



TRU Progress

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WIPP permitting process proceeds

Before the Secretary of Energy can decide in October 1997 whether to use the Waste Isolation Pilot Plant (WIPP) for permanent disposal of transuranic waste, the Department of Energy (DOE) must obtain a Resource Conservation and Recovery Act permit from the New Mexico Environment Department.

The Resource Conservation and Recovery Act, which Congress passed in 1976, establishes procedures for the management of hazardous waste. In addition to containing radioactive contamination, much of the waste to be disposed of at the WIPP contains hazardous chemicals.

Therefore, the WIPP must have a permit in order to be in compliance with the Act. The Environment Department, which was delegated permitting authority by the U.S. Environmental Protection Agency, is responsible for granting or denying a permit for the WIPP.

The permit application has two parts, Part A and Part B. Part A is a set form that identifies the types and quantities of waste intended to be disposed at the site.

Generally, timely submission of a Part A and notification of hazardous waste activities qualify owners and operators of existing hazardous waste management facilities (which are

required to have a permit) for interim status. Facilities with interim status are treated as having been issued a permit until the Environmental Protection Agency or an authorized state makes a final determination on the permit application. However, in a legal dispute over the deadline for submitting the WIPP's Part A, the New Mexico Attorney General has challenged the WIPP's interim status. The U.S. Department of Justice is representing the DOE on the issue.

Part B is an extensive narrative on how the facility will operate to meet the requirements of the Resource Conservation and Recovery Act. Part B includes waste characterization information on the hazardous wastes to be handled at the WIPP, a description of procedures for handling hazardous wastes, security procedures and equipment, seismic and floodplain information, and closure and post-closure plans, including groundwater monitoring.

Parts A and B of the application were initially submitted to the Environment Department in 1991. The original application described activities pertaining to tests with radioactive waste in the WIPP underground. DOE requested and was granted in September 1994 the opportunity to revise Part B because of its decision in 1993 to perform the tests with radioactive waste in national laboratories, rather than in the WIPP underground.

In May 1995, the DOE submitted its revised Part B (which reflected the

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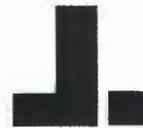


Routine monitoring of the WIPP's compliance with the Resource Conservation and Recovery Act permit involves collecting and splitting environmental samples. In this photo, Karen Morris (center) of Westinghouse observes the collection of a soil sample by Pat McCasland (left) and Keith McKamey (right) of the New Mexico Environment Department.

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Message from the manager



Last year was challenging and productive for the Carlsbad Area Office. But the pace we anticipate in 1996 promises to make the past 12 months seem quiet by comparison as we move closer to the October 1997 decision by the Secretary of Energy whether to open the Waste Isolation Pilot Plant (WIPP).

As we enter the new year, focus is on our *Supplemental Environmental Impact Statement* for the Disposal Phase at the WIPP. We are near completion of the *Implementation Plan* that provides guidance for development of the *Supplemental Environmental Impact Statement* and establishes its scope and content. It also considers scoping comments made by federal and state agencies, oversight groups, and stakeholders about the scope of the study.

By midsummer, we expect to complete the draft *Supplemental Environmental Impact Statement*, which we will make available for public review and comment. Our regulators, oversight groups, and all other interested or affected parties will have the opportunity to comment on the draft at one of several public hearings or to submit written comments during the formal comment period. The final document, with changes based on comments received, will be issued early next year.

Radioactive Waste Compliance Criteria Issued

In February, the U.S. Environmental Protection Agency issued its formal criteria (40 Code of Federal Regulations 194) for certifying whether the WIPP complies with radioactive waste standards.

My staff and I are pleased with this milestone and are fully committed to meeting all of the environmental regulations leading to the safe characterization, packaging, transportation to the WIPP, and permanent deep geologic disposal of transuranic waste.

State Working on WIPP's Hazardous Waste Permit

The New Mexico Environment Department is reviewing the WIPP application for a Resource Conservation and Recovery Act permit. The Act governs the management of hazardous wastes, which are mixed with much of the transuranic waste targeted for disposal at the WIPP.

For more details, see page 1 of this issue of *TRU Progress*.

No-Migration Variance Petition Scheduled for June

In June 1996 we will submit to the Environmental Protection Agency our No-Migration Variance Petition for Disposal. The petition describes

our plans to prevent hazardous wastes from "migrating" or moving off-site for as long as the waste remains hazardous. We submitted a draft of this document to the Environmental Protection Agency in May 1995, providing copies to the New Mexico Environment Department, other state and federal offices, and the WIPP reading rooms.

Compliance Certification Application

We plan to submit our final Compliance Certification Application to the Environmental Protection Agency in October 1996. This docu-

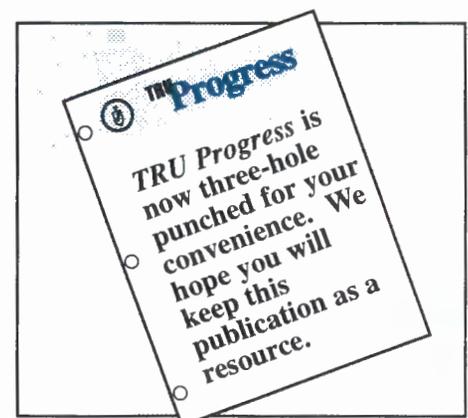
ment details our plans for compliance with regulations, as directed by the Land Withdrawal Act of 1992.

These milestones are just the highlights of the coming year. The pace will continue into 1997, a year that promises to be equally dramatic. The ultimate milestone we are working toward is the date in October 1997 when the Secretary of Energy is scheduled to decide whether to open and operate the WIPP as a disposal facility.

As efforts to demonstrate WIPP's compliance with environmental laws progress, we will continue to encourage stakeholder involvement in an atmosphere of openness. We will use a variety of tools to keep you informed -- through mechanisms such as this newsletter and provision of draft documents to our regulators and stakeholders -- to facilitate your understanding of and participation in our decision-making process. I encourage your feedback on how we might improve on that process.

**George Dials
Manager**

**"...1996 promises
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Engineered alternatives costs, benefits studied

The Carlsbad Area Office has completed a study of costs and benefits of "engineered alternatives" that might be used to prevent movement of radioactive material from the Waste Isolation Pilot Plant (WIPP).

The study examined alternatives for engineered barriers to satisfy the "assurance requirements" of 40 Code of Federal Regulations 191, which establishes the standards for radioactive waste disposal at the WIPP.

Assurance requirements are *additional* measures DOE might take to *increase* public confidence in the DOE's compliance with environmental regulations.

The study, documented in the *Engineered Alternatives Cost/Benefit Study Final Report* (DOE/WIPP 95-2135), provides comparative information concerning cost, schedule, and impacts on repository performance. The Carlsbad Area Office will use this study and related information to determine which, if any, engineered alternatives might be used.

The study examined 111 alternatives, which fall into three general categories: waste processing, backfill, and a combination of the two.

In general, the study concludes that waste processing alternatives impact the entire waste disposal system, involving the generator/storage sites, waste transportation, and the

Policy and regulatory considerations

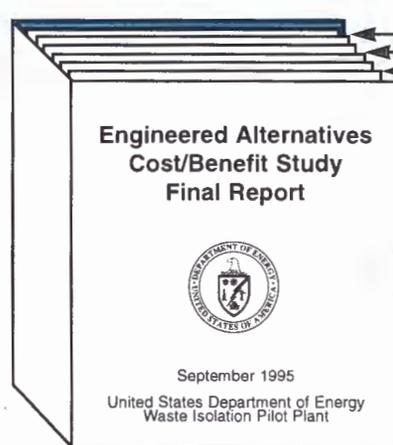
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WIPP waste handling system. Processing alternatives also cost more, pose increased schedule delays, and present greater risks to workers and the public than the current design or backfill alternatives.

Generally, processing alternatives have a marginal impact on repository performance, except for plasma processing (subjecting the waste to intense heat to melt, then solidify it into a rock-like material), which has a significant impact.

Backfill alternatives were found to improve long-term disposal system performance and could be easily emplaced. The WIPP waste handling system is impacted, but waste transportation, generator/storage sites, and other waste disposal systems are not affected. Cost, schedule, and radiation and chemical exposure risks are similar to the estimates for the current design. The study concludes that backfill alternatives have the least impact on the waste disposal system.

Combination alternatives contain both multiple processing alternatives



What is an engineered alternative?

An engineered alternative is a technically feasible process, technology, method, repository design, or waste form modification that makes a significant positive impact on the disposal system in terms of reducing uncertainty or improving long-term performance.

and/or backfill alternatives. Their overall cost and schedule impacts and transportation, worker, and public risks are the highest of the engineered alternatives. The overall impact of combination engineered alternatives on long-term disposal system performance is comparable to those associated with the backfill-and processing-only alternatives.

Focus groups were one tool used to evaluate alternatives. Meetings to assess public confidence in engineered alternatives were held in Carlsbad, Albuquerque, and Santa Fe, New Mexico. Some observations out of the focus groups were:

- The majority (78%) of the concerns during the discussions pertained to post-closure WIPP.
- The majority of the concerns can be addressed or mitigated by an engineered alternative.
- The largest single category of concern was values and ethics. Comments in this category include concerns about how decisions are made and whose values the government uses in its decision-making process. □

Decisions about engineered alternatives

In deciding whether to use engineered alternatives (and if so, what kind), the Carlsbad Area Office will consider policy and regulatory requirements plus the results of the *Engineered Alternatives Cost/Benefit Study*, which takes into account public, scientific, and cost concerns of 111 possible engineered alternatives.

