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OFFICE OF  
AIR AND RADIATION

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TO ALL INTERESTED PARTIES:

Attached is a copy of EPA's 1994 Report to Congress, "Implementation of the Waste Isolation Pilot Plant Land Withdrawal Act." Administrator Browner approved this report for transmittal to Congress on August 24, 1995.

The report summarizes the activities and progress the Environmental Protection Agency (EPA) has made in fulfilling its responsibilities under the Waste Isolation Pilot Plant (WIPP) Land Withdrawal Act of 1992. It fulfills the requirements outlined in Section 23(a) (2) of the Act, which requires EPA to submit an annual report to Congress.

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Attachment





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## EXECUTIVE SUMMARY

The Waste Isolation Pilot Plant (WIPP) Land Withdrawal Act (the Act), Pub. L. No. 102-579, was signed by the President on October 30, 1992. This Act gives the U.S. Environmental Protection Agency (EPA or the Agency) the authority to certify WIPP's compliance with EPA-developed standards for disposal of radioactive waste. This Act supplements EPA's authority under the Atomic Energy Act and Reorganization Plan No. 3 of 1970 to establish environmental standards which protect the environment from radioactive materials. Until now, EPA has not had implementation authority to assure compliance with its radioactive waste standards. This Act gave EPA that authority for the WIPP site and prescribed a regulatory framework for implementing its responsibilities.

EPA's responsibilities under the Act include: 1) reviewing and approving or disapproving of the Department of Energy's (DOE) Test Phase and Retrieval Plans, 2) issuing radioactive waste disposal standards which will apply to the WIPP and all spent nuclear fuel, high-level radioactive waste, and transuranic waste disposal facilities (except at the proposed repository at Yucca Mountain, Nevada), 3) certifying compliance with radioactive waste disposal standards, and 4) ensuring compliance with all other applicable Federal environmental laws and regulations. An EPA review of DOE's test and retrieval plan is presently unnecessary due to DOE's October 1993 decision to not conduct tests using radioactive wastes at WIPP

In FY94 the EPA WIPP program:

- o Proposed criteria for certifying compliance of the WIPP with the radioactive waste disposal standards. The proposed criteria were published in the *Federal Register* on January 30, 1995 for public comment;
- o Reviewed and commented on the DOE-WIPP performance assessment and on numerous DOE documents which contain DOE's technical basis for achieving compliance with Agency regulations. These activities prepare EPA staff for evaluating DOE's Compliance Certification Application;
- o Held five technical exchange meetings with DOE. The meetings, which were open to the public, discussed technical issues of relevance (i.e. waste characterization, engineered barriers, quality assurance) to the evaluation of DOE's submissions and;

- o Promoted public outreach activities through the publication (in English and Spanish) of booklets, fact sheets, bulletins on the Agency's WIPP activities, expansion of the toll free information line and establishment of an ORIA/WIPP Electronic Bulletin Board.

The Agency continues to carry out its oversight responsibilities in an open, objective, and scientifically credible manner.

In FY94, DOE funded 25 Full Time Equivalency (FTE) positions at EPA Headquarters, 4 FTE positions at EPA's Region 6 office in Dallas, TX, and \$4 million in contract support for WIPP. EPA funded an additional 3 FTE positions at Headquarters. Staff members in several EPA offices are responsible for implementing the Act, including: the Office of Radiation and Indoor Air (ORIA), the Office of Solid Waste (OSW), EPA Region 6, and the Office of General Counsel (OGC).

In FY95, EPA will focus on: 1) finalizing criteria, through rulemaking, to certify compliance with EPA's radioactive waste disposal standards, 2) providing guidance and ensuring compliance with the Resource Conservation and Recovery Act (RCRA), and 3) reviewing DOE's performance assessment and draft application for certification, which provides an outline of the facility's application, and 4) finalizing EPA's strategy to assure WIPP's compliance with all applicable federal environmental laws and regulations pertaining to public health and safety. EPA continues to review and comment on DOE WIPP documents and to finalize a strategy addressing audits that will assure the quality of all data received from DOE, including waste characterization data.

## INTRODUCTION

This report fulfills the requirements stated in Section 23(a)(2) of the WIPP Land Withdrawal Act, whereby EPA must submit an annual report to the Congress "on the status of and resources required for the fulfillment of the Administrator's responsibilities under this Act." This report summarizes the activities and progress EPA has made in fulfilling its responsibilities under the Act and outlines the resources required for the Agency to meet its commitments.

The Act gives EPA the authority to oversee many of DOE's activities at the WIPP, beginning with a test phase and continuing throughout the facility's operation and decommissioning, if those phases in fact proceed under the Act. The WIPP is a potential long-term disposal facility for transuranic radioactive wastes under development by DOE in southeastern New Mexico. Transuranic wastes are long-lived radioactive wastes generated as by-products from nuclear weapons production.

The Act requires EPA to take the following regulatory actions:

- Issue Radioactive Waste Disposal Standards  
Develop environmental protection standards for the disposal of spent nuclear fuel, high-level waste and transuranic radioactive wastes, which will apply to all potential disposal sites except those characterized under the Nuclear Waste Policy Act as amended.
- Promulgate a Test Phase and Retrieval Plan Rule  
Determine whether DOE's test phase and retrieval plans meet the requirements of the Act. (DOE withdrew test and retrieval plans so a rulemaking will not be required.)
- Develop Compliance Criteria  
Establish criteria to determine whether the WIPP will comply with the Agency's environmental protection standards for disposal of transuranic wastes.
- Conduct a Compliance Certification  
Certify by rule whether or not the WIPP complies with the Agency's environmental protection standards for disposal of transuranic radioactive wastes.
- Periodic Recertification  
Determine every five years whether or not the WIPP facility continues to be in compliance with the Agency's Radioactive Waste Disposal Standards.

In addition to these regulatory actions, EPA must assure that the facility complies with all applicable federal environmental laws and regulations pertaining to public health and safety. This demonstration must be submitted biennially by DOE to EPA to determine continued compliance. DOE's first documentation package demonstrating WIPP's compliance with these laws is due to EPA in October 1994 and every two years thereafter.

## **Organization of the Report**

This report first states EPA's implementation principles which constitute the basis for all EPA activities concerning the WIPP. The management section then explains how EPA manages the implementation process and how EPA's resources are utilized to implement the Act. The next section describes EPA's communications and consultation activities. The following sections explain EPA's specific responsibilities under the Act and the progress EPA has made in fulfilling those responsibilities. A schedule of important regulatory dates through 1995 is provided at the end of the report.



## **Implementation Principles**

The Act provides EPA with extensive responsibility for overseeing the WIPP to ensure the facility complies with all applicable Federal environmental laws and regulations. The following principles will guide EPA's activities under the Act:

### *Protection*

- EPA will strive to develop a regulatory program designed to protect present and future generations from the risks posed by potential disposal of waste at the WIPP

### *Good Science*

- EPA will base its decisions on the best available scientific and technical data while recognizing that uncertainties about the performance of the WIPP will always exist.

### *Consultation*

- EPA recognizes the important roles played by the state and local governments, citizen and environmental groups, industry, and other federal agencies, and the Agency commits to conducting an open public process that includes interaction with these groups and other interested parties.

### *Commitment*

- EPA will establish and meet commitments to implement the WIPP legislation effectively, consistent with its legal authority.

# **MANAGEMENT OF THE IMPLEMENTATION OF THE ACT**

## **EPA Management**

EPA is committed to performing its WIPP oversight responsibilities in a timely and scientifically credible manner. Thus, the Agency established a senior management intra-agency committee to ensure WIPP oversight responsibility is coordinated within EPA and to expedite the resolution of intra-agency policy issues.

The Office of Radiation and Indoor Air (ORIA), which is in the Office of Air and Radiation (OAR), is charged with the primary responsibility for implementing many of EPA's responsibilities under the Act. Other offices with significant roles include: the Office of Solid Waste (OSW), the Office of General Counsel (OGC), and EPA Region 6. OSW and Region 6 are working together to ensure that WIPP complies with the Resource Conservation and Recovery Act (RCRA). Region 6 is facilitating efforts to ensure that WIPP complies with all other federal environmental laws and regulations. ORIA, OSW, and Region 6 enlist support, as needed, from many other offices within EPA, such as the Office of Policy, Planning, and Evaluation (OPPE), the Office of Enforcement and Compliance Assurance (OECA), and the Office of Water (OW).

Within ORIA, the Criteria and Standards Division (CSD) has the lead on WIPP oversight responsibilities. In 1994, the Waste Standards and Risk Assessment Branch was reorganized and became the Radioactive Waste Management Branch (RWMB). This shifted five non-WIPP staff involved in health risk assessment activities to another Branch within the Division. RWMB executes the bulk of ORIA's responsibilities under the WIPP Land Withdrawal Act. CSD's Policy and Emergency Response Branch leads ORIA's WIPP public outreach efforts. Staff-level work on implementation of the Act is coordinated through intra-agency workgroups set up by CSD.

## **Resources Required**

The Act authorizes DOE to fund the EPA effort (up to \$14 million per year) through the year 2001. In FY93, an Interagency Agreement between DOE and EPA funded 33 FTE and \$6.5 million for EPA WIPP activities.

In FY94, DOE funded 25 HQ FTE positions and four FTE positions in the Region, and \$4 million in contract support for WIPP. EPA funded an additional three FTE positions at Headquarters. This level of funding is produced by an interagency agreement between EPA and DOE covering both the WIPP and development of radioactive waste cleanup standards.

For the FY95 budget, EPA requested retaining the FY94 level of resources for WIPP. After Congressional reductions, ORIA received \$3.4 million from the EPA budget to devote to WIPP activities. DOE has not provided EPA with any additional funding.

## **Communications/Consultation**

EPA is committed to maintaining open lines of communication with the public, interest groups, DOE, the states, and other governmental organizations as it carries out its WIPP oversight mission. EPA believes a successful communication and consultation program expedites the regulatory/oversight process and ensures sound public policy decisions. EPA continues to inform interested parties about its WIPP oversight functions and encourages public participation in the regulatory process on both technical and non-technical matters.

### **Communications Activities**

During FY94 EPA expanded the capabilities of its toll-free WIPP Information Line. The WIPP information line offers a recorded message about upcoming EPA WIPP activities such as meetings, hearings, etc. A recent enhancement allows callers to: hear messages in either English or Spanish, add their name to the WIPP mailing list, request a WIPP publication, or ask a question of EPA staff. Each question is promptly answered by phone.

To keep the public informed, all written correspondence and minutes of meetings between EPA and DOE are placed in EPA's WIPP-related rulemaking dockets located in Carlsbad, Albuquerque, and Santa Fe, NM and at EPA Headquarters in Washington, DC.

EPA developed and distributed public information materials to describe the Agency's regulatory program elements and role in relation to the WIPP. During FY94, EPA produced a fact sheet—in English and Spanish—describing proposed WIPP-compliance criteria, which implement EPA's radioactive waste disposal standards. Additional fact sheets are planned to explain EPA's promulgation of final compliance criteria for the disposal standards and the certification of the WIPP's compliance or noncompliance with the disposal standards. EPA published and distributed two booklets: EPA and the WIPP and Disposal of Radioactive Waste: An Environmental Perspective. The first—available in English or Spanish—describes EPA's regulatory role. The second provides the general public an overview of issues related to radioactive waste disposal. The EPA WIPP Update is another publication which informs the public about EPA's activities associated with implementing the WIPP Land Withdrawal Act. These updates appear as important issues or events arise. One Update published in FY94 described EPA's changing WIPP oversight role in response to DOE's announcement to cancel testing of radioactive waste at the WIPP. Another outreach tool, The EPA WIPP Bulletin, keeps the public informed and involved with

EPA's WIPP oversight program activities. This publication—first published in the Spring of 1994—contains program updates, results of NACEPT-WIPP Subcommittee meetings, articles on activities in EPA's Office of Radiation and Indoor Air, Office of Solid Waste, Region 6, and EPA's Las Vegas Lab. EPA continues to expand its extensive mailing list of individuals and organizations interested in receiving information on the Agency's WIPP activities. Proposed rules, fact sheets, meeting notices, NACEPT reports, publications, etc., are periodically distributed via the mailing list.

WIPP documents are also available to the public through the Technology Transfer Network (TTN) which is an electronic network managed by EPA's Office of Air Quality Planning and Standards (OAQPS). ORIA's Bulletin Board contains useful documents about EPA's activities under the Act. Access to the network is free except for the cost of using the phone.

EPA will continue to develop and disseminate WIPP-program information for the public. The Agency will also finalize its WIPP Communications Plan describing current and planned outreach efforts. This document will be distributed to members of the general public when completed.

To update various groups about EPA's WIPP program and to coordinate efforts with others, Agency officials participate in many National, International, State, and Industry-sponsored Conferences and meetings that focus on radioactive waste management and disposal issues. EPA officials have addressed meetings sponsored by the League of Women Voters, the National Academy of Sciences, the American Nuclear Society, the American Society of Civil Engineers, and the States of New Mexico and Nevada. They also conduct briefings on an ongoing basis for interested members of Congress. Reports to Congress are published on an annual basis.

Since enactment of the Act, EPA has issued numerous press releases or press advisories concerning its WIPP-related actions and distributed them to National and New Mexico media outlets.

## **Consultation Activities**

EPA established a WIPP Review Subcommittee under the National Advisory Council for Environmental Policy and Technology (NACEPT) to provide independent advice and counsel to the Agency on complex technical issues on EPA's implementation of the Land Withdrawal Act. Formed in 1993, this independent subcommittee met twice during FY93 to advise EPA on key WIPP-related issues.

Both meetings were held in New Mexico and open to the public. The next subcommittee meeting is planned for September 1995 in New Mexico to discuss issues concerning EPA's issuance of the WIPP compliance criteria.

In January 1994, the Agency distributed an early draft of the proposed compliance criteria to key stakeholders, the National Academy of Sciences WIPP Panel, NACEPT WIPP Review Subcommittee members, and other interested parties for informal comment. The availability of the proposed compliance criteria for the WIPP was announced on EPA's WIPP Information Line and was made available through EPA's dockets.

EPA and DOE meet periodically to conduct open technical exchange meetings in New Mexico and Washington, DC. At each exchange, DOE provides EPA with detailed information on its program for demonstrating WIPP's compliance with EPA's radioactive waste disposal standards. The meetings consist of a DOE presentation, followed by a detailed discussion and clarification of issues of concern to EPA. The public is invited to attend and observe these meetings. The technical exchange meetings are announced on EPA's toll-free WIPP Information Line and will continue indefinitely on an "as needed" basis. Notes summarizing phone conversations and meetings between EPA and DOE technical staff are placed in the docket.

## **EPA'S WIPP REGULATORY RESPONSIBILITIES**

### **40 CFR Part 191:**

#### **Environmental Radiation Protection Standards for the Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes**

The WIPP Land Withdrawal Act requires that EPA promulgate final standards for the disposal of spent nuclear fuel, high-level and transuranic radioactive wastes. The final standards were published in the Federal Register on December 20, 1993. Background information on the standards and a summary of their development and content is presented here.

### **Background**

On September 19, 1985, EPA issued final Environmental Radiation Protection Standards for the Management and Disposal of Spent Nuclear Fuel, High-Level and Transuranic Radioactive Wastes in Part 191 of Chapter 40 of the Code of Federal Regulations (40 CFR Part 191). They appear in Volume 50 of the Federal Register beginning on page 38066. The standards for disposal consist of several types of requirements. According to the Containment Requirements (Section 191.13), waste disposal systems must be designed with the reasonable expectation that the total release of radionuclides—from a disposal facility to the accessible environment—does not exceed specified levels for 10,000 years. The Assurance Requirements (Section 191.14) help to ensure wastes are disposed of in a way that reduces the likelihood of radiation releases from or intrusion into the disposal repository. The Individual Protection Requirements (Section 191.15) limit radiation doses to individual members of the public. The Ground-Water Protection Requirements (Section 191.16) protect potable sources of ground-water by limiting radiation doses delivered through drinking water to members of the public. Compliance with these requirements is to be determined through long-term modeling projections of disposal system performance.

Shortly after the standards were issued, several states and environmental groups mounted legal challenges to them. On July 17, 1987, a federal court returned the standards to the Agency for reconsideration. The WIPP Land Withdrawal Act reinstates all of the sections of the 40 CFR Part 191 disposal standards returned by the court except those that the court found problematic, i.e., aspects of the Individual and Ground-Water Protection Requirements which EPA then revised.

## **The Revised Standards**

EPA published proposed amendments to the Individual and the Ground-Water Protection Requirements in the Federal Register on February 10, 1993. The Agency held hearings in New Mexico that same month to receive comments on the proposal. Following consideration of all written and oral comments received, EPA developed the final disposal standards, which the Administrator signed on December 3, 1993 as an amendment to 40 CFR Part 191. The standards were published in the Federal Register on December 20, 1993.

The time frame for assessment of the Individual and the Ground-Water Protection Requirements was changed from 1,000 to 10,000 years. The amended Individual Protection Requirements state radioactive waste disposal systems must be designed to provide a reasonable expectation that the annual radiation exposure to any individual does not exceed 15 millirems committed effective dose. The amended Ground-Water Protection Requirements state release of radioactive materials from disposal systems must not cause contamination of underground sources of drinking water in excess of the maximum radionuclide contaminant levels specified by the Safe Drinking Water Act.



## Criteria for the Certification of Compliance with 40 CFR Part 191 Disposal Standards

According to the Act, EPA must certify that WIPP meets the Agency's final disposal standards (40 CFR Part 191) before DOE is allowed to dispose of radioactive wastes at the WIPP. Under the Act, EPA is required to develop criteria for the Administrator's certification of compliance with the disposal standards. In FY94 EPA made significant progress in developing the proposed compliance criteria rule (40 CFR 194). The proposed rule was signed by the Administrator on January 11, 1995 and published in the Federal Register (60 FR 5766) on January 30, 1995. This section describes the development of the proposed criteria and plans for finalizing the criteria rule in 1995.

To initiate the development of the criteria, EPA first published an Advance Notice of Proposed Rulemaking (ANPR) in the Federal Register on February 11, 1993. The Notice provided an opportunity for interested parties to participate early in the development process. The ANPR helped identify compliance-related issues that should be addressed in the criteria. Another important step in 1993 was the establishment of an intra-agency work group to assist in developing the compliance criteria rule.

The proposed rule addresses the following compliance-related issues: 1) the procedures necessary to certify compliance with the 40 CFR Part 191 disposal standards, 2) the methods to be employed to assure the adequacy and quality of data, 3) the assumptions used in compliance assessments, and 4) public participation requirements.

In January 1994, DOE, stakeholders, and other interested parties were provided an early draft of the proposed rule for their comment. As noted previously in the Consultation Activities Section, EPA held several technical exchange meetings with DOE to discuss pertinent issues related to compliance criteria (e.g., waste characterization, engineered barriers, quality assurance). These meetings were open to the public. EPA also met with a variety of interested parties to discuss issues and recommendations for the compliance criteria.

The proposed compliance criteria were formally submitted to the Office of Management and Budget (OMB) on July 22, 1994. Following interagency review, EPA published the proposed compliance criteria in the Federal Register on January 30, 1995 and opened a 90-day public comment period on the proposal. The comment period closed May 1, 1995. EPA plans to re-open the comment period on July 31, when DOE submits its draft certification application. The purpose of the second comment period is to address concerns that the draft application may be construed as additional comments on the compliance criteria. EPA also held public hearings

March 21-24 in New Mexico to collect comments on the proposal. Additionally, on February 14-16 the Agency conducted a technical workshop in Washington, DC on several important compliance-related issues. After the Agency considers oral and written comments on the proposal, EPA will request additional input and comments from the NACEPT WIPP Review Subcommittee. A summary of any such meeting will be placed in the public docket. All of these activities assist the Agency in producing the rule in its final form.

The Agency expects to issue the final compliance criteria approximately one year after the proposal. These dates do not conform with the statutory deadlines for promulgation as proposed because uncertainties regarding EPA's funding of the FY94 WIPP Program forced delays in hiring new staff to work on this project.

## **Certification of Compliance with 40 CFR Part 191 Disposal Standards**

EPA must certify that the WIPP facility will comply with the final 40 CFR Part 191 disposal standards before DOE may place radioactive transuranic wastes in the WIPP for disposal. EPA must conduct continued recertifications of compliance with the 40 CFR Part 191 disposal regulations every five years after disposal operations begin. This section discusses the Act's requirements in more detail and describes EPA's progress in reviewing DOE's performance assessments which are designed to support the compliance demonstration.

In the spring of 1993, DOE provided its 1992 performance assessment report to EPA, which in turn furnished comments on the first three volumes in January 1994. Both EPA and contractor staff members are contributing to the review of the WIPP performance assessments.

EPA will utilize the compliance criteria issued pursuant to the Act in assessing the adequacy or inadequacy of DOE's submissions. EPA's evaluation will include, but will not be limited to: DOE's use of models, the potential for disruptive events that could affect the WIPP's performance, uncertainty and sensitivity analyses, consequence analyses, field data, use of expert judgment, and quality assurance procedures. EPA will also evaluate the assumptions underlying the DOE performance assessments.

The Act requires EPA's certification of compliance to be conducted under the rulemaking process as prescribed by the Administrative Procedure Act. After public hearings and consideration of comments, and in accordance with the WIPP Land Withdrawal Act's requirements, EPA will make a final determination of whether or not the WIPP complies with the disposal standards.

EPA is developing guidance documents to be used in the implementation of the 40 CFR 194 compliance criteria. One of the most important of these is the Compliance Application Guidance Document, which will specify the information and the format EPA expects to be included in the compliance application. The documents will also be used by EPA to conduct a completeness review of the application to ensure that all necessary information as well as supporting documentation has been submitted. A draft Compliance Application Guidance Document was available for preliminary review in the second quarter of 1995. It will be formally announced through a Notice of Availability in the Federal Register in the 4th quarter of 1995.

## **Current Review Activities**

EPA is actively involved in the review of technical documents prepared and submitted by DOE. The goal is to prepare for the Agency's certification decision on DOE's compliance application. To this end, EPA staff are familiarizing themselves with DOE's compliance approach and developing expertise in key areas related to the performance of the WIPP facility through several activities discussed below.

To better understand DOE's approach to compliance and develop expertise in key areas related to the performance of the WIPP facility, EPA is devoting resources to reviewing and commenting on important reports that contain DOE's technical basis for achieving compliance with both the Resource Conservation and Recovery Act (RCRA) and the 40 CFR 191 Disposal Standards. EPA comments have been provided to DOE in an effort to identify the areas that the Agency believes are in need of further work or clarification. Comments have been submitted on the following documents: 1992 Preliminary Performance Assessment of the WIPP (Volumes 1-5); Compliance Status Report; Quality Assurance Program Plan; and the Experimental Program Plan. DOE will continue to submit technical documents to EPA in order to get the Agency's input on its latest effort as DOE finalizes its certification application (Part 1 of the draft application was submitted in March 1995, Part 2 will be submitted in July). EPA will, to the extent possible, provide comments on the draft. Comments offered to DOE will continue to establish a public record that documents EPA's concerns as the Agency approaches its certification decision.

In order to gather more information and interact more effectively with DOE, EPA has conducted technical exchange meetings with DOE to discuss technical issues of relevance to the evaluation of DOE's submissions. Some of the technical exchange meetings that have been held during FY94 include: 1) EPA's comments on DOE's 1992 Performance Assessments and on the Performance Assessment's Methodology and Model Development; 2) Geology and Hydrology of the WIPP; 3) Waste Characterization and Engineered Barriers and 4) Scenario Development and Screening Methodology used by DOE in its WIPP Performance Assessment. Information obtained at these meetings has been used to supplement and enhance our present knowledge of the WIPP facility.

EPA staff have gained access to DOE's Performance Assessment computer codes and are learning how to use them prior to the submission of the application for certification. These codes are a critical component of the application because they are used to project the behavior of the facility throughout the 10,000-year regulatory time frame. Developing these computer skills early saves time and resources during the certification process. Also, identifying potential concerns with the computer models now helps EPA expedite its review and allows for timely changes.

Finally, EPA has initiated efforts to participate as observers at DOE's program audits and data qualification activities. EPA is identifying quality assurance implementation concerns, which; when resolved, will ensure that the data for certification are quality assured.

Future review activities will include the evaluation of DOE's draft compliance application (Part 1 was submitted in March 1995 and Part 2 in July).

## **Test Phase and Retrieval Plans: Follow-up**

According to the Land Withdrawal Act, EPA is required to review DOE's test phase and retrieval plans for tests using radioactive waste at the WIPP and, thereafter issue a rule that approves or disapproves these plans. The Act states that no waste can be transported to the WIPP for testing unless EPA approves at least part of the test phase plan and approves the entire retrieval plan. On October 21, 1993, DOE announced that the radioactive waste tests would not be conducted at the WIPP. Instead, the tests would be replaced with an expanded laboratory program using radioactive and hazardous wastes. EPA agreed that DOE's laboratory tests are a more effective and an expeditious approach to a final decision on whether or not WIPP will be used as a radioactive waste disposal facility. DOE's decision benefits EPA by conserving resources used to review tests and allowing the Agency to focus its efforts on preparing for, reviewing, and making a certification decision on DOE's compliance application. EPA considers its obligation to review DOE's test phase plan and retrieval plan to be terminated by DOE's announcement that it would not conduct these tests at the WIPP.

## **Compliance with the Resource Conservation and Recovery Act**

Substantial portions of the wastes proposed for disposal at the WIPP are called mixed waste because they contain both hazardous waste subject to the Resource Conservation and Recovery Act (RCRA) and radioactive wastes subject to the Atomic Energy Act. Thus, WIPP must also comply with RCRA regulations. Under RCRA, DOE must ensure the safe disposition of the hazardous portion of the wastes to be placed at WIPP. This section describes RCRA requirements and EPA's implementation of them.

### **Background**

A major requirement for WIPP's RCRA compliance concerns this Act's land disposal restrictions. An amendment to RCRA—the Hazardous and Solid Waste Amendments of 1984 (HSWA)—imposes a substantial number of new requirements on the land disposal of hazardous waste. The amendments prohibit the continued land disposal of hazardous waste—of which mixed waste is a subset—unless: 1) the wastes meet treatment standards specified by EPA, or 2) EPA determines that prohibition is not required in order to protect human health and the environment. This latter determination must be based on a demonstration by the owner/operator of the facility receiving the waste that "there will be no migration of hazardous constituents from the disposal unit or injection zone for as long as the wastes remain hazardous." (42 USC, Sec. 6924(d)(1)) EPA's Office of Solid Waste is responsible for the review and processing of "no-migration" petitions.

EPA authorized the State of New Mexico to carry out the State's base RCRA program and the State's mixed waste program in lieu of the respective federal programs. Therefore, the State will make determinations regarding those portions of the RCRA permit for the WIPP. EPA retains authority for those portions of the permit for which New Mexico is not authorized, including corrective action. EPA also retains the authority to make no-migration determinations. EPA's Region 6 office provides oversight and technical assistance to the State in processing this permit. The State and EPA will share responsibility for enforcing the conditions of the permit.

### **Implementation**

In February 1989, DOE submitted a petition to EPA for a "no-migration determination" covering the WIPP test phase. After careful review of DOE's petition and public comments on a proposed decision, EPA approved the petition on November 14, 1990. This action is based on the determination that DOE demonstrated—to a reasonable degree of certainty—that hazardous constituents will not migrate from the WIPP disposal unit for the duration of the test phase. The approved petition expires after ten years. DOE also submitted a RCRA permit

application to the State of New Mexico for the test phase in 1990. However, due to DOE's October 1993 decision not to conduct waste tests at WIPP—the RCRA permit and the no-migration determination for the test phase are no longer necessary. DOE plans to submit a long-term No-Migration Demonstration Petition for the disposal phase to EPA in May 1995 and a final no-migration petition in June 1996. EPA's Office of Solid Waste has begun pre-submittal meetings with DOE. The State of New Mexico ordered DOE to submit a new RCRA permit application by May 31, 1995. This application must address long-term disposal of RCRA wastes at WIPP

EPA's Office of Solid Waste (OSW), as mandated by the Land Withdrawal Act, coordinates its activities with the Office of Radiation and Indoor Air (ORIA), Region 6, and the State of New Mexico. Such efforts include OSW's attendance at all NACEPT meetings, National Academy of Science WIPP Panel meetings, and EPA/DOE Technical Exchange meetings.



## **Compliance With Other Federal Environmental Laws**

The Land Withdrawal Act requires DOE to submit documentation to EPA every two years to demonstrate WIPP's compliance with all applicable Federal environmental laws and regulations including: the radioactive waste storage standards; the Clean Air Act (CAA); the Toxic Substances Control Act (TSCA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA); the Solid Waste Disposal Act (SWDA) and the Safe Drinking Water Act (SDWA). This documentation must be submitted throughout the test, disposal, and decommissioning phases of the WIPP. The Agency must make a determination of compliance with these statutes and regulations within six months of receiving DOE's submission. EPA's Region 6 Office in Dallas, Texas, will make a recommendation to the Administrator for laws and regulations that have been delegated to the Region. Pursuant to the Act, DOE submitted its first documentation package to the Agency on October 30, 1994.

If EPA determines DOE does not comply with any applicable Federal law or regulation or permit requirement, the Agency must request DOE to develop a remedial plan within six months of this determination. If the Agency makes a determination of inadequacy through rulemaking, DOE must retrieve wastes and any material contaminated by such waste to the extent practicable and implement decommissioning and post-decommissioning plans. DOE must develop decommissioning and post-decommissioning plans by October 30, 1997 and submit them to Congress.

## **Oil and Gas Lease Provisions of the WIPP Land Withdrawal Act**

The presence of gas and oil leases on the WIPP site has raised concerns about the possibility for human intrusion at the site and the ability of the repository to contain the waste.

EPA must determine whether Federal government acquisition of existing oil and gas leases at the WIPP site is required for the WIPP to comply with the disposal standards and the Resource Conservation and Recovery Act. There is no specific deadline for this determination, but DOE cannot begin disposal operations until either DOE acquires the oil and gas leases or EPA determines their acquisition is not required.

EPA's Region 6 office is working with EPA Headquarters to evaluate the potential effect of oil and gas drilling on the WIPP site. This evaluation examines all related technical information. DOE requested that EPA make a decision on the drilling issue, but the Agency believes that not enough information is presently available upon which to base such a decision. EPA believes that a determination at this time would be premature and that the potential effect of the oil and gas drilling at the site needs to be based on more accurate performance assessments which will come at a later time.

# WASTE ISOLATION PILOT PLANT LAND WITHDRAWAL ACT OF 1992

## IMPLEMENTATION SCHEDULE HIGHLIGHTS THROUGH 1995

<u>Date</u>	<u>Regulatory Activities</u>
2/93	Radioactive Waste Standards proposed in the <u>Federal Register</u> .  Hearings on Radioactive Waste Standards in New Mexico.  Advance Notice of Proposed Rulemaking for Compliance Criteria published in <u>Federal Register</u> .
3/93	Received Draft Test Phase and Retrieval Plans from DOE.  Compliance Criteria ANPR comment period closed.
4/93	Radioactive Waste Standards comment period closed.
5/93	WIPP Review Subcommittee of the National Advisory Council for Environmental Policy and Technology (NACEPT) Meeting on test phase and retrieval plans in New Mexico.
9/93	WIPP Review Subcommittee of NACEPT Meeting on Compliance Criteria in New Mexico.
11/93	Comments submitted to DOE on December 1992 Preliminary Performance Assessment for the WIPP
12/93	Promulgated Final Radioactive Waste Standards
7/94	Proposed Compliance Criteria submitted to OMB for inter-agency review.
10/94	DOE submits to EPA its first documentation package demonstrating WIPP's compliance with all applicable environmental statutes and regulations.
1/95	Proposed Compliance Criteria published in <u>Federal Register</u> (60 FR 5766)
3/95	Hearings on Proposed Compliance Criteria in New Mexico.

- \*4/95 EPA makes determination on whether DOE has or has not demonstrated WIPP's compliance with all applicable Federal environmental statutes and regulations.
- 5/95 Proposed Compliance Criteria comment period closed
- 7/95 Second comment period on Proposed Compliance Criteria opens
- 8/95 Notice of Availability of Draft Compliance Application Guidance Document announced in Federal Register
- \*9/95 WIPP Review Subcommittee NACEPT Meeting on Compliance Criteria issues in New Mexico
- 9/95 Second comment period on Proposed Compliance Criteria closes
- \*2/96 Issue Final Compliance Criteria in the Federal Register.

\* Indicates estimated dates