



ENTERED

Kink

Department of Energy  
Albuquerque Operations Office  
Waste Isolation Pilot Plant Project Office  
P. O. Box 3090  
Carlsbad, New Mexico 88221  
JUN 23 1988

RECEIVED  
JUN 27 1988  
EID DIRECTOR'S OFFICE

Mr. Mike Burkhardt, Director  
Environmental Improvement Division  
State of New Mexico  
P.O. Box 968  
Santa Fe, NM 87504

Dear Mr. Burkhardt:

At a meeting held on April 15 between the Department of Energy and Environmental Improvement Division, regarding the application of the Resource Conservation and Recovery Act and New Mexico Hazardous Waste Regulations to radioactive mixed wastes that are to be shipped to the WIPP site, DOE offered to prepare a background paper covering the issues and their proposed resolution. We have completed that paper and have attached a copy in draft form, for your review. We hope you find this document useful as a source of information on the WIPP Project's plans regarding RCRA compliance.

During the course of the April 15 meeting, we discussed the possibility that a Memorandum of Understanding (MOU) between EID and DOE may be an appropriate way to provide WIPP with appropriate status under RCRA in the absence of any other regulatory authority. We have prepared a draft MOU for your consideration. Other signatures on this MOU might include EPA Region VI, the Colorado Department of Health, and EPA Region X.

We would like to meet with you at your earliest convenience to discuss the two enclosures. A member of the DOE staff will be in touch with you to establish a time and location for such a meeting.

If you have any questions, please contact Tom Lukow of my staff.

Sincerely,

Jack B. Tillman  
Project Manager

Enclosure

cc w/o enclosure:  
R.F. Kehrman, WID



MEMORANDUM OF UNDERSTANDING  
BETWEEN THE  
U.S. DEPARTMENT OF ENERGY,  
U.S. ENVIRONMENTAL PROTECTION AGENCY REGIONS VI, VIII, AND X,  
THE  
NEW MEXICO ENVIRONMENTAL IMPROVEMENT DIVISION  
AND THE  
COLORADO DEPARTMENT OF HEALTH

INTRODUCTION

The Waste Isolation Pilot Plant (WIPP) was authorized by the Department of Energy National Security and Military Applications of Nuclear Energy Authorization Act of 1980 (Pub. L. 96-164, 42 U.S.C. \_\_\_\_\_). Its legislative mandate is to provide a research and development facility to demonstrate the safe disposal of radioactive waste resulting from U.S. defense activities and programs.

The WIPP will commence receiving contact-handled transuranic (CH-TRU) waste from various U.S. Department of Energy (DOE) generator and interim storage facilities in October 1988. Substantial quantities of the transuranic wastes destined for shipment to the WIPP contain chemical constituents or properties which qualify as "hazardous waste" under the Resource Conservation and Recovery Act (RCRA) (42 U.S.C. 6901 et seq.).

The WIPP facility is being constructed in a 2,000-foot thick bedded salt formation 2,150 feet beneath the land surface approximately 25 miles east of Carlsbad, New Mexico. It is designed, ultimately, to receive wastes over a 25-year period with the emplaced waste capable of being readily retrieved during the first five years of demonstration.

The majority of the waste being transported to the WIPP is generally referred to as "radioactive mixed waste" which is composed of mixtures of transuranic radioisotopes and chemical components listed or otherwise classified as hazardous under RCRA. According to a U.S. Environmental Protection Agency (EPA) notification on radioactive mixed waste of July 3, 1986 (51 FR 24504) and a DOE interpretative rule of May 1, 1987 (52 FR 15937), codified as 10 CFR Part 962, all DOE radioactive waste which contains RCRA-regulated hazardous waste components is subject to dual regulation under both RCRA and the Atomic Energy Act (AEA).

I. PURPOSE

This Memorandum of Understanding (MOU) recognizes that the Resource Conservation and Recovery Act and the EPA regulations in 40 CFR Parts 260 through 266 and Parts 268 and 270 are not specifically intended to address treatment, storage, and disposal of radioactive mixed waste in general or, specifically, the types of radioactive mixed wastes generated at DOE facilities and destined for shipment to the WIPP. It is further understood by the parties to this MOU that there may be inconsistencies of the type contemplated by §1006(a) of RCRA between regulation of certain DOE-related activities and substances under both RCRA and the AEA. Therefore, until such time as the appropriate statutory or regulatory amendments are made which specifically recognize the unique properties of radioactive mixed waste, this MOU will serve as guidance for compliance by the WIPP with applicable requirements of RCRA, EPA regulations, hazardous waste management statutes, and regulations of the states of New Mexico and Colorado.

Specifically, the mutual objectives of the DOE, EPA Regions VI, VIII, and X, the New Mexico Environmental Improvement Division (NMEID), and the Colorado Department of Health (CDH) in entering into this Agreement are to:

- a. Resolve issues addressed in this MOU as they relate to the WIPP as a radioactive mixed waste storage and disposal facility subject to RCRA and related or parallel state hazardous waste management requirements.
- b. Establish procedures under which the WIPP can be considered by the parties to this Agreement as an appropriate facility for receipt, storage, and disposal of radioactive mixed wastes.
- c. Establish or agree on protocols for characterization of the hazardous components of radioactive mixed wastes being shipped to the WIPP from various DOE facilities.

- d. Provide a framework within which uncertainties regarding receipt by the WIPP of hazardous wastes restricted from land disposal under RCRA §3004(d), 42 U.S.C. \_\_\_\_\_, can be resolved.
- e. Establish a procedural framework within which the WIPP can be finally permitted under RCRA requirements for "miscellaneous units" as defined in 40 CFR §260.10.

It is not the intent of this MOU to address or resolve all of the issues of regulatory uncertainty pertaining to compliance by the WIPP with RCRA but only to deal with the major issues of immediate concern. It is anticipated by the parties that additional regulatory uncertainties will be resolved as federal and associated state radioactive mixed waste regulatory strategies continue to evolve. All issues not specifically addressed in this MOU are to be dealt with on an issue-by-issue basis between the DOE WIPP Project Office (WPO), the appropriate EPA regional offices, the New Mexico Environmental Improvement Division (NMEID), and the Colorado Department of Health (CDH), as appropriate.

## II. AUTHORITY

### A. STATUTES AND EXECUTIVE ORDERS

The authority for hazardous waste and radioactive mixed waste management at DOE facilities regulated under the Atomic Energy Act is derived from:

- The Atomic Energy Act of 1954, as amended, 42 U.S.C. §2011 et seq.
- The Resource Conservation and Recovery Act of 1976, 42 U.S.C. 6901 et seq.
- Executive Order (E.O.) 12088, October 13, 1978.
- E.O. 12146, July 18, 1979.
- E.O. 12356, April 2, 1982.

- The New Mexico Hazardous Waste Act, NMSA §74-4-1 et seq.
- The Colorado Hazardous Waste Act, C.R.S. §25-15-101 et seq.

B. REGULATIONS

The regulatory standards for the management of hazardous waste and radioactive mixed waste referred to in this MOU are set forth in the following:

- 40 CFR Parts 260 through 266 and Parts 268 and 270.
- DOE Order 5480.2.
- DOE Order 5632.1.
- DOE Order 5635.1.
- DOE Order 5650.2.
- New Mexico Hazardous Waste Management Regulations.
- Colorado Hazardous Waste Management Regulations, 6 CCR 1007-3.

III. DEFINITIONS

A. RADIOACTIVE MIXED WASTE

"Radioactive mixed waste" means source, special nuclear, or byproduct materials as defined by the AEA that are co-contaminated with hazardous chemical wastes listed or otherwise specified under RCRA.

B. TRANSURANIC WASTE

"Transuranic waste" means waste containing alpha-emitting transuranic isotopes with half-lives greater than 20 years and at a concentration of more than 100 nanocuries per gram of waste (40 CFR §191.02).

C. DESIGNATED FACILITY

"Designated facility" means a hazardous waste treatment, storage, or disposal facility which has received an EPA permit (or a facility with interim status) in accordance with the requirements of 40 CFR Parts 270 and 124 or a permit from a state authorized in

accordance with 40 CFR Part 271 and that has been designated on the manifest by the generator according to the requirements of 40 CFR §262.20 (40 CFR §260.10.)

D. DISPOSAL

"Disposal" as defined by RCRA regulations in 40 CFR §260.10 means the placement of any hazardous waste into or on any land so that waste constituents may enter the environment.

By contrast, "disposal" under the EPA Environmental Standards for Management and Disposal of Spent Nuclear Fuel, High Level and Trans-uranic Waste is defined in 40 CFR §191.02(1) as permanent isolation of radioactive waste from the accessible environment with no intent of recovery (as when a mined geologic repository is backfilled and sealed).

IV. SCOPE

This MOU establishes procedures under which DOE generator/storage facilities in Colorado and Idaho will comply with RCRA requirements and similar or parallel state requirements respecting the transportation of radioactive mixed waste planned for emplacement in the WIPP facility. The MOU also establishes procedures under which the DOE will comply with RCRA and similar or parallel state requirements concerning the storage and disposal of radioactive mixed waste at the WIPP facility. This MOU also addresses the relative roles and responsibilities of the DOE, EPA Regions VI, VIII, and X, and the states of New Mexico and Colorado.

V. FACTS

The parties to this Agreement stipulate to the following facts:

- a. The DOE is an agency of the federal government and is subject to regulation of its hazardous waste management activities, including those involving the hazardous chemical components of radioactive mixed waste, under §6001 of RCRA, 42 U.S.C. §6961.

- b. The State of New Mexico received authorization from the EPA to administer and enforce a state hazardous waste program pursuant to §3006 of RCRA, 42 U.S.C. § \_\_\_\_\_, on January 11, 1985 (50 FR 1515), effective January 25, 1985. The State has not yet received authorization to regulate hazardous components of radioactive mixed waste pursuant to the EPA notification of July 3, 1986 (51 FR 24504), nor has it received authorization to implement provisions of the Hazardous and Solid Waste Amendments Act (HSWA) of 1984 (PUB. L. 98-616).
- c. The State of Colorado received authorization from the EPA to administer and enforce a state hazardous waste program pursuant to §3006 of RCRA, 42 U.S.C. § \_\_\_\_\_, on October 16, 1984 (49 FR 41036), effective November 2, 1984. The State received authorization to regulate hazardous components of radioactive mixed waste on October 24, 1986 (51 FR 37729).
- d. The State of Idaho does not currently have authorization from the EPA to administer and enforce a RCRA Subtitle C state hazardous waste program. EPA Region X retains jurisdiction over radioactive mixed waste in Idaho.
- e. Section 74-4-3.2 of the New Mexico Hazardous Waste Act, NMSA 1978, provides that the Act does not apply to any radioactive waste processed and certified for emplacement in the mined geologic repository at the Waste Isolation Pilot Plant.
- f. The Waste Isolation Pilot Plant, the Rocky Flats Plant, and the Idaho National Engineering Laboratory are defense facilities owned by the United States and under the custody and control of the DOE pursuant to the Atomic Energy Act, 42 U.S.C. §2121, §2122.
- g. The WIPP qualifies as a "land disposal" facility under the definition in §3004(k) of RCRA, 42 U.S.C. § \_\_\_\_\_, which specifically includes salt dome formations, salt bed formations, underground

mines, and caves. Some of the hazardous constituents of radioactive mixed waste to be transported to and emplaced in the WIPP may ~~be restricted from land disposal according to schedules contained~~ in 3004(d) of RCRA, 42 U.S.C. § \_\_\_\_\_, and 40 CFR Part 268.

- h. The EPA published a notice on July 3, 1986 (51 FR 24504) that states must obtain authority from the EPA to regulate the hazardous components of radioactive mixed waste in order to obtain or retain authorization to administer and enforce a hazardous waste program under Subtitle C of RCRA. States must demonstrate such authority by July 1, 1988 (or July 1, 1989 if a statutory amendment is required). The notice also included a determination that wastes containing both hazardous and radioactive components are subject to RCRA regulation.
- i. The DOE published an interpretative rule on May 1, 1987 (10 CFR Part 962, 52 FR 15937) to the effect that DOE radioactive waste containing hazardous components are subject to regulation under both RCRA and the AEA.

IN RECOGNITION OF THE FOREGOING, the parties to this Agreement, sharing the mutual goal of protection of the public health and welfare and the environment and believing that the actions set forth herein are in the public interest, have entered into this Agreement to achieve compliance by the WIPP with RCRA requirements for the transportation, storage, and disposal of radioactive mixed waste. Accordingly, THE PARTIES AGREE AS FOLLOWS:

VI. REGULATORY COMPLIANCE--RADIOACTIVE MIXED WASTE

- a. The parties agree that the framework for compliance by the WIPP facility with RCRA requirements for the management of hazardous constituents of radioactive mixed waste is provided in 40 CFR Parts 260-266 and Parts 268 and 270.
- b. DOE agrees to comply with these and applicable NMEID and CDH state hazardous waste regulations, as they apply to radioactive mixed waste shipped to or emplaced in the WIPP, to the extent that such

compliance is not "inconsistent" with requirements of the AEA, as provided in §1006 of RCRA, 42 U.S.C. § \_\_\_\_\_.

- c. To the extent not inconsistent with federal law, the DOE will operate the WIPP in compliance with the New Mexico Hazardous Waste Act and the Hazardous Waste Management Regulations of the New Mexico Environmental Improvement Board (NMEIB), effective as of the date that the Act and the regulations apply to the WIPP.
- d. The DOE will comply with the Colorado Hazardous Waste Act and the CDH Hazardous Waste Regulations in 6 CCR 1007-3 with respect to the transportation of radioactive mixed waste from the RFP to the WIPP facility.

VII. NOTIFICATION OF HAZARDOUS WASTE MANAGEMENT ACTIVITY

The DOE agrees to file on or before July 1, 1988 an amended notification pertaining to its ownership and operation of the WIPP facility for storage and disposal of hazardous waste received from other DOE facilities according to the requirements of §3010 of RCRA, 42 U.S.C. \_\_\_\_\_, to EPA Region VI with a copy to the NMEIB.

VIII. SUBMITTAL AND REVIEW OF PART A OF THE RCRA PERMIT APPLICATION AND COMPLIANCE WITH INTERIM STATUS STANDARDS

- a. The DOE WPO will submit to the EPA Region VI regional office and to the NMEID Part A of the RCRA permit application pursuant to the requirements of 40 CFR Part 270, Subpart B, specifically §§270.10 and 270.13. This submittal will be made on or about July 1, 1988.
- b. The EPA Region VI regional office and the NMEID will each review Part A of the permit application and comment as appropriate within a reasonable time, but not to exceed forty-five (45) days.
- c. Following the review and comment period, the EPA Region VI regional office and the NMEID will inform the DOE WPO within a reasonable time, but not later than September 1, 1988, whether they consider the WIPP to be an appropriate facility for receipt of the hazardous

components of radioactive mixed waste until the time the regulatory agency makes a determination on a finally effective RCRA permit. Such a finding and issuance of information to the DOE WPO may be done individually by EPA Region VI and the NMEID or jointly, at the agencies' discretion.

- d. If EPA Region VI and the NMEID each conclude, separately or jointly, that the WIPP is an appropriate facility for the receipt of the hazardous components of radioactive mixed waste (until a final determination is made), the WIPP will be deemed to qualify as a "designated facility" within the meaning of 40 CFR §260.10 and in the context of the requirements of 40 CFR §262.20 and §263.20.
- e. The DOE agrees to operate the WIPP in compliance with the Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage and Disposal Facilities in 40 CFR Part 265 including:
- Subpart B--General Facility Standards
  - Subpart C--Preparedness and Prevention
  - Subpart D--Contingency Plan and Emergency Procedures
  - Subpart E--Manifest System, Recordkeeping and Reporting
  - Subpart F--Ground Water Monitoring
  - Subpart G--Closure and Post-Closure

IX. LAND DISPOSAL RESTRICTIONS APPLICABLE TO THE WIPP

The DOE, EPA Regions VI, VIII, and X, and the NMEID will work diligently and use their best offices and efforts to resolve prior to August 15, 1988 the uncertainty surrounding the implementation of land disposal restrictions applicable to the emplacement of hazardous components of radioactive mixed waste in the WIPP repository. These resolutions may include, but not be limited to:

- a. Interpreting the RCRA §3004(d), 42 U.S.C. \_\_\_\_\_, land disposal restrictions as applied to radioactive mixed waste emplaced in the WIPP repository.

- b. Determining the appropriateness of best demonstrated available technologies to treatment of mixtures of TRU radioactive and restricted hazardous chemical wastes.
- c. Establishing a special or separate waste group or waste group subdivision for restricted hazardous waste mixed with TRU waste and appropriate scheduling of land disposal restrictions as contemplated by §3004(g) of RCRA, 42 U.S.C. \_\_\_\_\_ and 51 FR 40600, November 7, 1986.
- d. Determining the need for a nationwide extension of the effective date of a treatment standard ("nationwide variance") provided by §3004(h)(2) of RCRA, 42 U.S.C. \_\_\_\_\_.
- e. Determining the applicability to the WIPP of the "no-migration" exemption from the land disposal prohibitions under §3004(d)(1), 42 U.S.C. \_\_\_\_.

X. WASTE CHARACTERIZATION

The parties to this MOU agree to work cooperatively to resolve any informational uncertainties concerning the physical and chemical characterization of radioactive mixed waste destined for shipment to the WIPP and described in Part A of the RCRA permit application.

XI. AMENDMENT TO NEW MEXICO HAZARDOUS WASTE ACT

- a. The NMEID will work diligently and employ its good offices with the objective of amending the New Mexico Hazardous Waste Act in order to repeal §74-4-3.2 of the Act which operates as an exemption for the WIPP from State hazardous waste management regulation.
- b. The DOE will work diligently and employ its good offices in order to achieve the same statutory amendment objective.
- c. Following the accomplishment of the required statutory amendment, the NMEID will apply to the EPA for authority to regulate the hazardous components of radioactive mixed wastes as required by the

EPA notice on State Authorization to Regulate the Hazardous Components of Radioactive Mixed Wastes under the Resource Conservation and Recovery Act of July 3, 1986, 51 FR 24504.

XII. APPLICABILITY OF EPA REGULATION OF WIPP AS A MISCELLANEOUS UNIT UNDER 40 CFR PART 264, SUBPART X

- a. The WIPP qualifies as a miscellaneous unit under 40 CFR §260.10 in that it is not a container, tank, surface impoundment, waste pile, land treatment unit, landfill, incinerator, boiler, industrial furnace, underground injection well, or a unit eligible for a research, development, or demonstration permit.
- b. Application by the DOE WPO for a finally effective RCRA permit under the provisions of 40 CFR Part 264, Subpart X as they apply to miscellaneous units for hazardous waste management is the appropriate regulatory strategy applicable to the WIPP.
- c. The DOE, WPO EPA Region VI, and the NMEID will work together cooperatively toward agreement on the content and schedule for submittal of Part B of the WIPP RCRA permit application.

XIII. AMENDMENT AND TERMINATION

This agreement may be modified or amended by written agreement between all of the parties and terminated by mutual agreement of these parties, or by any of the parties upon thirty days written notice to the others.

XIV. EFFECTIVE DATE

This agreement shall become effective upon the date of execution by all the parties. The undersigned represent that they have the authority to execute this agreement on behalf of their respective agencies.

(SIGNATORIES)