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Implementation Of The Waste Isolation Pilot Plant Land Withdrawal Act

1993 Report To Congress

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TABLE OF CONTENTS

	Page
EXECUTIVE SUMMARY	1
INTRODUCTION	4
Organization of Report	5
Implementation Principles	6
MANAGEMENT OF THE IMPLEMENTATION OF THE ACT	
EPA Management	7
Resources Required	7
COMMUNICATIONS/CONSULTATION	
Communications Activities	9
Consultation Activities	10
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	
Background	12
Implementation	13
Criteria for the Certification of Compliance with 40 CFR Part 191 Disposal Standards	
Implementation	15
Test Phase and Retrieval Plans	
Background	17
Implementation	18

Certification of Compliance with 40 CFR Part 191 Disposal Standards

Background 19
Implementation 20

Compliance with the Resource Conservation and Recovery Act

Background 21
Implementation 21

Compliance with Other Environmental Laws

Background 23
Implementation 23

Oil and Gas Lease Provisions
of the WIPP Land Withdrawal Act

Background 24
Implementation 24

Implementation Schedule Highlights 25

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 law gave the U.S. Environmental Protection Agency (EPA) the authority to certify compliance with EPA-developed standards for disposal of radioactive waste at the WIPP. This law supplements EPA's authority under the Atomic Energy Act and Reorganization Plan No. 3 of 1970 to establish generally applicable environmental standards for the protection of the general environment from radioactive materials. Until now, EPA has not had implementation authority to assure compliance with its radioactive waste standards. This Act gives the Agency that authority for the WIPP site and prescribes a regulatory framework for implementing its new responsibilities.

EPA's responsibilities under the new Act include reviewing and approving or disapproving of the Department of Energy's (DOE) Test Phase and Retrieval Plans, issuing radioactive waste disposal standards which will apply to the WIPP as well as all spent nuclear fuel, high-level radioactive waste and transuranic waste disposal facilities (except at Yucca Mt.); certifying compliance with radioactive waste disposal standards; and ensuring compliance with all other applicable laws and regulations. The Agency has committed itself to carrying out its new oversight responsibilities in a very open, objective, and scientifically credible manner.

Following passage of the Act, approximately 20 new staff members were hired to carry out the Agency's new responsibilities under the Act. Staff from several EPA offices are responsible for carrying out the Act. Those offices include the Office of Radiation and Indoor Air (ORIA), the Office of Solid Waste (OSW), EPA's Region 6 Office, and the Office of General Counsel.

The Agency kicked off its implementation of the new Act by conducting a series of meetings with key stakeholders and the public in New Mexico in December 1992. The meetings were designed to make the public aware of EPA's new responsibilities under the Act and to solicit input on the Agency's implementation strategy. Based on that input, the Agency prepared a final implementation strategy in February 1993.

Very shortly after the Act was passed, ORIA staff formed, and began working with intra-agency workgroups to develop review criteria for DOE's test phase and retrieval plans and compliance criteria for certification of the WIPP. In addition to the staff-level workgroups, ORIA formed an intra-agency senior management-level task force to provide direction for and assure coordination of the WIPP implementation program within the Agency. This group has met several times and reviewed significant policy papers prepared by the workgroups and ORIA staff.

In order to obtain advice on some the complex policy and technical issues raised in this WIPP oversight program, EPA established a WIPP Subcommittee under the National Advisory Council on Environmental Policy and Technology (NACEPT) to advise the Agency in its implementation of the Act. The subcommittee has held two very successful meetings which have resulted in useful recommendations to the Agency on review of the WIPP test phase and retrieval plans and on development of criteria for certifying compliance with the waste standards.

The Act reinstated all of the 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) except for certain aspects of the individual and ground-water protection requirements. (Forty CFR Part 191 had been remanded by the First Circuit Court of Appeals NRDC vs. EPA, 824 F.2d 1258 [1st Cir. 1987].) EPA issued final amendments to the individual and ground-water protection requirements on December 20, 1993.

The Act requires the development of criteria for certifying compliance with these standards by October 1994. Within four months of enactment, EPA issued an Advance Notice of Proposed Rulemaking on the criteria. A NACEPT meeting was held in New Mexico in September 1993 which provided useful recommendations for the Agency on this issue. Proposed criteria are expected to be issued in March 1994.

One of the first tasks of the Test Phase and Retrieval Plans Workgroup was to develop criteria for reviewing DOE's test phase and retrieval plans. The workgroup prepared draft criteria in the Spring of 1993 and submitted them to the NACEPT subcommittee for review and advice at their May meeting. In March, DOE submitted draft Test Phase and Retrieval Plans to EPA for review. EPA met with DOE staff on several occasions to present their detailed comments and concerns with the plan. All the meetings were open to the public. On October 21, 1993, DOE announced that tests involving radioactive and hazardous waste would not be conducted at WIPP. Instead, DOE will revise and expand its laboratory test program and submit it to EPA for review. This review does not have to be done through the rulemaking process.

Having committed itself to conducting an open process, over the last year EPA laid the foundation for an aggressive public outreach program. Public outreach efforts began with the set of meetings with stakeholders and the public in New Mexico to explain EPA's new oversight role in WIPP. Based on suggestions from those meetings, the Agency established a toll-free WIPP information line to keep the public up-to-date on EPA's WIPP activities. The Agency also established three dockets in New Mexico to make rulemaking documents easily available to the public. In March, an Implementation Strategy was published which describes EPA's plan for carrying out its responsibilities. In June, Agency staff traveled to New Mexico to meet with approximately 25 people representing interest groups and the general public to conduct a "Communications and Consultation Needs Assessment." This set of interviews provided useful insights into the concerns of the people of New Mexico regarding EPA's WIPP program. It also provided many useful recommendations regarding development of public information and the best ways to communicate and consult with New Mexicans on this project. EPA's WIPP communications plan will be based on this assessment. In addition to these efforts, EPA has developed an assortment of public information materials for distribution to the many groups and individuals interested in this project.

During the next year, EPA will focus its efforts on (1) developing criteria, through rulemaking, for demonstrating compliance with EPA's radioactive waste disposal standards, (2) providing guidance and ensuring compliance with the Resource Conservation and Recovery Act, and (3) reviewing DOE's performance assessment and draft certification application, which will provide a basis for its application for certification of the facility. In addition, the Agency will develop a strategy for assuring compliance with all other federal environmental laws and regulations. EPA will also review and comment on DOE's revised test plans and develop a strategy to assure the quality of all data received from DOE, including waste characterization data.

INTRODUCTION

The purpose of this report is to fulfill the requirements in Section 23(a)(2) of the WIPP Land Withdrawal Act, which requires EPA to 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 responsibility for overseeing 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 are allowed 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:

- <u>Issue Radioactive Waste Disposal Standards</u>
  Develop environmental protection standards for the disposal of spent nuclear fuel and high-level and transuranic radioactive wastes, which will apply to all potential disposal sites except those required to be characterized under the Nuclear Waste Policy Act as amended.

- <u>Promulgate a Test Phase and Retrieval Plans Rule</u>
  Review DOE's test phase and retrieval plans and determine whether they meet the requirements of the Act. (This only includes tests at the WIPP which involve radioactive waste.)

- <u>Develop Compliance Criteria</u>
  Establish criteria for determining whether the WIPP complies with environmental protection standards for the disposal of transuranic wastes.

- <u>Conduct a Compliance Certification</u>
  Certify whether the WIPP will comply with environmental protection standards for the disposal of transuranic radioactive wastes.

In addition to these regulatory actions, EPA must assure that the facility complies with all applicable federal environmental laws and regulations. EPA is also required to make a certification decision within one year of receipt of DOE's application for certification.

Organization of the Report

This report begins by stating EPA's implementation principles which constitute the basis for all EPA activities concerning the WIPP. The management section explains how EPA is managing the implementation process and how EPA's resources are being utilized to implement the Act. EPA's communications and consultation activities are described in the next section. The following sections explain EPA's specific responsibilities under the Act and the progress EPA has made in fulfilling those responsibilities. At the end of the report is a schedule of important past and future dates for regulatory activities.

Implementation Principles

The Act provides EPA extensive responsibility for overseeing the WIPP and in ensuring that the facility complies with environmental laws and regulations. EPA established the following principles to guide Agency 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 carrying out its WIPP oversight responsibilities in a timely and scientifically credible manner. To this end, the Agency has established a senior management intra-agency committee to ensure that WIPP oversight responsibility is effectively coordinated within the Agency and to expedite the resolution of intra-agency policy issues.

The Office of Radiation and Indoor Air (ORIA) has the primary responsibility for implementing many of EPA's responsibilities under the Act. The Office of Solid Waste (OSW), the Office of General Counsel (OGC), and EPA's Region 6 office also have large roles to play in implementing the new law. OSW and Region 6 are working together to ensure that WIPP complies with the Resource Conservation and Recovery Act. Region 6 is leading 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 (OE); and the Office of Water (OW).

Within ORIA, the Criteria and Standards Division (CSD) has the lead on WIPP oversight responsibilities. In 1993, CSD added two new sections to its Waste Standards and Risk Assessment Branch (WSRAB) to carry out the bulk of ORIA's new responsibilities under the WIPP Land Withdrawal Act. CSD's Policy and Emergency Response Branch leads ORIA's WIPP outreach efforts. Approximately 20 new staff were hired in FY 1993 to work on WIPP oversight in CSD. EPA Headquarters expects to hire one more staff person, and EPA's Las Vegas Facility expects to hire two staff people. 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 FY 1993, an Interagency Agreement between DOE and EPA funded 33 FTE and $6.5 million for EPA WIPP activities.

In FY 1994, DOE will fund 25 HQ FTE and 4 Regional FTE, and $2.8 million in contract support for WIPP. EPA is funding an additional 3 FTE at Headquarters. This level of funding resulted from an agreement between EPA and DOE on both the WIPP and radioactive cleanup standards development. EPA is investing an additional $1.0 million in extramural dollars for WIPP.

In FY 1995, the Agency has committed to include the WIPP resources request within its budget request.

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. The Agency believes that a successful communications and consultation program can both expedite the regulatory/oversight process and ensure sound public policy decisions. Therefore, EPA has initiated efforts to inform interested parties about EPA's WIPP oversight functions and to encourage public participation in the regulatory process on both technical and non-technical matters.

Communications Activities

Shortly after enactment of the Act in October 1992, EPA drafted its Implementation Strategy. The Agency kicked off its communications and consultation efforts in December 1992 when Agency officials went to New Mexico to discuss the Implementation Strategy in two public meetings and several meetings with other key stakeholders. In addition, meetings were held with Congressional staff to discuss the draft strategy. Based on comments it received, the Agency revised the strategy and published it in March 1993.

In response to suggestions made at the December meetings, EPA created a toll-free WIPP Information Line that contains up-to-date recorded information about public hearings and meetings, publications, and other important EPA WIPP activities. The information line's capabilities will be extended so that callers will be able to leave a message requesting a publication or asking a question. EPA staff will respond to questions by phone.

Also in response to suggestions from New Mexico citizens, EPA established WIPP-related rulemaking dockets in Carlsbad, Albuquerque, and Santa Fe in addition to the dockets at EPA headquarters in Washington, DC.

In addition to the Implementation Strategy, which was widely distributed, EPA developed and distributed a number of public information materials describing the Agency's role regarding the WIPP and specific regulatory program elements. To date, the Agency has produced fact sheets on EPA's role in overseeing the WIPP, EPA's proposed amendments to environmental radiation protection standards for the disposal of transuranic waste, the National Advisory Council on Environmental Policy and Technology's WIPP Subcommittee, and EPA's final radioactive waste management and disposal standards. All fact sheets have been published in Spanish as well as English. The Agency will produce additional fact sheets to explain EPA's promulgation of compliance criteria for the disposal

standards and the certification of compliance and/or noncompliance with the disposal standards. EPA is also developing a booklet on the WIPP, and EPA's role in regulating the facility. This booklet will also be available in Spanish. The Agency also plans to issue a periodic bulletin on the status of EPA's WIPP activities as important events occur.

In June of 1993, EPA officials went to New Mexico to interview various representatives from environmental groups, businesses, citizen groups, DOE, and the state government as well as private citizens. The goal was for the "interviewees" to identify their issues of concern with respect to EPA's WIPP oversight responsibilities as well as their specific information and communications needs. The results of these interviews are being used to develop a communications plan for EPA's outreach efforts. The communications plan will be distributed to interested groups and will be available to the public.

EPA has established an extensive mailing list of individuals and organizations that are interested in receiving information on the Agency's WIPP activities. Proposed rules, fact sheets, meeting notices, NACEPT reports, publications, etc. are distributed periodically to the mailing list. Press releases and advisories are distributed to the national and New Mexico news outlets.

Consultation Activities

Recognizing the very difficult and complex technical and policy issues associated with its implementation responsibilities, EPA established a WIPP Subcommittee under the National Advisory Council on Environmental Policy and Technology (NACEPT). The Subcommittee provides independent advice to the Agency on issues associated with implementation of the Act. The Subcommittee met twice in FY '93. Both meetings were held in New Mexico and were open to the public. The first meeting was held in May to discuss review criteria for the DOE Test Phase and Retrieval Plans. The second meeting in September was held to solicit advice on establishing compliance criteria. The Subcommittee was able to come to a consensus and make useful recommendations on selecting review criteria. The meetings were very useful to EPA and well-received by the public.

In addition to consulting with the NACEPT subcommittee, the Agency has met separately with several key interest groups from New Mexico to discuss WIPP issues. These groups have included the Environmental Evaluation Group, the Southwest Research and Information Center, and Concerned Citizens for Nuclear Safety.

EPA has met with, and will continue to meet with, DOE to discuss technical issues as necessary. The first meeting was held in December 1992 to initiate discussions of Act implementation. These meetings are open to the public and announced on the toll-free WIPP Information Line. Notes of all phone conversations and meetings between EPA and DOE technical staff are recorded and 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 Act required that EPA promulgate final regulations (standards) for the disposal of spent nuclear fuel, high-level radioactive waste, and transuranic waste by April 30, 1993. This section provides background information on the standards as well as Fiscal Year 1993 activities designed to meet the requirement.

Background

In 1976, EPA began developing environmental standards for the management and disposal of radioactive wastes. In the same year, the Agency announced that it would issue federal guidance to assure protection of the public health and the general environment from radioactive wastes. In 1977 and 1978, EPA conducted a series of public workshops to promote a better understanding of radioactive waste issues and to provide a forum for voicing public concern.

In 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). The standards were published in Volume 50 of the Federal Register on page 38066. The standards consisted of several types of requirements. The Containment Requirements (Section 191.13) prescribed that waste disposal systems be designed to provide a reasonable expectation that the total releases of radionuclides from a disposal facility to the accessible environment would not exceed specified levels for 1,000 years after disposal. A set of qualitative Assurance Requirements (Section 191.14) supported the Containment Requirements by helping to ensure that the wastes would be disposed of and maintained in a careful manner that reduced the likelihood of radiation releases and infiltration of the disposal repository. For example, markers would be required to discourage people from disturbing the site. The Individual Protection Requirements (Section 191.15) limited radiation doses to individual members of the public. The Ground-Water Protection Requirements protected potable sources of ground-water by limiting radiation doses delivered through drinking water to members of the public. Compliance with these requirements was 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 the standards. On July 17, 1987, a federal court returned the standards to the Agency for reconsideration. The court identified the following three problems with the standards:

(1) inadequate explanation of the interrelationship between Ground-Water Protection Requirements (Section 191.16) in 40 CFR Part 191 and EPA's Safe Drinking Water Act requirements for the protection of ground-water developed for underground injection programs in terms of protection levels;

(2) inadequate explanation of the rationale to support selection of a 1,000-year design criterion for the Individual Protection Requirements; and

(3) insufficient notice and comment procedures followed in connection with the issuance of the Ground-Water Protection Requirements.

The WIPP Land Withdrawal Act reinstates all of the sections of the 40 CFR Part 191 disposal standards remanded by the court except those that the court found problematic, i.e., aspects of the Individual and Ground-Water Protection Requirements. Therefore, EPA proceeded to repromulgate individual and ground-water protection requirements, as amendments to the reinstated standards.

Implementation

EPA published proposed amendments to the Individual and Ground-Water protection requirements in the Federal Register on February 10, 1993. The Agency held hearings in New Mexico in February to receive comments on the proposal. After considering the written and oral comments received, EPA developed the final disposal standards, and the Administrator signed them on December 3, 1993, as an amendment to Part 191 of Title 40 of the Code of Federal Regulations (40 CFR Part 191). The statutory deadline of April 30, 1993 for these standards was not met due in part to an extension of the public comment period in response to the public's request and due to the difficulties in hiring staff and securing resources for starting up the new EPA WIPP program.

EPA's changes to the 40 CFR Part 191 disposal standards are aimed at minimizing the risks to individuals and potential sources of drinking water in the vicinity of radioactive waste disposal facilities. The amended Individual Protection Requirements state that radioactive waste disposal systems must be designed to provide a reasonable expectation that, for 10,000 years after disposal, the annual radiation exposure to any individual does not exceed 15 millirems committed effective dose per year. The Ground-Water Protection Requirements state that disposal systems must be designed so that, for 10,000 years after disposal, releases of radioactive material do not cause underground sources of drinking water to exceed maximum contaminant levels for radionuclides as specified under regulations in 40 CFR Part 191 that implement the Safe Drinking Water Act. The 10,000 years requirement is a change from the original set of standards, which only required demonstration that a facility would comply with the ground-water standards for 1,000 years. EPA was able to require a 10,000 year demonstration of compliance at this time, because modeling capabilities have improved since the original standard was issued. Also, more data is available to evaluate whether a system can meet the 10,000 year containment requirement which is part of the original standard.

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

EPA must certify whether or not the WIPP facility will comply with the final disposal standards of 40 CFR Part 191. In order for DOE to emplace radioactive wastes in the WIPP for disposal, EPA must certify that WIPP will meet these standards. Under the Act, EPA is required to develop criteria for the Administrator's certification of compliance with the disposal standards. This section describes EPA's progress in developing the compliance criteria.

Implementation

One of the first steps EPA took to develop the compliance criteria was to issue an Advance Notice of Proposed Rulemaking (ANPR) in the Federal Register on February 11, 1993. The purpose of this notice was to provide an early opportunity for interested parties to participate in the development of the proposed criteria. The ANPR helped identify compliance-related issues that should be addressed in the compliance criteria.

In developing these criteria, EPA will address compliance-related issues, including: the procedures necessary to certify compliance with the standards; the methods to be employed to assure the adequacy and quality of data; the assumptions used in compliance assessment; and the level of certainty necessary to meet the requirements. An intra-agency workgroup, established to develop the criteria, has identified other areas to be addressed in the development of the compliance criteria. They include quality assurance, public participation, the scope of long-term repository performance assessment, monitoring, mechanisms for reducing uncertainty in compliance assessment, consideration of natural and human-initiated processes and events, institutional controls, engineered barriers, and retrievability of the waste.

EPA has held technical exchange meetings with DOE to discuss pertinent issues related to compliance criteria (e.g., waste characterization and quality assurance). EPA has also met with a variety of interested parties to discuss issues and any recommendations for compliance criteria.

The EPA plans to issue proposed compliance criteria in the Federal Register in 1994. EPA will hold hearings in New Mexico shortly thereafter to receive comments on the proposal. After the Agency considers oral and written comments on the proposal, it will develop a final set of compliance criteria and publish it in the Federal Register. These dates do not conform with the statutory deadlines, because uncertainties regarding EPA's funding of the FY 1994 WIPP Program forced delays in hiring new staff to work on this project.

Test Phase and Retrieval Plans

According to the Act, EPA was required to review DOE's test phase and retrieval plans for testing using radioactive waste at the WIPP and issue a rule that approves or disapproves these plans. No waste could be transported to the WIPP for testing unless EPA approved at least part of the test phase plan and approved all of the retrieval plan. The next section describes EPA's work on the test phase and retrieval plans over the last year. In FY '93, EPA's efforts were focused on a rulemaking to approve or disapprove the plans. On October 21, 1993, DOE announced that radioactive waste tests will not be conducted at WIPP. An expanded laboratory test program using radionuclides and hazardous waste will be conducted in lieu of these specific tests at WIPP. EPA agrees with DOE that performing these laboratory tests is a more effective and expeditious means of getting to a final decision on whether or not to open the WIPP as a permanent disposal site. Because of DOE's decision, EPA has changed the focus of its activities to the other responsibilities under the Act.

A revised Test Plan was submitted to EPA for review in January of 1994. Since none of the tests involve radioactive waste at WIPP, EPA does not have to approve or disapprove the tests by rule. EPA plans, however, to provide DOE with comments on their revised test strategy. The Agency is currently rethinking its strategy for reviewing the laboratory-based test plans.

Background

In the test phase plan proposal, DOE was required under the Act to provide EPA with two types of information. First, DOE was to describe the proposed test phase for the WIPP site, specifying the proposed quantities and types of transuranic wastes that would be involved in test activities. Second, DOE had to explain in detail how the information to be provided by the tests was directly relevant to the EPA's compliance determination, i.e., how the information would enable the EPA to determine whether WIPP operations met 40 CFR Part 191's radioactive waste disposal standards as well as the Solid Waste Disposal Act regulations issued under the Resource Conservation and Recovery Act (RCRA). EPA could have approved DOE's test plan only if the experiments provided data directly relevant for determining compliance with these regulations. DOE's retrieval plan could be approved by EPA only if it provided for satisfactory recovery of transuranic waste emplaced at the WIPP in the event retrieval of waste was required.

Implementation

A work group consisting of representatives of all the EPA offices involved in this project was formed early in FY '93. The group developed a draft list of completeness criteria for evaluating the Test Phase and Retrieval Plans for discussion at the NACEPT WIPP Subcommittee meeting in May 1993. The meeting took place in New Mexico and was open to the public. With input from the committee, the work group developed a revised list of completeness criteria. The criteria consisted of a comprehensive list of information needs.

On March 19, 1993, DOE submitted draft Test Phase and Retrieval Plans. EPA and DOE met in an open meeting on May 12 to discuss the plans. EPA indicated that DOE's plans were incomplete, and requested additional information on various aspects of the plans. DOE committed to submit additional information by May 28, so EPA could complete rulemaking within 10 months. In June, DOE provided supplemental information. They provided draft materials and asked EPA not to conduct rulemaking on the plans until receiving final documents, which they intended to submit by August 20. In July, DOE and EPA held a technical meeting in Albuquerque, NM which was open to the public. DOE briefed EPA on supplemental information on bin tests from the documents that had been submitted in June. EPA stated that there were still numerous test phase activities from which technical details were missing. At the end of July, EPA met with DOE to discuss the major problems with the Test Phase and Retrieval Plans and provided feedback on the previous meeting. On October 21, DOE announced that underground test with radioactive waste would not be conducted.

Now that the DOE has withdrawn its plans for testing radioactive waste at the WIPP, EPA plans to focus more of its efforts on developing criteria for demonstrating compliance with EPA's radioactive waste disposal standards and compliance with the Resource Conservation and Recovery Act and reviewing and commenting on DOE's performance assessments. The Agency will also be preparing comments on DOE's expanded laboratory test plans. It will also review and comment on DOE's test plans and develop a strategy to assure the quality of all data received from DOE, including waste characterization data.

Certification of Compliance with 40 CFR Part 191 Disposal Standards

EPA must certify that the WIPP facility complies with the final 40 CFR Part 191 disposal standards within one year of receiving DOE's application for certification before DOE may emplace radioactive wastes in the WIPP for disposal. EPA must also conduct recertifications of continued compliance with 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 initial progress in reviewing DOE's performance assessments designed to make the compliance demonstration.

Implementation

EPA is reviewing the performance assessment report received from DOE in the Spring of 1993. EPA is currently using, and will continue to use, both EPA and contractor staff in the review of WIPP performance assessments. EPA has received, and will continue to receive, input from the public in the performance assessment review process. In September 1993, the NACEPT WIPP subcommittee met to discuss issues related to reducing and better characterizing uncertainty in WIPP performance assessments which will be used to demonstrate compliance with the 191 standards.

EPA will utilize the compliance criteria issued pursuant to the Act in certifying 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 analyses. Throughout this review, EPA will consult regularly with state and local New Mexico officials, environmental groups, and other interested parties.

The Act requires EPA's certification of compliance to be conducted by rule as prescribed by the Administrative Procedures Act. Within six months of receipt of DOE's application for certification of compliance, EPA will issue a proposed finding in the Federal Register for written comment. After public hearings and in accordance with the Act's requirements, EPA plans to issue a final determination within one year after receipt of DOE's application.

EPA will prepare a plan to review DOE's certification of compliance application. When finished, this plan will identify the information that the Agency believes is necessary to determine if the WIPP can protect public health and the environment and can comply with 40 CFR 191 disposal standards and the forthcoming 40 CFR 194 (compliance criteria for meeting 40 CFR 191 radioactive waste disposal standards at the WIPP). EPA is building up its capability to review performance assessments by expanding the staff's technical expertise and setting up contracting vehicles for access to technical experts.

EPA also plans to conduct ongoing recertification reviews of the WIPP's ability to comply with the disposal standards. As required under the law, EPA will review its certification to determine whether or not the WIPP facility continues to be in compliance with the final disposal regulations. This will occur no later than five years after the initial receipt of radioactive wastes for disposal at the WIPP, and every five years thereafter, until all the shafts at the WIPP repository have been backfilled and sealed.

Compliance with the Resource Conservation and Recovery Act

Substantial portions of the wastes proposed for disposal at the WIPP contain hazardous waste subject to the Resource Conservation and Recovery Act (RCRA); therefore, the facility must comply with these regulations. Mixed wastes are defined as wastes that contain both hazardous wastes (subject to RCRA regulation) and radioactive wastes (subject to regulation under the Atomic Energy Act.) Under RCRA, DOE must ensure the safe disposition of the hazardous portion of the wastes to be placed at WIPP. This section explains the RCRA requirements and EPA's activities in ensuring DOE compliance with them.

Background

One of the major requirements of RCRA for the WIPP is compliance with the land disposal restrictions. The Hazardous and Solid Waste Amendments of 1984 (HSWA), which amended RCRA, imposed substantial 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 either (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." EPA's Office of Solid Waste is responsible for the review and processing of "no-migration" petitions.

Implementation

In February 1989, DOE submitted a petition to EPA for a no-migration determination covering the WIPP test phase. After a careful review of DOE's petition and public comments on a proposed decision, EPA approved the petition on November 14, 1990, based on a determination that DOE had 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.

The no-migration determination includes the following terms and conditions:

* DOE must remove the hazardous wastes from the underground repository if it cannot demonstrate the long-term acceptability of the disposal site by the end of the test period;

* DOE may place wastes in the WIPP only for testing purposes;

* DOE must not place more than a specified amount of wastes in the repository for testing purposes;

* air monitoring and waste analysis must be performed; and

* annual reports on the status of DOE's WIPP performance assessment must be submitted to EPA during the test phase.

RCRA also requires that the State of New Mexico issue a RCRA hazardous waste storage permit for the Test Phase. A notice announcing the availability of the draft permit was published in New Mexico newspapers and announced on local radio stations on August 30, 1993. The public comment period closed on January 14, 1994. EPA's regional office is responsible for providing oversight and technical assistance to the State in the processing of the permit. The State is responsible for enforcing the storage conditions of the permit. EPA Region 6 is responsible for enforcing the corrective action conditions of the permit. Due to DOE's decision on October 21, 1993, not to conduct waste tests at WIPP, the RCRA permit and the no-migration determination for the test phase are no longer necessary. However, DOE will need a RCRA permit and will need to show compliance with the RCRA land disposal restrictions before mixed waste is placed in the repository.

EPA's Office of Solid Waste coordinated its activities mandated by the Land Withdrawal Act with the Office of Radiation and Indoor Air (ORIA), Region 6, and the State of New Mexico. Such efforts included attendance at all NACEPT meetings, National Academy of Science WIPP Panel meetings, DOE meetings to discuss technical aspects of the Test Phase, and Test Plan submission.

Compliance With Other Environmental Laws

The Act requires DOE to submit documentation to the EPA every two years demonstrating WIPP's compliance with all applicable environmental statutes and regulations including the radioactive waste storage standards, the Clean Air Act (CAA), the Toxic Substances Control Act (TSCA), the 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. Under the Act, DOE must submit its first documentation package to the Agency by October 30, 1994. This section relates EPA's activities and progress under this requirement.

Background

If EPA determines that DOE has not complied with any applicable Federal law or regulation, the Agency must require DOE to develop a remedial plan within six months of the determination of noncompliance. If the remedial plan is inadequate to bring the WIPP facility into compliance, the Agency must make a determination of inadequacy through rulemaking. If this occurs during the test phase, the Act requires DOE to implement the retrieval plan and decommissioning and post-decommissioning plans required by the law. If a determination of noncompliance is made by rule during the disposal or decommissioning phase, DOE must retrieve wastes to the extent practicable and implement the decommissioning and post-decommissioning plans.

Implementation

EPA Region 6 is actively pursuing the evaluation and implementation of applicable environmental regulations at WIPP. Experts have been organized into a Regional Task Force to enforce the many environmental regulations. Region 6 is developing an action strategy to execute its regulatory oversight of both air and water monitoring issues, evaluate equipment and personnel operational procedures, and conduct quality assurance audits and evaluations of each of these areas. The office will use the strategy to ensure that DOE will be in compliance with all applicable environmental regulations prior to and during the Disposal Phase and the Decommissioning Phase at the WIPP.

Oil and Gas Lease Provision 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.

Background

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 or 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 relevant oil and gas leases or EPA determines that such acquisition is not required.

Implementation

EPA Region 6 is working with EPA Headquarters to evaluate the potential effect of Oil and Gas Drilling. This evaluation will examine all related technical information. DOE submitted a request that EPA decide this issue at this time. EPA believes that this decision is premature and needs to be based on later, more accurate, performance assessments.

WASTE ISOLATION PILOT PLANT
LAND WITHDRAWAL ACT OF 1992

IMPLEMENTATION SCHEDULE HIGHLIGHTS

Date	Regulatory Activities
2/93	Radioactive Waste Standards proposed in Federal Register.
	Hearings on Radioactive Waste Standards in New Mexico.
	Advance Notice of Proposed Rulemaking for Compliance Criteria published in Federal Register.
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.
	Request for additional information on DOE Test Phase and Retrieval Plans.
5/93	National Advisory Council on Environmental Policy and Technology (NACEPT) Meeting on test phase and retrieval plans in New Mexico.
9/93	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 to be published in Federal Register.
8/94	Hearings on Proposed Compliance Criteria in New Mexico.

9/94	Compliance Criteria comment period closes.
10/94	DOE must submit to EPA its first documentation package demonstrating WIPP's compliance with all applicable environmental statutes and regulations.
7/95	Issue Final Compliance Criteria in Federal Register.