 87, Public Law 105-525

H. J. Res. 87

One Hundred Seventh Congress of the United States of America

AT THE SECOND SESSION

Begun and held at the City of Washington on Wednesday, the twenty-third day of January, two thousand and two

Joint Resolution

Approving the site at Yucca Mountain, Nevada, for the development of a repository for the disposal of high-level radioactive waste and spent nuclear fuel, pursuant to the Nuclear Waste Policy Act of 1982.

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That there hereby is approved the site at Yucca Mountain, Nevada, for a repository, with respect to which a notice of disapproval was submitted by the Governor of the State of Nevada on April 8, 2002.

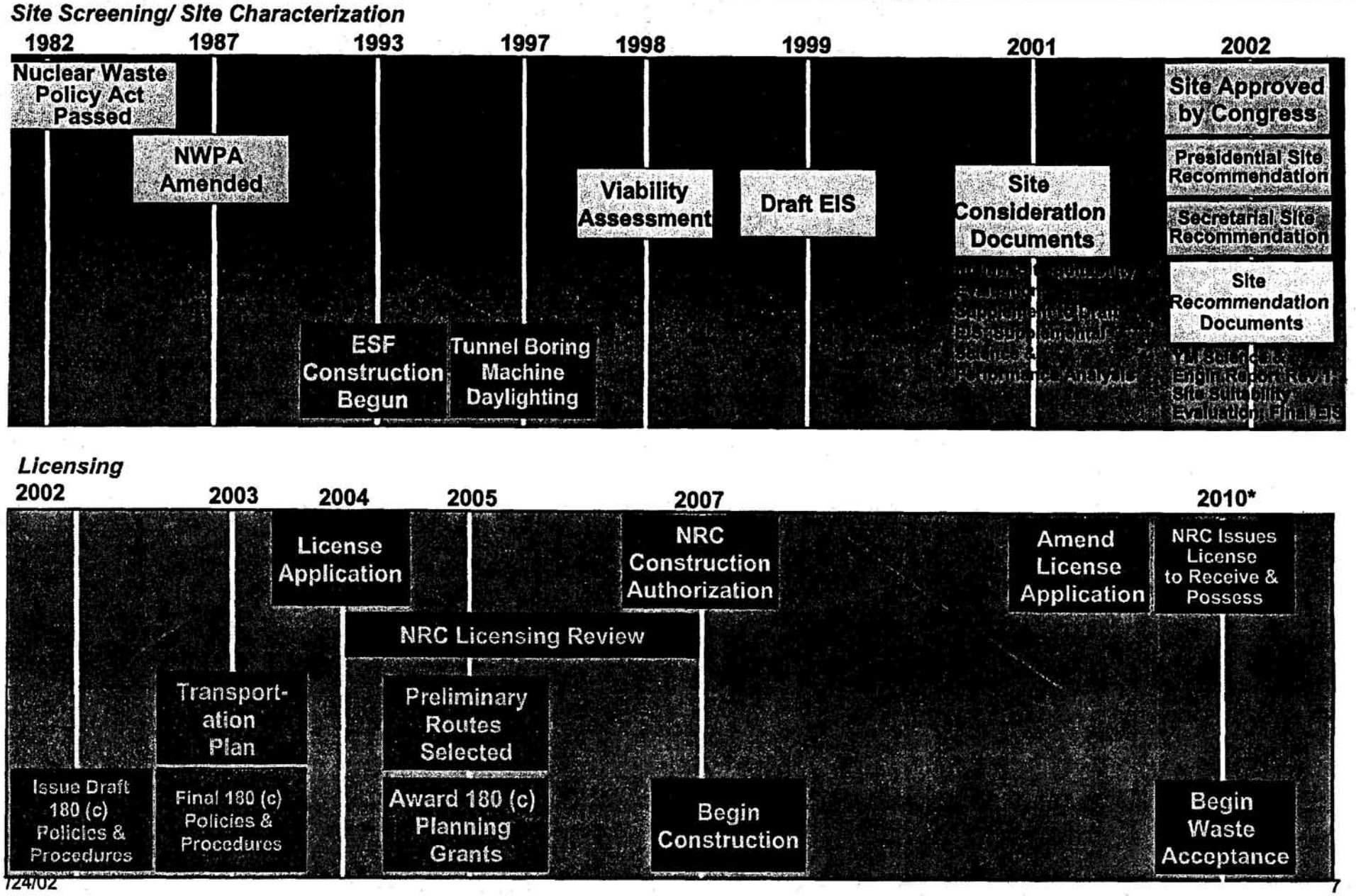
Speaker of the House of Representatives.

Vice President of the United States and President of the Senate.

APPENDIX J

Program Schedule
Office of Civilian Radioactive Waste Management, United States Department of Energy

Program Schedule



APPENDIX K

Letter to Legislative Commission from the Committee and
a copy of Senate Joint Resolution No. 6

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February 13, 2002

The Honorable Richard Perkins
Nevada State Assemblyman
408 Glasgow Street
Henderson, Nevada 89015-5631

Dear Speaker Perkins:

At the January 29, 2002, meeting of the Legislature's Committee on High-Level Radioactive Waste, the Committee reviewed United States Secretary of Energy Spencer Abraham's letter of January 10, 2002, to the Nevada Legislature and Governor Kenny Guinn indicating the Secretary's intent to make a Yucca Mountain site suitability recommendation to President George W. Bush. The Committee also reviewed the process established by the *Nuclear Waste Policy Act* (NWPA) of 1982, as amended, for designating a high-level nuclear waste repository site. After conducting such reviews, the Committee voted to make the following recommendation to the Nevada Legislative Commission:

RECOMMENDATION

The Committee recommends that the Legislative Commission transmit a copy of Senate Joint Resolution 6 (*Statutes of Nevada,* File No. 17, 2001) to Governor Guinn and recommend that the resolution be included with the Governor's expected "Notice of Disapproval," should President Bush submit a Yucca Mountain Project site suitability recommendation to Congress.

RATIONALE FOR RECOMMENDATION

The NWPA provides that if the President submits a recommendation to Congress for the approval of the Yucca Mountain site as a nuclear waste repository, the Governor or Legislature has 60 days from the date of that recommendation to submit a "Notice of Disapproval" to Congress. NWPA § 116(b). Further, the NWPA provides that if the notice of disapproval is properly submitted, the "site shall be disapproved unless, during the first period of 90 calendar days of continuous session of the Congress after

the date of the receipt by the Congress of such notice of disapproval, the Congress passes a resolution of repository siting approval in accordance with [NWPA § 115(c)] approving such site, and such resolution thereafter becomes law." NWPA § 115(c). During the 2001 Legislative Session, the Nevada Legislature enacted Senate Joint Resolution No. 6, which provides in pertinent part, that "[this resolution] constitutes notice of disapproval from the Nevada Legislature pursuant to the Nuclear Waste Policy Act of 1982, 42 U.S.C. § 10136, as amended, should the President recommend to Congress that Yucca Mountain be developed as a repository for spent nuclear fuel and high-level radioactive waste." The Legislative Counsel Bureau legal staff has determined that S.J.R. 6 certainly established the Legislature's position on Yucca Mountain, but did not constitute a notice of disapproval for purposes of the NWPA. Rather than ask Governor Guinn to call a special session so that the Legislature could reaffirm its opposition to the proposed Yucca Mountain repository, the Committee felt that the Legislature's opposition could be effectively expressed if S.J.R. 6 were included as an element of the Notice of Disapproval that Governor Guinn is expected to issue, should the President make a site recommendation to Congress.

The vote on the recommendation is: Yeas: Mortenson, Lee, Price, Tiffany, McGinness, Neal, and Shaffer. Nays: Jacobsen

ADDITIONAL ACTION

The Committee also approved a motion to have Chairman Mortenson transmit a letter to Secretary of Energy Spencer Abraham, requesting that Yucca Mountain site suitability recommendations be submitted to the President, that it contain the Final Environmental Impact Statement and Record of Decision for Yucca Mountain as required by the NWPA and the National Environmental Protection Act. The vote on this motion was unanimous. A copy of the letter from Assemblyman Mortenson to Secretary Abraham is enclosed for your information.

If you have any questions or would like additional information on the Committee's recommendations please contact me at 702/362-3366 or the Committee's staff, John Meder at 775/684-6825.

Sincerely,

Harry Mortenson
Nevada State Assemblyman, Chairman
Nevada's Committee on High-Level
Radioactive Waste

HM/nw:L16
Encs.
cc: Lorne Malkiewich, Director, LCB
Members of the Committee on High-Level Radioactive Waste

Senate Joint Resolution No. 6–Senators Titus, Wiener, Schneider, Mathews, Carlton, Amodei, Care, Coffin, Jacobsen, James, McGinness, O'Connell, O'Donnell, Porter, Raggio, Rawson, Rhoads, Shaffer, Townsend and Washington

Joint Sponsors: Assemblymen Perkins, Buckley, Gibbons, Parks, Bache, Koivisto, Leslie, Anderson, Angle, Arberry, Beers, Berman, Brower, Brown, Carpenter, Cegavske, Chowning, Claborn, Collins, de Braga, Dini, Giunchigliani, Goldwater, Gustavson, Hettrick, Humke, Lee, Manendo, McClain, Mortenson, Neighbors, Nolan, Oceguera, Ohrenschall, Parnell, Price, Smith, Von Tobel and Williams

FILE NUMBER.....

SENATE JOINT RESOLUTION—Providing notice of disapproval to Congress and the President of the United States if Yucca Mountain is recommended as the site for a repository for spent nuclear fuel and high-level radioactive waste.

WHEREAS, Pursuant to the Nuclear Waste Policy Act of 1982, 42 U.S.C. §§ 10101 et seq., as amended, the United States Department of Energy has been studying Yucca Mountain in southern Nevada as a possible site for a repository for spent nuclear fuel and high-level radioactive waste; and

WHEREAS, The Department of Energy continues to make unfounded and biased assumptions about the suitability of Yucca Mountain as a repository for spent nuclear fuel and high-level radioactive waste, despite mounting scientific evidence that there are serious flaws at the site and that Yucca Mountain cannot meet required health and safety standards; and

WHEREAS, A recently released memorandum from the Department of Energy openly admits that the Department's site evaluation reports are not aimed at determining whether Yucca Mountain can safely isolate deadly radioactive waste from people and the environment, but rather are designed to "sell" the project to members of Congress; and

WHEREAS, The Yucca Mountain Project is currently being investigated by the Department of Energy's own Office of Inspector General because of mounting evidence of possible bias in the Department's approach to site characterization; and

WHEREAS, Certain members of Congress and supporters of the for-profit, commercial nuclear power industry continue to press for legislation that would allow spent nuclear fuel to be shipped to Nevada for "temporary" storage even though Yucca Mountain has not been found to be suitable as a repository; and

WHEREAS, Congress and the commercial nuclear power industry continue to ignore the reality that neither Yucca Mountain nor the Nevada Test Site are suitable locations for storing spent nuclear fuel and high-level radioactive waste; and

WHEREAS, The promotion of new nuclear power plants under the guise of responding to the electricity crisis facing California, as proposed in energy legislation being considered in Congress, is irresponsible given that the issue of safe disposal of the waste has not been resolved; and

WHEREAS, New and innovative approaches to the management of spent nuclear fuel and high-level radioactive waste are needed before any actions are taken that would result in the creation of new facilities that would add to the waste problem; and

WHEREAS, The Department of Energy has announced that it plans to make a recommendation regarding the suitability of Yucca Mountain as a repository for spent nuclear fuel and high-level radioactive waste to the President in 2001; and

WHEREAS, The Department of Energy has the opportunity to put the nation back on course toward a credible, effective and fair approach to dealing with the problem of spent nuclear fuel and high-level radioactive waste by acknowledging that Yucca Mountain is not a suitable or safe location for a repository, and recommending to the President that the site be disqualified; and

WHEREAS, The Nuclear Waste Policy Act of 1982, as amended, provides for the submission of a notice of disapproval by the Legislature or Governor of the State of Nevada in the event the President recommends Yucca Mountain for development as a repository for spent nuclear fuel and high-level radioactive waste; and

WHEREAS, The Nuclear Waste Policy Act of 1982, as amended, also provides that such a notice of disapproval shall cause Yucca Mountain to be withdrawn from further consideration unless overridden by a majority in both houses of Congress; now, therefore, be it

RESOLVED BY THE SENATE AND ASSEMBLY OF THE STATE OF NEVADA, JOINTLY, That the Nevada Legislature protests, in the strongest possible terms, the biased and blatantly political manner in which the Department of Energy has conducted its evaluation of the suitability of Yucca Mountain as the location of a repository for spent nuclear fuel and high-level radioactive waste and the unconscionable use of so-called "scientific" reports to openly promote the project with members of Congress and others; and be it further

RESOLVED, That the Nevada Legislature calls on President George W. Bush to veto any legislation that would attempt to locate a temporary or interim storage facility for spent nuclear fuel in Nevada; and be it further

RESOLVED, That the Nevada Legislature calls on Spencer Abraham, the Secretary of Energy, to abandon consideration of Yucca Mountain as a repository site, initiate a process whereby the nation can again engage in innovative and ultimately successful strategies for dealing with the problems of spent nuclear fuel and high-level radioactive waste, and oppose any effort to promote new nuclear power facilities until these new solutions have been implemented; and be it further

RESOLVED, That the Nevada Legislature formally restates its strong and unyielding opposition to the development of Yucca Mountain as a repository for spent nuclear fuel and high-level radioactive waste and to the storage or disposal of spent nuclear fuel and high-level radioactive waste in the State of Nevada; and be it further

RESOLVED, That the Federal Government, its agencies and instrumentalities is prohibited from establishing a repository for spent nuclear fuel and high-level radioactive waste at Yucca Mountain without the prior expressed consent of the Nevada Legislature or a cession of

jurisdiction pursuant to chapter 328 of the Nevada Revised Statutes, and that such consent and cession are hereby withheld; and be it further

RESOLVED, That this resolution hereby constitutes notice of disapproval from the Nevada Legislature pursuant to the Nuclear Waste Policy Act of 1982, 42 U.S.C. § 10136, as amended, should the President recommend to Congress that Yucca Mountain be developed as a repository for spent nuclear fuel and high-level radioactive waste; and be it further

RESOLVED, That this resolution becomes effective upon passage and constitutes the official position of the Nevada Legislature; and be it further

RESOLVED, That the Secretary of the Senate prepare and transmit a copy of this resolution to the President of the United States, the Vice President of the United States as the presiding officer of the United States Senate, the Speaker of the House of Representatives, the Secretary of Energy and each member of the Nevada Congressional Delegation.

20 ——— 01

APPENDIX L

Letter to Secretary of Energy from Chairman Mortenson

STATE OF NEVADA
LEGISLATIVE COUNSEL BUREAU
LEGISLATIVE BUILDING
401 S. CARSON STREET
CARSON CITY, NEVADA 89701-4747
Fax No.: (775) 684-6600

LORNE J. MALKIEWICH, *Director*
(775) 684-6800

LEGISLATIVE COMMISSION (775) 684-6800
RICHARD D. PERKINS, *Assemblyman, Chairman*
Lorne J. Malkiewich, *Director, Secretary*

INTERIM FINANCE COMMITTEE (775) 684-6821
WILLIAM J. RAGGIO, *Senator, Chairman*
Gary L. Ghiggeri, *Fiscal Analyst*
Mark W. Stevens, *Fiscal Analyst*

PAUL V. TOWNSEND, *Legislative Auditor* (775) 684-6815
ROBERT E. ERICKSON, *Research Director* (775) 684-6825
BRENDA J. ERDOES, *Legislative Counsel* (775) 684-6830

February 8, 2002

The Honorable Spencer Abraham
United States Secretary of Energy
Department of Energy
Forrestal Building 1000 Independence Avenue, S.W.
Washington, D.C. 20585

Dear Secretary Abraham:

The Nevada Legislature's Committee on High-Level Radioactive Waste has requested, that I write to you to ask that in the event you recommend the Yucca Mountain site to the President, that such recommendation be made concurrent with the release of the Final Environmental Impact Statement for the Yucca Mountain site. Further, the Committee requests that you issue a Record of Decision relative to the Final Environmental Impact Statement for the Yucca Mountain site, consistent with the and DOE regulations implementing said Act (10 CFR 1021.315).

Sincerely,

Harry Mortenson
Nevada State Assemblyman, Chairman
Nevada's Committee on High-Level
Radioactive Waste

HM/nw:L15

APPENDIX M

Meeting Notices and Agendas of the
Nevada Legislature's Committee on High-Level Radioactive Waste

REVISED MEETING NOTICE AND AGENDA

Name of Organization: Nevada Legislature's Committee on High-Level Radioactive Waste (*Nevada Revised Statutes* 459.0085)

Date and Time of Meeting: December 10, 2003
9 a.m.

Place of Meeting: Grant Sawyer State Office Building
Room 4406
555 East Washington Avenue
Las Vegas, Nevada

Note: Some members of the committee and other persons may be attending the meeting, and may provide testimony, via a simultaneous videoconference conducted at the following location:

Legislative Building
Room 4100
401 South Carson Street
Carson City, Nevada

If you cannot attend the meeting, you can listen to it live over the Internet. The address for the legislative Web site is http://www.leg.state.nv.us. For audio broadcasts, click on the link "Listen to Meetings Live on the Internet."

Please note: Minutes of this meeting will be produced in summary format. Please provide the secretary with electronic or written copies of testimony and visual presentations if you wish to have complete versions included as exhibits with the minutes.

AGENDA

I. Introductions and Opening Remarks

Senator Mike McGinness, Chairman

*II. Approval of Meeting Minutes from October 8, 2002

III. Overview of the Committee's Statutory Powers and Duties

Ann M. Iverson, Senior Deputy Legislative Counsel
Legal Division of the Legislative Counsel Bureau

*IV. Reports to the Committee

A. Update on High-Level Radioactive Waste Activities of the National Conference of State Legislatures (NCSL)

Linda Sikkema, NCSL Program Analyst

B. Update on Status of the High-Level Radioactive Waste Program of the United States Department of Energy (DOE)

Allen B. Benson, Director, Institutional Affairs, Department of Energy Yucca Mountain Site Characterization Office

1. Overview of the licensing application process leading to DOE's submission of the license application to the Nuclear Regulatory Commission (NRC)

2. Status of current studies and research regarding Yucca Mountain and the time table for submission of DOE's license application to the NRC

3. Status of planning regarding the potential transport of nuclear waste from sites located throughout the United States to Yucca Mountain including potential routes and mode selection through Nevada

C. Update on the Nevada Agency for Nuclear Projects' Activities

Robert R. Loux, Executive Director

1. Review of the State of Nevada's legal challenges regarding Yucca Mountain

2. Review of scientific studies conducted on Nevada's behalf regarding Yucca Mountain

3. Review of upcoming events

D. Discussion of Nye County's position on the placement of a nuclear waste repository at Yucca Mountain and update on Nye County's current activities regarding Yucca Mountain

Henry Neth, Chairman
Nye County Board of Commissioners

E. Discussion of Clark County's position on the placement of a nuclear waste repository at Yucca Mountain and update on Clark County's current activities regarding Yucca Mountain

Irene Navis, Program Manager, Nuclear Waste Division
Clark County Department of Comprehensive Planning

*V. Discussion of Dates for Future Meetings

VI. Public Comment

VII. Adjournment

*Denotes items on which the Committee may take action

Note: We are pleased to make reasonable accommodations for members of the public who are disabled and wish to attend the meeting. If special arrangements for the meeting are necessary, please notify the Research Division of the Legislative Counsel Bureau, in writing, at the Legislative Building, 401 South Carson Street, Carson City, Nevada 89701-4747, or call Nenita Wasserman at (775) 684-6825 as soon as possible.

Notice of this meeting was posted in the following Carson City, Nevada, locations: Blasdel Building, 209 East Musser Street; Capitol Press Corps, Basement, Capitol Building; City Hall, 201 North Carson Street; Legislative Building, 401 South Carson Street; and Nevada State Library, 100 Stewart Street. Notice of this meeting was faxed for posting to the following Las Vegas, Nevada, locations: Clark County Office, 500 South Grand Central Parkway; and Grant Sawyer State Office Building, 555 East Washington Avenue. Notice of this meeting was posted on the Internet through the Nevada Legislature's Web site at www.leg.state.nv.us.

MEETING NOTICE AND AGENDA

Name of Organization: Nevada Legislature's Committee on High-Level Radioactive Waste (*Nevada Revised Statutes* 459.0085)

Date and Time of Meeting: Monday, April 19, 2004
9 a.m.

Place of Meeting: Grant Sawyer State Office Building
Room 4401
555 East Washington Avenue
Las Vegas, Nevada

Note: Some members of the committee may be attending the meeting and other persons may observe the meeting and provide testimony through a simultaneous videoconference conducted at the following location:

Legislative Building
Room 3138
401 South Carson Street
Carson City, Nevada

If you cannot attend the meeting, you can listen or view it live over the Internet. The address for the Nevada Legislature Web site is http://www.leg.state.nv.us. Click on the link "Live Meetings - Listen or View."

Note: Minutes of this meeting will be produced in summary format. Please provide the secretary with electronic or written copies of testimony and visual presentations if you wish to have complete versions included as exhibits with the minutes.

A G E N D A

I. Opening Remarks
Assemblyman Harry Mortenson, Vice Chairman

*II. Approval of Minutes from Meeting Held December 10, 2003

*III. Reports to the Committee

A. Overview of the Mission of the United States Nuclear Waste Technical Review Board (NWTRB) and Presentation of the NWTRB's Activities and Concerns Relating to the Potential Transport of High-Level Radioactive Waste to the Yucca Mountain Site

Dr. Mark Abkowitz, Member, United States Nuclear Waste Technical Review Board

B. Presentation of the City of Caliente's Concerns and Questions Regarding the Department of Energy's (DOE) Preference to Transport High-Level Radioactive Waste by Rail Through Caliente to the Yucca Mountain Site

Kevin Phillips, Mayor, City of Caliente

C. Overview of the History and Current Status of High-Level Radioactive Waste Transportation in the United States

Jennifer A.D. Smith, Program Analyst
National Conference of State Legislatures

D. Status Report on DOE's Plans for the Potential Transport of High-Level Radioactive Waste to the Yucca Mountain Site

J. Gary Lanthrum, Director of the Office of Civilian Radioactive Waste Management's Office of National Transportation, DOE

*IV. Discuss requested "State of Nevada Perspective" presentation for NCSL High-Level Radioactive Waste Working Group meeting to be held in Las Vegas, Nevada, May 10-13, 2004.

V. Public Comment

VI. Adjournment

*Denotes items on which the committee may take action.

Note: We are pleased to make reasonable accommodations for members of the public who are disabled and wish to attend the meeting. If special arrangements for the meeting are necessary, please notify the Research Division of the Legislative Counsel Bureau, in writing, at the Legislative Building, 401 South Carson Street, Carson City, Nevada 89701-4747, or call Nenita Wasserman at (775) 684-6825 as soon as possible.

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MEETING NOTICE AND AGENDA

Name of Organization:	Nevada Legislature's Committee on High-Level Radioactive Waste (*Nevada Revised Statutes* 459.0085)
Date and Time of Meeting:	Tuesday, August 31, 2004 9 a.m.
Place of Meeting:	Grant Sawyer State Office Building Room 4412 555 East Washington Avenue Las Vegas, Nevada

Note: Some members of the committee may be attending the meeting and other persons may observe the meeting and provide testimony through a simultaneous videoconference conducted at the following location:

Legislative Building
Room 3138
401 South Carson Street
Carson City, Nevada

If you cannot attend the meeting, you can listen or view it live over the Internet. The address for the Nevada Legislature Web site is http://www.leg.state.nv.us. Click on the link "Live Meetings - Listen or View."

Note: Minutes of this meeting will be produced in summary format. Please provide the secretary with electronic or written copies of testimony and visual presentations if you wish to have complete versions included as exhibits with the minutes.

I. Opening Remarks
Senator Mike McGinness, Chairman

*II. Approval of Minutes From the Meeting Held April 19, 2004, in Las Vegas

*III. Reports to the Committee

A. Update on the High-Level Radioactive Waste Activities of the National Conference of State Legislatures (NCSL)

Linda K. Sikkema, Program Director
NCSL

Topics to include:

1. Status of NCSL's High-Level Radioactive Waste Project

2. Status of NCSL's Research Project on the Reprocessing of Spent Nuclear Fuel

B. Analysis of the Recent Decision of the United States Court of Appeals for the District of Columbia Concerning Challenges Made to the Establishment of a Nuclear Waste Repository at the Yucca Mountain Site

Marta A. Adams, Senior Deputy Attorney General
Office of the Attorney General

C. Status Report on the Yucca Mountain-Related Activities of the Nevada Agency for Nuclear Projects

Robert R. Loux, Executive Director
Agency for Nuclear Projects

*IV. Set Date for Next Meeting of the Committee

V. Public Comment

VI. Adjournment

*Denotes items on which the committee may take action.

Note: We are pleased to make reasonable accommodations for members of the public who are disabled and wish to attend the meeting. If special arrangements for the meeting are necessary, please notify the Research Division of the Legislative Counsel Bureau, in writing, at the Legislative Building, 401 South Carson Street, Carson City, Nevada 89701-4747, or call Nenita Wasserman at (775) 684-6825 as soon as possible.

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Senator Mike McGinness, Chairman

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Linda K. Sikkema, Program Director
NCSL

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B. Analysis of the Recent Decision of the United States Court of Appeals for the District of Columbia Concerning Challenges Made to the Establishment of a Nuclear Waste Repository at the Yucca Mountain Site

Marta A. Adams, Senior Deputy Attorney General
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C. Status Report on the Yucca Mountain-Related Activities of the Nevada Agency for Nuclear Projects

Robert R. Loux, Executive Director
Agency for Nuclear Projects

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APPENDIX N

Summary of Ruling

United States Court of Appeals

FOR THE DISTRICT OF COLUMBIA CIRCUIT

Argued January 14, 2004 Decided July 9, 2004

No. 01-1258

NUCLEAR ENERGY INSTITUTE, INC.,
PETITIONER

v.

ENVIRONMENTAL PROTECTION AGENCY,
RESPONDENT

Consolidated with
01-1268, 01-1295, 01-1425, 01-1426, 01-1516,
02-1036, 02-1077, 02-1116, 02-1179, 02-1196,
03-1009, 03-1058

On Petitions for Review of Orders of the
Environmental Protection Agency,
the Department of Energy,
and the Nuclear Regulatory Commission

Bills of costs must be filed within 14 days after entry of judgment. The court looks with disfavor upon motions to file bills of costs out of time.

2

Antonio Rossmann, Geoffrey Fettus, Martin G. Malsch, and Charles J. Cooper argued the causes for petitioners State of Nevada and Natural Resources Defense Council, et al. With them on the briefs were Joseph R. Egan, Charles J. Fitzpatrick, Howard K. Shapar, Brian Sandoval, Attorney General, Attorney General's Office of the State of Nevada, Marta A. Adams, Senior Deputy Attorney General, Robert J. Cynkar, Brian S. Koukoutchos, Vincent J. Colatriano, and William H. Briggs Jr.

John C. Martin argued the cause for petitioner Nuclear Energy Institute, Inc. With him on the briefs were Jean V. MacHarg, Susan M. Mathiascheck, Robert W. Bishop, and Michael A. Bauser.

Christopher S. Vaden, Michele L. Walter, and Ronald M. Spritzer, Attorneys, U.S. Department of Justice, and Steven F. Crockett, Special Counsel, U.S. Nuclear Regulatory Commission,

argued the causes for respondents. With them on the briefs were Jeffrey B. Clark, Deputy Assistant Attorney General, U.S. Department of Justice, G. Scott Williams, John A. Bryson, and Greer S. Goldman, Attorneys, Karen D. Cyr, General Counsel, U.S. Nuclear Regulatory Commission, John F. Cordes Jr., Solicitor, E. Leo Slaggie, Deputy Solicitor, and Marc Johnson, Deputy General Counsel, U.S. Department of Energy. John C. Cruden, Assistant Attorney General, U.S. Department of Justice, and Elizabeth A. Peterson, Attorney, entered an appearance.

Michael A. Bauser argued the cause for intervenor Nuclear Energy Institute, Inc. With him on the briefs of intervenor/amicus Nuclear Energy Institute, Inc. and amicus National Association of Regulatory Utility Commissioners were Robert W. Bishop, James Bradford Ramsay, and Sharla M. Barklind.

Before: EDWARDS, HENDERSON, and TATEL, Circuit Judges.

Opinion for the Court filed PER CURIAM.*

* Judge Tatel wrote Parts I and II. Judge Edwards wrote Part IV.

3

TABLE OF CONTENTS

V. CONCLUSION

In sum, we vacate 40 C.F.R. part 197 to the extent that it incorporates a 10,000-year compliance period because, contrary to EnPA section 801(a), that compliance period is not ''based upon and consistent with'' the recommendations of the National Academy of Sciences. The remaining challenges to the EPA rule are without merit. We vacate the NRC rule insofar as it incorporates EPA's 10,000-year compliance period. In all other respects, we deny Nevada's petition for review challenging the NRC rule. We also reject the State's challenge to the constitutionality of the resolution approving the Yucca Mountain site, and we dismiss the State's petition attacking the Department of Energy's and the President's actions leading to passage of that resolution, as those actions are unreviewable.

So ordered.

APPENDIX O

U.S. Department of Energy's Decision to Use "Mostly Rail" for Transport of Nuclear Waste to Yucca Mountain Repository

DOE NEWS
U.S. DEPARTMENT OF ENERGY, YUCCA MOUNTAIN PROJECT, LAS VEGAS, NV 89134

NEWS MEDIA CONTACT:
Allen Benson (702) 794-1322

FOR IMMEDIATE RELEASE

DOE Says it will Use Rail for Transportation to Yucca Mountain Repository; Selects Proposed Caliente Corridor as Nevada Route

LAS VEGAS, April 5, 2004 -- The U.S. Department of Energy (DOE) today announced that it has selected the use of rail for the majority of shipments of spent nuclear fuel and high-level waste to a repository at Yucca Mountain, Nevada. These contents are currently stored at 127 sites around the country.

Due to the availability of transportation modes at some storage facilities in the United States, the department noted that some shipments might require transport by road.

The shipment of spent nuclear fuel and radioactive waste is highly regulated and subject to the utmost scrutiny. DOE carefully follows the Department of Transportation (DOT) and Nuclear Regulatory Commission (NRC) transportation rules now and will follow or exceed any others that may be established in the future whether by the Congress or by DOT or NRC. DOE also will consult with states, Native American tribes, local governments, utilities, the transportation industry and other interested parties.

DOE's decision to select the mostly rail scenario in Nevada will require the construction of a rail line to connect the repository site at Yucca Mountain to an existing rail line in the State of Nevada. To that end, the department today also selected the Caliente corridor in which to construct a rail line. The Caliente corridor was previously identified as the department's preferred alternative for building a rail line in Nevada to service Yucca Mountain. If the repository is licensed by the NRC, shipments could begin as early as 2010.

The Caliente corridor is approximately 319 miles in total length. For more information about this corridor, visit the OCRWM web site at http://www.ocrwm.doe.gov.

The Record of Decision for the Caliente corridor will be published this week in the Federal Register, along with a Notice of Intent to develop an Environmental Impact Statement (EIS). The EIS will be prepared in accordance with the National Environmental Policy Act (NEPA) to consider alternative alignments within the Caliente corridor for construction of a rail line. No actual construction of a rail line within the selected corridor can take place until completion of the NEPA process.

(More)

DOE will solicit public comment through an EIS scoping process that identifies issues and resources to be considered in the corridor EIS. Three public scoping meetings for the Rail Alignment EIS have been scheduled. They are as follows:

Monday, May 3, 2004	Tuesday, May 4, 2004	Wednesday, May 5, 2004
4:00 p.m. to 8:00 p.m.	4:00 p.m. to 8:00 p.m.	4:00 p.m. to 8:00 p.m.
Longstreet Inn & Casino	Goldfield Community Center	Caliente Youth Center
Highway 373	301 Crook Street	U.S. Highway 93
Amargosa Valley, Nevada	Goldfield, Nevada	Caliente, Nevada

The purpose of each meeting is to provide information to the public concerning the selected rail corridor, including the process for developing an environmental impact statement, and to gather information from the public about the corridor.

The department invites comments on several issues, including the consideration of additional alternatives, additional environmental resources, mitigation measures, and allowing private entities to ship commercial commodities on its rail line.

If you require special accommodations to participate in the meeting, please call, toll-free, 1-800-225-6972 at least 24 hours in advance. If you are unable to attend a meeting, please write or fax your comments by May 24, 2004 to: Ms. Robin Sweeney, EIS Document Manager, Office of National Transportation, Office of Civilian Radioactive Waste Management, U.S. Department of Energy, 1551 Hillshire Drive, M/S 011, Las Vegas, NV 89134, Telephone 1-800-967-3477, Facsimile 1-800-967-0739. You can e-mail comments via the Internet at http://www.ocrwm.doe.gov.

In July 2002, Congress approved the designation of Yucca Mountain in Nevada for development as the nation's first geologic repository for spent nuclear fuel and high-level radioactive waste.

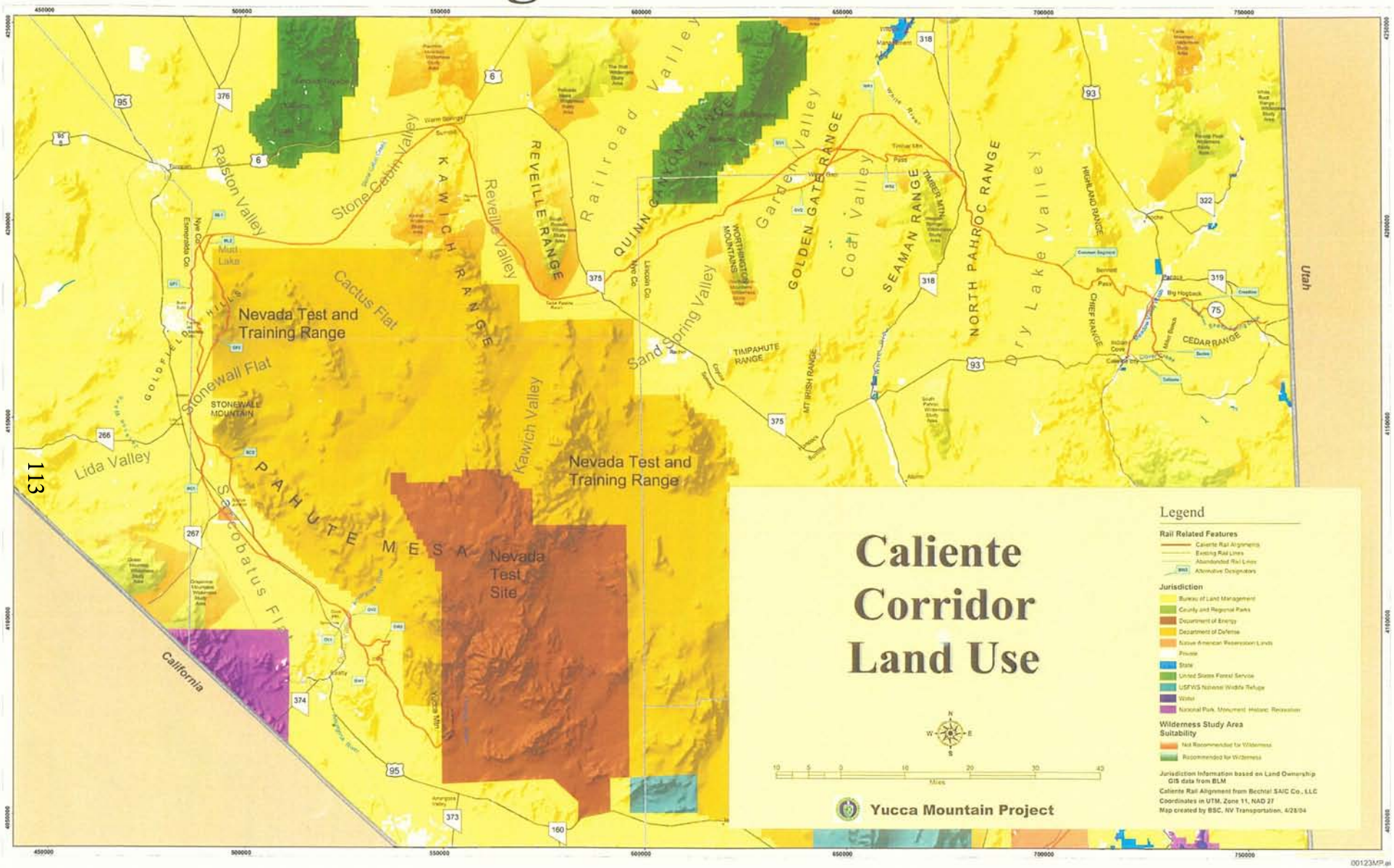
-30-

YMP-04-02

APPENDIX P

Map, Rail Alignment Alternatives

Rail Alignment Alternatives



APPENDIX Q

The U.S. Department of Energy's Transportation Plan

Introduction

Our strategy for development of the Office of Civilian Radioactive Waste Management (OCRWM) transportation program is to collaborate with our stakeholders. The *Strategic Plan for the Safe Transportation of Spent Nuclear Fuel and High-Level Radioactive Waste to Yucca Mountain*, which the Secretary of Energy committed to issue in 2003, lays out the path the Office of Civilian Radioactive Waste Management (OCRWM) will follow in defining and developing the comprehensive transportation system required for the safe and secure shipment of spent nuclear fuel (SNF) and high-level radioactive waste (HLW). Specifically, the Plan presents the Department's strategy and describes the process OCRWM will use to work cooperatively with states, federally recognized tribes, local governments, utilities, the transportation industry, and other interested parties to refine the transportation system as it is developed.

The President and the Congress approved Yucca Mountain, Nevada, in 2002 as the site for the nation's first repository for SNF and HLW. OCRWM plans to begin operating the repository under a license from the Nuclear Regulatory Commission (NRC) in 2010. The repository plans to accept the statutory limit of 70,000 metric tons of SNF and HLW for disposal, removing this material from 129 sites in 39 states. This number is down from 131 sites; two research reactors have been closed and the waste has been shipped to locations already storing radioactive material.

The Department will use its experience in transporting nuclear materials, as well as best practices from domestic and foreign nuclear utility shipments, as the foundation for this plan and the OCRWM transportation system. Over the past 30 years, the Department and industry have safely completed approximately 3,000 shipments of SNF and HLW. There is also extensive worldwide experience with SNF transportation: more than 70,000 metric tons of uranium (MTU) of SNF have been safely shipped in the past 25 years. This is equal to the amount the Department will ship to Yucca Mountain as authorized in the Nuclear Waste Policy Act.

To support repository operations over the next six years, OCRWM will develop a transportation system ready to ship SNF and HLW to the repository from sites throughout the nation. OCRWM is now focusing on designing, siting and constructing the infrastructure required for the transportation system. Accordingly, this is the ideal time to begin more frequent and substantive collaboration with interested parties as the details for implementing this transportation system are developed.

Transportation Program Mission and Goals

The mission of OCRWM is to manage and dispose of SNF and HLW in a manner that protects public health, safety, and the environment; enhances national and energy security; and merits public confidence. The OCRWM Office of National Transportation will work

with interested parties in a collaborative process to build a transportation system that supports the OCRWM mission and effectively addresses the concerns of its stakeholders. OCRWM's Office of National Transportation is responsible for designing and developing a safe and efficient transportation system with the capability to support waste acceptance in 2010. The Department's mission to develop a safe, secure and efficient transportation system will be guided by three principles:

- We will conduct a thorough, open and collaborative planning process with interested parties
- We will develop a safe and secure transportation system and related infrastructure that is based on that planning
- We will complete transportation system validation in time to begin operations in 2010.

Over the years, the Department has received considerable input from stakeholders. That history provides an excellent basis for the current work needed to accomplish our mission and achieve our goals.

Collaborative Transportation Planning Process

The Nuclear Waste Policy Act established a stepwise approach for making decisions related to the approval, licensing, operation, and eventual closure of the repository. OCRWM is taking a similar stepwise approach to transportation planning. Now, approximately six years prior to the planned date when shipments would begin, this Strategic Plan will serve as a guide to interaction with interested parties as transportation decisions are made. The Department will work with interested parties, through a collaborative planning process, before developing specific policies and procedures and making transportation decisions.

The transportation planning process is designed to meet our goals and address stakeholder concerns as we develop the transportation system. Assumptions and preliminary operational activities will be subject to change as circumstances dictate. The Department's past experience operating the transportation system for the Waste Isolation Pilot Plant (WIPP), conducting foreign fuel shipments, managing the Naval Reactors program, and other transportation programs has proven that interaction with interested parties is critical to mission success. OCRWM will approach its transportation planning cooperatively, using a collaborative process that incorporates the successful elements from transportation systems developed for other DOE programs.

Many of the parties that OCRWM will work with already participate in transportation planning efforts with the Department. Others will be added as the OCRWM transportation program moves forward. The extent and method of OCRWM's interactions with interested parties will be tailored to their needs and the decisions occurring at each stage of the program. OCRWM will use several processes for interaction such as direct discussions,

information exchanges, and *ad hoc* forums, depending on the particular interest and the topics involved.

Issues Considered

The Department's prior work in addressing and resolving transportation issues will provide a starting point for discussions with various groups. A number of transportation topics have already been identified, and OCRWM will address these according to the general interests and responsibilities of the involved groups. All parties, however, will have an opportunity to be informed and to comment on all facets of the transportation planning process. The topics listed below are an initial list for discussion; they are not meant to be all-inclusive. It is anticipated that new topics will arise over time as planning proceeds.

- Selection of transportation routes and modes
- Emergency response planning and training
- Safeguards and security
- Operational practices
- Communications and information access
- Waste packaging for transportation
- Worker protection, training, training standards, and qualifications

Involved Entities

The following four groups each have distinct responsibilities and obligations or areas of interest. The Department emphasizes cooperation with states and tribes in developing the transportation system because they have the primary responsibility for the safety of their citizens.

- States (represented through regional groups) and the local jurisdictions in the States, and federally recognized Tribes
- Stakeholder groups including groups with special interests, rate payers, labor organizations, and nonprofit organizations
- Transportation service providers and cask vendors
- Nuclear utilities generating and storing SNF for eventual disposal

There will also be regular involvement, as appropriate, with other federal entities such as the Nuclear Regulatory Commission, Department of Transportation, Department of Labor, and the Nuclear Waste Technical Review Board.

Interactions with States and Tribes

State and tribal governments have primary responsibility for the health and welfare of their citizens and the environment. In that role, they are key to assisting OCRWM with determining how transportation operations will occur. Beginning in 2004, OCRWM will significantly increase interactions with states and tribes to update and prioritize the list of topics they wish to address.

State regional groups will anchor our collaborative process with the states. These regional groups are the Southern States Energy Board, the Western Interstate Energy Board, and the Midwestern Office and Eastern Regional Conference of the Council of State Governments. The Department already interacts frequently with these groups on other shipping programs and relies on them to provide consolidated state input on various topics and to assist with transportation plans. Demonstrating its continuing commitment to working with these groups, OCRWM in October 2003 reestablished its cooperative agreements with them. Where appropriate, OCRWM will interact with individual States, or its designated State agency, as specific issues of mutual concern arise.

The Department plans to interact with federally recognized tribes on a government-to-government basis. A range of methods may be used to work with tribes, based largely on the needs of the individual tribal governments. OCRWM will consider successful collaborative processes used by other federal agencies and will continue to work with its tribal partners throughout the planning, operational testing, and operations phases of the transportation program.

OCRWM will meet at least twice a year with each of the state regional groups and participate in conference calls or other meetings as needed. State regional groups, organizations representing local appointed and elected officials and tribal officials will also continue to participate in Transportation External Coordination Working Group (TEC) interactions. Beyond their participation in TEC, the Department envisions government-to-government consultation and other interactions with tribal governments. OCRWM will work with potentially impacted Federally recognized tribes to determine an efficient and effective consultation process with the tribal governments. OCRWM will work with states and tribes to develop schedules and approaches to address the topics identified through these discussions.

Discussions between OCRWM and states and tribes on topics of concern will be purposeful and outcome-oriented, leading to decisions necessary to implement an effective transportation system in accordance with all applicable laws and regulations. As a starting point, OCRWM will raise the following topics for discussion; we expect that states and tribes will raise additional topics.

- **Selection of Transportation Routes.** OCRWM will work collaboratively with state regional groups and tribal governments to identify transportation routes. This will include providing assistance, as requested, to state and tribal governments in identifying routes, consistent with federal procedural and substantive requirements set forth in 49 CFR 397.103, including minimization of radiological risk. States and tribes also must consult with contiguous jurisdictions that may be affected to ensure consideration of all impacts and continuity of designated routes.

- **Emergency Response Planning and Training.** OCRWM will work with states and tribes to evaluate current preparedness for safe routine transportation as well as emergency response capabilities, and will provide funding, as appropriate, to ensure that state, tribal and local public safety officials are adequately trained. Additionally, OCRWM will work with states and tribes to refine the approach for implementing Section 180 (c) of the Nuclear Waste Policy Act and to coordinate and integrate Section 180 (c) activities with existing training programs designed for state, tribal and local emergency responders.

- **Shipment Security.** OCRWM will work with state regional groups and tribes in developing approaches to securing the shipments. This effort will address escort and inspection activities as well as new security requirements for shippers and carriers issued since September 2001. Our collaboration will include the Department of Homeland Security and other federal agencies with security requirements.

- **Operational Practices.** OCRWM will review operational practices as documented in the Radioactive Material Transportation Practices Manual 460.2-1 with state regional groups and tribes and update the Manual if needed. Additionally, OCRWM will work with States, tribes, other federal agencies, and industry to identify enhancements to its existing unclassified tracking satellite system called TRANSCOM, so that the most current generation of tracking systems appropriate to a particular mode is available for shipments to the repository.

- **Communications and Information Access.** OCRWM is committed to providing timely, accurate, and complete information about its transportation system and will do so by implementing a communications process with states, tribes, local governments, industry, and other parties participating in transportation planning. OCRWM will work with these parties to develop appropriate materials and to identify optimum distribution mechanisms.

Beginning in 2006, interactions with state regional groups and tribes will shift focus from topic identification and resolution to training and operational readiness. States and Tribes will be involved in reviewing transportation campaign plans, conducting emergency and communications exercises with local officials, reviewing associated public information programs along routes and participating in readiness reviews. These activities will require States and tribes to coordinate closely with local public safety officials.

Interactions with Stakeholder Groups

In addition to state and tribal government officials, OCRWM recognizes that a wide spectrum of stakeholders, such as groups with special interests, rate payers, labor organizations, and nonprofit organizations are interested in how the transportation system will be developed. While these groups do not share the responsibilities or obligations of state and tribal officials, or the professional responsibilities of industry groups that are directly involved with shipments, they do serve an important role by articulating the views and concerns of their membership and helping guide the program's transportation policy.

OCRWM will participate in topic- or group-specific forums to address particular interests and stakeholder topics. For instance, environmental groups may have specific concerns related to the environment and public health and safety; the transportation industry may have specific concerns related to the transportation infrastructure associated with shipments to the repository; and labor organizations whose members are responsible for emergency response, enforcement and inspection activities, and for transportation may have specific concerns related to their functions. Emergency responders are key to the success of OCRWM planning. These groups include emergency medical technicians, emergency room medical staff, police and fire fighters. The organizations representing these safety officials will have a clear role in reviewing and revising, if needed, funding and training approaches to support emergency preparedness for shipments. These groups already participate in the TEC; these topics could also be addressed through special forums, the results of which will be considered in the development of the transportation system.

Some stakeholders want information that can be easily accessed to have a better understanding of transportation and what OCRWM will do to protect their health and safety. Transportation information is provided, and will continue to be provided and available to the public through a variety of direct and indirect means including DOE sponsored web pages (e.g., OCRWM's homepage is www.ocrwm.doe.gov), mailings, at open meetings, through state and tribal representatives, and other third party providers of information in addition to direct access to OCRWM. The goal of these activities is to provide balanced information to the public and ensure that their concerns about safety are being addressed. Feedback opportunities will be provided so that OCRWM will be able to better address specific topics.

One of the means of interaction with stakeholder groups and the general public will be through an already established, effective forum—TEC, co-chaired by the OCRWM program.

TEC provides a broad-based input and information exchange between OCRWM and all of its members. TEC includes organizations representing federal, state, tribal, and local governments; police, fire, and emergency management organizations; business and industry associations; and professional and technical organizations. Several unions already participate in TEC. The TEC meetings will provide an excellent conduit for information on health and safety and preventing and responding to emergencies.

TEC meetings are usually held semi-annually, and are open to the public. Reports and studies from TEC topic groups, which consist of crosscutting groups of OCRWM stakeholders, can be used by states and tribes to assist them in making important decisions in their areas of responsibility. Additional topic group sessions will be held to focus on key topics of interest to OCRWM and TEC members as the transportation system is developed. Some topics which may be further addressed through TEC include research on best practices and lessons learned from ongoing international and domestic spent fuel shipment campaigns; rail routing criteria and approaches used by industry; and updates to the Transportation Practices Manual previously discussed. TEC members could also review various OCRWM approaches to activities, such as training and emergency management, or communications and information development.

Interactions with the Transportation Industry and Cask Vendors

Several different industries will be involved in the transportation system. Cask vendors design and fabricate shipping containers used to move SNF and HLW. The containers must meet stringent performance standards established by NRC. Transport logistic firms provide a range of services to carry out shipments safely and efficiently. These include the management and organization for shipments, physical protection, and coordination with the transportation carriers. Transportation carriers include specialized trucking companies and railroads that provide transportation services to move hazardous cargo that requires special handing.

Section 137 of the Nuclear Waste Policy Act requires the Department to utilize private industry to the fullest extent possible in each aspect of the transportation system. In order to transport SNF to the repository, OCRWM must acquire transportation casks as well as operational and maintenance services. Private sector industries are currently providing equipment and services to utility customers in the United States and internationally, as well as serving the needs of other programs within the Department. The private sector has a great deal of experience with SNF transportation and appears well positioned to respond to OCRWM's need for transportation equipment and services.

Before beginning the formal procurement process, the Department will interact with private-sector cask suppliers, utilities, logistics providers and others in the transportation industry to solicit information as well as private-sector views on approaches to establishing the necessary system design and cask fleet on a timely and cost-efficient basis. Such interactions would involve workshops, conferences and other appropriate forums. These interactions with the cask supplier industry would be utilized to further develop and define the cask fleet requirements in terms of numbers and types of casks, as well as technical specifications and commercially available approaches for acquiring the necessary casks.

The various types of SNF and HLW that OCRWM will ship to the repository will result in a variety of different cask and transporter requirements. The Office of National Transportation is developing its process for procuring and managing casks and transporters

in consultation with industry professionals. Approaches that minimize schedule and cost risks for procurement of inventory and services will be an important part of this planning process. Our strategies in this area all recognize the long time required to design, certify and procure new casks. Some of the actions the Department will consider include:

- Working closely with the vendor community (through workshops and procurements) to develop proposed suites of casks that could efficiently address all of our transportation needs

- Implementing the cask procurement process in phases, which will allow us to make progress while preserving some flexibility to address uncertainty as long as possible

- Modeling the transportation system to identify cask requirements associated with the needs of our customers (the utilities, research facilities and DOE shipping sites). Incorporating cask utilization information in the model to determine the number of casks required. Updating the model as decisions are made to help guide procurements of casks required for shipments in the first five years of repository operations.

- Establishing a working group of utilities, cask vendors, transportation industry professionals, and other federal agencies, as appropriate, to address specific technical needs and solutions for casks and other infrastructure to be used in the OCRWM transportation system.

OCRWM realizes the need to initiate interactions with cask vendors as soon as possible. Several SNF cask designs are currently certified and could be used for shipments, but some casks that may be needed in 2010 do not yet exist and must be designed and certified. OCRWM's interactions will be focused on how to acquire currently certified cask systems from industry and how to contract with the private sector to develop certified casks and other required transportation equipment that is not available in the current market.

Through its interactions, OCRWM will:

- Define transportation infrastructure and support services needs

- Develop acquisition, operations and management plans

- Identify and mitigate system risks

OCRWM will take advantage of industry knowledge and experience by engaging the industry through industry organizations, conferences, professional associations, working groups, and normal procurement processes. These interactions may include public workshops, industry comments on draft procurement documents, and individual vendor meetings.

Interactions with Nuclear Utilities

Nuclear utilities will play an integral role in the planning and implementation of the transportation system. Transporting waste to the repository will begin at the utilities when they prepare transportation casks for OCRWM-managed shipment. As current owners of the fuel, the utilities have the responsibility of training their personnel appropriately to ensure the safe transfer of the waste to OCRWM, pursuant to NRC regulations. More than 100 reactors at more than 70 sites will be involved in shipments of SNF to the repository. Utilities will provide OCRWM with information on their various operating capabilities, local transportation infrastructure, and fuel condition.

OCRWM is in the process of updating the capability assessment data that was collected in the early 1990s. These data identify the various operating capabilities at the utility sites that are important to determining cask requirements and site servicing equipment needs. Interactions with OCRWM's nuclear utility customers to validate information on site operational and transportation interfaces will start in 2004. The updated site data will be used to develop site-specific and final transportation requirements.

The data on transportation infrastructure in the vicinity of sites, which is needed to develop final transportation plans, will also be updated. Updating will be accomplished through transportation logistics services, and in consultation with the affected utilities. This data provides information concerning the local transportation infrastructure that connects the utility sites with the nearest mainline rail or interstate highway system. Updating this information close to the time of actual shipment assures that the latest information is used for identifying site-specific transportation needs.

To assist our planning, OCRWM will request the utilities provide us with their best available information as to the type and condition of the spent fuel, its storage location, and the capability of the shipping facility. OCRWM will explore mechanisms for soliciting this data with the utilities. After we receive this information, we will discuss opportunities for refining transportation schedules. A similar process will be used with DOE sites in order to integrate DOE and Naval spent fuel shipments into the OCRWM transportation system planning process.

OCRWM believes that opportunities exist to improve the waste acceptance and transportation planning process to allow for more efficient planning, scheduling, and operation of the transportation system. In particular, opportunities exist to refine the scheduling process to allow the final scheduling of spent fuel deliveries at an earlier time than now required, which in turn would allow for more efficient waste allocation and transportation planning. Further, modifications to allow the use of multi-year transportation campaigns instead of annual campaigns may be beneficial to both OCRWM and our utility customers. OCRWM is also open to discussions concerning the acceptance of additional waste forms, such as dual-purpose storage/transportation cask systems that have been certified by the NRC.

Conclusion

Significant transportation experience demonstrates that shipments to the Yucca Mountain repository can be conducted safely and securely. The path toward developing a safe, secure, efficient transportation system for Yucca Mountain will require the participation of many interested parties.

The Department recognizes some of the topics we need to address as we develop the transportation system. Interested parties have previously identified and will continue to identify many other relevant topics. OCRWM welcomes comments on this plan and at any time throughout the planning process. Comments and new topics will be considered and incorporated through ongoing consultations with state, tribal, and local officials, business, industry, and other interested parties. While our emphasis will be on those groups with public health and safety and operational responsibilities, OCRWM will interact with all the interested parties identified in this plan and will provide them with access to information about the transportation system and opportunities to influence its development.

APPENDIX R

"Detailed Nevada Transportation Maps" from the Final Environmental Impact Statement, Office of Civilian Radioactive Waste Management, U.S. Department of Energy

S.13 Detailed Nevada Transportation Maps

Figures S-23 through S-35 are maps that show the candidate rail corridors and heavy-haul truck routes in Nevada. Figures S-23 and S-30 are index maps for rail and heavy-haul routes, respectively. That is, they identify the relationships of the more detailed maps that follow them. Figure S-23 shows the relationship of six detailed maps (Figures S-24 through S-29), each of which shows potential corridors (or portions of corridors) for the five candidate rail corridors, including variations. Similarly, Figure S-30 shows the relationship of four detailed maps (Figures S-31 through S-34), each of which shows candidate heavy-haul truck routes (or portions of routes). Finally, Figure S-35 is a legend for all of the detailed maps.

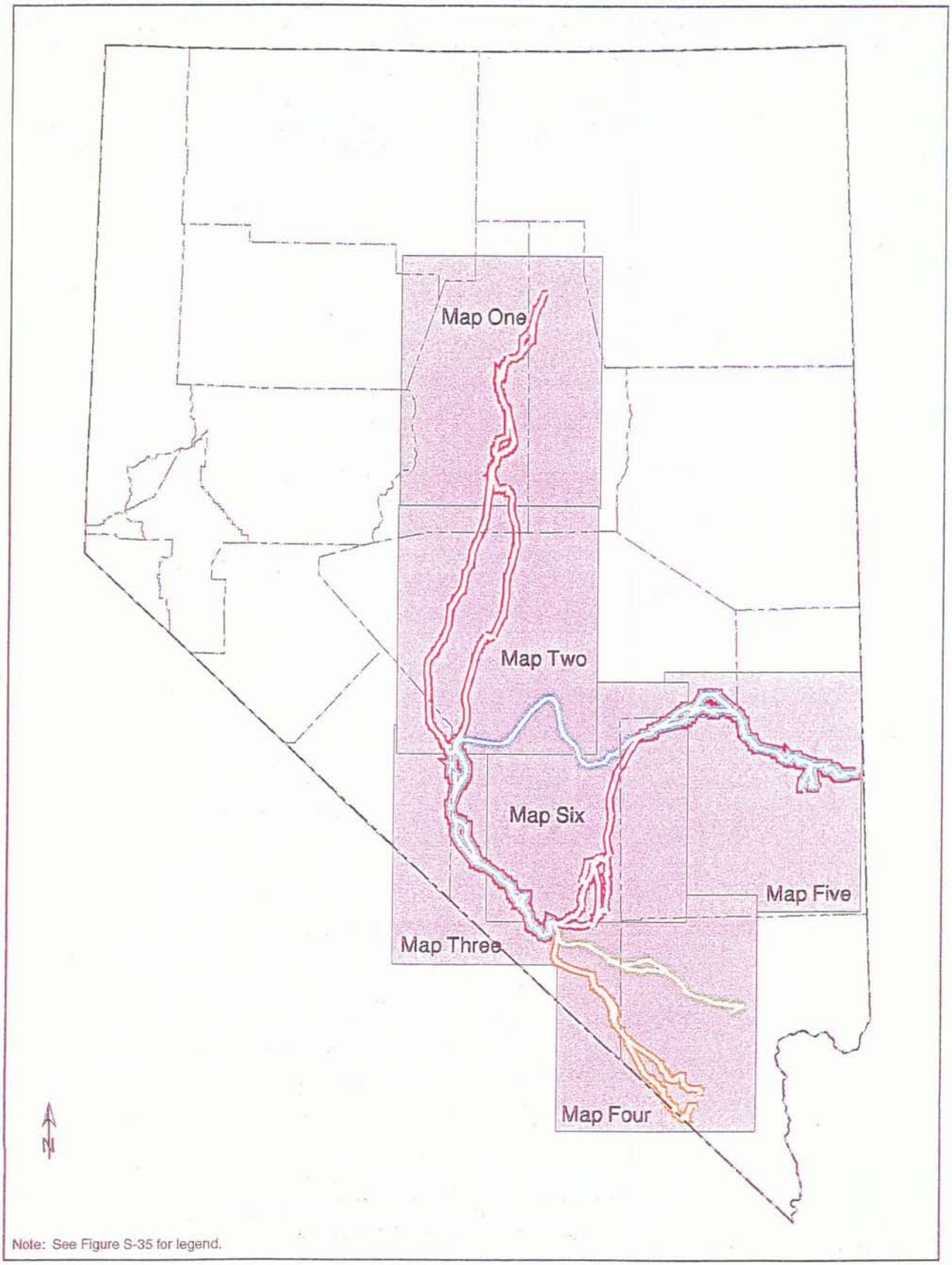
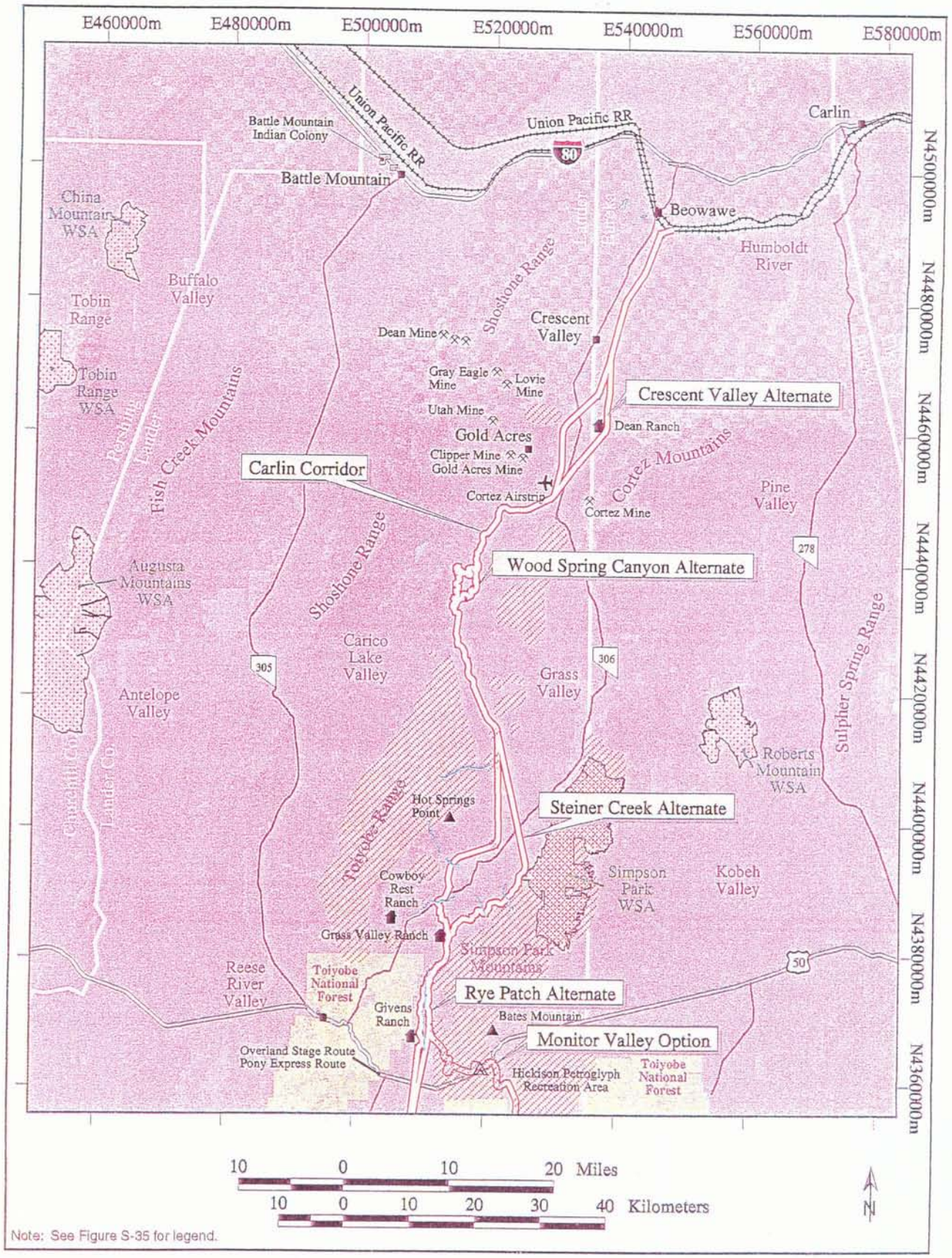
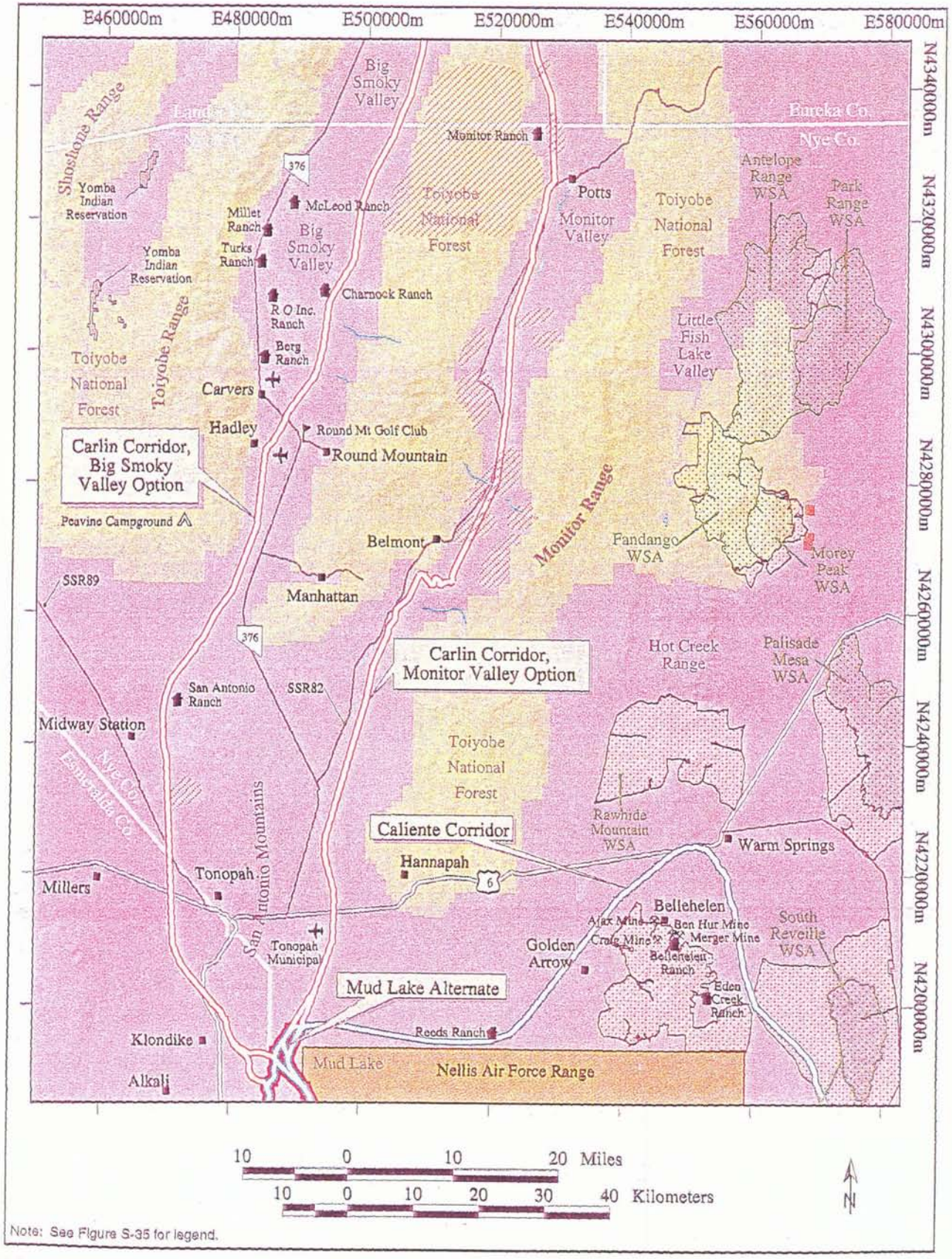


Figure S-23. Candidate rail corridors (Index).



Note: See Figure S-35 for legend.

Figure S-24. Candidate rail corridors (Map One).



Note: See Figure S-35 for legend.

Figure S-25. Candidate rail corridors (Map Two).

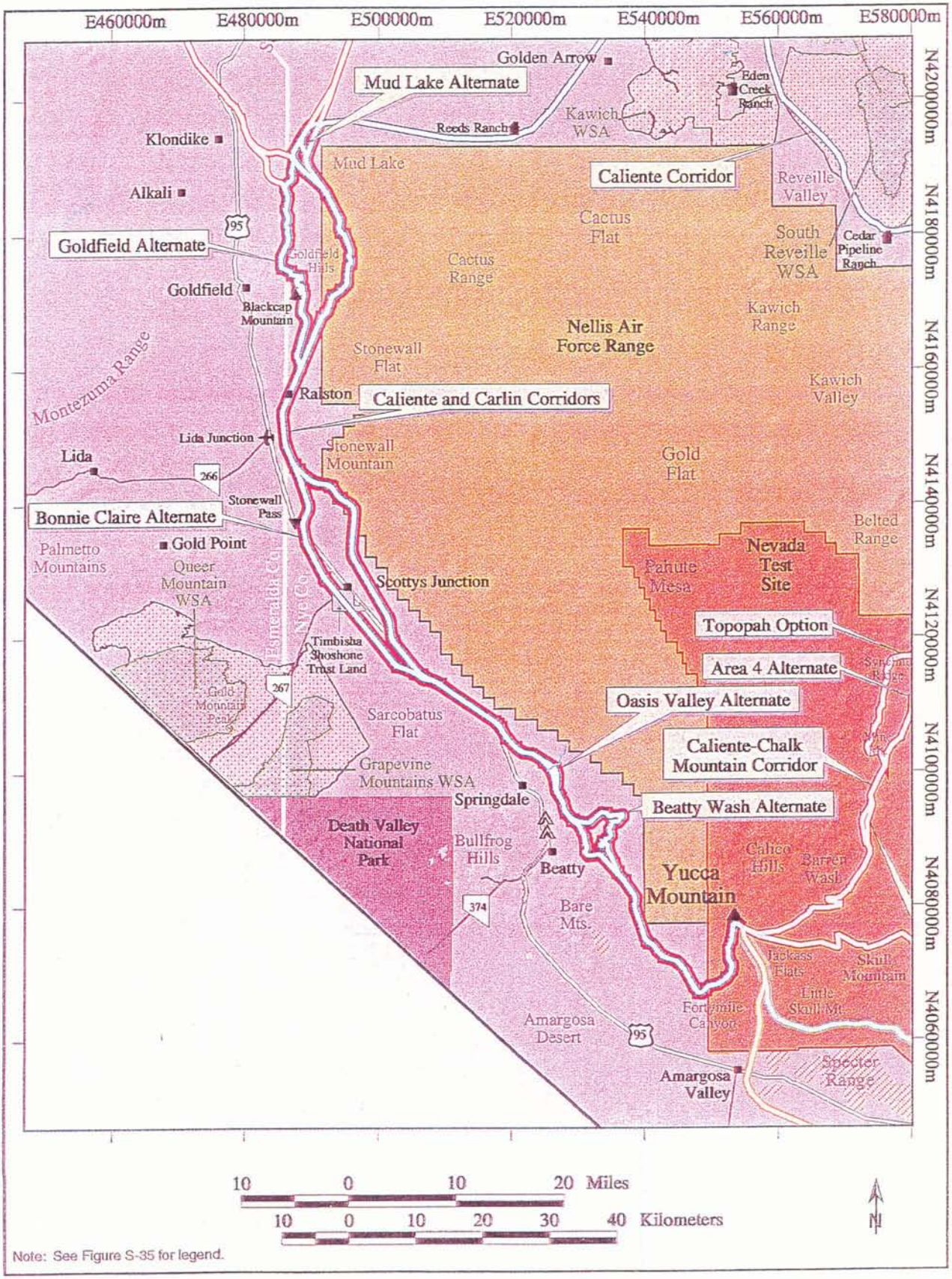


Figure S-26. Candidate rail corridors (Map Three).

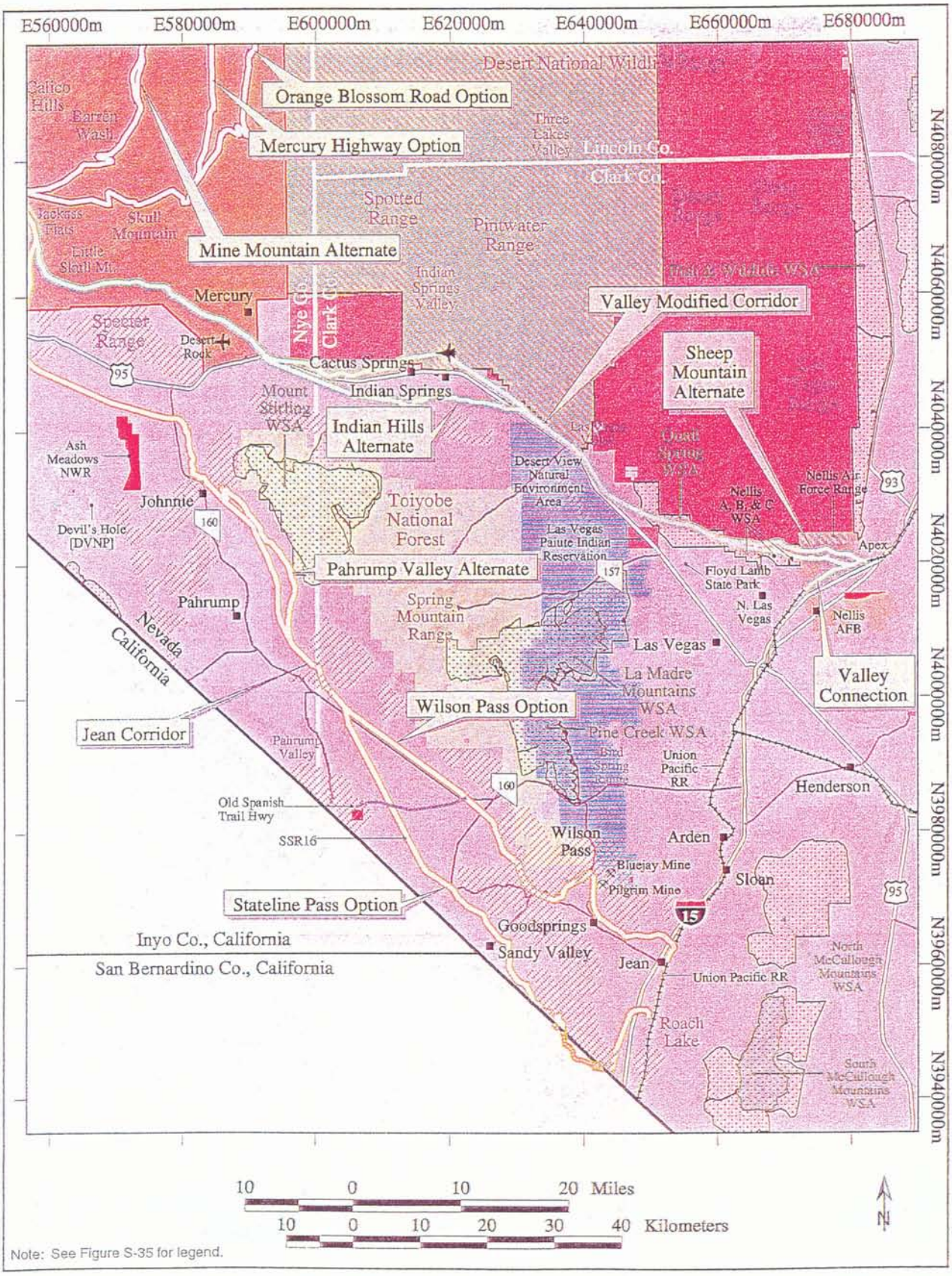


Figure S-27. Candidate rail corridors (Map Four).

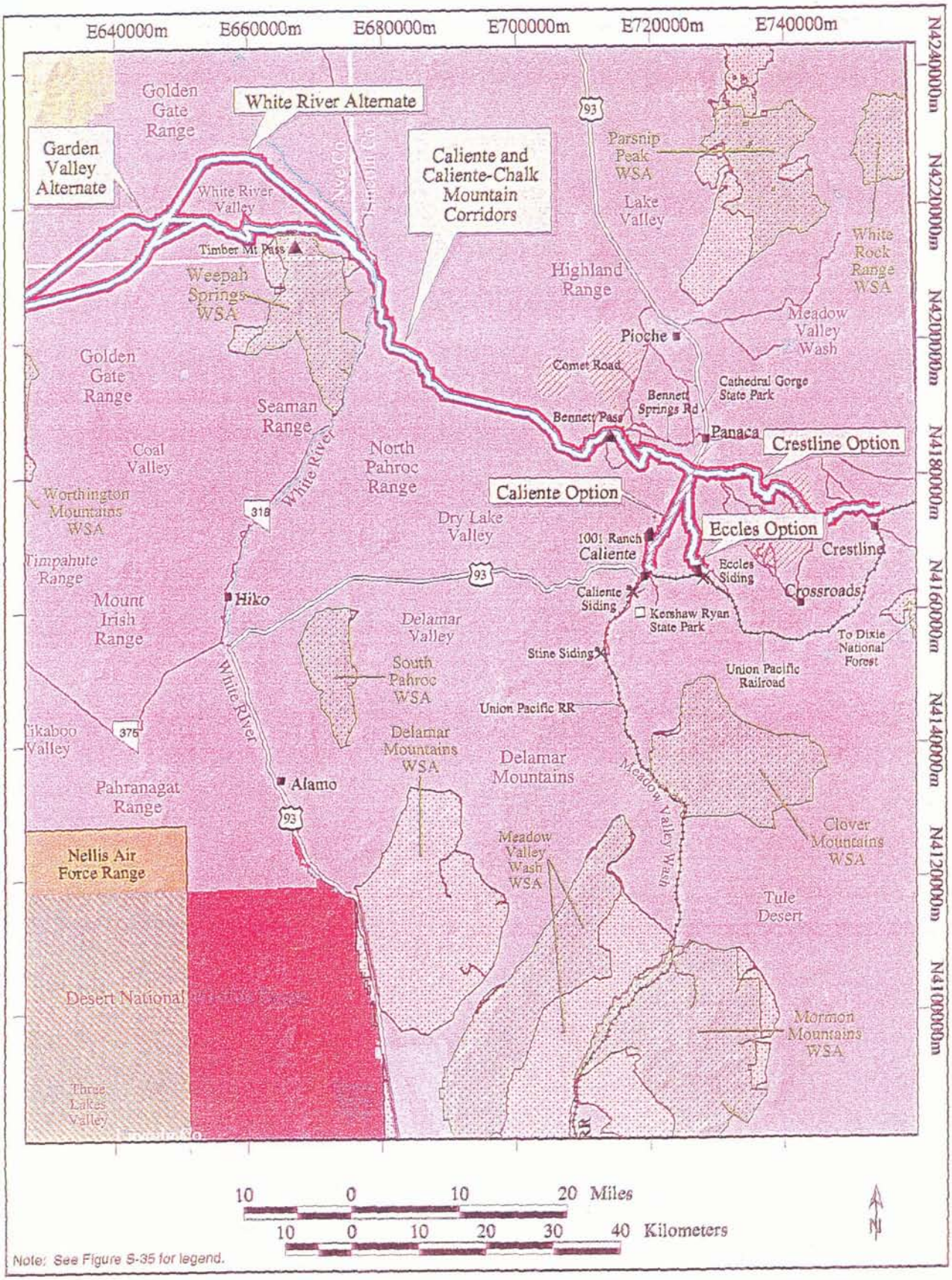
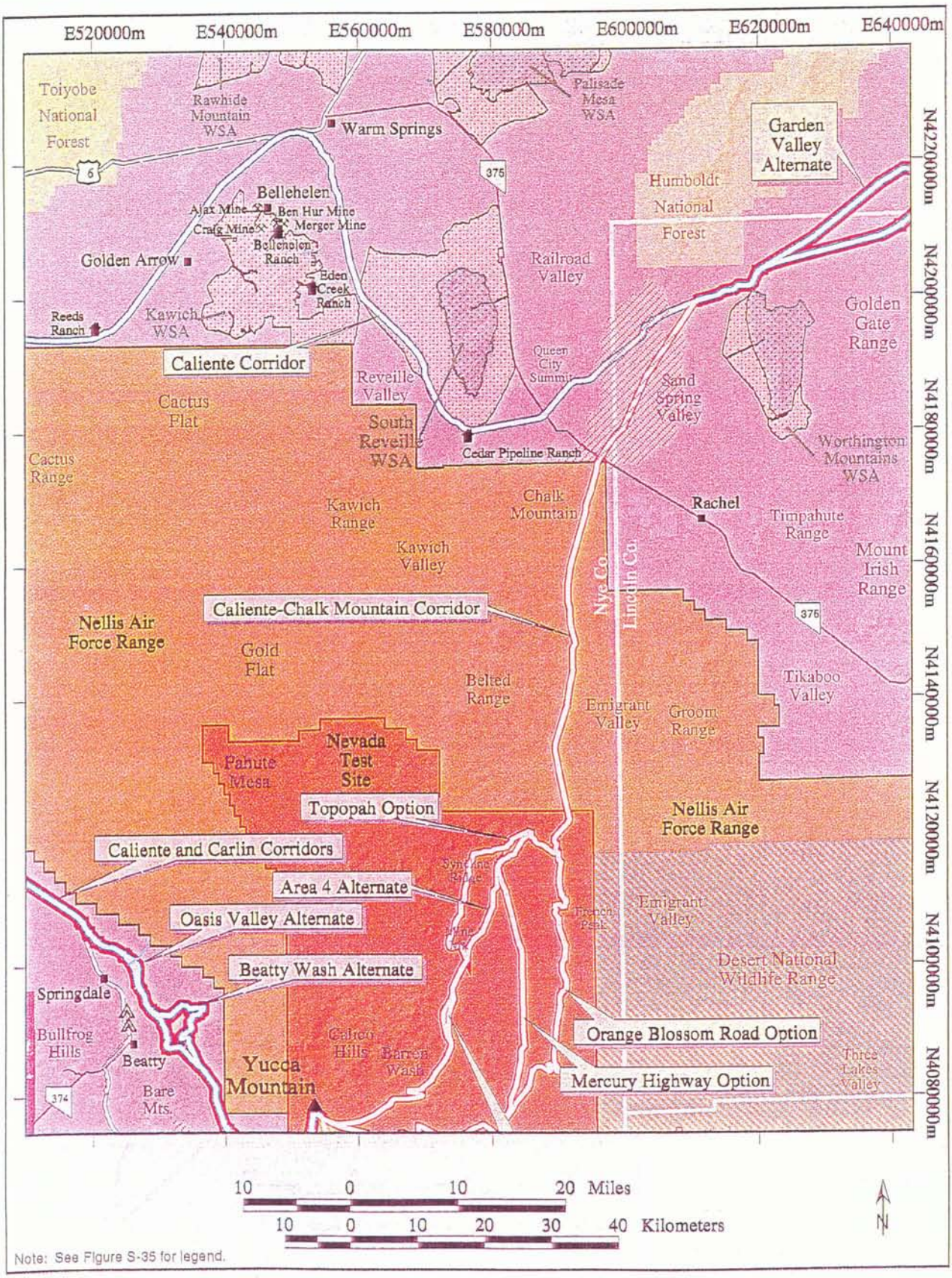


Figure S-28. Candidate rail corridors (Map Five).



Note: See Figure S-35 for legend.

Figure S-29. Candidate rail corridors (Map Six).

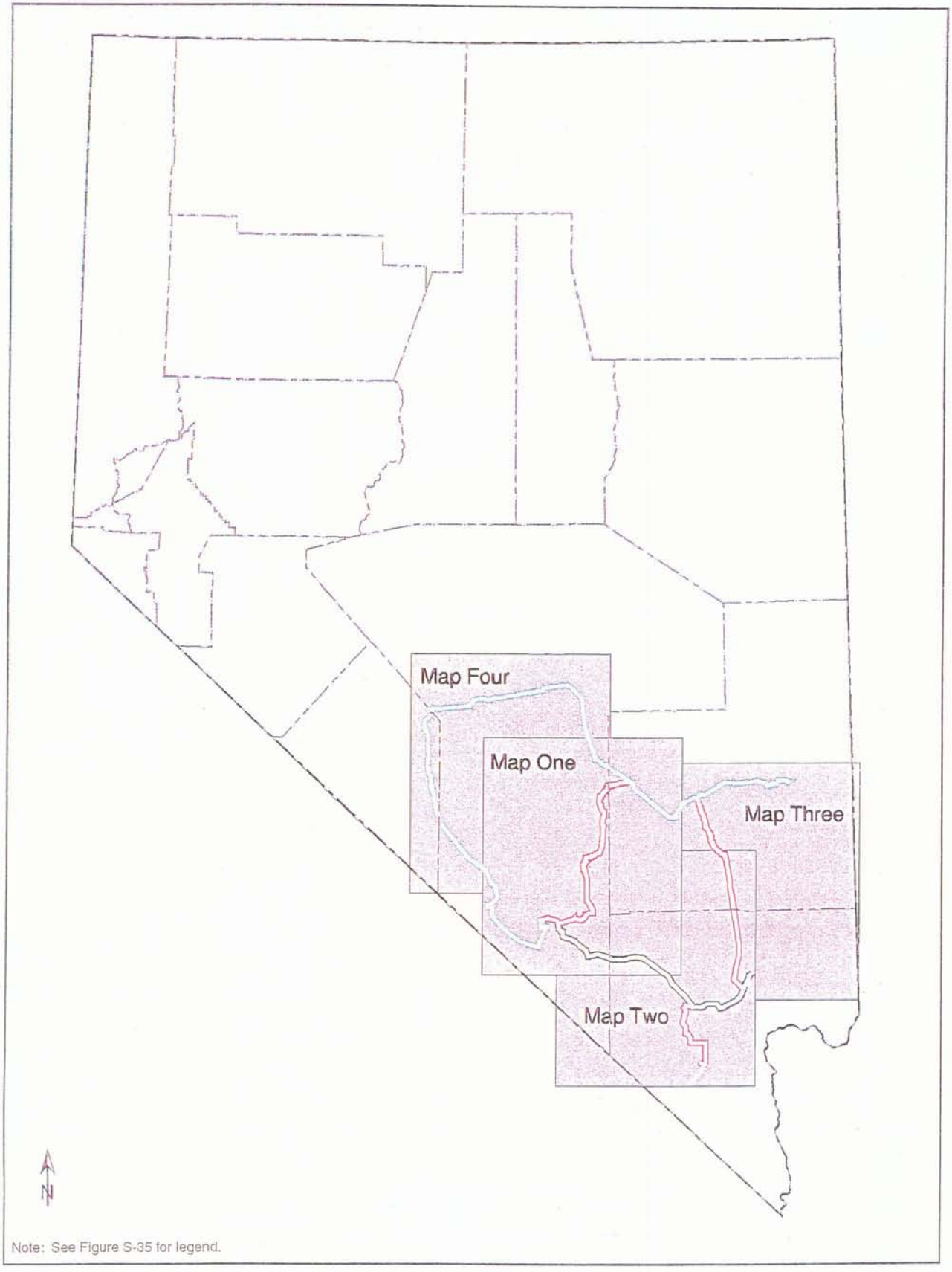
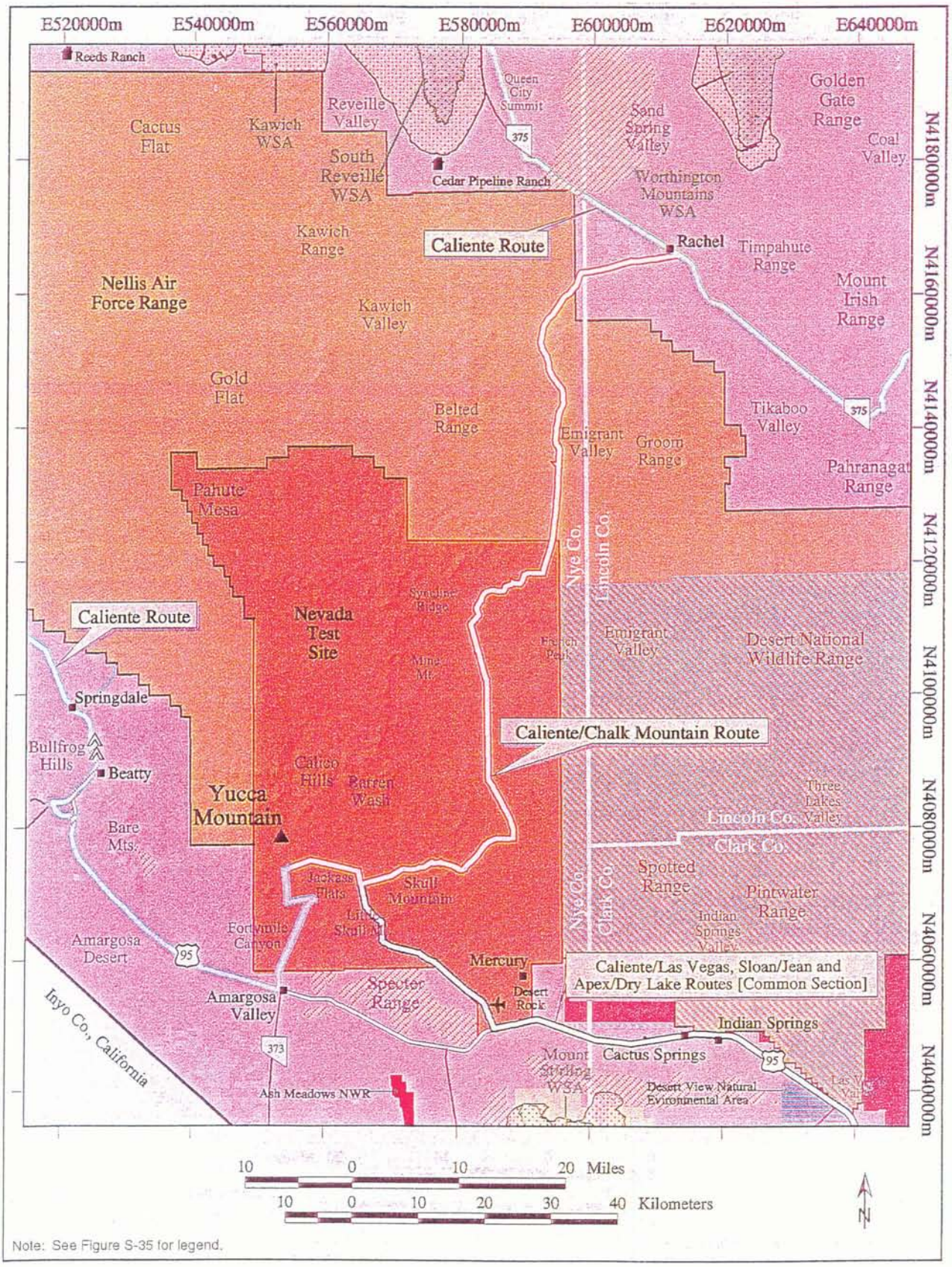
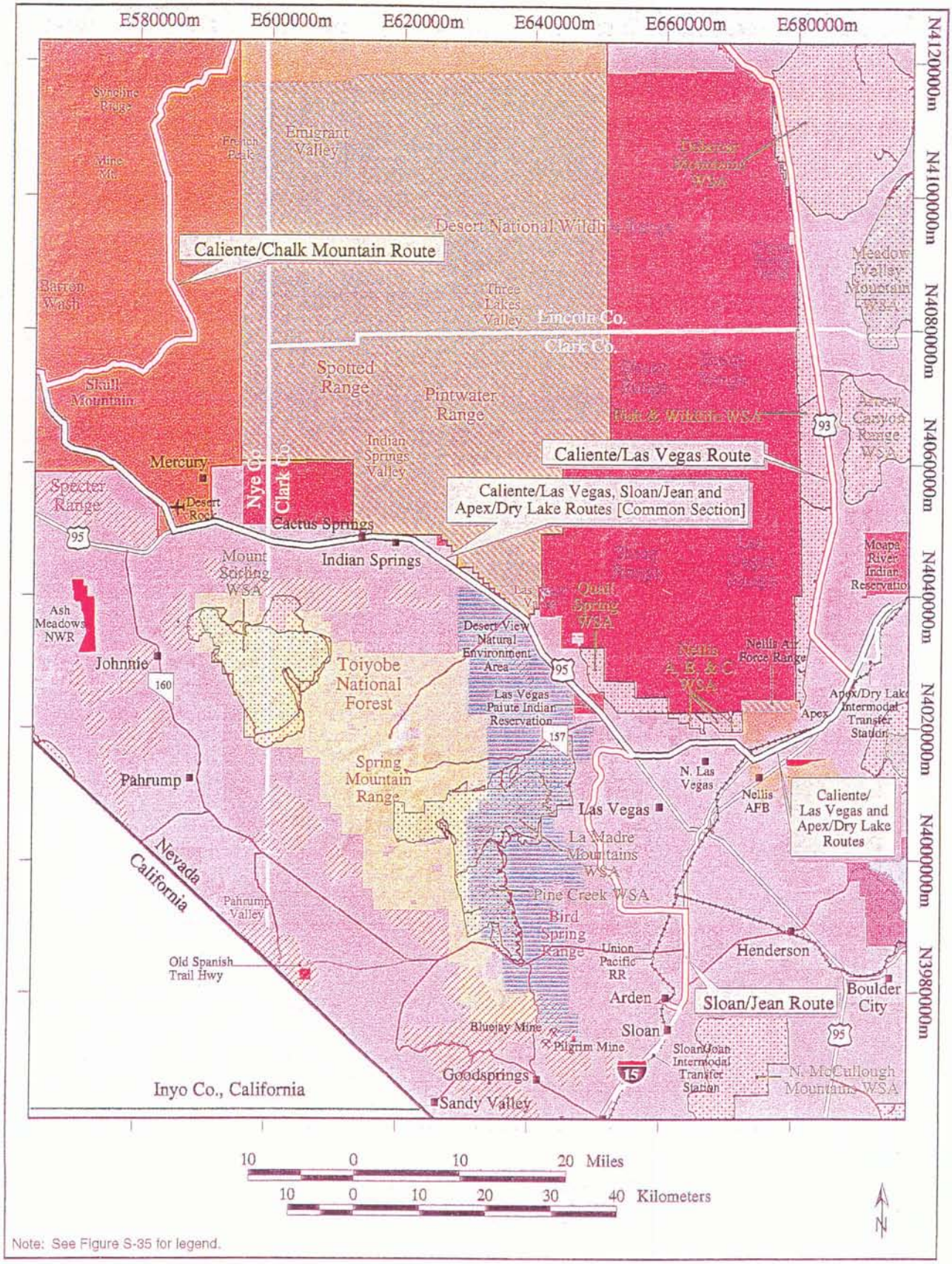


Figure S-30. Candidate heavy-haul truck routes (Index).



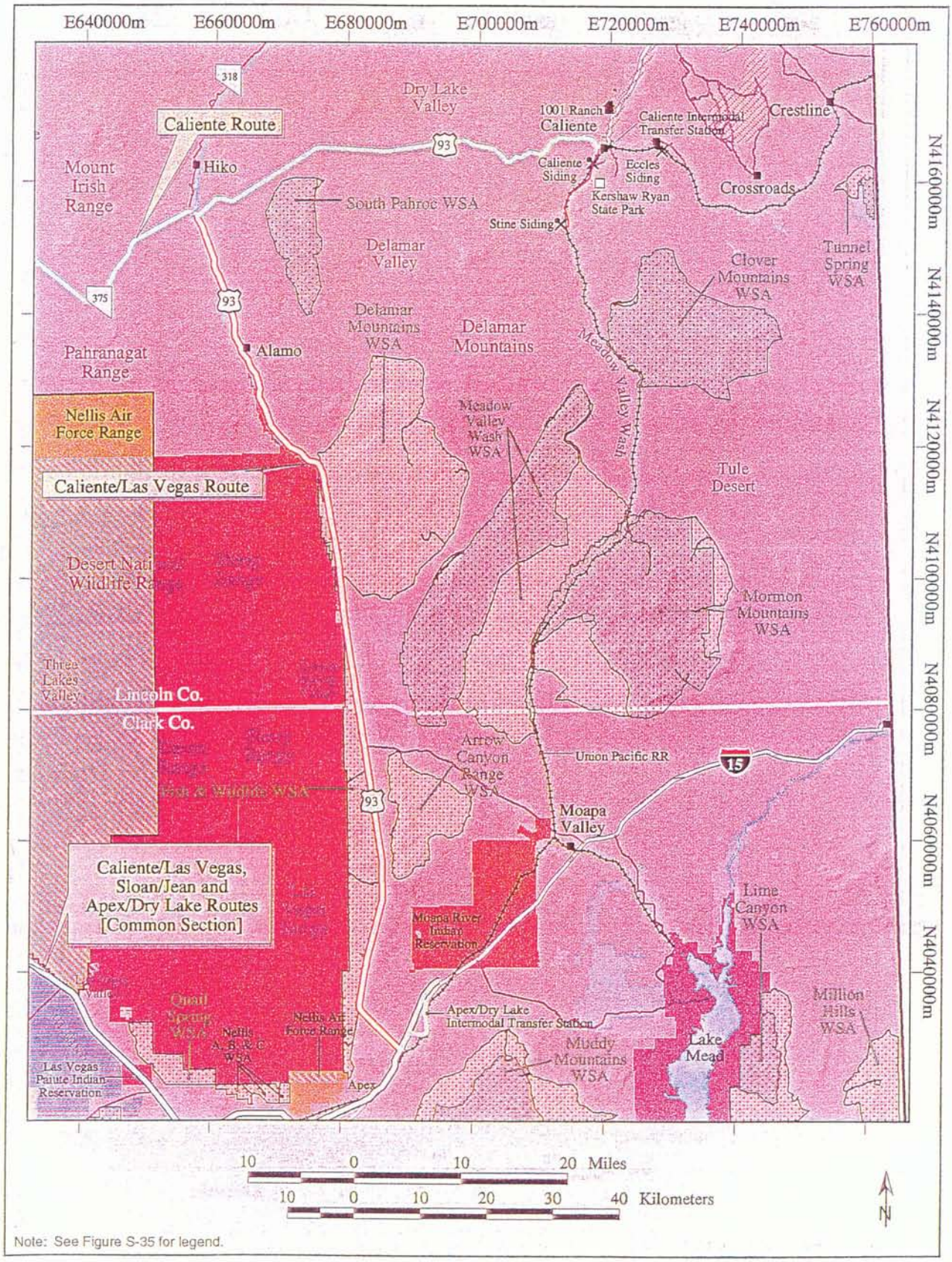
Note: See Figure S-35 for legend.

Figure S-31. Candidate heavy-haul truck routes (Map One).



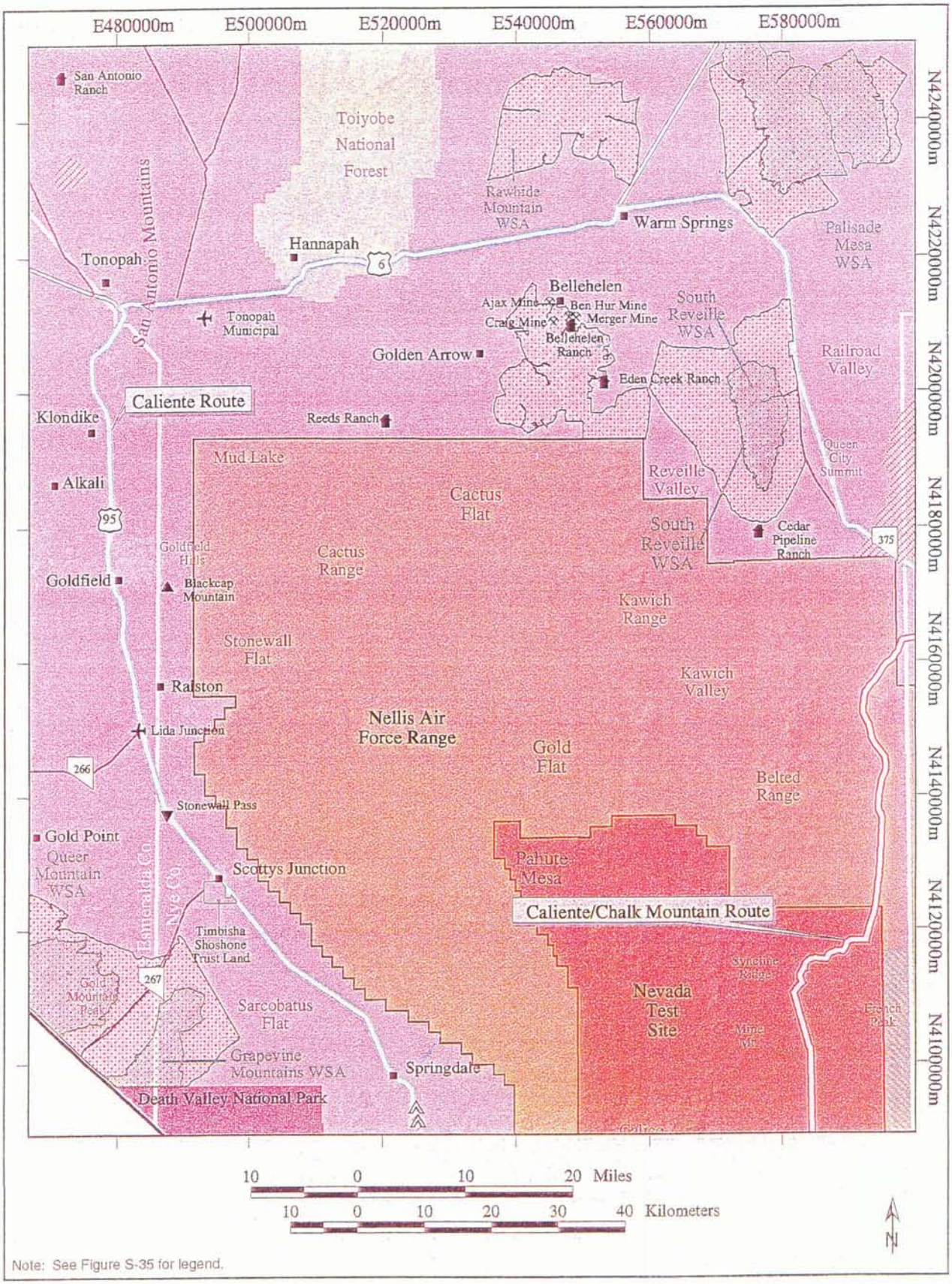
Note: See Figure S-35 for legend.

Figure S-32. Candidate heavy-haul truck routes (Map Two).



Note: See Figure S-35 for legend.

Figure S-33. Candidate heavy-haul truck routes (Map Three).



Note: See Figure S-35 for legend.

Figure S-34. Candidate heavy-haul truck routes (Map Four).

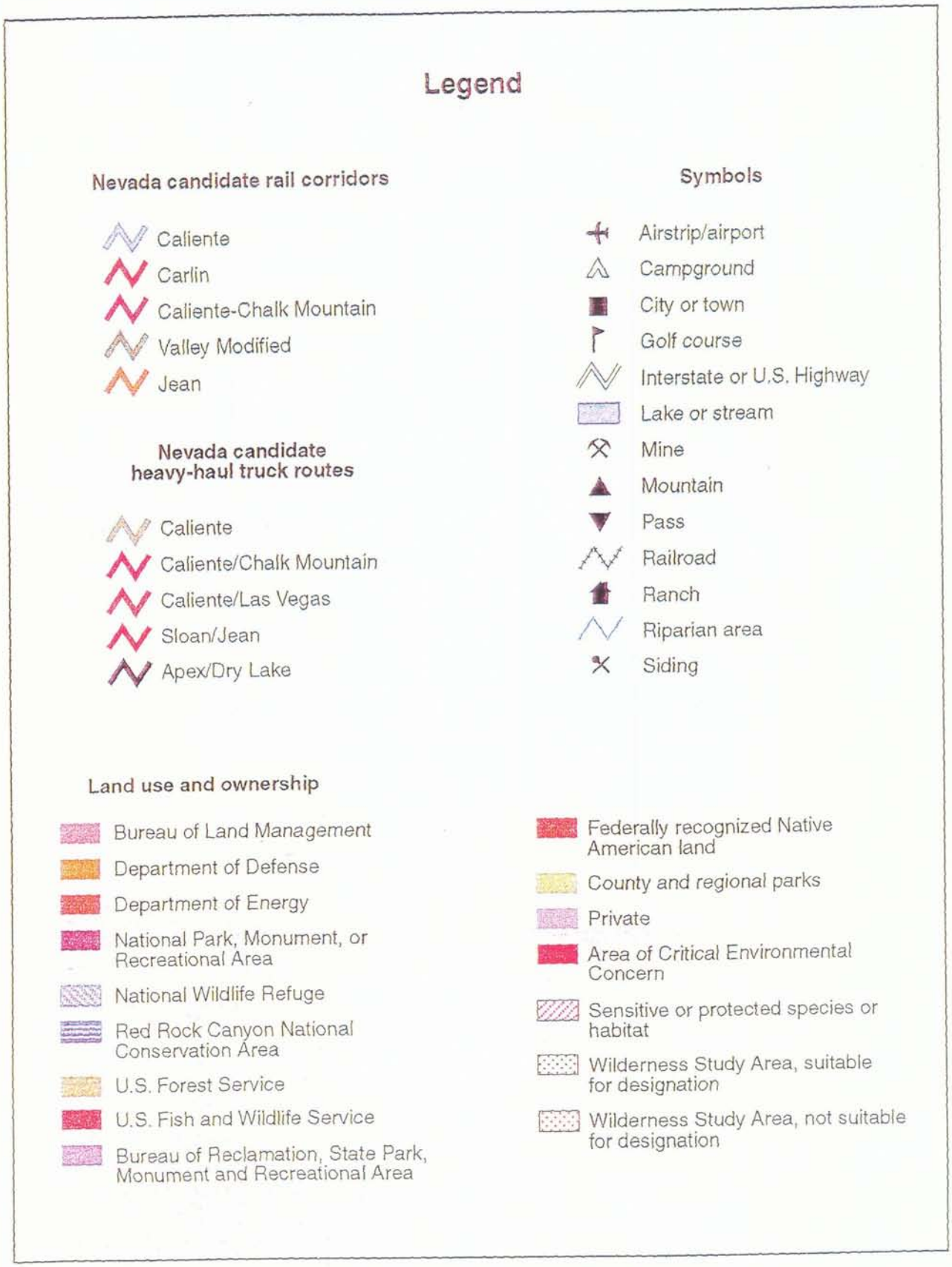


Figure S-35. Legend for candidate rail corridors and heavy-haul truck routes.