



NYE COUNTY, NEVADA COMMUNITY PROTECTION PLAN

Nye County Board of County Commissioners

Approved: August 2006



COVER PHOTO CREDITS

(clockwise from top left)

Petrack Park in the Town of Pahrump, Nye County, Nevada—photo taken by TerraSpectra Geomatics (10/26/00).

Sack race in Amargosa Valley—photo taken by M. Bauer.

Mountain Falls subdivision in Pahrump—photo taken by TerraSpectra Geomatics (10/08/00).

Ash Meadows National Wildlife Refuge in Nye County. Ash Meadows is located in the Amargosa Desert and is home to the rare desert pupfish—Nevada Division of Environmental Protection photo.

Catholic Church in Amargosa Valley—photo taken by M. Bauer.

Cinder Lite Cinder Cone Mine in Amargosa Valley.

Wildflowers in the Ash Meadows National Wildlife Refuge.

*Tonopah, the seat of Nye County—photo from *The Complete Nevada Traveler* (www.nevadaweb.com).*

Child at rodeo in Hadley/Round Mountain area—photo provided by Tinker Fannin.

Wild horses are part of the Nye County landscape—U.S. Department of Energy photograph (NF-8456).

NYE COUNTY, NEVADA
COMMUNITY PROTECTION PLAN

**Protections for
Site County Residents, Community, and Future
As the Federal Government Transfers the Nation's
Highly Radioactive Waste to Yucca Mountain**

Nye County Board of County Commissioners



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EXECUTIVE SUMMARY

The federal government's Yucca Mountain Project involves consolidation of the national inventory of high-level radioactive waste and commercial spent nuclear fuel in Nye County, Nevada. Nye County is committed to partnering with the U.S. Department of Energy to ensure that the repository program is a success in every way, that the people who work at Yucca Mountain reside in Nye County, that the businesses and industry associated with Yucca Mountain are located in Nye County; and that transportation activities are conducted with maximum safety.

This Community Protection Plan outlines ten protections which are designed to achieve the following three major objectives.

The primary Nye County objective is to ensure that the health and safety of current and future county residents are protected. In response to the U.S. Department of Energy's transport, storage, and disposal of highly radioactive waste at Yucca Mountain, Protections #1 through #3 provide for (1) institutional oversight and monitoring; (2) emergency response and related fire, police and medical services; and (3) a center for radioactive waste management research and development.

The second objective is to manage the Yucca Mountain Project to be a long-term success. Long-term success at the Yucca Mountain Project is essential for both the federal government as well as for Nye County. Anything less than long-term success is unacceptable. Protections #4 through #8 provide for (1) a consultation and cooperation partnership between Nye County and the U.S. Department of Energy, (2) management practices that involve the Yucca Mountain Project workforce living in close proximity to the site and program-associated businesses and industry being located in Nye County, (3) sufficient federally controlled land being transferred to Nye County jurisdiction to provide for sustainable community development, (4) federal government programs supporting economic development being put into place, and (5) commitment of Nuclear Waste Policy Act provisions for Payments Equal to Taxes.

The third objective is to ensure that Yucca Mountain Project transportation activities are conducted with maximum safety. Protection #9 endorses the U.S. Department of Energy commitment to rail to minimize truck traffic on the county's two-lane roads, while Protection #10 seeks to optimize how rail transportation can best benefit economic development.

Earlier versions of this Community Protection Plan are consistent with the three principal objectives contained herein. The objectives and related protections reflect the Nye County Board of County Commissioners' continued pragmatic approach to dealing with this major public policy decision in order to protect the interests of their constituents.

1. INTRODUCTION

The federal government's Yucca Mountain Project (YMP) involves the consolidation of 70,000 metric tons of the national inventory of high-level radioactive waste (HLW) and spent nuclear fuel (SNF) in a repository in a single local community—Nye County, Nevada (Figure 1). The YMP will satisfy a long-standing federal government obligation to take ownership of the waste. Communities in Nye County must be adequately protected from potential long-term radiation risk to residents down-gradient of the site. Of 3,141 counties in the 50 states, Nye County is the single local jurisdiction selected by the federal government to host the repository that will receive the nation's inventory of highly radioactive commercial and defense waste.

It is the Nye County Board of County Commissioners' view that policies and systems should be in place to help ensure that the repository program is a success in every way: that the people who work at Yucca Mountain reside in Nye County; and that the businesses and industry associated with the design, construction, and operation of the repository program are located in Nye County to the maximum extent practicable.

The Nye County Board of County Commissioners believes the project should be conducted under conditions that ensure the safety of its citizens and that provide for long-term success. This Community Protection Plan suggests that these federal interests can be better and more reliably served by a federal–local partnership that addresses local concerns as an inherent part of the federal government's obligation. The federal government should enable Nye County to ensure its own safety to the maximum extent feasible and to partner effectively with the U.S. Department of Energy (DOE) to address threats to the health, safety, and economic well-being of Nye County citizens and challenges or threats to local environment.

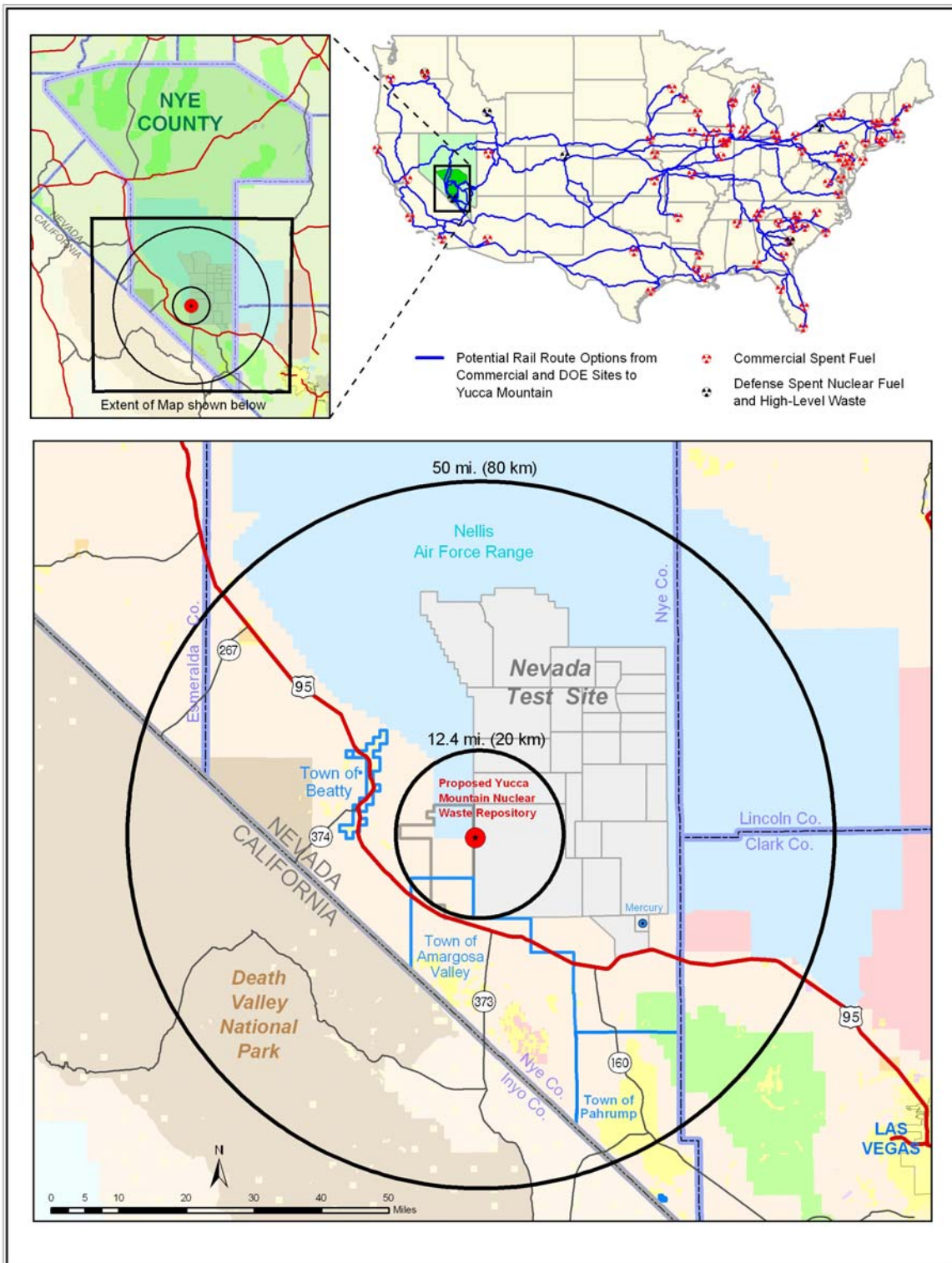


Figure 1. Yucca Mountain Site in Its Local Context

THE COMMUNITY PROTECTION PLAN HISTORY

The first draft of the Nye County Community Protection Plan was prepared in 1999, concurrent with the DOE's preparation of its recommendation to Congress for designation of the Yucca Mountain site; subsequent versions of the Community Protection Plan with minor revisions were adopted in 2000, 2001, and 2002. The Plan was a response to a Nuclear Waste Policy Act (NWPA) provision (42 USC 10134(a)(1)(H)) that the assessment of impacts by AULGs (affected units of local government) should be incorporated and considered along with the DOE recommendation of the Nye County site. The initial Community Protection Plan proposed ten "protections" that would ensure Nye County an independent and meaningful role in the implementation of the DOE program and that would ultimately minimize negative impacts from the program. The Plan was favorably reviewed by the DOE Office of Civilian Radioactive Waste Management (OCRWM), received verbal support from the OCRWM Acting Director, and was attached to the DOE Site Recommendation to the President and Congress.

In August 2002, after Congress approved the DOE Site Recommendation, the Nye County Board of County Commissioners formally resolved to actively and constructively engage with the DOE and Congress as the YMP proceeds to final design, licensing, and implementation. In this way, Nye County formally acknowledged the congressional designation of the Yucca Mountain site and recognized that implementation of the goals of the Community Protection Plan required constructive site county engagement in conjunction with congressional and DOE action.

In July 2004, the Nye County Board of County Commissioners further resolved to act to maximize the safety and successful outcome of the Yucca Mountain repository and its transportation system. This step expressed their belief that implementation of a successful repository at Yucca Mountain in Nye County will require not only resolution of uncertainties in the YMP program itself but also a committed partnership between the DOE and its YMP site county in Nevada.

AUDIENCES FOR THIS PLAN

This Community Protection Plan summarizes the Nye County Board of County Commissioners' perspective on the repository program and its impact on the future of Nye County. The Plan addresses several audiences:

- Most importantly, Nye County residents, who have lived with the prospect of receiving the nation's HLW and SNF for the past generation. During this period of time, Nye County demographics, communities, and economy have significantly changed. This Plan revision provides an ongoing basis for discussions and decisions as to how Nye County government should respond to this federal Yucca Mountain program.
- Congress, which supports the concept of waste consolidation and a Yucca Mountain repository in Nye County.
- The DOE and the Executive Branch, who are responsible for management of activities undertaken at the general direction of Congress and for providing advice to Congress on how such general policy should be effectively implemented.
- The nuclear utility industry, state utility commissions, and other state governments, who have a responsibility to be attentive to the perspectives of the local jurisdiction to which their SNF and HLW will be moved. This Plan explains that what matters for Nye County goes beyond the disposal of the waste, extending to what happens over many decades at the community to which this waste is transferred. The impact of the YMP will extend into perpetuity.
- Nevada State government and other Nevada counties, with whom Nye County shares fundamental equity and safety concerns, but with whom Nye County expects to share distinctive site county perspectives.
- Citizens of the 35 states from Maine to Florida, Minnesota, and California, whose concerns about the storage of SNF and the effects of such storage on the economic future of their communities will be resolved by removing these wastes from their own community to another—Nye County, Nevada.

2. NYE COUNTY OBJECTIVES AND PROPOSED PROTECTIONS

This chapter discusses the following Nye County’s objectives to (A) protect health, safety, and the environment, (B) manage for long-term YMP success, and; (C) implement a nuclear waste transportation safety strategy within Nevada. It includes a detailed discussion of ten actions (protections herein) to accomplish those objectives and provides implementation actions for each of the following responsible entities: (1) legislative actions by Congress; (2) program actions by DOE; and (3) site county actions by Nye County government.

OBJECTIVE A: PROTECT HEALTH, SAFETY, AND THE ENVIRONMENT

The primary Nye County objective is to ensure the health and safety of current and future residents affected by DOE activities to transport, store, and dispose of highly radioactive waste at Yucca Mountain—and to provide this assurance, to the maximum extent feasible, in conjunction with the authority of the site local government, rather than by exclusive reliance on the federal government or its contractors.

PROTECTION #1. INSTITUTIONAL OVERSIGHT AND MONITORING

The activities of oversight and monitoring are different in nature, but complimentary in practice, and are so treated by the NWPA in Section 116(c)(1)(B). “Oversight” involves predecisional review and comment on DOE policy regarding YMP-related transportation, waste handling, storage, and/or emplacement. “Monitoring” involves the assessment of local conditions that could be affected by the YMP and assessment and reporting of actual or potential impacts on those conditions.

Policy Oversight. Revision of the NWPA should include funding provisions for Nye County’s participation in oversight of the program and performance confirmation for the life of an interim or permanent storage facility. Nye County oversight, including onsite representation, should extend to all DOE activities (transportation, waste handling, storage, emplacement and monitoring) associated with the Yucca Mountain proposals, and to the cumulative effects of other DOE activity (past and ongoing) in Nye County. The costs of such oversight should be guaranteed through an endowment or trust established at the time of licensing.

Rationale. The Nye County Board of Commissioners has the duty to protect the health, safety, and welfare of current and future Nye County residents and visitors. No other entity has this specific duty. Oversight of the DOE's YMP policy, now and for the indefinite future, will be a core duty of the Nye County Board of County Commissioners. Nye County does not have an adequate revenue base to support a vigorous oversight program without DOE funding an equitable share. Federal funding is required, as Congress has recognized and intended in the NWPA. This funding should include oversight of the cumulative effects of other DOE activity in Nye County (past and ongoing). The purposes of oversight are to:

- Monitor evolving federal policy regarding the YMP and ensure that Nye County citizens are informed of policy decisions and the effects of those decisions on citizens and the environment.
- Give Nye County the opportunity to provide predecisional input on all aspects of future DOE activity in Nye County.
- Provide DOE and the federal government with input from the community's perspective.

Independent Monitoring. Exercising its on-site representative authority through its Independent Science Investigation Program and Early Warning Drilling Program, Nye County has established and demonstrated its capacity to conduct professional, independent monitoring of the YMP. As the YMP proceeds, independent monitoring conducted by Nye County must be expanded and focused on the DOE performance confirmation program. Activities will include environmental monitoring of potentially affected natural media, both onsite and offsite. Similarly, socioeconomic monitoring of the project's economic and demographic effects in Nye County must continue. Monitoring data may be collected by the DOE or by Nye County, as appropriate, but in either case such data must be shared for review and assessment. Nye County will independently assess monitoring data using its own staff and/or contractors (including universities, institutes, and private firms), as it finds effective and appropriate. Nye County's monitoring program will be appropriately staffed and headquartered wholly within Nye County.

Rationale. During program implementation, the U.S. Nuclear Regulatory Commission (NRC) will require the DOE to collect data for use in assessment and confirmation of repository performance in isolating highly radioactive waste. However, NRC requirements do not apply to other important aspects of the federal waste management program (e.g., transportation, local economic effects, and cumulative effects of DOE activity). Furthermore, monitoring work by Nye County has been proven effective and efficient and provides a useful component to be retained and developed. Nye County must not be forced to rely solely on federal agencies for the collection and assessment of performance monitoring data. Therefore:

- Onsite representation authority and funding for Nye County should be extended through YMP implementation and closure.

- Nye County should be provided with reliable funding to conduct monitoring of environmental, health, transportation, and socioeconomic effects.
- Data collection efforts should be coordinated with those of the relevant federal and state agencies.
- Evaluation of the monitoring data should be independently conducted and the findings and conclusions should be addressed within the oversight process.

Implementing Protection #1:

Legislative Actions (Congress):

- Authorize continued Nye County oversight of DOE Yucca Mountain policy and monitor the effects of DOE activities at Yucca Mountain to ensure the long-term health, safety, and welfare of Nye County residents.
- Revise verbiage in Section 116c of the NWPA to grant explicit site county authority to accomplish oversight and monitoring of ongoing Yucca Mountain licensing, construction, transportation, storage, operations, closure, and postclosure periods.
- Amend the NWPA to allow appropriation of Nuclear Waste Trust Funds for Nye County oversight and monitoring of the YMP, and implementation of the provisions herein.

Program Actions (DOE):

- Adhere to the original intent of NWPA Section 116c which states that Nye County should have the opportunity and authority to independently review DOE's YMP policy, to assess the local effects of such policies, recommend and report on impacts, have assurance that such recommendations are seriously considered, and provide information to its own citizens in processes determined by Nye County.
- Coordinate DOE policy actions and performance confirmation activities in a manner that compliments Nye County's oversight and monitoring processes.

Nye County Actions:

- Continue to conduct independent oversight of DOE's YMP policy and conduct independent monitoring of the effects of DOE activities on the health, safety, and welfare of Nye County residents.
- Include facilities for local oversight, monitoring, and related activities in DOE and contractor development plans for the YMP entrance area at Lathrop Wells.

PROTECTION #2. EMERGENCY RESPONSE AND RELATED FIRE, POLICE, AND MEDICAL SERVICES

Provide full Nye County authority and capacity for YMP-related emergency preparedness, response, and medical services, ensuring that such services are provided to the maximum appropriate degree by local agencies and local residents.

Rationale. Radioactive waste shipments from 80 sites will converge in Nye County where waste will be handled, stored, emplaced, and potentially retrieved for further handling and treatment. The ability to prevent accidents (radiological or nonradiological) and to respond effectively to any accidents that may occur is a key concern of Nye County residents. Current capabilities for emergency response and related services are insufficient given the scale and complexity of prospective DOE activity at the YMP and the potential consequences (direct and indirect) of accidents that could occur.

Rather than relying exclusively on federal agencies and/or their contractors, emergency response and related fire/rescue, police/security, and medical/health services should be provided, to the maximum extent possible, through Nye County's local government. In this capacity, Nye County would employ fully trained and equipped staff who have a personal as well as professional commitment to Nye County communities.

Implementing Protection #2:

Legislative Actions (Congress):

- None, assuming successful program action.

Program Actions (DOE):

- Support the development of integrated federal–local emergency response and related services at the YMP, in the surrounding offsite vicinity, and along the transportation corridor.
- Enter into agreements with Nye County to provide specified emergency and related services at the Yucca Mountain site and in the surrounding offsite vicinity. The agreement should be performance-based and extendable until such time as local revenue base is adequate to support highly effective, professional emergency services.
- Assist Nye County in upgrading and staffing its fire departments to comply with National Fire Protection Association (NFPA) 1720 standards in communities affected by rail or truck shipment of highly radioactive waste.

Nye County Actions:

- Provide the management structure required to deliver integrated emergency response and related services at the YMP and its offsite vicinity.
- Provide agreement-specified emergency services at the Yucca Mountain site and in its off-site vicinity. Meet DOE requirements and meet or exceed its performance criteria.
- Coordinate with DOE regarding emergency services related to (currently unspecified) transportation modes, routes, and operations in the destination county.
- Provide interoperable communications for all emergency response entities and public safety-related services.

PROTECTION #3. A DOE CENTER FOR RADIOACTIVE MATERIAL RESEARCH AND DEVELOPMENT

The Nye County Board of County Commissioners believes that federal programs for performance confirmation and for radioactive material research and development should be managed from facilities located in Nye County in the immediate vicinity of the repository.

Should the DOE receive licenses to construct and operate a repository or other facilities at Yucca Mountain, it will be required to conduct activities to determine and confirm the postclosure performance of the repository. The DOE expects to confirm that the engineered and geologic system performance will contain radioactivity as predicted. The DOE has also initiated a waste management science/technology program to investigate patterns of material corrosion, natural system processes, radionuclide release mechanisms, and in-package or in-drift radionuclide absorbers or adsorbers. The program should be extended to consider:

- Advanced waste package materials and fabrication
- Advanced remote material handling and robotic technologies
- Advanced tunneling technologies
- Waste reduction technologies
- Contaminated materials recycling
- Human factors in HLW transportation and management.

Rationale. YMP performance confirmation programs should be conducted from a center located in Nye County rather than exclusively at locations that are remote from the site. Expert contributions could continue being conducted in laboratories and universities across the nation as well as in a Nye County-based Center of Excellence.

In its 2003 report, “One Step at a Time,” the National Research Council of the National Academy of Science describes the interrelated processes of scientific and technical inquiry, monitoring and assessment, project operations and application, and organizational learning and

performance that should be based in the YMP area as being at long-term risk. The National Academy of Science develops the concept of “adaptive staging” as the project management approach needed for a successful repository program. It defines “success” in a program that is highly complex, long term, first of its kind, and responding to stringent criteria for performance in a context involving elevated perception of risk and limited trust in the responsible federal agencies. In such contexts, the National Academy of Science recommends that the program should proceed from one staged “decision point” (rather than “milestone”) to the next.

Implementation and operations should focus on the engineering, monitoring, targeted research, and stakeholder interactions needed to inform program adaptations and improvements to be considered at the upcoming decision point. The aforementioned 2003 National Academy of Science report notes that in order to maintain organizational performance over decades, adaptive staging may require cultural and organizational changes as well as technical adjustments and reconsiderations. Protection #3 is one of several actions needed to make this strongly recommended management approach a concrete reality at YMP.

Implementing Protection #3:

Legislative Actions (Congress):

- Mandate that activities to confirm repository performance and to conduct related science and development should be headquartered in the site county throughout the anticipated 50 to 300 years of operation.
- Appropriate funds for the requisite facilities construction and operations.
- Authorize a national program for the integrated demonstration of emerging technologies in spent fuel recycling, Generation IV nuclear power, and hydrogen fuel production and use. Base this program in Nye County at DOE-operated facilities.
- Appropriate funds for the development, implementation, and maintenance of these integrated demonstration programs.

Program Actions (DOE):

- Coordinate federally funded science research related to (1) repository performance confirmation and related science and development and (2) integrated demonstration of emerging technologies.
- Coordinate DOE-conducted repository performance confirmation with independent monitoring and assessment by Nye County.

Nye County Actions:

- Provide sites at the Yucca Mountain repository entrance area for federal facilities to engage in performance confirmation research and assessment, repository-related science and development, and integrated applications of emerging technologies.
- Coordinate independent Nye County monitoring with federally funded science, as appropriate.

OBJECTIVE B: MANAGE THE YMP FOR LONG-TERM SUCCESS

The second objective of Nye County involves the fact that long-term success at the YMP is essential for both the federal government and the DOE as well as for the site county. Anything less than long-term success is unacceptable.

Nye County suggests that long-term success at YMP requires at least the following:

- Responsive, reliable performance—shift-by-shift, week-by-week—over decades.
- A safety-oriented organizational culture committed to continued scrutiny and improvement of waste management at Yucca Mountain—the “adaptive staging” management approach advocated by the National Academy of Science and the NRC.
- The commitment of managers, scientists, and operators to live and contribute to the community.

PROTECTION #4. DOE CONSULTATION AND COOPERATION PARTNERSHIP WITH THE SITE COUNTY

Establish a “consultation and cooperation” partnership relationship between the DOE and Nye County. Actively maintain this relationship throughout construction, operations, and performance confirmation. The DOE should act on the insight that it is Nye County with which it shares the most tangible interest in the program’s long-term success.

Rationale. In Section 117, the NWPA outlines the key features of a program for consultation and cooperation with a host state or tribe. However, with the exception of its subsection regarding designation of an onsite representative, the key elements of Section 117 (e.g., the provision of information, consultation and cooperation, written agreements, etc.) have not been extended to Nye County.

During the earlier YMP phase of site characterization, Nye County initiated and negotiated protocols for interaction with the DOE, signed by the Secretary of Energy and the members of the Nye County Commission. However, implementation processes were not fully institutionalized, and the protocols did not anticipate the types of federal–local partnership required in YMP construction and operations. After congressional designation in 2002, Nye County, in the interest of long-term YMP success, resolved to engage “energetically and constructively” with the DOE as development of the YMP proceeds. Nye County made an even more assertive resolution in 2004, which provided more specific measures as to how it would “fully, constructively and energetically” engage in the repository development process.

Understanding that partnership with Nye County is necessary for long-term YMP success, and understanding that long-term success requires a community focus and commitment that can be provided only by Nye County, Congress should make the site county eligible to negotiate enforceable consultation and cooperation agreements with the DOE under NWPA Section 117.

Implementing Protection #4:

Legislative Actions (Congress):

- Amend NWPA Section 117 to require the DOE to enter into a consultation and cooperation partnership agreement with its site county in Nevada.
- Clarify that the purpose of such consultation and cooperation is to require an active federal–local partnership that will make such a repository, once sited, a long-term success.

Program Actions (DOE):

- Enter into a consultation and cooperation partnership agreement with Nye County.
- Manage its workforce and procurement actions to achieve integrated focus on performance, learning, and community goals. Create a community of DOE professionals and their families dedicated to achieving these goals in southern Nye County.
- Partner with Nye County in initiatives that combine local and federal resources in ways that achieve long-term success at YMP.

Nye County Actions:

- Enter into a consultation and cooperation partnership agreement with the DOE.
- Follow through on Nye County resolutions 2002-22 and 2004-25, stating Nye County’s intent to “engage energetically and constructively” with the DOE and Congress as the YMP proceeds to final design, licensing, and implementation.

- Expect and require constructive engagement by the DOE, the Administration, and Congress in addressing issues in ways that both ensure long-term success and address the concerns and aspirations of Nye County.

PROTECTION #5. REVISE U.S. DEPARTMENT OF ENERGY MANAGEMENT PRACTICES IN NEVADA

As part of its efforts to ensure long-term program success, the DOE should systematically integrate its YMP workers’ place of residence with place of work, program management, procurement, and administration with program operations and trades, ongoing scientific inquiry with science applications, and ongoing training and learning with practice. The geographic locus of this integration should be Nye County.

Rationale. DOE historical management practices for its field operations in Nye County focused on the specifications of contractor requirements. Selected contractors then engaged with the local community to meet requirements in whatever manner was most expeditious and cost-effective for the contractor. Nye County’s population was insufficient to support the historical levels of effort necessary for the DOE and the U.S. Department of Defense activities within the county.

Taken in combination, DOE’s management practices can affect its ability to (1) recruit and maintain the required highly qualified workforce, (2) provide both the necessary general and highly specific training, (3) reduce the cost and impact of commuting on job productivity, (4) instill a sense of community purpose and mission, and (5) retain a workforce committed to reliable performance and ongoing learning and improvement. A more comprehensive view than the traditional DOE field operations approach would benefit exponentially if it results in improvements in the DOE’s ability to recruit, train, and retain, or if it contributes to productivity, reliable performance, and sense of joint mission. It is likely that the returns of Protection #5 will be dramatic and crucial to long-term success.

Implementing Protection #5:

Legislative Actions (Congress):

- Convey to Nye County, federally controlled lands within the county for support of the YMP.
- Mandate that the historical patterns for management of DOE activity in Nevada are not appropriate to the YMP and direct that Nye County be a greater beneficiary of any community and economic development associated with the YMP.
- Mandate that the quality of YMP infrastructure in Nye County be made equivalent to those in communities established under the Atomic Energy Community Act.

- Authorize performance award incentives for sourcing the full range of appropriate YMP implementation and support facilities (waste-package, fleet management, command and control, construction, etc.) in Nye County.

Program Actions (DOE):

- Phase the transition of DOE's project management from Summerlin in west Las Vegas to a location in the area down-gradient from Yucca Mountain.
- Provide incentives for DOE and its contractor employees to live in Nye County communities.
- Provide incentives for YMP contractors to establish their management and operations centers in Nye County.
- Direct that YMP-related education and training activity be carried out in facilities and institutions in Nye County.

Nye County Actions:

- Identify and pursue conveyance of federally controlled land within the county sufficient to meet the county's Community Protection Plan goals and objectives.
- Participate in the planning and implementation of the aforementioned legislative and program actions.
- Ensure that appropriately managed land is available for development of selected DOE and contractor facilities.
- In accordance with applicable provisions of Nevada Revised Statutes, prepare local land-use plans that promote the development of attractive communities with high-quality infrastructure and services.

PROTECTION #6. TRANSFER LAND FOR SUSTAINABLE COMMUNITY DEVELOPMENT

To provide a resource for effective partnership with DOE, Congress should convey to Nye County not less than 2 percent of its vast acreage of federally managed land (most of which is already designated for public disposal). This action would double (from about 2 percent of the county's total land area to 4 percent) the amount of land available for sustainable community development. The land, which would include the conveyance suggested in Protection #5, should be identified in consultation with the Nye County Board of Commissioners and should be conveyed prior to or concurrent with the withdrawal of public land for exclusive use of the repository operations.

Rationale. The DOE's interest in YMP workforce recruitment and retention, workforce productivity and reliable performance, and ongoing application of new science and technology require it to partner with Nye County in new ways. Effective partnership requires resources on both sides. Of the 11.2 million acres of Nye County land managed by federal agencies (96.5 percent of the county's total land area, exclusive of the prospective YMP land withdrawal), those 11.2 million acres produce only 1.4 percent of local government revenues in Nye County. Rather than request non-program appropriations in addition to Payments Equal to Taxes (PETT), Nye County suggests the conveyance of land already designated for public disposal to Nye County for use in developing its revenue base and its capacity to partner effectively with the DOE in YMP-related development.

Implementing Protection #6:

Legislative Actions (Congress):

- Designate the conveyance of federal lands designated appropriate for disposal to Nye County, as a resource for long-term development of Nye County's economic and revenue base, waiving the usual fees.
- Appropriate funds necessary for the Bureau of Land Management to convey the land for Nye County to receive and manage those lands for local purposes.

Program Actions (DOE):

- None.

Nye County Actions:

- Establish the capacity to receive and manage the conveyed lands for use as a resource for long-term development of the economic and revenue base in Nye County.
- In cooperation with the Bureau of Land Management, expeditiously convey the land using congressionally appropriated funds.

PROTECTION #7. PROVIDE TOOLS FOR EFFECTIVE PARTNERSHIP

To provide Nye County with tools needed for effective partnership with a major federal agency, Congress should authorize Nye County to participate in the existing Empowerment Zone/Enterprise Community Program, notwithstanding normally applicable program requirements.

Rationale. The land conveyance advocated in Protections #5 and #6 would provide a resource for long-term development of the local revenue base. Given the special needs of the YMP site county, the success of the land conveyance would be enhanced by making Nye County eligible

for the economic development tools available under the federal Empowerment Zone/Enterprise Community Program.

Implementing Protection #7:

Legislative Actions (Congress):

- Direct Nye County's inclusion in the Empowerment Zone/Enterprise Community Program sponsored by the U.S. Department of Housing and Urban Development and the U.S. Department of Agriculture, notwithstanding normally applicable program requirements.

Program Actions (DOE):

- Coordinate with Nye County's program for long-term development of the county's economic and revenue base, particularly regarding investments in Nye County by DOE agencies and/or contractors.

Nye County Actions:

- Continue developing capacity to manage the lands conveyed under Protections #5 and #6 and provide professional management of a coordinated public-private local development strategy.

PROTECTION #8. RETAIN PETT: PAYMENTS EQUAL TO TAXES

In adherence to the intent of NWPA Section 116(c)(3), the YMP should continue to make payments equal to state and local taxes that would be levied if the DOE were a private entity using privately owned land. The congressional intent regarding PETT was clear and appropriate in 1982. It now seems particularly relevant to Nye County since 20 years later Congress has designated a site in a county whose land area includes 11.2 million acres of federally managed land, an area of land which has made meager contribution to the local revenue base or service systems through the Payment In Lieu of Taxes.

Rationale. In the PETT provision of the NWPA, Congress expressed its intent that the federal program to manage and dispose of commercial SNF should pay state and local taxes as would a private entity. Congress was fully aware in 1982 that the commercial nuclear plants that generate spent fuel often provide 50 to 75 percent of the revenue base in their host local communities. It is not clear that Congress anticipated in 1982 that the site it would designate two decades later would be a county in which federally controlled land comprises 96.5 percent of its land area (exclusive of the prospective YMP land withdrawal) and pays only 1.4 percent of the cost of local government.

Like many other aspects of the YMP, the PETT provision of the NWPA has often been mired in politics to the point that the original Congressional intent is often obscured. This intent, however, remains clear: while Congress did not intend the NWPA to resolve the many issues regarding

how the 96.5 percent of Nye County land contributes to the cost of local government facilities and services, it did intend that the site designated to receive the nation's commercial spent fuel should make payments equal to the state and local taxes that would be paid if it were a private commercial company rather than a federal entity.

Implementing Protection #8:

Legislative Actions (Congress):

- Reiterate the intent of Congress that Section 116(c)(3) of the NWPA of 1982 requires the DOE to make payments equal to the state and local taxes that would be levied if the repository involved non-federal property and activity—i.e., that the PETT provision of the NWPA is a grant and remains in force.
- Reiterate the intent of Congress that the distribution of the PETT grants shall be consistent with the distribution of the taxes that would be levied if the repository involved non-federal property and activity (i.e., that state government action to manipulate the distribution is contrary to the intent of Congress).

Program Actions (DOE):

- Adhere to the intent of the PETT provision of the NWPA, i.e., the YMP should pay the same state and local taxes as it would if it were a commercial company.

Nye County Actions:

- Cooperate with the State of Nevada in determining the basis for calculating PETT during YMP construction and operations.
- Use PETT grant funds to support programs that improve local facility and service systems in Nye County.

OBJECTIVE C: TRANSPORT SAFETY AND STRATEGY WITHIN NEVADA

The third objective of Nye County is to ensure that YMP transportation activities are conducted with maximum safety in Nye County. Activities include radioactive waste shipments from 80 sites in 35 states, as well as nearly continuous shipments of the equipment and materials required to undertake this massive construction project. In the design and operation of YMP-related transportation systems, the federal government should encourage (not preempt) their application in a multidimensional strategy for sustainable economic development in central Nevada.

PROTECTION #9. PROVIDE RAIL ACCESS AND USE IT EFFECTIVELY

The DOE should:

- Provide rail access to the YMP and spurs to YMP support areas (Crater Flat and the Gate 510 development area) for use in construction and startup operations, as well as long-term operations as soon as possible.
- Use rail shipment to the maximum extent possible for transport of highly radioactive waste to Yucca Mountain.
- Minimize the shipment of highly radioactive waste (or other disruptive shipments) on two-lane highways in Nye County.

Rationale: Two high-volume, highly funneled prospective shipment campaigns for disposal of radioactive waste converge in Nye County: (1) the DOE/OCRWM program for the transport of commercial spent fuel and high-level defense waste and (2) the DOE/Emergency Management program for cleanup of defense sites by shipment of low-level radioactive waste (LLW) to the Nevada Test Site for disposal. For each campaign, the DOE and Congress have selected disposal sites in a county whose communities are primarily served by two-lane rural highways—roads inherently less safe for such shipments than interstate highways or mainline railroads. The consequence of these decisions is a dramatic shift of risks to the receiving community.

Implementing Protection #9:

Legislative Actions (Congress):

- Require the DOE to remove shipments of HLW and SNF from the nation's public highways (interstate highways and those within Nevada and Nye County) to the greatest extent possible.
- Require the DOE to use robust rail casks with dual or multipurpose canisters to the maximum reasonable degree for shipment of HLW and SNF to Yucca Mountain.
- Appropriate funds for the early provision of rail access within Nye County.

Program Actions (DOE):

- Prepare a plan that meets the above criteria for the transportation of the nation's HLW and SNF in Nye County for waste shipments. Include the perspective of the Nye County local government. Address options that would ensure effective shared use of the rail line and avoid disruption of traditional ranching and mining operations.

Nye County Actions:

- Engage constructively in development of a 40-year transportation campaign.

PROTECTION #10. RAIL AS A COMPONENT IN AN INTEGRATED DEVELOPMENT STRATEGY

Having ensured the provision of rail access, the federal government should encourage the application of rail transport as a component of a multidimensional strategy for sustainable economic development in central Nevada. The infrastructure components of such a strategy may include:

- Routing and alignment adjustments to improve access to known resources benefiting from rail transport.
- Planning for auxiliary rail lines providing access to potential rail users.

- Consideration of ownership and operations arrangements that provide central Nevada governments with a permanent stake in the rail system.
- Coordination of rail, road, communication systems, and airport infrastructure investments.
- Transition shipment of LLW to the Nevada Test Site, from trucks routed along virtually every two-lane road in central Nevada, to rail.

Given the above, the strategy should be broadened to consider:

- How improved transport systems in central Nevada, in combination with improved communications and community service systems, could improve economic opportunity and quality of life in central Nevada in the 21st century.
- How the rail investment required to transport the nation's highly radioactive waste to Yucca Mountain might be leveraged to enhance the flow of commerce in the western United States.

Rationale. Congress designated Yucca Mountain as the single site in which it would dispose of the nation's highly radioactive waste, understanding fully that this site lacks rail access and that the provision of rail access to this site would be complicated by burgeoning metropolitan development in the Las Vegas Valley and by the huge tracts of land in central Nevada already withdrawn for other special federal purposes. Having made the commitment to provide rail access for shipment to Yucca Mountain, the federal government should consider the application of its rail investment as a component of an integrated strategy for coordinated community development in central Nevada. Over recent decades, Nevada's two widely separated metropolitan areas (Las Vegas and Reno) have grown dramatically, increasingly dominating the state economically and politically. Meanwhile, Nevada's historically important mining and ranching economies have dwindled, stranding the expanse of central Nevada whose communities often compete in self-defeating ways for limited economic opportunity. By offering its rail investment as a component of an integrated strategy for economic development in central Nevada, the federal government would contribute to the local and surrounding vicinity economic options, rather than spending taxpayer money for the sole purpose of transferring highly radioactive waste. In the process, it could free the DOE to base decisions regarding the location of key YMP support facilities on best business practice principles.

Implementing Protection #10:

Legislative Actions (Congress):

- Establish an interagency committee to provide recommendations to Congress on opportunities for enhancing the benefits of rail transport by integrating federal and local uses. Federal agencies should include the U.S. Department(s) of Transportation and Commerce as well as the DOE. State and local representatives should include the State of Nevada, Nye County, the Nevada Rural Development Council, and the Western

Governors Association. Other representatives may include the American Association of Railroads and western rail freight interests.

Program Actions (DOE):

- Fund the development of an integrated plan for transport of all DOE radioactive waste in the state. The plan should address stakeholder concerns, including the unique perspective of the destination local government, separate and distinct from that of other parties.
- Establish the primary entrance to the YMP at the Gate 510 road in Lathrop Wells and participate with Nye County in a development strategy in that immediate area.

Nye County Actions:

- Engage in development and implementation of a plan that includes rail access as part of a strategy for addressing long-term regional rail freight transport needs as an element of an integrated plan for enhanced communities and sustainable economic development in central Nevada.

ACRONYMS AND GLOSSARY

AULG: Affected Unit of Local Government. After the NWPA amendments of 1987, in response to a legal challenge by Esmeralda County, the DOE designated all nine counties bordering Nye County as AULG under the NWPA. See NWPA Section 116(c)(1)(B).

DOE/OCRWM: The U.S. Department of Energy Office of Civilian Radioactive Waste Management. Headquartered in Washington, D.C., DOE/OCRWM was created by the NWPA to address the long-standing federal commitment to dispose of spent fuel generated at commercial nuclear reactors. Shortly after enactment of the NWPA, the Reagan Administration decided to dispose of high-level defense waste as well as commercial spent fuel in the same geologic repositories.

DOE/ORD: U.S. Department of Energy Office of Repository Development. Established after Congress approved the DOE recommendation of the Yucca site in July 2002, DOE/ORD was the successor to the U.S. Department of Energy Yucca Mountain Site Characterization Office. DOE/ORD was headquartered in the Summerlin section of west Las Vegas.

EPA: U.S. Environmental Protection Agency. Under NWPA Section 121(a), the EPA is responsible to “promulgate generally applicable standards for protection of the general environment from off-site releases fro radioactive material in repositories.”

HLW: High-level radioactive waste. Defined in NWPA Section 2(12) as “highly radioactive material resulting from the reprocessing of spent nuclear fuel ... and other highly radioactive material that the NRC ... determines by rule requires permanent isolation.” In this Plan, HLW refers to commercial spent fuel and to radioactive material generated in nuclear weapons production in the DOE weapons complex.

LLW: Low-level radioactive waste. Defined in NWPA Section 2(16) as “radioactive material that is not high-level waste, spent nuclear fuel, transuranic waste, or ... material that the NRC classifies as low-level radioactive waste.” In this Plan, LLW refers to radioactive material generated in clean-up of DOE defense sites across the nation, much of which DOE prefers to ship to NTS for disposal in facilities in Areas 3 and 5.

MLLW: Mixed low-level radioactive waste. Defined in the Low-Level Radioactive Waste Policy Amendments Act of 1985. Contains hazardous chemical components, which are regulated via the Resource Conservation and Recovery Act, thus directly involving the states in which the waste was generated.

NRC: U.S. Nuclear Regulatory Commission. Under NWPA Section 121(b), the NRC is responsible to “promulgate technical requirements and criteria that it will apply ... in approving or disapproving: i) applications for authorization to construct repositories; ii) applications for licenses to receive and posses spent nuclear fuel and high-level radioactive waste; and iii) applications for authorization for closure and decommissioning of such repositories.”

NTS: Nevada Test Site. A 1,535 square mile tract withdrawn in 1951 for Cold War nuclear weapons testing. Now considered for many other federal purposes. Operated by the DOE Nevada Operations Office. Since March 2000, the DOE Nevada Operations Office has been part of the National Nuclear Security Administration, whose mission is to enhance national security through the military application of nuclear energy.

NTTR: Nevada Test and Training Range. Originally the Nellis Bombing and Gunnery Range, subsequently the Nellis Air Force Range. The main asset of the U.S. Air Force for training fighter pilots.

NVDOT: Nevada Department of Transportation. Responsible for allocation of federal and state funds for maintenance and improvement of public highways within the state.

NWPA: Nuclear Waste Policy Act. Enacted “to provide for the development of repositories for the disposal of high-level radioactive waste and spent nuclear fuel,” the Nuclear Waste Policy Act was established as Public Law 97-425 on January 7, 1983, and was amended in December 1987 (Public Law 100-203), October 1988 (Public Law 100-507), and October 1992 (Public Law 102-486).

NWTRB: Nuclear Waste Technical Review Board. Established in amendments adopted in December 1987 as an “independent establishment within the executive branch” whose function is to “evaluate the technical and scientific validity of activities undertaken by DOE/OCRWM.”

PETT: Payments Equal To Taxes. Established by NWPA Section 116(c)(3), which states that DOE “shall grant to the State of Nevada and any affected unit of local government an amount each fiscal year equal to the amount they would receive if authorized to tax site characterization activities at such site, and the development and operation of such repository as they would tax the non-federal real property and industrial activities occurring within their jurisdictions.”

SNF: Spent nuclear fuel. Fuel, and associated hardware removed from a nuclear reactor following irradiation, in which the constituent elements have not been removed by reprocessing. SNF has been burned (irradiated) in a reactor to the extent that it no longer efficiently contributes to the nuclear chain reaction. SNF is more radioactive than unused fuel and is thermally hot.

USDOT: U.S. Department of Transportation. Responsible for regulations regarding the routing of shipments of highly radioactive waste on public highways.

YMP: Yucca Mountain Project. Focuses on the fuel handling, storage, and emplacement facilities onsite but also includes transportation and other ancillary facilities and operations.