Dear Colleague:

The Carlsbad Area Office of the U.S. Department of Energy is pleased to provide you with the enclosed Strategic Plan. It updates the fiscal year 1995 plan and presents the vision and goals intended to guide the area office through the disposal decision process.

The DOE welcomes comments on this plan or on other aspects of the National Transuranic Program and the Waste Isolation Pilot Plant (WIPP). Stakeholder comments were considered and addressed wherever possible in preparation of the enclosed Strategic Plan.

If you would like to comment on the plan, call the WIPP Information Center at 1-800-336-9477. Additional copies of the Strategic Plan may also be requested at this number.

Sincerely,

George Dials
Manager

Enclosure
Carlsbad Area Office Strategic Plan
October 1995
The Department of Energy (DOE) is confronted with a challenge nearly as difficult as that which the developers of our nation's nuclear weapons faced: that of safely managing and disposing of the radioactive wastes from weapons production and facility dismantlement and cleanup. The Waste Isolation Pilot Plant (WIPP) is a key component of DOE's response to that challenge. In fact, as the lead project of DOE's waste disposal strategy, the WIPP can provide a roadmap for other geologic disposal facilities planned to address other types of radioactive waste. It has also generated interest among radioactive waste managers around the world, and we are sharing lessons learned that may be applied to projects in their countries.

In our short history, the Carlsbad Area Office (CAO) has demonstrated the ability to meet challenging national mandates while pursuing our goal of safe disposal of transuranic waste. During the past year, we have successfully completed over a dozen critical milestones, each one bringing us a step closer to opening the WIPP.

Our actions have also shown that we are doing our part to meet the Department of Energy's goal to operate more cost-effectively. Although we have operated on schedule and under budget during the past year, we must strive to deliver more results with less money. This requires applying the best management, human resources, and environmental, safety, and health practices available.

The CAO continues to place foremost emphasis on employee and public safety, while complying with all applicable laws and regulations. We are currently concentrating a significant part of our effort on obtaining the Environmental Protection Agency's (EPA) and the New Mexico Environment Department's certification of regulatory compliance. While our near-term focus is on regulatory compliance, our continued challenge is to earn public acceptance in light of concerns expressed about the risks of radioactive waste transportation and disposal. We recognize also that public trust — of the DOE and of our science — is a common concern; we will make every effort to earn the public’s trust.

Our continued success will depend on the commitment of our scientific, technical, and administrative talent to work as a team. We will continue to solicit the advice and thinking of our customers and stakeholders. We will strengthen our affiliations with our communities, our regulators, academia, state governments, and private industry.

The performance measures we present to you in this plan will enable us to measure our progress toward our vision. I look forward to working with you to make this strategic plan a reality.

George E. Dials
Carlsbad Area Office Manager
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The Transuranic Package Transporter (TRUPACT II) containers shown on this truck have been especially designed to ship waste to the WIPP. This system is the safest method ever devised for transporting any hazardous material in the United States.
The WIPP facility includes surface support buildings, a waste handling building, four shafts, and the mined underground operations area. The repository is located 2,150 ft (655 m) below the surface facility, within the Salado Formation, a Permian sequence of bedded salt with minor amounts of anhydrite and clay. Once regulatory compliance is demonstrated and a decision to start disposal of waste is made, the WIPP will be used for the permanent disposal of transuranic and transuranic mixed wastes.

NOTE: In this document, all references to "waste" include transuranic and transuranic mixed waste.
The WIPP facility is located in a semi-arid region 26 miles (42 km) east of Carlsbad, New Mexico. The surrounding area is relatively unpopulated with only about 30 permanent residents living within a 10 mile radius (16 km). Most of this surrounding land is leased for cattle grazing.

Our accelerated compliance schedule, highlights of which are shown on the back cover, responds to congressional encouragement to reach a disposal decision sooner than we originally planned. While activities have not changed, the milestones have been compressed, resulting in an earlier submittal, October 1996, of the final Compliance Certification Application required by our regulators. The purpose of this schedule is to both define and guide our activities toward the solution of a critical national problem of transuranic waste disposal in as cost-effective and timely a manner as possible.

In March, 1994 CAO embarked on an effort to create a new decision-aiding analysis tool called System Prioritization Method. This tool was intended to define the most viable combinations of scientific investigations, engineered alternatives, and waste acceptance criteria, for supporting the final compliance application. The System Prioritization Method provided results in the form of a decision matrix to identify low-risk and cost-effective programmatic paths.

Potential outcomes were elicited for 37 scientific investigations, 18 engineered alternatives, and three waste acceptance criteria. The analysis looked at over 600,000 possible activity sets.

This project brought together the WIPP project participants, stakeholders, oversight groups, and
regulators to define relevant issues to be addressed in a compliance application.

From this analysis, a decision was made by the CAO Manager in May, 1995 that selected eight scientific investigations critical to demonstrating compliance. This decision allowed the other experiments to be ended so that resources, including technical and scientific talent, could be focused on the most important investigations. For further information, a CD-ROM containing the decision matrix and software tools, along with the final reports, is available upon request. Please call the 800 number printed below. The production costs for the CD-ROM were $2.00 per copy. Paper copies, with the equivalent amount of information, would cost several thousand dollars.

In addition to the completed milestones indicated on the Disposal Decision Plan, the CAO has also excelled in several other areas:

- We are the first DOE site to receive "Star" status under the Voluntary Protection Program (see goal 1 on page 10). This is a national program that recognizes superior performance in the field of operational safety and health. "Star" is the highest level.
- The WIPP site has also been recognized by the New Mexico Inspector of Mines as "Operator of the Year" for seven consecutive years.
- We initiated the first Management and Operating contract in DOE that embraced all the Secretary of Energy's contract reform initiatives. The negotiated contract with Westinghouse's Waste Isolation Division was signed on November 18, 1994.
- On September 15, 1995, we deactivated the northeast section of the WIPP underground. The experiments being conducted in this area were complete, or ended due to the System Prioritization Method, and its deactivation reduced our maintenance costs.
- The National TRU Program is identifying the safest and lowest cost method of characterizing waste in support of the generator/storage sites.

These accomplishments reflect our commitment to safety, quality management, and to the cost-effective conduct of our activities.

This Carlsbad Area Office Strategic Plan, as a living document, guides the Carlsbad Area Office. The CAO will update and revise it periodically to assure that a strong sense of direction guides decisions and activities concerning the National TRU Program and the WIPP, and to assure that this direction is achievable and realistic. The CAO welcomes comments on this document's content. Comments may be directed to:

Tim Sweeney
Strategic Planning Manager
Carlsbad Area Office
U.S. Department of Energy
P.O. Box 3090
Carlsbad, New Mexico 88221-3090
Telephone: 505-234-7350

Additional copies of this document may be obtained by calling 1-800-336-WIPP (9477).
MISSION

The mission of the Carlsbad Area Office is to protect human health and the environment by opening and operating the Waste Isolation Pilot Plant for safe disposal of transuranic waste and by establishing an effective system for management of transuranic waste from generation to disposal.

VISION

Our vision can be defined as where we want to be and how we want to be perceived. The CAO will serve as the model for public management of waste and be perceived by stakeholders as setting new standards for excellence. The Carlsbad Area Office will:

- Demonstrate to national and international stakeholders that the WIPP is part of the environmentally responsible and safe solution to the problem of nuclear waste disposal.

- Be recognized as a major contributor to the DOE mission by providing an exemplary system for the safe management of all DOE transuranic wastes.

- Reflect the creativity and commitment of all CAO personnel through continued successes, exemplified by operational excellence, environmental responsibility, and outstanding safety performance.
Our core values define who we are and provide the standards of conduct for doing business.

**CAO is customer oriented**
- We involve stakeholders early in the decision making process and respond in a timely manner to their questions and concerns.
- We delight our customers through a quality management approach to excellence.
- We actively seek feedback from our customers and respond effectively to changes in their expectations.

**People are CAO’s most important resource**
- Employees are appropriately empowered to control their own roles and responsibilities.
- Individual creativity and innovation are valuable assets, and new ideas actively count in making decisions.
- All employees have the right to a safe workplace, free from accidents and health risks.
- Employees are recognized and rewarded for their contributions.

**CAO pursues the highest standards of ethical behavior**
- We practice professionalism as a normal way of doing business.
- We are committed to openness and honesty within CAO and with our partners, stakeholders, the public, and regulators.
- We will not circumvent laws or regulations in order to expedite fulfillment of the CAO mission.
• **CAO works as a team**
  - We advocate a teamwork approach where people come together, work together, and succeed.
  - Outcome-oriented results are attained by CAO working as a team with our contractors and stakeholders.
  - We are proactive in establishing communications and interface activities with DOE-HQ organizations and staff members.
  - We practice open communications, with sharing of information, ideas, and lessons learned.

• **CAO respects the environment**
  - We seek, evaluate, and implement improved methods and processes for protecting the environment and the public.
  - We actively develop and implement processes for waste minimization.
  - As employees and as individuals, we respect and comply with all federal, state, and local laws and regulations for environmental protection throughout our programmatic activities.

• **Leadership, empowerment, and accountability are essential within CAO**
  - We implement a Total Quality Management system to remain both managerially and financially in control of the transuranic waste program.
  - We accept the responsibility to control our own processes and actively seek methods to improve these processes.
  - We are willing to change and to build on our strengths.
MISSION

VISION

CORE VALUES

PUBLIC HEALTH

STAKEHOLDERS

GOALS

PERFORMANCE MEASURES
CAO STRATEGIC OUTLOOK

This CAO Strategic Plan provides decision makers, program participants, stakeholders, and the public with goals and performance measures that guide the decisions and actions to open and operate the WIPP as a safe and permanent disposal facility for transuranic waste, and the development of an effective system for management of transuranic waste from generation to disposal.

Phased Approach

The DOE is developing the WIPP facility in phases to preclude premature decisions and to conduct performance assessments needed to evaluate long-term safety. These phases are: site selection, site and preliminary design validation, construction, predisposal (formerly test), disposal, decommissioning, and post-decommissioning. The WIPP Record of Decision (DOE, 1981), resulting from the Final Environmental Impact Statement (DOE, 1980), concluded that phased development of the WIPP was the best alternative of those considered. Some portions of these phases occurred in parallel.

Transuranic waste is currently being temporarily stored at many DOE facilities across the nation. These generator-storage sites must comply with stringent waste acceptance criteria before shipping waste to the WIPP for permanent disposal.
The WIPP's sitting phase began in 1975. Various areas were evaluated in relation to rigorously defined selection criteria, and a preferred site was selected on the basis of its geological setting. The geologic, hydrologic, geochemical, and rock-mechanics properties of the formations at the selected site were studied extensively. Experimental programs not involving tests with radioactive waste were begun at that time. The site selection phase ended in 1980 with the completion of the WIPP Final Environmental Impact Statement (DOE, 1980), which evaluated potential impacts of proceeding with the WIPP.

<table>
<thead>
<tr>
<th>Project Start</th>
<th>Site Selection Phase</th>
<th>Construction Phase</th>
<th>Pre-Disposal Phase</th>
<th>Disposal Phase</th>
<th>Decommissioning Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 0</td>
<td>1975 - 1980</td>
<td></td>
<td></td>
<td></td>
<td>2033 - 2038</td>
</tr>
<tr>
<td>Year 5</td>
<td>1980 - 1990</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Year 15</td>
<td>1990 - 1998</td>
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<tr>
<td>Year 23</td>
<td>1998 - 2033</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Year 58</td>
<td>2033 - 2038</td>
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</table>

Proceeding conservatively, the DOE began the next phase of study and evaluation. During this phase two shafts were constructed, an underground testing area was excavated, and additional studies were initiated (none involving actual waste). Geologic, hydrologic, and other geotechnical investigations continued, expanding the site characterization database. In addition, methods for assessing the long-term performance of the WIPP advanced.

The experimental activities taking place during the pre-disposal phase, selected with the aid of the System Prioritization Method, will provide information to support demonstration of compliance with applicable disposal regulations stated in the WIPP Land Withdrawal Act (U.S. Congress 1992). These experiments will lead to a scientifically sound performance assessment.
Combining the System Prioritization Method with Performance Assessment enabled DOE to make appropriate decisions regarding the eight major WIPP experimental program elements that affect compliance with applicable rules and regulations. Important components of this process were that it allowed early and meaningful stakeholder involvement, and used taxpayer dollars in an effective manner.

In addition to acquiring our certification and permits required to open, this phase also focuses on waste characterization efforts at the generator/storage sites. Working with the sites, our activities will lead to the most efficient method of managing the national transuranic waste system.

While awaiting the Secretary of Energy's decision to operate the WIPP as a disposal facility, the CAO has been thoroughly preparing all operations at the site to receive waste. Procedures and training for receiving, handling, and emplacing transuranic waste underground, while maintaining the highest safety standards, are being rehearsed and refined.

During the projected 35-year disposal phase, the DOE will receive, handle, and emplace transuranic waste in the repository. During the decommissioning phase, the repository will be prepared for permanent closure. After closure, during the post-decommissioning phase, active institutional controls for the prevention of human intrusion into the repository will be employed for a minimum of the first 100 years. Typical institutional controls may include laws and procedures that would limit access to the site. Passive controls will be in effect after the institutional controls period is over, and will consist of permanent markers to warn future societies of the location and hazards of the disposal site.

FUTURE PHASES

The next phase of the program will begin when a decision is made to start disposal or to abandon the program, if the DOE or the EPA determines that the WIPP Land Withdrawal Act requirements cannot be met. Once the DOE is successful in demonstrating compliance with applicable laws, regulations and requirements and when the EPA certifies that regulatory requirements are met, the CAO will continue with the next three distinct phases: disposal, decommissioning, and post-decommissioning.
Transuranic waste awaiting shipment to the WEPP

TRUPACT under going drop testing

Cross section of typical transuranic waste
To accomplish the pre-disposal and disposal phases of our mission of protecting human health and the environment, three strategic goals must be accomplished:

1. **Provide a safe workplace that is free from fatalities and serious accidents.**
   
   Champion: 
   *Safety and Occupational Health Manager*

2. **Demonstrate regulatory compliance and achieve a disposal decision recommendation by 1997.**
   
   Champion: 
   *Office of Regulatory Compliance Manager*

3. **Safely transport and dispose of transuranic waste.**
   
   Champion: 
   *Office of National TRU Waste Operations Manager*

**PLANNING ASSUMPTIONS**

- The DOE will continue to place high priority on and fund the effort to open the WIPP.
- The decision to open the WIPP is a technical, regulatory, and political decision.
- The CAO will comply with all applicable laws and regulations.
- Stakeholders will be included in the decision-making process.
- The national transuranic waste system consisting of all DOE generator and storage sites is robust and supports disposal of transuranic waste at the WIPP.
- Certain experiments are necessary to demonstrate compliance.
- Regulators must be confident that stakeholder concerns have been addressed before compliance certification.
- The CAO will adhere to quality assurance requirements.
- Opening and safe operation of the WIPP are essential to nationwide management of transuranic wastes.
- The operational disposal phase of the WIPP will extend for 35 years.
GOAL 1
Provide a safe workplace that is free from fatalities and serious accidents

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>TIME</th>
<th>CHAMPION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maintain Voluntary Protection Program Star Rating</td>
<td>Annually</td>
<td>Safety &amp; Occupational Health Manager</td>
</tr>
<tr>
<td>Maintain total recordable case rate at a level of 25% better than the DOE average rate for the prior three years</td>
<td>Annually</td>
<td>Safety &amp; Occupational Health Manager</td>
</tr>
<tr>
<td>Maintain the Mine Safety Health Administration Courtesy Assistance Visit level at the average of the past three years</td>
<td>Quarterly</td>
<td>WIPP Site Team Leader</td>
</tr>
</tbody>
</table>

The WIPP Mine Rescue Team - current national champions
GOAL 2
Demonstrate regulatory compliance and achieve a disposal decision recommendation by 1997

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>TIME</th>
<th>CHAMPION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Final data input to models for 9/96 cumulative complementary distribution function</td>
<td>Mar 96</td>
<td>Experimental Program Team Leader</td>
</tr>
<tr>
<td>Submit No-Migration Variance Petition for Disposal to EPA</td>
<td>Jun 96</td>
<td>Compliance Team Leader</td>
</tr>
<tr>
<td>Submit Compliance Certification Package to EPA</td>
<td>Oct 96</td>
<td>Compliance Team Leader</td>
</tr>
<tr>
<td>Complete Disposal Phase Final Safety Analysis Report</td>
<td>Mar 97</td>
<td>WIPP Site Team Leader</td>
</tr>
<tr>
<td>RCRA Permit Issued by State of New Mexico</td>
<td>Aug 96</td>
<td>New Mexico Environment Department</td>
</tr>
<tr>
<td>Declare operational readiness</td>
<td>Sep 97</td>
<td>WIPP Site Team Leader</td>
</tr>
<tr>
<td>Complete National TRU Waste Management Plan</td>
<td>Sep 96</td>
<td>National TRU Program Team Leader</td>
</tr>
<tr>
<td>Issue Decommissioning &amp; Post-Decommissioning Plan</td>
<td>Oct 97</td>
<td>WIPP Site Team Leader</td>
</tr>
<tr>
<td>Notify states &amp; Indian tribes of intent to transport waste</td>
<td>Oct 97</td>
<td>Public Affairs Team Leader</td>
</tr>
<tr>
<td>EPA Certification</td>
<td>Oct 97</td>
<td>EPA</td>
</tr>
</tbody>
</table>

Crosswalk with EM Goals

<table>
<thead>
<tr>
<th>Goal 1</th>
<th>Provide a safe workplace that is free from fatalities &amp; serious accidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 2</td>
<td>Demonstrate regulatory compliance &amp; achieve a disposal decision recommendation by 1997</td>
</tr>
<tr>
<td>Goal 3</td>
<td>Safely transport and dispose of transuranic waste</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Manage &amp; eliminate urgent risks</th>
<th>Provide a safe workplace</th>
<th>System under control</th>
<th>Be more</th>
<th>Outcome oriented</th>
<th>Focus on technology and development</th>
<th>Strong partnerships with DOE &amp; stakeholders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goal 1</td>
<td>✓</td>
<td>✓</td>
<td></td>
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<tr>
<td>Goal 2</td>
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<td>✓</td>
<td>✓</td>
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<tr>
<td>Goal 3</td>
<td>✓</td>
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<td>✓</td>
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</tr>
</tbody>
</table>
GOAL 3

Safely transport and dispose of TRU Waste

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>TIME</th>
<th>CHAMPION</th>
</tr>
</thead>
<tbody>
<tr>
<td>All waste to be disposed in WIPP meets the waste acceptance criteria</td>
<td>Apr 98</td>
<td>WIPP Site Team Leader</td>
</tr>
<tr>
<td>Transportation safety programs established and maintained, and training completed for priority states and shipping corridors</td>
<td>Feb 97</td>
<td>National TRU Program Team Leader</td>
</tr>
<tr>
<td>Continue transportation safety programs, at the appropriate level, for state and tribal entities through whose jurisdictions waste will be shipped</td>
<td>Ongoing</td>
<td>National TRU Program Team Leader</td>
</tr>
<tr>
<td>Maintain Nuclear Regulatory Commission certification for TRUPACT containers for shipment of transuranic waste to WIPP</td>
<td>Every five years (following 6/94) for CH renewal. NRC issues certificate of compliance for remote handled cask (7/97)</td>
<td>National TRU Program Team Leader</td>
</tr>
<tr>
<td>Undergo biennial carrier evaluation per DOE Motor Carrier Evaluation Program. Maintain certification of carrier readiness</td>
<td>Oct 97</td>
<td>National TRU Program Team Leader</td>
</tr>
<tr>
<td>Implement National TRU Waste Management Plan *</td>
<td>Oct 96</td>
<td>National TRU Program Team Leader</td>
</tr>
</tbody>
</table>

* The National TRU Waste Management Plan will be completed in September, 1996. This plan will describe how the transuranic waste community will generate, store, retrieve, characterize, certify, treat, package, transport, and dispose of their waste. This plan will allow us to develop new performance measures for a future revision of this plan.
The DOE is committed to increased interaction with all stakeholders regarding major decisions. In addition, it is DOE policy that regulators must be confident that all stakeholder concerns are considered before compliance certification. The CAO is equally committed to these goals.

Historically, the WIPP has generated intense public interest. Unlike other DOE facilities, the WIPP is intended to be the final disposal site for transuranic wastes, not a temporary storage site that will eventually be cleaned up. It is, in fact, a key component of the plans for cleaning up the other sites. Thus, the strategic plan for involving stakeholders must be very different from that of the typical site. The CAO will: demonstrate how it plans to accept transuranic waste, which remain radioactive for thousands of years, without contaminating the environment, either at the site or on the waste transportation routes to the site; and solicit and respond to stakeholder suggestions and concerns as a part of demonstrating its ability to isolate transuranic waste for thousands of years.

The CAO will involve stakeholders throughout its decision-making process in a visible and accessible way, from start to finish. That is, stakeholders will be advised early of involvement opportunities, comments will be encouraged, and stakeholders will be provided with responses and program updates.

In general, the CAO seeks to work with its stakeholders at the following levels:

- **New Mexico and surrounding communities** particularly have the most at stake if disposal results in long-term effects on the environment. They have the most to gain from employment and economic development opportunities that follow the development and operations of the WIPP. Stakeholders in northern New Mexico are also very interested in this issue. This level includes WIPP employees and other participants in the WIPP decision making process.

- **National stakeholders** have varying interests in the WIPP. Those at generator sites can look forward to the removal of transuranic waste from their localities. Many along the transportation corridors are concerned with the potential risks of transporting radioactive waste through their communities.

- **Institutional stakeholders** include tribal governments and state-level organizations, such as the Western Governors' Association and the Southern States Energy Board. These stakeholders must look after the diverse interests of their constituents, particularly as they relate to transportation of wastes through their jurisdictions and emergency preparedness.
DOE is committed to increased interaction with all stakeholders regarding major decisions. Stakeholders from many different backgrounds have the common concern of safely disposing of transuranic waste.

- **International stakeholders** may be able to use the WIPP as a model for how to site and obtain approvals for geological disposal facilities for all types of nuclear wastes.

The CAO recognizes it has much to share with radioactive waste managers worldwide. In that regard, the CAO will foster international exchange and support for its mission.

The CAO is committed to providing continuing opportunities for stakeholder involvement, early and often, with the aim of surfacing and resolving concerns before they become more difficult and costly to resolve.


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WIPP is a first safe step toward solving the national nuclear waste disposal problem

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The Carlsbad Area Office is positioned to effectively demonstrate safe, environmentally sound, permanent disposal of transuranic waste, while ensuring protection of public health. We are the solution to a national public health concern. This is achievable with the continuing efforts and involvement of the Congress, the Department of Energy, the Environmental Protection Agency, the New Mexico Environment Department and other regulators, the scientific community, and the public, ensuring that the WIPP meets or exceeds the requirements of applicable laws and regulations designed to protect public health, safety, and the environment.

Furthermore, as we have demonstrated, we will continue to operate in the most fiscally responsible manner while maintaining continued excellence in safety.

The success of this program, the disposal of transuranic waste, is not only important to Americans and our descendants, but to the world. Other nations may look to us as the prototype to guide them in their own quest to dispose of nuclear waste so as to best protect the health and safety of the public and the environment.