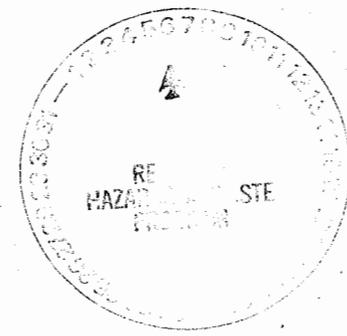




Department of Energy
 Carlsbad Area Office
 P. O. Box 3090
 Carlsbad, New Mexico 88221

ENTERED



APR 03 1995

Dear Stakeholder:

The Carlsbad Area Office (CAO) is pleased to provide you with the CAO Strategic Plan. This document represents months of effort by DOE staff, contractors and stakeholders; it captures the U. S. Department of Energy's (DOE's) new focus; and it supersedes the March 1993 Strategic Plan. The plan reflects a revised strategy designed to demonstrate compliance with environmental regulations earlier than the previous course of action. It also reflects a focus on establishment of standardized transuranic waste characterization and acceptance criteria for disposal facilities.

The purpose of the Strategic Plan is twofold. It provides decision makers, program participants, stakeholders, and the public with objectives and strategies that will guide the decisions and actions taken to evaluate the suitability of the WIPP as a safe and permanent disposal facility for transuranic waste. The second purpose of the plan is to describe an effective system for management of transuranic waste from generation to disposal.

We encourage you to read this document. If you have any questions, please do not hesitate to contact me or my Senior Policy Analyst, Alison Miner, at (505) 234-7321. If you would like additional copies of this plan, please call our U.S. Department of Energy WIPP Information Center toll-free number, 1-800-336-WIPP (1-800-336-9477). We know that this Strategic Plan will help you to understand our direction for the future.

Sincerely,

George E. Dials
 George E. Dials
 Manager

Enclosure

send
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 If you got one, toss this.

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SCANNED





WIPP Library

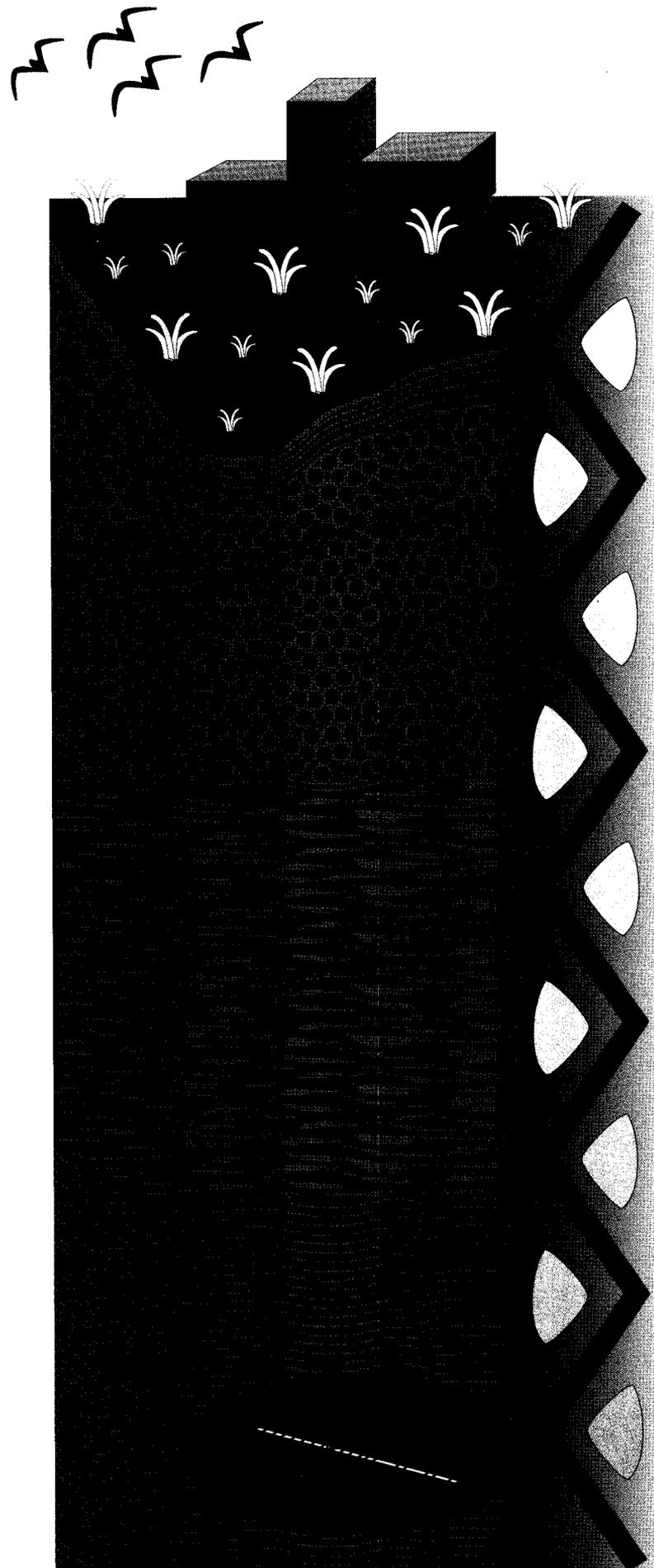
Carlsbad Area Office

Strategic Plan

March 1995



DOE/WIPP 93-025
REV. 1



CAO Vision and Values



1. *The Carlsbad Area Office (CAO) will:*

- Demonstrate to national and international stakeholders that the Waste Isolation Pilot Plant (WIPP) is part of the environmentally responsible solution to the problem of nuclear waste disposal.
- Be recognized as a major contributor to the DOE mission by providing an exemplary system for management of all DOE transuranic (TRU) wastes.
- Reflect the creativity of all CAO personnel by continued successes exemplified by operational excellence, environmental responsibility, and outstanding safety records.

2. *CAO Organizational Vision:*

- Through a cooperative team effort, all CAO management and staff understand, take ownership in, and significantly contribute to the achievement of the CAO mission.
- CAO employees at all levels are empowered with authority, resources, and training to implement clearly defined priorities, roles, and responsibilities.
- The CAO team is characterized by high morale, individual empowerment, quality performance, pride in workmanship, trust, open communication, commitment, and genuine concern for public health, safety, and the environment.

3. *CAO Core Values:*

- 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.
 - Personnel 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 works as a team.

- We advocate a teamwork approach where people come together, work together, and stay together.
- Outcome-oriented results are attained by CAO working as a team with their 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 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.

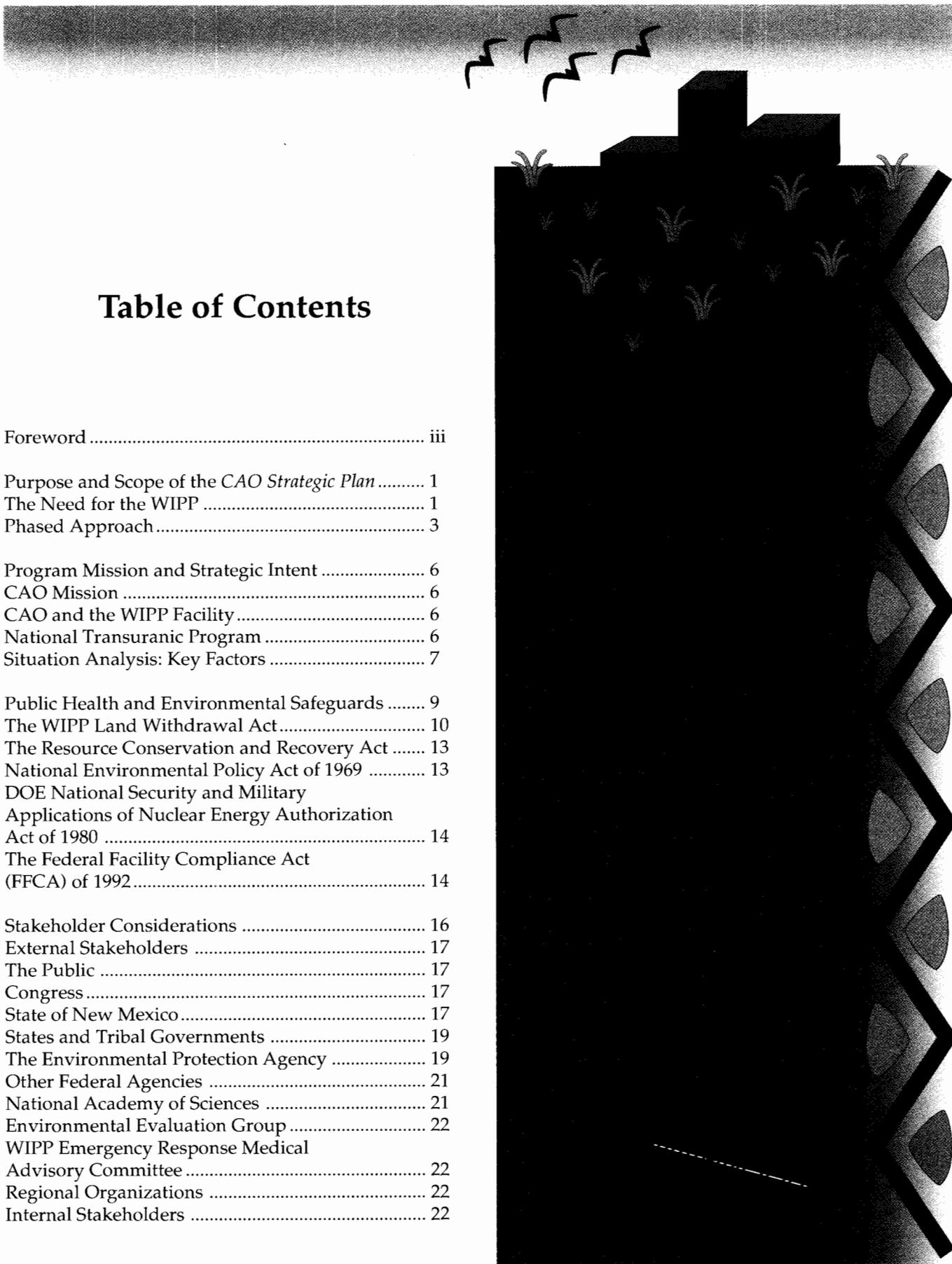
- CAO pursues the highest standards of ethical behavior.

- We practice professionalism as a normal way of doing business.
- We are committed to openness and honesty within CAO and with our partners, stakeholders, and regulators.
- We will never circumvent laws or regulations in order to expedite fulfillment of the CAO mission.

Excerpted from -Carlsbad Area Office, *Total Quality Management Implementation Plan*, December 1994

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Foreword



This edition of the *Carlsbad Area Office Strategic Plan* captures the U.S. Department of Energy's (DOE's) new focus, and supersedes the edition issued previously (DOE, 1993a). This revision reflects:

- *a revised strategy designed to demonstrate compliance with environmental regulations earlier than the previous course of action; and*
- *a focus on establishment of standardized transuranic waste characterization and acceptance criteria for disposal facilities.*

The Current Situation: An Accelerated Compliance Strategy - On October 21, 1993, the DOE announced its revised strategy for the Waste Isolation Pilot Plant (WIPP) predisposal phase (formerly known as the "test phase"). The revised strategy calls for conducting additional laboratory-based tests with simulated and transuranic waste in lieu of the tests DOE had planned to conduct underground in the WIPP facility. Under this new approach, called the Enhanced Laboratory Program, DOE will use laboratory-based tests to collect data on the generation of gas and volatile organic compounds.

Results of the data analysis and computer modeling will be used to aid in making a determination on whether the repository can safely contain the waste for 10,000 years.

This revised strategy is based on scientific analyses and recommendations of the National Academy of Sciences and other scientific review groups. The decision to revise the test program is consistent with the findings of the DOE Independent Technical Review conducted in July 1993.

DOE is seeking to accelerate compliance activities so that a decision can be made at an earlier date on the suitability of the WIPP for permanent disposal of transuranic waste and transuranic mixed waste (transuranic wastes containing hazardous constituents). 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. In this document, all references to "waste" include transuranic and transuranic mixed waste (unless otherwise indicated).

Establishment of CAO - Creation of the Carlsbad Area Office (CAO) reflects the Department's goals to place senior DOE managers in the field and give them both the authority and the responsibility to manage their assigned programs to achieve defined results. Thus, DOE has the CAO manage transuranic waste disposal activities and the National Transuranic Program Office. The intent is to focus authority for the WIPP compliance activities and related programs within the CAO. DOE believes this will help achieve greater consistency and efficiency in demonstrating its ability to adhere to applicable laws, regulations, and requirements, as well as to establish uniform criteria for characterizing and accepting waste at transuranic waste disposal facilities. This concentration of focus will facilitate regulatory compliance and result in a more timely disposal decision date for operating the WIPP.

This *CAO Strategic Plan* reflects the CAO's vision for accelerating compliance with the WIPP Land Withdrawal Act, U.S. Environmental Protection Agency regulations, and State of New Mexico rules and regulations for operating the WIPP and safely managing transuranic waste.

Other Factors Considered - DOE has considered two other factors in preparing this edition of the *CAO Strategic Plan*. This document reflects the current situation for the DOE's management of the WIPP compliance demonstration. It is also prepared to advise all interested parties of the compliance demonstration process and the strategies for implementation of that process.

Second, the *CAO Strategic Plan* is a living document. CAO will update and revise it periodically to assure that a strong sense of direction guides decisions and activities concerning the WIPP, and to assure that this direction is achievable and realistic.

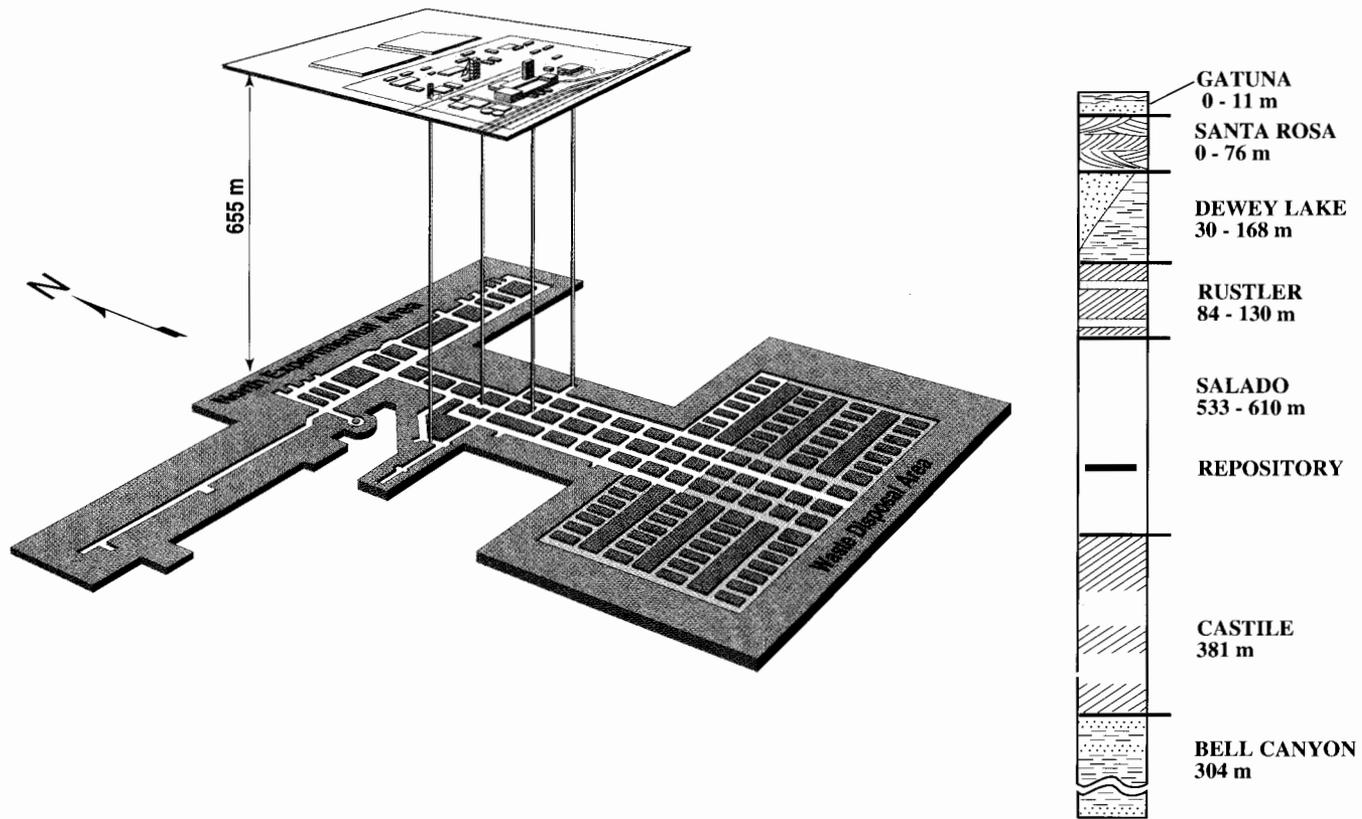
The *CAO Strategic Plan* is an essential tool for communicating with members of Congress and stakeholders regarding plans and activities for the WIPP. The objectives, strategies, and success indicators in this plan (last section) serve as a guide to CAO's

efforts to reach a disposal decision recommendation for the WIPP.

The CAO welcomes comments on this document's content as the steering mechanism for the National Transuranic Program and the opening and operating of the WIPP. Comments may be directed to:

Alison Miner
 Senior Policy Analyst
 Carlsbad Area Office
 U.S. Department of Energy
 P.O. Box 3090
 Carlsbad, New Mexico 88221-3090
 Telephone: 505-234-7321

Additional copies of this document may be obtained by calling 1-800-336-WIPP (1-800-336-9477). The CAO's toll-free information number became operational in March 1995.



The accelerated compliance effort is designed to demonstrate that the repository at the Waste Isolation Pilot Plant can safely isolate transuranic waste 2,150 feet beneath the earth's surface for 10,000 years.

Purpose and Scope of the CAO *Strategic Plan*



The U.S. Department of Energy's Carlsbad Area Office has prepared this *CAO Strategic Plan* to provide decision makers, program participants, stakeholders, and the public with objectives and strategies that will guide the decisions and actions taken to evaluate the suitability of the WIPP as a safe and permanent disposal facility for transuranic waste and to reflect an effective system for management of transuranic waste from generation to disposal.

Transuranic waste is waste that contains more than 100 nanocuries of alpha-emitting transuranic radionuclides per gram of waste and with half-lives greater than 20 years. Transuranic waste does not include high-level wastes and other wastes excluded by law. This plan is rooted in the CAO Core Values which support those adopted by the U.S. Department of Energy. It is the result of an integrated planning process and is based upon the *CAO Disposal Decision Plan* (DOE, 1994a), presented on page 2. Its development supports the Environmental Management Five-Year Plan (DOE, 1991). Figure 1 shows the CAO/WIPP Disposal Decision Plan strategies and objectives of the predisposal phase to achieve a disposal decision.

Appropriate actions will be undertaken to ensure that the WIPP, located in southeastern New Mexico, will comply with applicable requirements of the U.S. Environmental Protection Agency, other federal regulators, and the state of New Mexico.

The Need for the WIPP

Several factors mandate the need for safe, permanent disposal of transuranic waste. The first is a global factor resulting from recent, dramatic changes in superpower relations. This factor is driven by both the waste products produced in downsizing of the superpowers' nuclear weapons arsenals, and by the waste generated in the cleanup of the environments surrounding the facilities that produced these weapons.

Another factor is that no facilities currently exist with viable technologies for rendering harmless the radioactive portions of the waste, nor for the segregation and treatment of other hazardous components of transuranic mixed waste.

Congress envisioned that the WIPP facility would be the nation's first geologic repository for defense transuranic waste when it passed Public Law 96-164, 93 Stat. 1259, *The U.S. Department of Energy National Security and Military Applications of Nuclear Energy Authorization Act of 1980* (U.S. Congress, 1980). Public Law 96-164, 93 Stat. 1259 authorized and funded the WIPP to provide "a research and development facility to demonstrate the safe disposal of radioactive wastes resulting from the defense activities and programs of the United States exempted from regulation by the Nuclear Regulatory Commission."

*The DOE is developing the
WIPP facility in phases to pre-
clude premature decisions....*

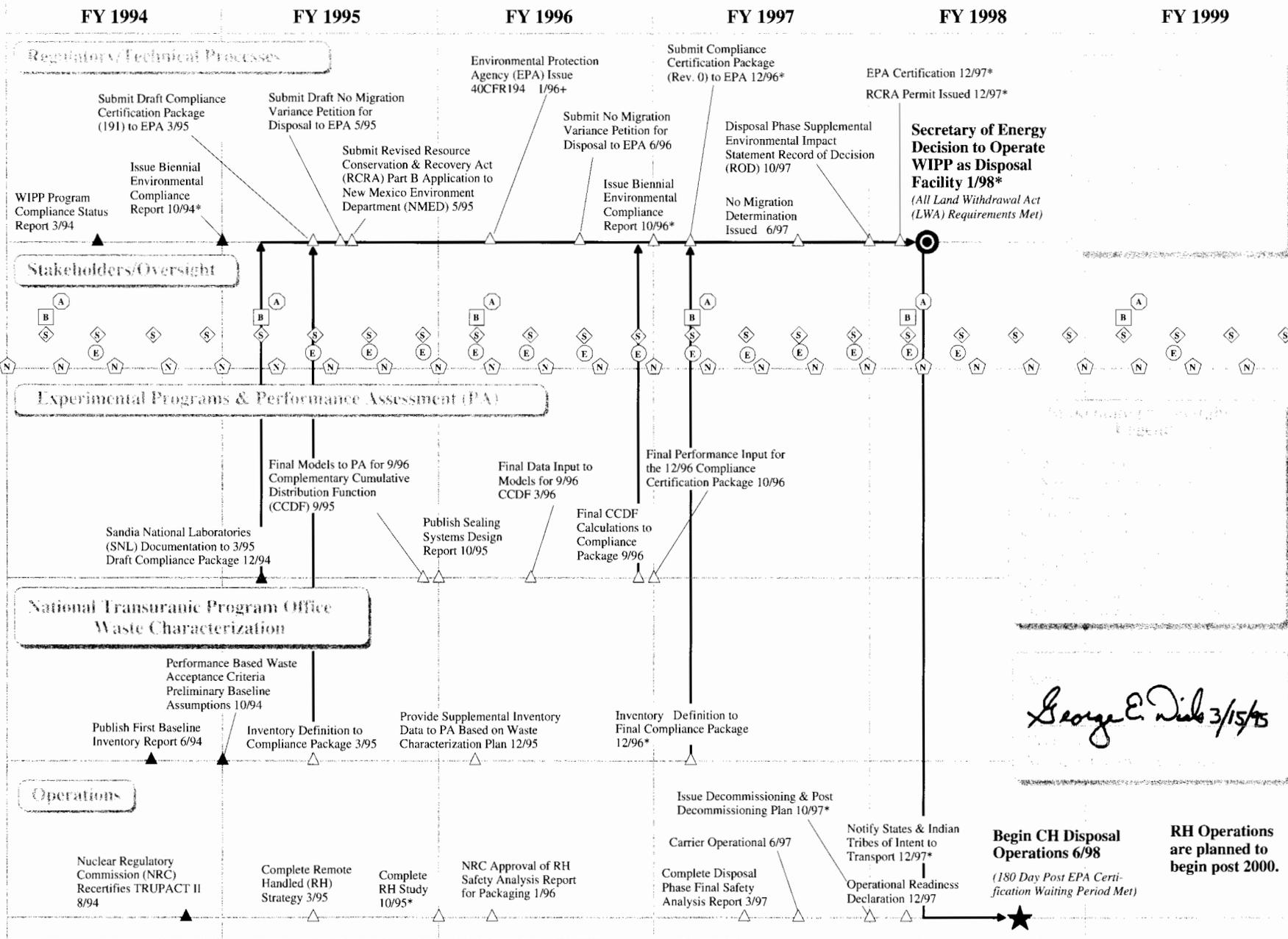
The WIPP will dispose of transuranic waste in an underground facility situated 2,150 feet below the earth's surface in a geologic formation comprised primarily of bedded salt. The New Mexico site was chosen through a process that started in the 1950s in response to the challenge of finding a disposal solution for the radioactive by-products of nuclear power plants and nuclear weapons production - some of which could persist in the environment for thousands of years.

Most of the waste scheduled to be emplaced at the WIPP is classified as contact-handled transuranic waste. Contact-handled transuranic waste can be handled without special equipment when packaged in drums or standard waste boxes because it has low levels of radioactivity. DOE will also demonstrate to

FIGURE 1

WIPP Disposal Decision Plan

Revision 1
 March 15, 1995
 FY 1999



the Environmental Protection Agency that the facility can safely contain wastes with higher levels of radioactivity, called remote-handled transuranic waste. Remote-handled transuranic waste requires special shielding for safe handling. DOE will conduct a study to analyze the impacts of remote-handled transuranic waste on the performance assessment of WIPP. The Disposal Decision Plan "Operations" line shows the integrated program to evaluate the properties of contact-handled and remote-handled wastes (Figure 1). The WIPP Land Withdrawal Act prohibits permanent emplacement of any waste at the WIPP until a disposal decision is reached.

The National Academy of Sciences National Research Council's Earth Sciences Division established the Committee on Waste Disposal at the request of the Atomic Energy Commission. This committee conducted a nationwide search for stable geological formations that could contain radioactive wastes for thousands of years without releasing them into the environment.

In 1957, the committee concluded that rock salt is the most promising geologic medium for safe disposal of radioactive wastes (National Academy of Sciences, 1957). In 1963, the United States Geological Survey reported that the Permian Basin, with its extensive salt beds in northwestern Texas and southeastern New Mexico, appeared to be a leading candidate location for a possible disposal site (United States Geological Survey, 1963). Based upon that report, and salt bed experiments conducted by Oak Ridge National Laboratory (DOE, 1984), the Permian-aged Delaware Basin near Carlsbad, New Mexico, was selected as the location that best met the site selection criteria.

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: siting, site and preliminary design validation, construction, predisposal (formerly test), disposal, decommissioning, and post-decommissioning. The WIPP Record of Decision (DOE, 1981) concluded that the phased development of the WIPP was the best alternative of those considered. Some portions of these phases occurred in parallel.

Siting Phase - The WIPP's siting phase began in 1975. Various areas were evaluated and a preferred site was selected on the basis of its geological setting. The geologic, hydrologic, geochemical, and rock-mechanics properties of the formation at the selected site were studied extensively. Experimental programs not involving tests with radioactive waste were begun at that time. The siting 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.

Several factors mandate the need for safe, permanent disposal of TRU waste...

Site and Preliminary Design Validation Phase - Proceeding conservatively, the DOE began the next phase of study and evaluation. During this phase, known as the site and preliminary design validation 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.

Construction Phase - During the 10-year construction phase, which followed the site and preliminary design validation phase, DOE constructed the WIPP facility and collected additional data about the site. DOE also developed and refined the tools and models needed for assessing the long- and short-term performance of the transuranic waste disposal system. This phase ended in 1990 with the completion of the Final Supplement Environmental Impact Statement (DOE, 1990a), which evaluated potential impacts of transporting waste to WIPP and the continued development of the facility. Concluding that there were no impacts that could not be mitigated, DOE announced its intention to proceed in the Record of Decision (DOE, 1990b) for the Final Supplement Environmental Impact Statement. The Final Safety Analysis Report (DOE, 1990c) was published later the same year.

Several significant developments occurred during and after WIPP's construction phase regarding the Environmental Protection Agency's responsibility to develop guidance and standards for the management and disposal of radioactive wastes.

Predisposal Phase - The experimental activities that will take place during the predisposal phase are designed to provide information to support demonstration of compliance with applicable disposal regulations stated in the WIPP Land Withdrawal Act and the Resource Conservation and Recovery Act.

CAO has recently introduced a new method of identifying an optimum combination of waste acceptance criteria, engineering-design modifications, additional system characterization, modeling and experiments that will lead to a demonstration of

compliance. This approach is called the System Prioritization Method. The System Prioritization Method is designed to:

- Address regulator and stakeholder concerns early and throughout the process of regulatory compliance;
- Lead to a scientifically sound Performance Assessment to be used in demonstrating regulatory compliance; and
- Use taxpayer dollars in an efficient manner.

Combining System Prioritization with Performance Assessment enables DOE to make appropriate decisions regarding WIPP program elements that lead to compliance with applicable rules and regulations. An important component of this process is that it allows early stakeholder involvement.



Carlsbad city leaders have been very supportive of the WIPP Project. Shown with Secretary Hazel O'Leary are Carlsbad Department of Development Chairman of the Board Bob Forrest and Mayor Gary Perkowski.

Future Phases - The next phase of the program will begin when a decision is made to begin disposal or to abandon the program if DOE or the Environmental Protection Agency determines that the WIPP Land Withdrawal Act requirements cannot be met. If the DOE is successful in demonstrating compliance with applicable laws, regulations, and requirements and if the Environmental Protection Agency certifies that regulatory requirements are met, the WIPP Program will continue with the next three distinct phases: the disposal phase, the decommissioning phase, and the post-decommissioning phase. During the projected 35-50 year disposal phase, the DOE will conduct disposal operations - that is, receiving, handling, and emplacing transuranic waste in the repository. During the decommissioning phase, the repository will be prepared for permanent closure. After closure, active institutional controls for the prevention of human intrusion into the repository will be employed for as long as possible, but as a minimum, for the first 100 years. Typical institutional controls may include laws and procedures that would limit access to the site.

Program Mission and Strategic Intent



CAO Mission

The mission of the Carlsbad Area Office (CAO) 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.

CAO and the WIPP Facility

The decision regarding transuranic waste disposal at WIPP will be based on a thorough evaluation of the following:

- Total repository and system performance (including operational safety, transportation, packaging, waste characterization, and certification);
- Informed public and stakeholder participation; and
- Regulatory compliance.

The CAO will coordinate activities of the National Transuranic Program to assure readiness to implement the Secretary of Energy's decision regarding waste disposal, once certification of regulatory compliance and required permits have been obtained from the Environmental Protection Agency and the state of New Mexico.

The Sandia National Laboratories supports the CAO by conducting experimental programs and performance assessments. These experiments provide data for the performance assessment to be used to demonstrate compliance under Title 40 Code of Federal Regulations 191 (Environmental Protection Agency, 1993b) and the Resource Conservation and Recovery Act, Title 40 Code of Federal Regulations 268. The CAO management and operating contrac-

tor (the Westinghouse Waste Isolation Division) supports CAO by operating the facility and by preparing the permit application documents.

National Transuranic Program

Transuranic waste has been produced in the United States since the 1940s as part of the nuclear defense research and production activities of the federal government. Five types of operations generate transuranic waste:

- Nuclear weapons development and manufacturing;
- Plutonium recovery;
- Research and development;
- Environmental restoration; and
- Decontamination and decommissioning activities.

In addition, a significant part of the transuranic waste is contaminated with hazardous materials and thus is classified as "mixed" waste. For nearly two decades, one of the DOE's major goals has been to develop the WIPP as a demonstration site for the geological disposal of transuranic waste. About one-third of WIPP-destined waste has been generated and is in temporary storage at major facilities throughout the country, called "generator/storage sites." The generator/storage sites are not suitable for long-term disposal of transuranic and transuranic mixed waste. The quantity of transuranic waste currently in storage is approximately 2.3 million cubic feet (DOE, 1992). Additional waste will be generated in the future from environmental restoration, decontamination and decommissioning, and other activities within the nuclear weapons complex. The total capacity of the WIPP is 6.2 million

cubic feet (as limited by the WIPP Land Withdrawal Act).

Within the current inventory of radioactive defense wastes, certain wastes may not be acceptable for disposal at the WIPP because they would not meet its waste acceptance criteria or are not currently within the WIPP mission. In addition, some wastes generated in the future may not meet the waste acceptance criteria. Efforts are underway, however, to make all future transuranic waste acceptable for WIPP by guiding the generation, characterization, handling, treatment, processing, packaging, transport, and storage of such wastes. The challenge to DOE is to develop options and recommendations for disposal, with an overriding goal to make all future transuranic waste acceptable at WIPP by making changes in transuranic waste generation and treatment processes.

DOE established the National Transuranic Program Office to integrate and coordinate the disparate parts of the transuranic waste system. The National Transuranic Program Office will develop guidance for DOE Headquarters to provide to generator/storage sites that will facilitate eventual disposal of all transuranic waste. A key element in the strategy is the development of performance based waste acceptance criteria. The performance based waste acceptance criteria will include restrictions on the acceptable waste inventory at WIPP. These criteria will be defined by the impacts of the waste characteristics on the long-term performance of WIPP as determined through performance assessment modeling.

Through implementation of the performance based waste acceptance criteria compliance approach, CAO will evaluate the alternatives and potential options concerning waste characterization, treatment, processing, and other parameters that may impact the WIPP. Although the performance based waste acceptance criteria will be inclusive of all the criteria pertaining to WIPP performance, this set of criteria is only a subset of the final waste acceptance criteria. The final waste acceptance criteria will include all the regulatory and programmatic requirements associated with the complete disposal system. Additional restrictions may include: final compliance permit conditions as mandated by regulatory agencies; transportation restrictions as required for shipment in the transuranic package transporter system; and operational criteria as determined for WIPP

operational safety. The combination of all these criteria determined necessary for acceptance of waste at WIPP will define the final waste acceptance criteria to be implemented at all the generator/storage facilities for shipment of waste to WIPP. The National Transuranic Program Office will support the generator/storage facilities in implementing the final waste acceptance criteria to ensure each participant has developed a waste characterization and certification program that meets the standards defined by WIPP. The National Transuranic Program Office will be managed as an integral part of the CAO and will be fully integrated with the WIPP program and related activities.

The disposal decision will be based on a thorough evaluation of total repository and system performance ...

Situation Analysis: Key Factors

The key factors discussed below will impact the implementation of the *CAO Strategic Plan*. Some of these factors, such as the national need, form the basis of our work; others, such as certain political trends, will change over time. As these factors change, so also will our strategies to respond to them.

The National Need - The DOE is confronted with a challenge at least as difficult as developing the original nuclear weapons: that of finding safe ways to manage and dispose of the radioactive wastes from weapons production, dismantlement, and facility cleanup. The WIPP is a key component of DOE's response to that challenge. In fact, as the centerpiece of DOE's waste management strategy, it is the lead project for transuranic waste disposal, providing a roadmap for other geologic disposal facilities planned to address other types of radioactive waste.

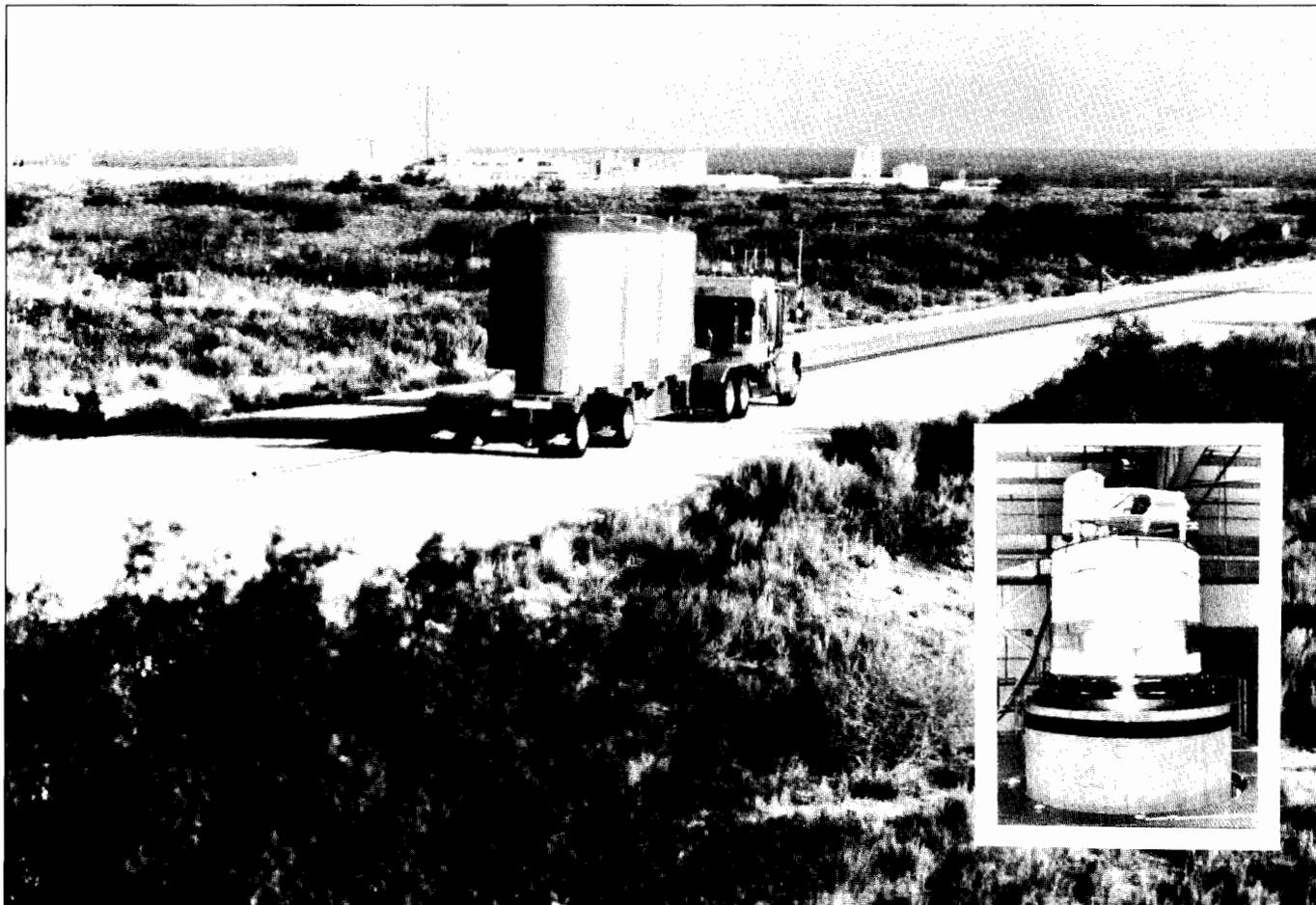
Legal and Regulatory Pressures - The CAO continues to place major emphasis on complying with all applicable laws and Environmental Protection Agency regulations with passage of the WIPP Land Withdrawal Act and in response to stakeholder

concerns. The decision to conduct radioactive waste tests in laboratories rather than in the WIPP is part of our increased emphasis on compliance. The CAO will concentrate a significant part of our effort in the next few years on obtaining the Environmental Protection Agency's certification of our compliance with all applicable regulations.

Political Trends - While our focus is on regulatory compliance, one of our challenges is to obtain public acceptance in light of concerns expressed about risks of radioactive waste transportation and disposal. Other issues in the public arena include the time it has taken to develop the WIPP to its current status and the need to communicate effectively with a national audience that has many competing de-

mands for its attention. We recognize also that trust -- of the DOE and of our science -- is a common concern. We must and will do what is necessary to earn the public's trust.

Economic Constraints and Centralized Institutional Authority - In the face of these challenges, the DOE generally, and the CAO specifically, must constantly find new ways of carrying out our mission in an effective manner. Austerity is the trend throughout the federal government, and the DOE is committed to doing its share to reduce the national debt. While DOE has consolidated authority in Carlsbad, New Mexico for management of all transuranic wastes, we know we must continue to find new ways to do our work more efficiently and cost effectively.



According to the National Academy of Sciences, the system proposed for transportation of transuranic waste to WIPP is safer than that employed for any other hazardous material in the U.S. The transuranic package transporter (TRUPACT) II is shown above, with the WIPP site in the background. *Inset:* an opened TRUPACT II container is shown.

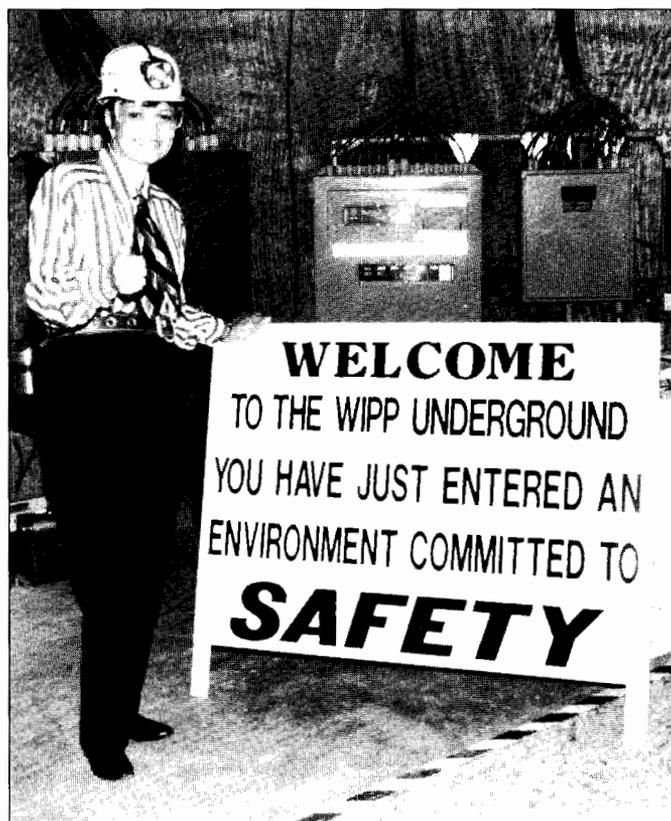
Public Health and Environmental Safeguards



The Department of Energy will ensure public health and environmental protection requirements have been met prior to operating the WIPP. These requirements are defined in five major acts passed by the United States Congress, one of which focuses entirely on the WIPP. The five acts are:

- The WIPP Land Withdrawal Act;
- The Resource Conservation and Recovery Act;
- The National Environmental Policy Act of 1969;
- The U.S. Department of Energy National Security and Military Applications of Nuclear Energy Authorization Act of 1980; and
- The Federal Facility Compliance Act of 1992.

The WIPP's key compliance and readiness requirements are based in these acts. In addition, the state of New Mexico Hazardous Waste Management Act gives the New Mexico Environment Department authority, delegated by the U.S. Environmental Protection Agency, to enforce the Resource Conservation and Recovery Act Part B permit provisions. DOE's strategy is to satisfy the applicable regulations in an integrated and consistent manner, and coordinate its activities to comply with New Mexico and federal requirements. This approach considers interpretive, analytical, and substantive differences in the regulations. At the same time, it allows for a coordinated set of activities all leading to a goal of demonstrating to the Environmental Protection Agency, other regulators, and the public that the WIPP meets requirements of applicable laws and regulations.



Energy Secretary Hazel O'Leary gives the thumbs-up sign for safety at WIPP.

An overview of the acts and their implementing regulations is presented in this section. DOE agreements with the state of New Mexico, Indian tribes, Western Governors' Association, and Southern States Energy Board are discussed in the section titled, "Stakeholder Considerations."

The WIPP Land Withdrawal Act

The WIPP Land Withdrawal Act (Public Law 102-579, 106 Stat. 4777) transfers jurisdiction over the land on which the WIPP is situated from the Department of the Interior to DOE, requiring DOE compliance with regulations and mandates included in the Act.

DOE's strategy is to satisfy the applicable regulations in an integrated and consistent manner....

In the WIPP Land Withdrawal Act, the Environmental Protection Agency was given authority to certify DOE's compliance with radioactive waste disposal standards (Title 40 Code of Federal Regulations 191). In 1982, The Nuclear Waste Policy Act (42 USCS §§ 9701 *et seq*) gave the Environmental Protection Agency the authority to promulgate waste standards pursuant to the Atomic Energy Act (U.S. Congress, 1954).

In 1985, the Environmental Protection Agency announced environmental standards that govern the management and disposal of spent nuclear fuel, high-level and transuranic radioactive wastes. Following issuance of the standards, Title 40 Code of Federal Regulations Part 191, environmental interest groups and others filed suit.

While this petition was being considered, the Environmental Protection Agency established that facilities used to manage hazardous wastes mixed with radioactive waste (including transuranic waste) are subject to the Resource Conservation and Recovery Act (42 USCA §§ 6901 *et seq*) regulations regarding management of the hazardous waste component of radioactive wastes (Environmental Protection Agency, 1986).

The DOE issued a Final Rule under Title 10 Code of Federal Regulations 962, clarifying the DOE's obligations under the Resource Conservation and Recovery Act, in the *Federal Register* (DOE, 1987). The effect of this rule was that all DOE radioactive waste that is considered hazardous under the Resource Conservation and Recovery Act will be subject to regulations under both this Act and the Atomic Energy Act. In turn, the Environmental Protection Agency clarified interim status requirements for mixed waste facilities in its Clarification Notice in the *Federal Register* (Environmental Protection Agency, 1988), by setting dates for states to be authorized for regulating mixed wastes.

In 1987, the court reinstated parts of Title 40 Code of Federal Regulations 191 (subpart A, "Standards for Management and Storage"), but left the entirety of another part of the rule, subpart B ("Standards for Disposal") in remand (i.e., sent back to the Environmental Protection Agency for repromulgation).

In October 1992, Public Law 102-579, 106 Stat. 4777, the WIPP Land Withdrawal Act, was enacted (U.S. Congress, 1992b). The WIPP Land Withdrawal Act reinstated all of Title 40 Code of Federal Regulations 191 subpart B disposal standards except two sections, and gave the Environmental Protection Agency until April 30, 1993, to revise these sections.

The Environmental Protection Agency published its proposed revisions (Environmental Protection Agency, 1993a) to Title 40 Code of Federal Regulations 191 in February 1993. It adopted revisions of sections previously remanded, and added a new subpart C ("Environmental Standards for Groundwater Protection"). The standards were finalized in December 1993 (Environmental Protection Agency, 1993b).

In March 1995, the DOE will issue a draft compliance certification package (Title 40 Code of Federal Regulations 191) for review by the Environmental Protection Agency and interested stakeholders. This draft certification package will provide a foundation upon which the DOE, regulatory agencies, and other stakeholders can evaluate the status of the compliance program, and identify and discuss issues before the final certification application is submitted. Current plans are for DOE to submit the final certification application to the Environmental Protection Agency

in 1996, as shown in Figure 1 (the Disposal Decision Plan). This goal is discussed under Objective I (page 24).

After receipt of the certification application from DOE in 1996, the Environmental Protection Agency will review the submittal against another regulation called "Criteria for Certification of Compliance with Environmental Radiation Protection Standards for the Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes" (Environmental Protection Agency, 1993c). This regulation, designated as Title 40 Code of Federal Regulations 194, is expected to be promulgated in a rulemaking by the Environmental Protection Agency in 1995. It will provide the criteria the Environmental Protection Agency will use to evaluate DOE's compliance with the disposal regulations of Title 40 Code of Federal Regulations 191. The DOE will apply the criteria of Title 40 Code of Federal Regulations 194 when preparing the certification application. To demonstrate that compliance is satisfied, the WIPP has developed a technical program plan.

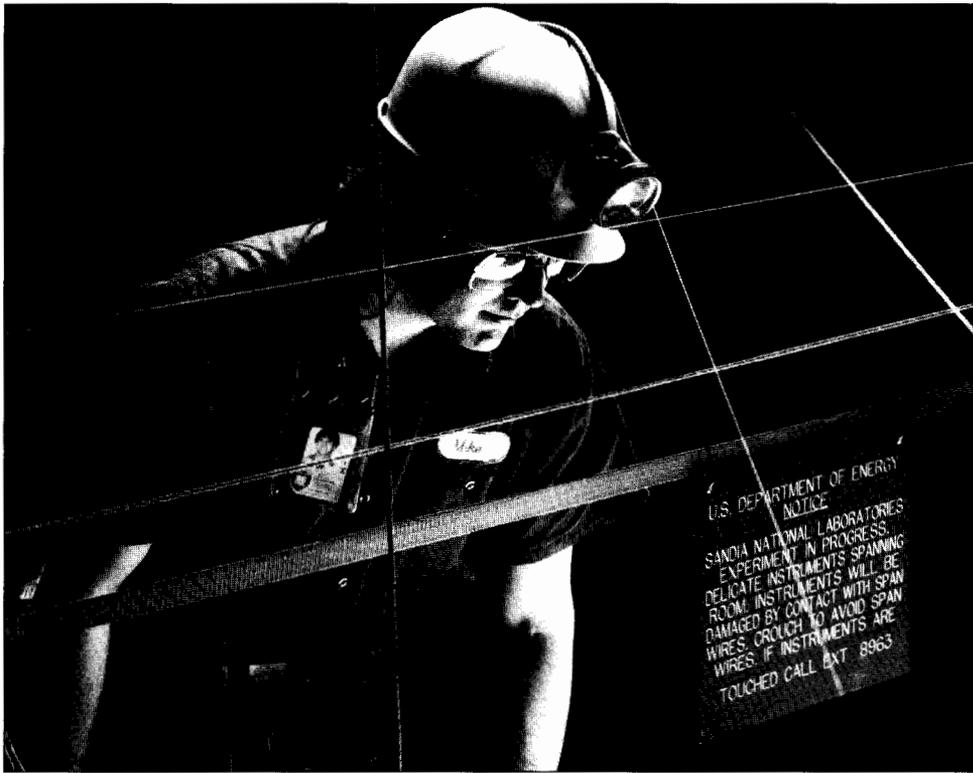
Details of WIPP's technical program plan, designed to show regulatory compliance and to support a disposal decision recommendation, are described in the Experimental Program Plan (DOE, 1994b). The Experimental Program Plan is also a living document; it will be revised consistent with in-depth programmatic reviews of experimental activities and needs.

The WIPP Land Withdrawal Act requires the DOE to complete certain studies, reviews and surveys. These include: a study comparing the shipment of transuranic waste to the WIPP facility by truck and by rail [section 16(f)]; a comprehensive recommendation and timetable for the disposal of all transuranic waste under the control of the Secretary [section 7(b)5]; a publicly reviewed survey identifying all transuranic waste types at all sites from which wastes are to be shipped to WIPP [section 7(b)6]; and a study reviewing the technologies that are available and that are being developed for the processing or reduction of volumes of radioactive wastes [section 19].

The "Comparative Study of WIPP Transportation Alternatives" was completed last year (DOE, 1994f) and included an evaluation of three transportation options: dedicated truck shipments, regular train



The WIPP Land Withdrawal Act requires DOE to provide performance assessment and other technical reports to the New Mexico Environmental Evaluation Group (EEG). Above, Bob Neill, EEG Director, participates in the discussion at a recent stakeholder forum.



To demonstrate that compliance is satisfied, the WIPP has prepared the Experimental Program Plan, which will be revised consistent with in-depth programmatic reviews of experimental activities and needs. Above, a WIPP employee carries out part of the experimental program.

shipments, and dedicated train shipments. The report considers occupational and public risks and exposures, other environmental impacts, emergency response capabilities, and comparative costs. The study concluded that, under all alternatives, DOE can safely transport transuranic waste to the WIPP facility.

A comprehensive disposal recommendation and timetable for all DOE controlled transuranic waste is being prepared in coordination with all of the waste generator and storage sites. The disposal recommendation will include all DOE transuranic waste including those waste types or volumes not presently identified for disposal at WIPP. Current plans are for DOE to have available the preliminary disposal recommendations at the same time the final certification package is submitted to the Environmental Protection Agency in December, 1996. The submittal to Congress as required by the WIPP Land Withdrawal Act will follow.

A preliminary survey of all transuranic waste types which are to be shipped to WIPP, the WIPP Transuranic Waste Baseline Inventory Report, was com-

pleted last year. The waste survey is designed to support the WIPP Systems Prioritization Method and the Performance Assessment as well as to meet the Land Withdrawal Act requirement. The survey is being updated and a new revision is scheduled to be ready in the fall of 1995 with a period for public review and comment to follow.

A study of transuranic waste treatment technologies is being prepared for submittal to Congress by October of 1995. The study includes a survey and summary of radioactive waste treatment technologies that are either available or under various stages of development.

The WIPP Land Withdrawal Act further requires DOE to consult with the state of New Mexico in the management of the land withdrawal, provide emergency response preparedness training, coordinate on final decommissioning of the site, and provide performance assessment and other technical reports to the New Mexico Environmental Evaluation Group for review and comment. CAO's plans for implementing these mandates are presented in Objectives I and IV (pages 24 and 27).

The Resource Conservation and Recovery Act National Environmental Policy Act of 1969

The Resource Conservation and Recovery Act (42 USCA 6901 *et seq.*) was passed by Congress in 1976 to establish procedures for the management of hazardous wastes. It was amended by the Hazardous and Solid Waste Amendments in 1984 to address mixed wastes (waste with both hazardous and radioactive components).

The WIPP site is subject to regulation under the Resource Conservation and Recovery Act by the joint authority of the Environmental Protection Agency Region VI and the New Mexico Environment Department. Resource Conservation and Recovery Act Part B permits are to be jointly issued by the Environmental Protection Agency Region VI and the New Mexico Environment Department.

The Resource Conservation and Recovery Act Part A notification was filed with the New Mexico Environment Department in January 1991. Revision 3 of the Part B permit application, which sought a permit to conduct tests at the WIPP, was submitted in January 1993. Due to its program re-direction to use laboratory-based tests for experiments to aid in demonstrating WIPP compliance, DOE requested the opportunity to revise the Part B permit application to reflect the program changes. In September 1994, the New Mexico Environment Department declared the draft permit withdrawn and ordered a revised permit application by May 31, 1995.

The Resource Conservation and Recovery Act requires long-term repository compliance under Title 40 Code of Federal Regulations 268 "Land Disposal Restrictions," which give the Environmental Protection Agency the authority to consider petitions to allow land disposal of wastes without treatment, provided that certain conditions are met for no-migration of hazardous constituents. A petition for no-migration determination during the disposal phase for granting a variance from waste treatment requirements in Title 40 Code of Federal Regulations 268 will be prepared and submitted to the Environmental Protection Agency in 1995. This activity is shown on the "Regulatory Compliance" line of the Disposal Decision Plan (Figure 1).

Congress passed the National Environmental Policy Act (42 USCA §§ 4321 *et seq.*) to establish a national policy for protection of the environment and to provide for the establishment of a Council on Environmental Quality to manage National Environmental Policy Act compliance.

*...the WIPP must comply ...
without additional damage
to the environment or risk
to public health and safety...*

This action showed that Congress recognized the profound impact of human activity on the interrelations of all components of the natural environment. Further, Congress recognized the critical importance of restoring and maintaining environmental quality for the overall welfare and development of society. The National Environmental Policy Act directs the federal government to use "all practical means" to improve and coordinate plans, functions, programs, and resources to that end.

Thus, the WIPP must comply with the mandates of the National Environmental Policy Act without additional damage to the environment or risk to public health and safety.

National Environmental Policy Act compliance activities at the WIPP include:

- The Final Environmental Impact Statement (DOE, 1980) for which DOE evaluated the potential environmental impacts of initial construction of the WIPP;
- The Final Supplement Environmental Impact Statement (DOE, 1990a) and its associated Record of Decision (DOE, 1990b) for which DOE determined that it could proceed with the phased development of the WIPP; and
- The Disposal Phase Supplement Environmental Impact Statement which will be undertaken prior to the Secretary of Energy's decision whether to open the WIPP.

As stated in the Final Supplement Environmental Impact Statement, "the DOE will issue another Supplement Environmental Impact Statement . . . prior to a decision to proceed to the disposal phase" (DOE, 1990b). The DOE has initiated internal planning for the Supplement Environmental Impact Statement for disposal. The integration of related compliance requirements, such as Title 40 Code of Federal Regulations 191 certification, the no-migration variance petition, and the Resource Conservation and Recovery Act permitting process, is necessary to properly scope documentation required for the disposal phase Supplement Environmental Impact Statement.

DOE National Security and Military Applications of Nuclear Energy Authorization Act of 1980

This act (Public Law 96-164, 93 Stat. 1259) was passed by Congress in December 1979. It provided funding for engineering and construction services, land lease acquisition, and long-lead procurement at the WIPP. It authorized the Secretary of Energy to proceed with construction of the WIPP.

The statute also provides for DOE consultation and cooperation with appropriate officials of the state of New Mexico regarding public health and safety concerns. It directed that a written agreement between the DOE and the state of New Mexico be entered into with detailed procedures and time frames for review and resolution of comments and recommendations made by the state.

DOE has complied with this law by entering into two working agreements with the state of New Mexico:

- The Consultation and Cooperation Agreement (DOE and the state of New Mexico, 1981); and
- The Working Agreement (Appendix B) for the Consultation and Cooperation Agreement between DOE and the state of New Mexico.

Both agreements have been modified several times.

A modification to the Consultation and Cooperation Agreement directs DOE to agree to regulatory requirements set forth in Title 10 Code of Federal

Regulations 71 for transport of radioactive materials to the WIPP. The regulation covers the type of shipping container and requires U.S. Nuclear Regulatory Commission certification. Nuclear Regulatory Commission certification was renewed in 1994. This requirement is shown on the "Operations" time line of the Disposal Decision Plan (Figure 1). Objective III (page 26) addresses strategies related to this and other transportation compliance and readiness objectives.

The Federal Facility Compliance Act of 1992

The Federal Facility Compliance Act was passed by Congress in October 1992 (as Public Law 102-386, 106 Stat. 1505) to amend the Solid Waste Disposal Act. The Federal Facility Compliance Act requires all federal facilities to comply with the same requirements and be subject to the same penalties for failure to comply as non-federal facilities. The Federal Facility Compliance Act also requires mixed waste inventory reports and plans, as well as identification of the waste streams consistent with the Environmental Protection Agency hazardous waste codes. Generator and storage sites that manage transuranic mixed waste are thus required to prepare waste inventories.

In December 1979, Congress authorized the Secretary of Energy to proceed with construction of the WIPP...

Under the Federal Facility Compliance Act, each generator/storage site must define the currently stored inventory of mixed wastes along with those wastes to be generated over the next five years. The facility must also define the current and planned treatment capabilities to be implemented in order to treat the inventory of mixed wastes to the standards defined by the Land Disposal Restrictions. The mixed transuranic inventory destined for disposal at WIPP will not require treatment once a WIPP no-migration determination has been granted for land disposal restricted waste. However, the applicable regulatory agencies have requested the generator/

storage sites prepare plans for treatment until this no-migration determination has been granted. These treatment capacities and plans are documented in a Site Treatment Plan for each facility. The DOE facilities must submit the Site Treatment Plans to the Environmental Protection Agency or authorized state agencies for approval pursuant to the requirements of the Federal Facility Compliance Act.

Section 3021 of the Federal Facility Compliance Act clarified a definition of the term "mixed waste" by adding it to the Solid Waste Disposal Act. The Federal Facility Compliance Act defines mixed waste as "waste that contains both hazardous waste and source, special nuclear, or by-product material subject to the Atomic Energy Act of 1954."

Stakeholder Considerations



In response to major issues within and external to the DOE, an advisory group was formed to examine DOE's interactions with various members of the public. This group, called the Secretary of Energy Advisory Board, produced a final report in 1994 (DOE, 1994d) that evaluated current public outreach and involvement efforts and found significant weaknesses in DOE interactions with the public.

Partially as a result of that report, DOE committed to increase interaction with both internal and external stakeholders regarding major decisions. In addition, it is DOE policy that regulators must be confi-

dent that all stakeholder concerns are addressed before compliance certification. The CAO is equally committed to these goals. To this end, the Carlsbad Area Office is working with federal and state regulatory agencies, scientific advisory and special interest groups, federal, state, local and tribal governments, and the general public.

Historically, the WIPP has generated intense public interest and concern. Unlike other DOE facilities, the WIPP is intended to be the final disposal site for transuranic wastes, not a site on the way to cleanup. Thus, the WIPP provokes questions from various



The CAO invited interested stakeholders to join the manager in a media conference following a stakeholder forum in September 1994.

public constituents, such as how much waste will be disposed there and can it be safely contained as long as hazards persist? This section summarizes the concerns of key external and internal stakeholders.

External Stakeholders

The majority of CAO's stakeholders are external to the DOE – regulators and advisory groups; federal, state, local, and tribal governments; special interest groups; and the general public. As summarized in the following sections, these groups have distinct concerns that the CAO will consider as it proceeds toward the disposal decision.

The Public

Among the people who have actively expressed opinions, public perceptions of the DOE generally and the WIPP program specifically seem to fall into two distinct camps (with many variations within the two camps): those who support the WIPP and those who oppose it. The CAO's challenge is to respond to the concerns of each group without neglecting – or even appearing to neglect – the interests of the other. The CAO is committed to the proposition that it must listen and respond to the full range of public concerns if it is to earn public confidence in the WIPP facility as a safe disposal option and to continue to enjoy the support of the host communities of southeastern New Mexico.

The CAO is committed to providing information to help stakeholders understand – or stay abreast of, as the case may be – the complexities and rigor of activities designed to show compliance and safety, including performance assessments and experimental research by Sandia National Laboratories. This knowledge is the necessary first step toward involving various stakeholders in the CAO's decisions regarding the WIPP.

The CAO fully supports DOE's mandate to be more forthright, to protect the environment, to safeguard the public health and safety, and to involve the public in its decisions regarding the WIPP. As noted in specific strategies for all of the objectives provided in the next section, the CAO is committed to brief interested parties to keep them informed of plans and progress, provide thoughtful response to comments, and support new ways of doing business that better respond to public concerns.

Congress

Due to the many Land Withdrawal Act requirements for special studies, program documents, and topical reports that must be submitted to Congress, the CAO anticipates the level of congressional interest and oversight to remain high in the years ahead. In general, Congress is interested in ensuring that funding for the WIPP program is being managed prudently and that technical progress is being made toward a credible evaluation of the WIPP facility as a disposal option. In addition, members of both the House and Senate continue to be actively interested in the economic and environmental impacts associated with DOE facilities and activities in their home districts and states.

... regulators must be confident that all stakeholder concerns are addressed before compliance certification...

The New Mexico congressional delegation's interest in the project primarily concerns assurances that all health and safety (including emergency response training) and regulatory requirements are diligently complied with before a decision is made to use the facility as a permanent repository. This delegation also seeks assurance that DOE will follow through on its commitment to provide funding to the site.

State of New Mexico

The state of New Mexico has committed to assuring its citizens that WIPP will comply on two key issues:

- The Resource Conservation and Recovery Act permit through its mandate from the Environmental Protection Agency to manage hazardous wastes in the state; and
- The safety of DOE's transportation system for bringing waste into the state (including the adequacy of highways and emergency preparedness).

The New Mexico Environment Department manages the Resource Conservation and Recovery Act permitting process and will ensure that waste received at the facility has been adequately character-

ized so that wastes inappropriate for disposal at the WIPP will not enter the state. The New Mexico Environment Department will require an adequate and documented chain-of-custody process for all waste shipments and for all waste samples taken. This requirement applies to existing waste stored at the generator sites and to any future waste transported to the WIPP. The state continues to focus on the completion of highways and bypasses around Santa Fe, Roswell, and Carlsbad, New Mexico; and on the upgrading of highways along the WIPP transportation corridor within New Mexico.

The New Mexico Environment Department is also responsible for performing regulatory oversight at the WIPP. Responsibilities include review of site programs, activities, and documents to ensure compliance with applicable environmental standards.

In addition to the specific regulatory authority of the New Mexico Environment Department under the Resource Conservation and Recovery Act and the technical oversight by the Environmental Evaluation Group, the state's primary policy negotiator is the New Mexico Radioactive Waste Consultation

Task Force (also known as the Governor's WIPP Task Force). Established by the New Mexico Radioactive and Hazardous Materials Act in 1979, the Task Force consists of six cabinet secretaries, or their designees, and is currently chaired by the Secretary of the Energy, Minerals and Natural Resources Department. The task force is authorized to:

- Negotiate all contract funding agreements for the executive branch of the government of New Mexico;
- Negotiate on behalf of the state of New Mexico with the federal government on all aspects of the WIPP; and
- Briefs the legislative branch of the government of New Mexico on WIPP activities.

The Joint Interim Legislative Radioactive and Hazardous Materials Committee of the New Mexico State Legislature has statutory responsibilities concerning the WIPP. The Radioactive and Hazardous Materials Act directs the committee to:

- Meet annually to develop a work plan for the coming year;



Representatives of Indian tribes and pueblos convened at the Carlsbad Area Office in November 1994 to tour the WIPP and convey their concerns and issues to the manager.

- Provide oversight of issues related to the WIPP that affect the state of New Mexico;
- Consider a number of issues related to the treatment, generation, storage, transportation or disposal of hazardous wastes; and
- Decide what is germane to its mandate.

To date, the committee has determined that its role is oversight, and has not drawn up legislation. The chair and vice chair serve as advisors to the Governor's WIPP Task Force.

States and Tribal Governments

Each state hosting a generator or storage site and Indian tribal governments with reservations bordering those sites have a vested interest in reducing the backlog and projected inventory of transuranic waste. Many generator site host states are faced with permitting the construction of waste storage facilities in their states because of delays in opening WIPP and because of needs for managing pre-1970 waste in accordance with the Federal Facility Compliance Act.

...the system proposed for transportation of TRU waste to WIPP is safer than that employed for any other hazardous material in the [U.S.]...

Transportation is an important issue for corridor states through which waste will be shipped and for Indian tribes through whose lands waste will be shipped. These entities have expressed concerns regarding the adequacy of the transportation program and associated emergency response capabilities. These concerns focus on the potential risks of an accident, the adequacy of hospital facilities and ambulance services, and the adequacy of training and equipment of local fire and police department response teams. Such concerns are addressed through existing cooperative agreements. Copies of these agreements can be found in DOE WIPP reading rooms, which are listed in Table 1. In addition, the Environmental Protection Agency maintains dock-

ets on WIPP activities in reading rooms in New Mexico. These locations are given on the Environmental Protection Agency's WIPP Hotline (1-800-331-WIPP).

There are currently two cooperative agreements with Indian tribes. Both agreements are valid for five years and provide funding on a fiscal-year basis for emergency response training, transportation/shipment monitoring equipment, and public involvement activities. DOE will establish similar agreements with affected tribes along the disposal routes. DOE has done extensive work in developing safe shipping containers, in managing its shipping contractor, and in establishing emergency preparedness processes and procedures. The National Academy of Sciences recognized this work in June 1989, when it concluded that "... the system proposed for transportation of transuranic waste to WIPP is safer than that employed for any other hazardous material in the United States today and will reduce risk to very low levels" (National Academy of Sciences, 1989).

The Environmental Protection Agency

As discussed previously, the WIPP Land Withdrawal Act established a new regulatory framework in which the Environmental Protection Agency must certify WIPP's compliance with the radioactive waste disposal standard (Title 40 Code of Federal Regulations 191) before the WIPP can function as a disposal facility. To facilitate stakeholder involvement in compliance issues at the WIPP, the Environmental Protection Agency has convened a WIPP National Advisory Council for Environmental Policy and Technology. A primary purpose of this committee is to advise the Environmental Protection Agency on the development of WIPP regulations. National Advisory Council for Environmental Policy and Technology meeting minutes are provided to the Environmental Protection Agency's WIPP docket, and copies are sent to the WIPP reading rooms (listed in Table 1).

In addition to its role as issuing agency for the certification and compliance criteria regulations yet to be promulgated (Title 40 Code of Federal Regulations 194), the Environmental Protection Agency has responsibility for ruling on the no-migration variance (Title 40 Code of Federal Regulations 268) for permanent disposal.

Table 1. List of WIPP Reading Rooms

Name	Address	Telephone
DOE-Headquarters Public Reading Room	Forrestal Building Room 1E-190 1000 Independence Ave. S.W. Washington, DC 20585	202-586-6020
Defense Nuclear Facilities Safety Board	625 Indiana Ave. N.W. Suite 700 Washington, DC 20004	202-208-6400
Environmental Restoration and Waste Management (EM) Public Information Center	470 L'Enfant Plaza East S.W. Suite 7110 Washington, DC 20084	1-800-736-3282
Scientific and Technical Information Center, Department of Energy Reading Room	55 Jefferson Ave. Oak Ridge, TN 37830	615-241-4780
Thomas Brannigan Memorial Library	200 E. Picacho Las Cruces, NM 88001	505-526-1045
New Mexico State Library	325 Don Gaspar Southwest Room Santa Fe, NM 87503	505-827-3805
Pannell Library New Mexico Junior College	5317 Lovington Highway Hobbs, NM 88240	505-392-4510
Carlsbad Public Library Public Document Room	101 S. Halagueno Carlsbad, NM 88220	505-885-6776
Zimmerman Library Government Publications University of New Mexico	Roma Ave. and Yale Blvd. Albuquerque, NM 87131	505-277-5441
National Atomic Museum Public Reading Room	Kirtland Air Force Base Wyoming Blvd., South Albuquerque, NM 87115	505-845-6670
New Mexico Tech Library	New Mexico Institute of Mining & Technology Socorro, NM 87801	505-835-5614

Other Federal Agencies

In addition to the Environmental Protection Agency, the CAO is working with other government entities to resolve programmatic, safety, and regulatory issues as required by the WIPP Land Withdrawal Act. The Nuclear Regulatory Commission serves as the certifying agency for the waste shipping containers, the Transuranic Package Transporter (TRUPACT) II. DOE must apply to the Nuclear Regulatory Commission to recertify the safety and payload capacity of the Transuranic Package Transporter II every five years, in accordance with regulations stated in Title 10 Code of Federal Regulations Part 71. The Department of the Interior has worked with the WIPP to develop a management plan for use of the land involved in the WIPP Land Withdrawal Act (DOE, 1993b).

Other agencies involved by the WIPP Land Withdrawal Act are: the Mine Safety and Health Administration for underground safety, the Department of Labor for the Occupational Safety and Health Act for worker safety, the National Institute for Occupational Safety and Health for setting standards for occupational exposures and protective equipment and clothing standards, and the Bureau of Mines for research on roof-fall hazards and other safety issues regarding the constructed underground facility.

National Academy of Sciences

The Committee on WIPP of the National Academy of Sciences, referred to as the WIPP Panel, serves as a technical advisory group of the WIPP program. It provides independent scientific and technical review of the WIPP program.

This nine-member committee is administered by the Board of Radioactive Waste Management of the National Academy of Sciences at the request of DOE. It has been meeting quarterly since 1978. This committee has offered suggestions to both DOE and the Environmental Protection Agency for improving the scientific basis for demonstrating that the WIPP is in compliance with environmental regulations. The WIPP Land Withdrawal Act gave the National Academy of Sciences continued review authority for WIPP activities. The National Academy of Sciences WIPP Panel is supported through DOE funding to the Board of Radioactive Waste Management of the National Academy of Sciences.



Linda Murakami, chair of the Rocky Flats (Colorado) Community Advisory Board, advised the CAO, "Integration of DOE stakeholder programs is the key to success."

Environmental Evaluation Group

Since 1981, the WIPP program has been overseen by the Environmental Evaluation Group, an independent body of technical experts, established by the Congress (Public Law 100-456, 102 Stat. 2073). The Environmental Evaluation Group is funded by the DOE through a grant to the New Mexico Institute of Mining and Technology (New Mexico Tech), a state-supported college in Socorro, New Mexico.

The Environmental Evaluation Group's mission is "to conduct independent reviews and evaluations of the design, construction, and operations of the WIPP in New Mexico as they relate to the protection of the public health and safety and the environment." The Environmental Evaluation Group's mission was recently reauthorized in the WIPP Land Withdrawal Act.

The Environmental Evaluation Group has reviewed and commented on major WIPP program developments and documents. Its recommendations have had a significant effect on programmatic decisions and actions. Completely independent of DOE direction, the Environmental Evaluation Group provides a unique mechanism for assuring continuous technical and programmatic accuracy and quality oversight in WIPP decisions and actions.

WIPP Emergency Response Medical Advisory Committee

The WIPP Emergency Response Medical Advisory Committee (Advisory Committee), was established in 1993 by the state of New Mexico as a requirement of the WIPP Land Withdrawal Act. The group is comprised of members of the medical community, environmental groups, the DOE and its contractors, and local and state of New Mexico government agencies. The New Mexico Department of Health provides staff support to the Advisory Committee. Its primary function is to oversee WIPP-related emergency and medical response training. The Advisory Committee's findings are provided to the governor

of the state of New Mexico, the U.S. Secretary of Labor (acting through the Occupational Safety and Health Administration), and the DOE. The two-year term of the Advisory Committee expires June 25, 1995.

Regional Organizations

Two regional organizations of states provide a forum to work cooperatively with the DOE on the planning, development, and implementation of the WIPP transportation safety programs. Funding is provided by the DOE to the Western Governors' Association and the Southern States Energy Board to administer activities in the areas of WIPP accident and emergency response preparation, public information, and stakeholder participation. The Western Governors' Association and the Southern States Energy Board provide grants to the states along the WIPP transportation routes for specific initiatives. The Western Governors' Association member states are affected by shipments from DOE sites in Idaho, Washington, Colorado, New Mexico, California, and Nevada. The Southern States Energy Board member states are affected by shipments from DOE sites in Tennessee and South Carolina. The Southern States Energy Board also coordinates issues for some non-member states affected by shipments from Ohio and Illinois.

Internal Stakeholders

The primary internal stakeholders are the DOE sites that generate or store transuranic wastes. These sites have issues that impact WIPP compliance efforts. All of the major DOE transuranic waste generator and storage sites are expected to ship waste to WIPP.

The waste includes previously generated waste as well as waste from ongoing program activities, such as decontamination and decommissioning and environmental restoration. Figure 2 shows these site locations and proposed truck transportation routes from them to the WIPP.

TRU SHIPMENTS

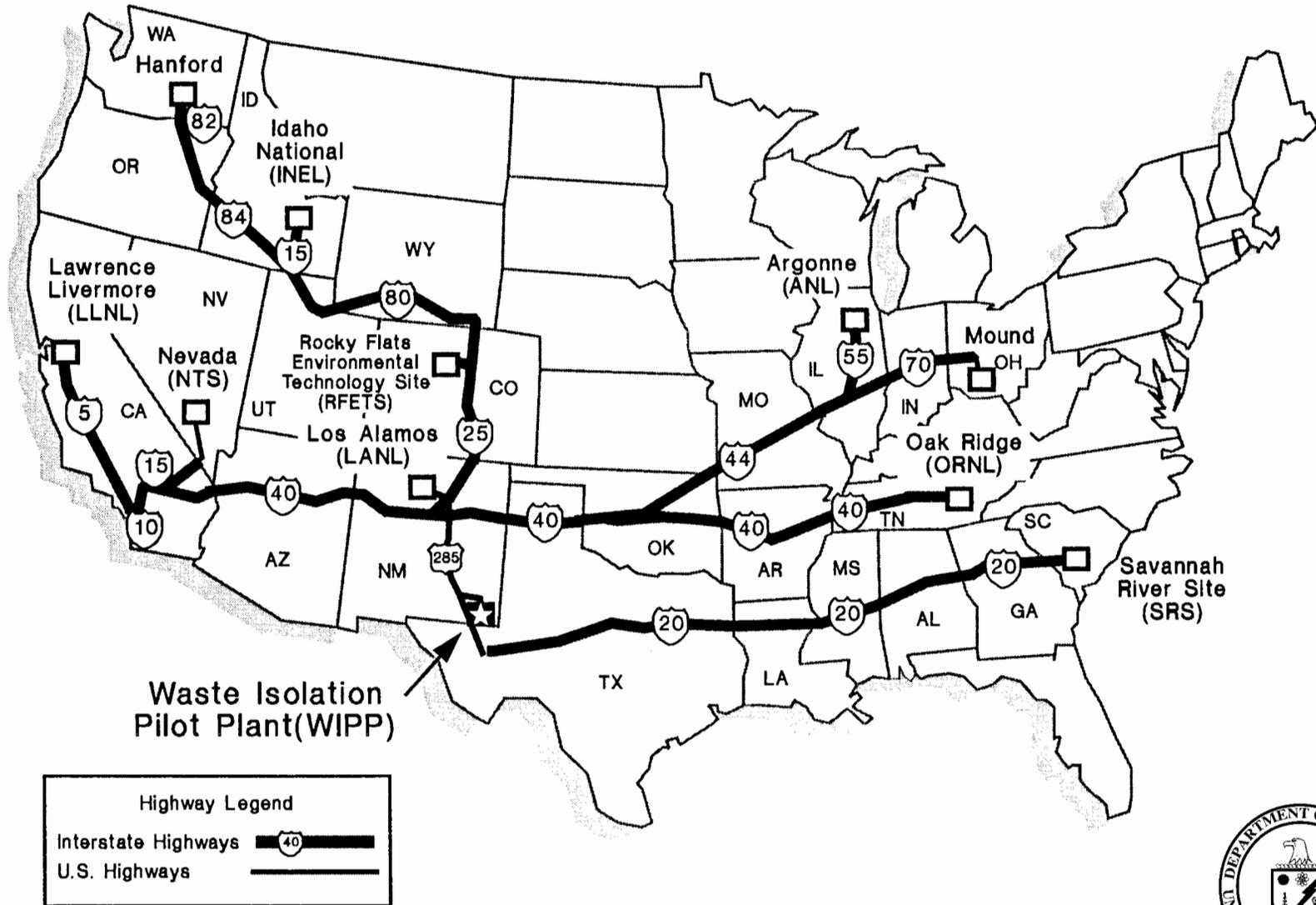


Figure 2. Generator and Storage Sites and Truck Transportation Routes to the WIPP

Objectives, Strategies, and Success Indicators



Introduction

In many instances, the ability of generator sites to implement future programs will be predicated on their ability to manage and dispose of waste. Generators of transuranic waste may need permits to upgrade waste storage facilities or to repackage waste into new containers if the delays for an operational WIPP facility continue.

The CAO has identified four objectives necessary to reach a disposal decision recommendation by 1998. These objectives are as follows:

- Objective I Resolve compliance and technical issues;
- Objective II Characterize waste and develop final waste acceptance criteria;
- Objective III Address transportation and safety issues; and
- Objective IV Involve stakeholders in compliance.

The compliance and regulatory basis for each of these four objectives was explained in the section on "Public Health and Environmental Safeguards."

The strategies to fulfill these objectives are influenced by interactions with regulatory oversight and stakeholder entities addressed in the section, "Stakeholder Considerations."

There are significant external factors that will influence the successful completion of each objective. For example, impact on the program of pending legal actions (such as Resource Conservation and Recovery Act interim status) and impact of regulations not yet promulgated (such as Title 40 Code of Federal Regulations 194) are extremely difficult to predict. Nonetheless, the CAO will focus its efforts on strategies that it can implement to meet the objectives stated here. Successful management of these strategies will lead to a timely decision on whether or not to use the WIPP as a transuranic waste disposal facility.

Planning Assumptions

- DOE will continue to place high priority on and fund the effort to open WIPP.
- The decision to open WIPP is a technical, regulatory, and political decision.
- CAO will comply with all applicable laws and regulations.
- The National Transuranic Waste System consisting of all DOE generator sites is robust and supports disposal of transuranic waste at WIPP.
- Certain experiments are necessary to demonstrate compliance.
- Even if WIPP complies, regulators must be confident that all stakeholder concerns have been addressed before compliance certification.
- CAO will adhere to quality assurance practices.
- Opening and safe operation of WIPP are essential to nationwide management of transuranic wastes.
- Stakeholders will be included in the decision-making process.

As stated previously, this *CAO WIPP Strategic Plan* is a living document. By tracking the progress toward implementation of strategies and conducting periodic assessments of the completion status of individual objectives, the CAO can obtain a disposal decision based on quality data and well-conceived compliance strategies.



Operation of the WIPP is designed to isolate transuranic waste for the protection of future generations.

Objective I. Resolve Compliance and Technical Issues

This objective responds to the key issues that will impact DOE's goal of protecting human health and the environment by compliance with applicable regulations. This activity involves submitting documents to the Environmental Protection Agency that demonstrate compliance with the WIPP Land Withdrawal Act, Title 40 Code of Federal Regulations 191, and other regulations. Disposal of transuranic waste can only be achieved if a recommendation based on sound scientific judgment and experimental results is submitted to the Secretary of Energy, and the Environmental Protection Agency has certified compliance. Issues, strategies, and success indicators for the objective are shown in Table 2.

Table 2. Compliance and Technical Issues, Strategies, and Success Indicators

Issues	Strategies	Success Indicators*
Quality assurance levels for performance assessment analyses were not consistently applied at the highest level (Level A).	Sandia National Laboratories will upgrade the computer codes to Level A quality assurance for all performance assessment calculations used for the 1995 draft compliance package submittal.	Level A computer codes are provided to the Environmental Protection Agency and the New Mexico Environmental Evaluation Group (9/95).
In October 1992, in Section 19 of the Land Withdrawal Act, Congress committed DOE to submit within three years, a study reviewing the technologies that are available and that are being developed for the processing or reduction of volumes of radioactive waste.	Sandia National Laboratories will conduct the study including an identification of technologies involving the use of chemical, physical (including plasma), and thermal processing technologies. It is titled "Findings of the Technical Treatment Study."	CAO provides the study to the Secretary of Energy, who provides it to Congress (10/95).
Uncertainty exists in repository performance.	Sandia National Laboratories will conduct experimental programs and performance assessments to reduce the scientific uncertainty for assumptions about repository performance.	CAO reduces the uncertainty to acceptable compliance limits based on information yielded by performance assessments (12/96).
In the 1990 Record of Decision, DOE committed to prepare a Disposal Phase Supplement Environmental Impact Statement.	CAO will prepare a Disposal Phase Supplement Environmental Impact Statement that calls upon existing documentation, such as the Resource Conservation and Recovery Act Part B permit, the No-Migration Variance petition, and generator site-specific Federal Facility Compliance Act documentation.	The Secretary of Energy signs a Record of Decision for the Disposal Phase Supplement Environmental Impact Statement that finds no significant impacts that cannot be mitigated (11/97).
Resource Conservation and Recovery Act Part B permit application submitted in January 1993 does not reflect current program vision.	The Resource Conservation and Recovery Act Part B permit application will be modified to reflect the changed predisposal phase requirements.	CAO submits revised permit application for disposal phase activities (5/95).

* Success Indicator dates reflect current Disposal Decision Plan milestones (see Figure 1).

Objective II. Characterize Waste and Develop Final Waste Acceptance Criteria

The waste characterization requirements for identifying transuranic waste that can be sent to the WIPP facility must be defined and implemented prior to obtaining a disposal decision recommendation. Objective II responds to the key operational and compliance readiness issues of waste characterization. Information is necessary from this activity to prepare a petition for no-migration variance (Title 40 Code of Federal Regulations 268), and to demonstrate compliance with the long-term geologic disposal requirements (Title 40 CFR 191). Issues, strategies, and success indicators for Objective II are shown in Table 3.

Table 3. Waste Characterization and Acceptance Issues, Strategies, and Success Indicators

Issues	Strategies	Success Indicators*
Baseline waste inventory information by waste type and generator/storage site, is needed for performance assessment.	NTPO will survey and identify all transuranic waste types (mixed and non-mixed), including stored, currently generated, and future generated waste at each DOE generator/storage site.	CAO issues the WIPP Transuranic Waste Baseline Inventory Report (6/94) and Revision 1.0 of the WIPP Transuranic Waste Baseline Inventory Report (1/95). (Both completed.)
Performance Based Waste Acceptance Criteria Preliminary Baseline Assumptions need to be developed.	The CAO will identify assumptions which determine the potential restrictions on wastes bound for WIPP, based on the performance parameters of the repository and the characteristics of the waste inventory as determined through long-term modeling.	CAO issues document, (10/94). (Completed)
Title 40 CFR 268 requires that certain parameters be characterized in the waste for a disposal phase no-migration determination.	NTPO will implement the Waste Characterization Plan to provide sufficient data for no-migration determination.	CAO has adequately defined the critical waste inventory parameters for inclusion in WIPP no-migration determination (3/95).
As the centerpiece of DOE's defense waste management program, the WIPP must meet the needs for transuranic waste disposal and be in compliance with all regulations as required by the WIPP Land Withdrawal Act.	NTPO will use data from the Baseline Inventory Report and results of performance assessment modeling to determine waste form categorization requirements. The generator/storage sites will then categorize their wastes according to these requirements.	All generator/storage sites have successfully categorized their WIPP-acceptable wastes for inclusion in the performance based waste acceptance criteria for use in the final compliance package (12/96).
WIPP waste acceptance criteria are required to determine potential processing or treatment requirements for waste acceptance at WIPP.	SNL will analyze waste characterization parameters using performance assessment to develop performance based waste acceptance criteria for the WIPP.	CAO will revise the WIPP waste acceptance criteria by issuing methods for characterizing and assessing wastes against performance assessment requirements to all generator/storage sites (3/95). All transuranic inventory definition is included in the final compliance package (12/96).
A survey of all transuranic waste types is required by the WIPP Land Withdrawal Act.	CAO will prepare a survey of the transuranic waste types (including D&D and environmental restoration generated wastes) that will be sent from generator/storage sites to WIPP for disposal.	A report documenting the survey of all waste types is submitted to EPA by CAO as required by the WIPP Land Withdrawal Act (12/97).

* Success Indicator dates reflect current Disposal Decision Plan milestones (see Figure 1).

Objective III. Address Transportation and Safety Issues

This objective responds to transportation issues, which affect the largest number of external stakeholders, due to the routes for waste shipment from the generator / storage sites (see Figure 2). Congress mandated in the WIPP Land Withdrawal Act that DOE address the concerns of those affected by transportation routes and that funding be made available for training exercises, emergency preparedness, and upgrade of existing roadways. To the extent provided in appropriation acts, CAO implementation of the strategies shown in Table 4 will facilitate compliance with these WIPP Land Withdrawal Act mandates, and assure safety readiness in transportation at the time of a disposal decision by the Secretary of Energy.

Table 4. Transportation Planning Issues, Strategies, and Success Indicators

Issues	Strategies	Success Indicators*
<p>The WIPP Land Withdrawal Act requires submission to Congress of a study comparing health, safety, environmental, and cost impacts and emergency response capabilities associated with shipping transuranic waste to WIPP by truck versus rail.</p>	<p>NTPO will conduct a study comparing health, safety, environmental, and cost impacts and emergency response capabilities associated with shipping remote-handled transuranic waste to the WIPP by truck versus rail.</p>	<p>A truck versus rail shipping study for remote handled transuranic waste is completed and has been submitted to Congress (4/94).</p>
<p>The Western Governors' Association, Southern States Energy Board, and Indian tribes desire to continue maintaining transportation accident response expertise pending a disposal decision.</p>	<p>CAO will continue transportation safety programs, at the appropriate level, for state and tribal entities through whose jurisdiction waste will be shipped. CAO will continue refresher training at the appropriate level, where already underway, until a disposal decision is reached.</p>	<p>DOE will execute new agreements with the WGA (6/95), SSEB (12/95), Indian tribes (12/96) on level of funding and amount of training during the predisposal phase on a continuing basis.</p>
<p>The WIPP Land Withdrawal Act mandates that a shipping schedule for transfer of waste from DOE generator/storage sites to the WIPP be submitted to Congress.</p>	<p>NTPO will develop a shipping schedule for transferring transuranic waste from DOE generator/storage sites to the WIPP.</p>	<p>A forecast shipping schedule for the transfer of transuranic waste from the generator/storage sites to the WIPP is published by CAO, after review by stakeholders and submittal to the Congress (6/97).</p>
<p>The second amendment to the C&C Agreement requires that WIPP transportation containers comply with applicable DOT and NRC regulations, and be certified by the Nuclear Regulatory Commission.</p>	<p>CAO will utilize only Nuclear Regulatory Commission certified packages for shipments of remote-handled transuranic waste to WIPP.</p>	<p>Nuclear Regulatory Commission continues to issue timely renewal of transuranic package transporter Certificate of Compliance (the most current following recertification (6/94) and every five years thereafter). Nuclear Regulatory Commission issues Certificate of Compliance for remote-handled cask (7/97).</p>
<p>Safety during transport of transuranic waste is a concern for all corridor states and affected Indian tribes.</p>	<p>NTPO will continue enhanced safety measures including use of a dedicated carrier, highly trained drivers, and well maintained transport vehicles.</p>	<p>Carrier evaluation per DOE Motor Carrier Evaluation Program (biennial). Certification of carrier readiness (6/98).</p>

* Success Indicator dates reflect current Disposal Decision Plan milestones (see Figure 1).

Objective IV. Involve Stakeholders in Compliance

This objective addresses both the WIPP Land Withdrawal Act mandates for integration of agency concerns and the DOE's commitment to openness and public involvement in its national missions. The strategies in Objective IV are the integrating actions taken to resolve the compliance and readiness issues and to implement the CAO commitment to resolution of stakeholder concerns. Table 5 describes initiatives that CAO will implement to integrate stakeholder involvement and compliance issues for reaching a disposal decision recommendation at the WIPP.

Table 5. Stakeholder Compliance Issues, Strategies, and Success Indicators

Issues	Strategies	Success Indicators*
The WIPP Land Withdrawal Act requires periodic meetings with the state of New Mexico and Environmental Evaluation Group to resolve issues related to public concerns about the WIPP.	CAO will develop meeting agendas in cooperation with the state of New Mexico and Environmental Evaluation Group that have pre-assigned responsibilities for close-out of action items from quarterly meetings with DOE, Environmental Evaluation Group and the state of New Mexico.	CAO addresses action items from quarterly meetings within 30 days of the meeting, and any amendments to the C&C Agreement are reported to Congress within 60 days of signing.
Written response to New Mexico Environmental Evaluation Group review and comments on DOE documents is required by the C&C Agreement.	CAO has developed a process for review and processing of Environmental Evaluation Group comments and will maintain an administrative record of these actions.	CAO provides a schedule for response or acknowledges Environmental Evaluation Group comments within 10 working days.
Departmental policy regarding preparation of the Disposal Phase Supplement Environmental Impact Statement requires the solicitation of stakeholder views as to the scope of the Supplement Environmental Impact Statement.	CAO will use the stakeholder involvement process to conduct public meetings and gather input for the Disposal Phase Supplement Environmental Impact Statement.	CAO addresses draft Supplement Environmental Impact Statement issues raised by stakeholders. CAO completes the Disposal Phase Supplement Environmental Impact Statement in a time frame consistent with meeting the Disposal Decision Plan milestones for its completion (10/97).
The public does not feel sufficiently involved in the outcome of DOE decisions.	CAO will prepare and implement a Stakeholder Outreach Strategic Plan, and associated Implementation Plan.	Improved working relationships between CAO and its stakeholders develop as evidenced by fewer issues related to process and greater focus on substantive contributions (1/98).

* Success Indicator dates reflect current Disposal Decision Plan milestones (see Figure 1).

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Acronyms and Abbreviations



AEA	Atomic Energy Act of 1954
AEC	Atomic Energy Commission
CAO	Carlsbad Area Office (U.S. Department of Energy)
C&C	Consultation and Cooperation Agreement
CFR	Code of Federal Regulations
CH	contact handled
D&D	decontamination and decommissioning
DDP	Disposal Decision Plan
DOE	U.S. Department of Energy
DOI	U.S. Department of Interior
EEG	Environmental Evaluation Group
EM	Environmental Management (DOE)
EPA	U.S. Environmental Protection Agency
EPP	Experimental Program Plan
ER	Environmental Restoration (DOE)
FFCA	Federal Facilities Compliance Act
FEIS	Final Environmental Impact Statement
FR	Federal Register
FSAR	Final Safety Analysis Report
FSEIS	Final Supplement Environmental Impact Statement
LWA	Land Withdrawal Act (Public Law 102-579)
NACEPT	National Advisory Council for Environmental Policy and Technology (EPA)
NAS	National Academy of Sciences
NEPA	National Environmental Policy Act (Public Law 96-190)
NMED	New Mexico Environment Department
NRC	U.S. Nuclear Regulatory Commission
NTP	National Transuranic Program
NTPO	National Transuranic Program Office
PA	performance assessment
RCRA	Resource Conservation and Recovery Act (Public Law 94-580)
RH	remote handled
ROD	Record of Decision
SSEB	Southern States Energy Board
SEIS	Supplement Environmental Impact Statement
SNL	Sandia National Laboratories
SPDV	site and preliminary design validation
SPM	System Prioritization Methodology
TRU	transuranic
TRUPACT	Transuranic Package Transporter
USGS	United States Geological Survey
WAC	waste acceptance criteria
WGA	Western Governors' Association

GLOSSARY



Term	Definition
alpha contaminated waste	Waste materials contaminated with alpha emitting radionuclides not listed under the Uranium/Thorium (U/Th) decay chain or traces of low-levels (less than 100 nCi/g) of transuranic radionuclides.
backfill	Material to be placed around the waste containers, filling the open space in the WIPP disposal rooms.
barrier	“[A]ny material or structure that prevents or substantially delays movement of water or radionuclides toward the accessible environment. For example, a barrier may be a geologic structure, a canister, a waste form with physical and chemical characteristics that significantly decrease the mobility of radionuclides, or a material placed over and around waste, provided that the material or structure substantially delays movement of water or radionuclides” (Title 40 Code of Federal Regulations 191.12[d]). Barriers also prevent or delay the movement of hazardous constituents.
computer model	The appropriately coded analytical or numerical solution technique used to solve a mathematical model.
Consultation and Cooperation Agreement	An agreement that affirms the intent of the Secretary of Energy to consult and cooperate with the state of New Mexico with respect to public health and safety concerns. The term “Agreement” means the July 1, 1981 Agreement for Consultation and Cooperation, as amended by the November 30, 1984 “First Modification,” the August 4, 1987 “Second Modification,” and the March 18, 1988 “Third Modification,” or as it may be amended after the date of enactment of this Act, between the state and the U.S. Department of Energy as authorized by section 213(b) of the DOE National Security and Military Applications of Nuclear Energy Authorization Act of 1980 (Public Law 96-164, 93 Stat. 1259, 1265).
contact-handled waste	Transuranic waste that has a measured radiation dose rate at the container surface of 200 millirems per hour or less and the filled containers can be safely handled without special equipment when drummed.
decommissioning phase	The period of time beginning with the end of the disposal phase and ending when all shafts at the WIPP repository have been backfilled and sealed.
disposal	Permanent isolation of transuranic waste from the accessible environment with no intent of recovery, whether or not such isolation permits the recovery of such waste. Disposal of waste in a mined geologic repository occurs when all the shafts to the repository are backfilled and sealed (Title 40 Code of Federal Regulations 191.02[1]).

disposal phase	The period of time during which transuranic waste is being emplaced in the WIPP, beginning with the initial emplacement of transuranic waste underground for disposal and ending when the last container of transuranic waste, as determined by the Secretary of Energy, is emplaced underground for disposal.
Enhanced Laboratory Program	That portion of the gas generation laboratory program using simulated transuranic waste test material.
generator/storage sites	U.S. Department of Energy sites nationwide where transuranic wastes are generated and/or stored as a result of activities associated with nuclear weapons production.
host rock	The rock unit in which radioactive waste is emplaced.
human intrusion	Human disruptions of a mined geologic repository that could result in loss of containment of the waste.
long term	Refers to the 10,000 years after shaft sealing for which performance assessment calculations and models assess the behavior of the repository with respect to compliance with Title 40 Code of Federal Regulations 191 and Title 40 CFR 268.
mixed waste	Waste that contains both radioactive and hazardous components, as defined by the Atomic Energy Act and the Resource Conservation and Recovery Act, respectively.
nanocurie	A unit of measurement of radioactivity. A curie is the amount of any radionuclide that undergoes exactly 3.7×10^{10} radioactive disintegrations per second. A nanocurie is one billionth of a curie, or 37 disintegrations per second.
No-Migration Determination	The Final Conditional No-Migration Determination for the U.S. Department of Energy Waste Isolation Pilot Plant published by the U.S. Environmental Protection Agency on November 14, 1990 (55 Federal Register 47700), and any amendments thereto, pursuant to the Hazardous and Solid Waste Disposal Act (42 U.S.C. 6901 et seq.).
performance assessment	All quantitative activities carried out to: (1) evaluate the long-term ability of WIPP to effectively isolate the waste and ensure long-term health and safety of the public by complying with Title 40 Code of Federal Regulations 191 and Title 40 CFR 268.6, and (2) provide the basis for demonstrating regulatory compliance.
pre-disposal phase	The timeframe during which experimental activities gathering information needed to support the compliance application performance assessment calculations will be completed along with other key WIPP program activities required to support a Secretary of Energy decision whether to initiate WIPP disposal operations.
Resource Conservation and Recovery Act permit application	A document that is submitted by the owner/operator of a hazardous waste management unit to the state (if authorized by the U.S. Environmental Protection Agency) or to the Environmental Protection Agency. The application is for a Resource Conservation and Recovery Act permit to operate the unit. A Resource Conservation and Recovery Act permit application consists of two parts: Part A and Part B.

remote-handled waste	Transuranic wastes that have a measured radiation dose rate at the container surface of between 200 millirems per hour and 1000 rem per hour and, therefore, must be shielded with lead for safe handling and moved with equipment that allows remote non-contact handling.
repository	The portion of the WIPP repository/shaft system within the Salado Formation, including the access drifts, waste panels, and experimental areas, but excluding the shafts.
Salado Formation	A Permian age sequence of salt with minor amounts of clay and anhydrite. Host rock for the WIPP.
simulated waste	Materials that may or may not resemble typical contact-handled transuranic waste materials, and may or may not include an added radioactive component or a Resource Conservation and Recovery Act hazardous constituent, such materials to be used in laboratory tests.
transuranic waste	Without regard to source or form, waste that is contaminated with alpha-emitting transuranic radionuclides with half-lives greater than 20 years and concentrations greater than 100 nCi/g at the time of assay. Generator/storage site managers can determine that other alpha contaminated wastes, peculiar to a specific site, must be managed as transuranic waste.
validation	The process of assuring through sufficient testing of a model using real site data, that a conceptual model and corresponding mathematical and computer models correctly simulate a physical process with sufficient accuracy.
volatile organic compound	A carbon-containing compound that evaporates readily at room temperature, and for this property of reactivity is listed in Title 40 Code of Federal Regulations 260.2, as a hazardous compound under the Resource Conservation and Recovery Act.
waste acceptance criteria	A set of criteria used to determine if waste packages are acceptable for receipt at the WIPP.
waste characterization	Sampling, monitoring, and analysis activities to determine the extent and the nature of the waste.
WIPP Land Withdrawal Act	A federal law, Public Law 102-579, 106 Stat. 4777, that withdraws the land at the WIPP site from "entry, appropriation, and disposal"; transfers jurisdiction of the land from the Department of the Interior to the Department of Energy; and reserves the land for activities associated with the development and operation of the WIPP.
Working Agreement	Appendix B of the Consultation and Cooperation Agreement, which sets forth working details of that Agreement.

The DOE Environmental Management Mission and Goals



The CAO Strategic Plan is designed to support and carry out the Office of Environmental Management mission and goals.

The primary Environmental Management program mission is protecting human health and the environment. To accomplish this mission, the program has developed six major goals:

- **M**anage and eliminate the urgent risks and threats in our system.
- **P**rovide a safe workplace that is free from fatalities and serious accidents, and continuously reduces injuries and adverse health effects.
- **C**hange the system so that it is under control managerially and financially.
- **B**e more outcome oriented.
- **F**ocus the technology development program on DOE's major Environmental Management issues while involving the best talent in DOE and the national (public and private) science and engineering communities.
- **D**evelop strong partnerships between the Department of Energy and its stakeholders.

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