

960505

**PUBLIC MEETING
OF THE
NEW MEXICO RADIOACTIVE WASTE CONSULTATION TASK FORCE
(Governor's Radioactive Waste Task Force)**

*****FINAL AGENDA*****

Thursday, May 2, 1996
State Capitol Building, Room 326
Santa Fe, New Mexico

- | | |
|--|------------|
| I. Introductory Remarks
- Jennifer A. Salisbury, Task Force Chair | 9:00 a.m. |
| II. Action Items
- Approval of Last Meeting's Minutes
- Approval of Meeting Agenda | 9:15 a.m. |
| III. Public Comment | 9:20 a.m. |
| IV. WIPP Project Status Reports | |
| - WIPP Project: Compliance Update
Michael McFadden
Assistant Manager for Regulatory Compliance
Carlsbad Area Office/U.S. Department of Energy | 9:45 a.m. |
| - WIPP Issues and Activities
Robert H. Neill, Director
N.M. Environmental Evaluation Group | 10:15 a.m. |
| BREAK | 10:45 a.m. |
| V. Mescalero/Utility Spent Fuel Storage Initiative
Status Report | 11:00 a.m. |
| - Overview/Update of Project Activities
Robert M. Burpo, President
First American Asset Management, Inc. | |
| VI. Discussion of Next Meeting:
Location, Date, Agenda Items | 11:30 a.m. |
| VII. Adjournment | 12:00 p.m. |

960505





ENVIRONMENTAL EVALUATION GROUP

AN EQUAL OPPORTUNITY / AFFIRMATIVE ACTION EMPLOYER

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WIPP UPDATE

New Mexico Radioactive Waste Consultation Task Force

Robert H. Neill

Public Meeting

May 2, 1996

Madam Chairperson, Members of the Task Force:

Thank you for the opportunity to appear here to provide an update on EEG's work since the last meeting on July 14, 1995.

Is WIPP Safe?

A number of recent statements by various officials would suggest that WIPP has been proven to be safe for the disposal of radioactive transuranic waste generated from the nation's national defense programs and that disposal should begin now. However, DOE has not yet provided the analyses that WIPP meets standards for safe disposal. Amongst the various requirements are containment calculations to show that the chance is less than 1 in 10 that more than 10.7 pounds of plutonium -239 will reach the accessible environment in 10,000 years and also less than 1 in 1000 that more than 107 pounds of plutonium will reach the accessible environment in 10,000 years.

Prior to passage of the WIPP Land Withdrawal Act, DOE could make the determination whether DOE complied with the EPA standards at the DOE WIPP site. However, with the passage of the 1992 WIPP Land Withdrawal Act, Congress gave that responsibility to EPA to make that determination.

DOE expects to complete the task of showing compliance with the standards that were initially promulgated in 1985, by November 1, 1996. The results of this 11 year effort by DOE will be transmitted to EPA. EPA will have one year to review and evaluate the application. EEG, as an oversight group, will also review and evaluate the documentation and publish our conclusions.

Until EPA determines that WIPP meets the requirements specified in the standards, it is incorrect to state that WIPP either does or does not meet the allowable standards for safe disposal and reasonable isolation for 10,000 years.

Review of the DOE Draft Compliance Certification Application

We commend the DOE for their efforts to assess the WIPP's compliance with EPA disposal standards by preparing and publishing a draft document in April 1995 and August 1995. As noted in our review, it is not a draft document to demonstrate compliance. Rather it provides only a framework for the application since it lacks a logical presentation of proofs of compliance. As noted in the DOE preface, it does not contain detailed information. Nonetheless, we look forward to the DOE resolution of the issues identified in our review of the draft document.

Is It Low Level Waste?

No, it is not. The RH-TRU waste can have external gamma dose rates as high as 1,000 R/hour. This is higher than some high level wastes. If it were low level waste, the material would not require deep geological disposal at a cost of \$8 billion and could be disposed on the surface for less than \$0.2 billion. Needless to say, we would not spend 7.8 billion dollars unnecessarily to isolate most of these materials for 10,000 years.

Does the WIPP Land Withdrawal Act Need Changes at This Time?

It has been 3-1/2 years since Congress passed the WIPP Land Withdrawal Act after obtaining a reasonable consensus amongst the diverse interests. Various proposals have now been put forth in both the House and Senate to amend the 1992 WIPP Land Withdrawal Act. EEG believes that a number of features in those bills would weaken the public health and environmental protection. Various features include the following:

1. Decreasing the time for EPA and oversight groups such as EEG to review DOE's work from 1 year to 6 months. DOE has known that they must meet these standards since 1983. The standards for safe disposal were promulgated by EPA in 1985. After they were vacated in June 1987, within a week New Mexico and DOE entered

into a formal agreement to continue to characterize WIPP with those standards. Only minor changes were made in the 1993 repromulgation. Hence the standards have essentially been in effect since 1985. DOE estimates it will complete the analyses by November 1, 1996. If it will take DOE 11 years to prepare the documentation, it appears reasonable to allow EPA at least 1 year to review it.

2. DOE has not identified the need to bring any non-defense TRU waste to WIPP. Hence the provision to allow non-defense waste is not needed.
3. One bill would delete the 1992 LWA requirement to submit a plan for disposal of non-WIPP TRU waste before bringing any waste to WIPP and would require a plan in 3 years. If the DOE didn't produce a plan in the past 3.5 years with such an incentive, it does not appear realistic to expect them to produce one in the next 3 years without any incentive.
4. The bill deletes the language for the test phase of experimental TRU waste. The current language does no harm and provides flexibility if at some time in the future we identify any needed experiments with TRU waste at WIPP.
5. Specifying an opening date through legislation is not conducive to establishing public confidence in the safety of WIPP. If major health and safety problems as well as regulatory approval problems exist on November 1, 1997, EEG does not believe the waste should be automatically emplaced at that time.
6. One bill would delete the requirements of WIPP to comply with the mixed waste requirements of RCRA for a determination of no-migration of the non-radioactive constituents of the waste. Any such change should wait until DOE publishes an analysis to show there is minimal risk to the public from volatile organic compounds emanating from the waste.

7. The requirement to publish a plan for decommissioning by October 1997 would be deleted. EEG believes that it should be required to provide confidence that the decommissioning and dismantlement will be done properly.
8. Piecemeal submittal of the application of a chapter every 6 weeks would permit only 3 chapters to be obtained by November 1, 1996. This would not be a useful requirement.
9. Periodic recertification would be eliminated. As new data and analyses become available, periodic recertification would allow DOE to make any necessary adjustments and demonstrate that the conclusions on safety remain valid and help insure public confidence.

We see no compelling need to modify the 1992 WIPP Land Withdrawal Act at this time. The proposed modifications may create problems in the technical evaluation of the impact of WIPP on the public health, causing potential delays in the schedule.

Publications and Presentations by EEG

*** July 1995 - April 1996 Reports and Published Papers ***

- EEG-58 Kenney, Jim W., Paula S. Downes, Donald H. Gray, and Sally C. Ballard, 1995. Radionuclide Baseline in soil near Project Gnome and the Waste Isolation Pilot Plant. Albuquerque, NM: Environmental Evaluation Group. EEG-58.
- EEG-59 Greenfield, Moses A. and Thomas J. Sargent, 1995. An Analysis of the Annual Probability of Failure of the Waste Hoist Brake System at the Waste Isolation Pilot Plant (WIPP). Albuquerque, NM: Environmental Evaluation Group. EEG-59.
- EEG-60 Bartlett, William T. and Ben Walker, 1996. The Influence of Salt Aerosol on Alpha Radiation Detection by WIPP Continuous Air Monitors. Albuquerque, NM: Environmental Evaluation Group. EEG-60.

EEG-61 Neill, Robert H., Lokesh Chaturvedi, William W.-L. Lee, Thomas M. Clemo, Matthew K. Silva, Jim W. Kenney, William T. Bartlett, and Ben A. Walker, 1996. Review of the WIPP Draft Application to Show Compliance with EPA Transuranic Waste Disposal Standards. Albuquerque, NM: Environmental Evaluation Group. EEG-61.

Lee, William W.-L. 1996. Review of the Performance Assessment in the WIPP Draft Compliance Application. In 1996 International High Level Waste Management Conference, April 29 - May 3, 1996, Las Vegas, Nevada, (to be published).

Kenney, Jim. 1996. Radionuclide Contamination Study Recent Gnome Site Radionuclide Measurements. In 1996 New Mexico Conference on the Environment : Setting New Mexico's Environmental Agenda for the Future, March 12-14, 1996, (to be published).

Neill, Robert H. and Lokesh Chaturvedi. 1996. Actions to be Completed to Open WIPP. In WM '96 Conference Proceedings: HLW, LLW, Mixed Wastes and Environmental Restoration -- Working Towards a Cleaner Environment, February 25 - 29, 1996, edited by Roy G. Post. Tucson, AZ: Laser Optics, (to be published).

Silva, Matthew and Lokesh Chaturvedi. 1995. Need for Engineered Barriers at the Waste Isolation Pilot Plant. In Transactions of the American Nuclear Society, October 29-November 2, 1995, editor Irene O Macke. La Grange Park, IL: American Nuclear Society, 73: 123-124.

Snow, David T. and William W.-L. Lee. 1995. Critical Evaluation of Experimental Programs in the Culebra Aquifer at the Waste Isolation Pilot Plant. In Transactions of the American Nuclear Society, October 29-November 2, 1995, editor Irene O Macke. La Grange Park, IL: American Nuclear Society, 73: 121-123.

Lee, W. W.-L. and L. Chaturvedi. 1995. Radionuclide Retardation Mechanisms in the Culebra Aquifer at the Waste Isolation Pilot Plant. In Proceedings of the Conference on Radioactive Waste Management and Environmental Remediation, ICEM '95, held in Berlin, Germany, September 3-7, 1995, edited by S. Slate, F. Feizollahi, and J. Creer. New York, NY: American Society of Mechanical Engineers, 877-881.

I have been appointed to two DOE Advisory Committees, two EPA Advisory Committees, and a National Research Council Committee. The following reports have been issued:

U.S. Department of Energy Nuclear Safety, Advisory Committee on External Regulation. December 1995. Improving Regulation of Safety at DOE Nuclear Facilities: Final Report. Washington, D.C.: U.S. Department of Energy.

National Research Council, Committee to Evaluate the Science, Engineering, and Health Basis of the Department of Energy's Environmental Management Program, Subcommittee on Priority-Setting, Timing, and Staging. 1995. Improving the Environment: an Evaluation of DOE's Environmental Management Program. Washington, D.C.: National Academy Press.

U.S. Environmental Protection Agency. 1996. 40 CFR Part 194, Criteria for the Certification and Re-Certification of the Waste Isolation Pilot Plant's Compliance with the 40 CFR Part 191 Disposal Regulation, Final Rule. Federal Register (February 9) vol. 61, no. 28, p. 5224-5245.

*** 1995 PRESENTATIONS ***

Bartlett, W.T.	7/24-27	Health Physics Society Meeting, Boston, MA
Neill, R.H.	8/18/95	Briefing for Congressional Staff, Carlsbad
Chaturvedi, L.	8/25	Briefing for Congressional Staff, Carlsbad
Lee, W.W.-L.	9/3-9	Fifth International Conference on Radioactive Waste Management and Environmental Remediation, Berlin, Germany
Neill, R.H.	9/6-7	NACEPT WIPP Review Committee Meeting, Albuquerque
Lee, W.W.-L.	10/4	ASCE 1995 Fall Meeting of the Mexico, Texas, Oklahoma, and New Mexico Sections, El Paso, TX
Neill, R. H.	10/18	NMED/EEG/DOE Quarterly Meeting, Bartlett, W.T. Albuquerque
Neill, R.H.	10/23	Radioactive and Hazardous Materials Committee, New Mexico Legislature, Carlsbad
Lee, W.W.-L. M.K. Silva	10/29-11/2	ANS 1995 Winter Meeting, San Francisco, CA
Gray, D.H.	11/13	41st Bioassay Conference Workshop on Radiochemistry Laboratory Waste Management, Boston, MA
Lee, W.W.-L.	11/27-12/1	Scientific Basis for Nuclear Waste Management XIX, Boston, MA

Silva, M.K. 11/30 Annual National TRU Waste Update Meeting, San Antonio, TX

Clemo, T. 12/5-6 DOE/EPA Technical Exchange Meeting, Carlsbad

*** 1996 PRESENTATIONS ***

Kenney, J.W. 1/17 CAO/EEG Environmental Monitoring Meeting, Carlsbad

Neill, R.H. 1/25 DOE/EEG/NMEMNRD/NMED 53rd Quarterly Meeting, Santa Fe

Neill, R.H. 2/25-29 HLW, LLW, Mixed Wastes and Chaturvedi, L. Environmental Restoration-Working Towards a Cleaner Environment, Tucson, AZ,

Kenney, J.W. 3/12-14 1996 NM Conference on the Environment: Setting New Mexico's Environmental Agenda for the Future, Albuquerque

Neill, R.H. 4/2 EPA Office of Radiation and Chaturvedi, L. Indoor Air, Washington, D.C.

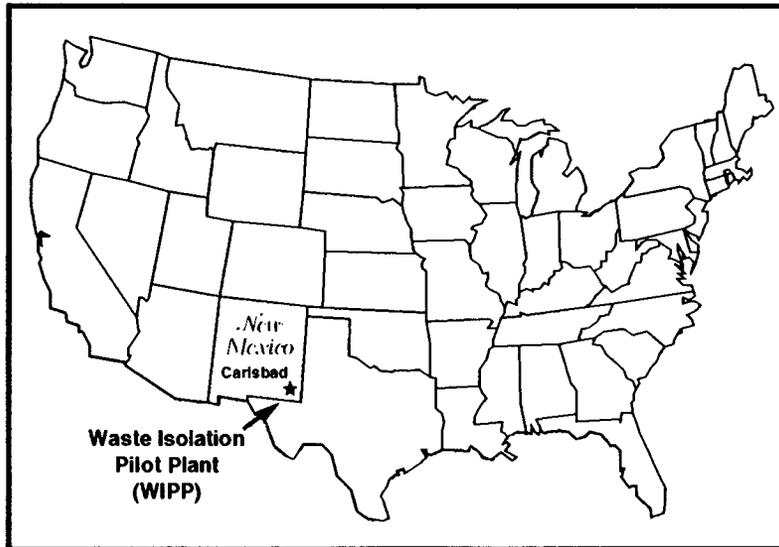
Kenney, J.W. 4/17 NMSU, Carlsbad

Neill, R.H. 4/24 NMSU, Carlsbad

Lee, W.W.-L. 4/29-5/3 1996 International High Level Waste Management Conference, Las Vegas, NV



The Waste Isolation Pilot Plant: A Solution to a National Problem



United States Department of Energy
Carlsbad Area Office
Michael H. McFadden
Assistant Manager





CARLSBAD AREA OFFICE MISSION

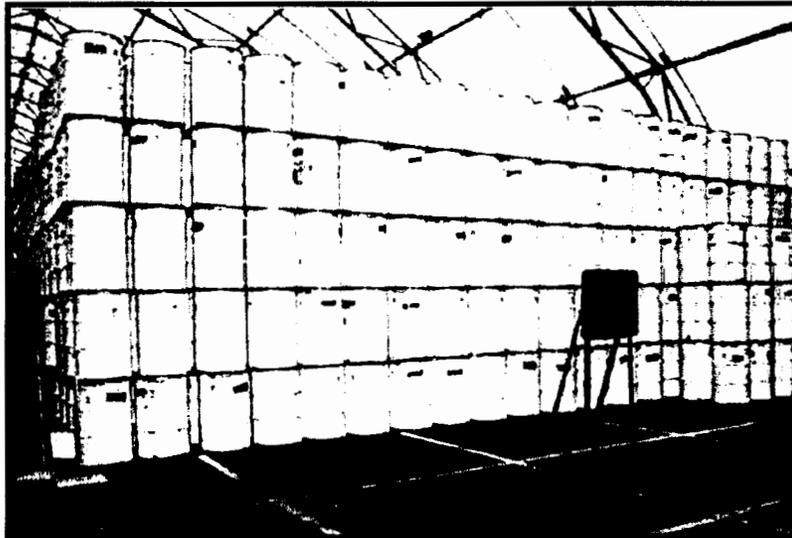
The mission of the Carlsbad Area Office is to protect human health and the environment by opening and operating the Waste Isolation Pilot Plant for safe disposal of transuranic waste and by establishing an effective system for management of transuranic waste from generation to disposal.



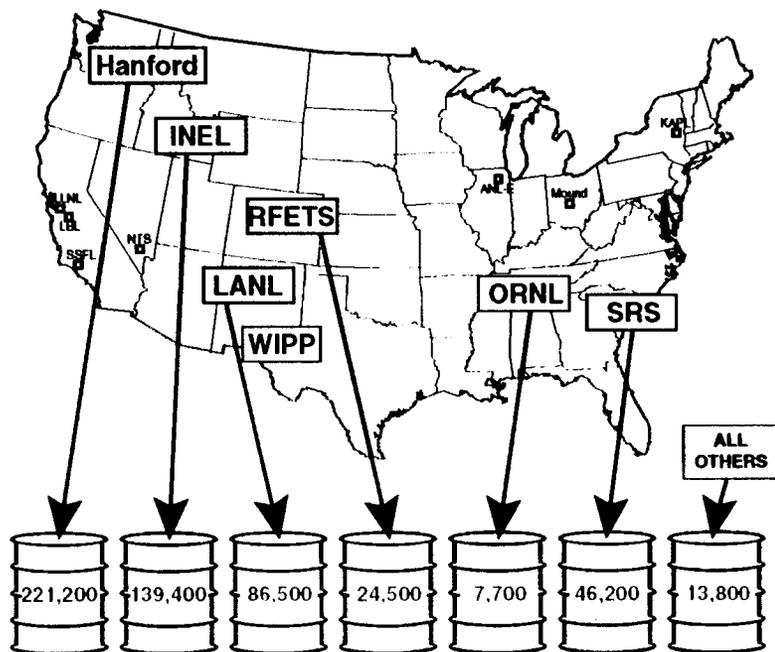


WASTE TYPES

- Low-level radioactive waste
- Transuranic waste
 - Atomic weights > uranium
 - > 100 nanocuries per gram concentrations of transuranic isotopes
 - Half life > 20 years
- High-level radioactive waste



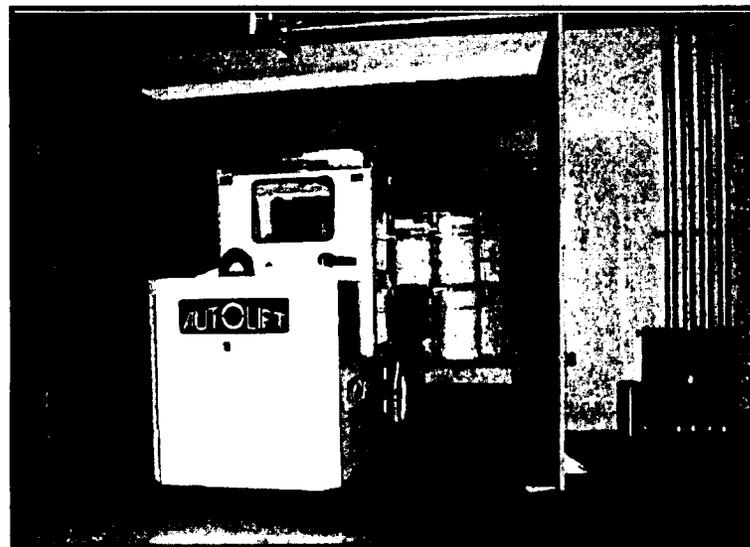
TRU WASTE GENERATOR SITES 55-GALLON DRUM EQUIVALENT TOTALS THROUGH YEAR 2022



* 1 Drum Equivalent = 0.208 m³

LEGEND

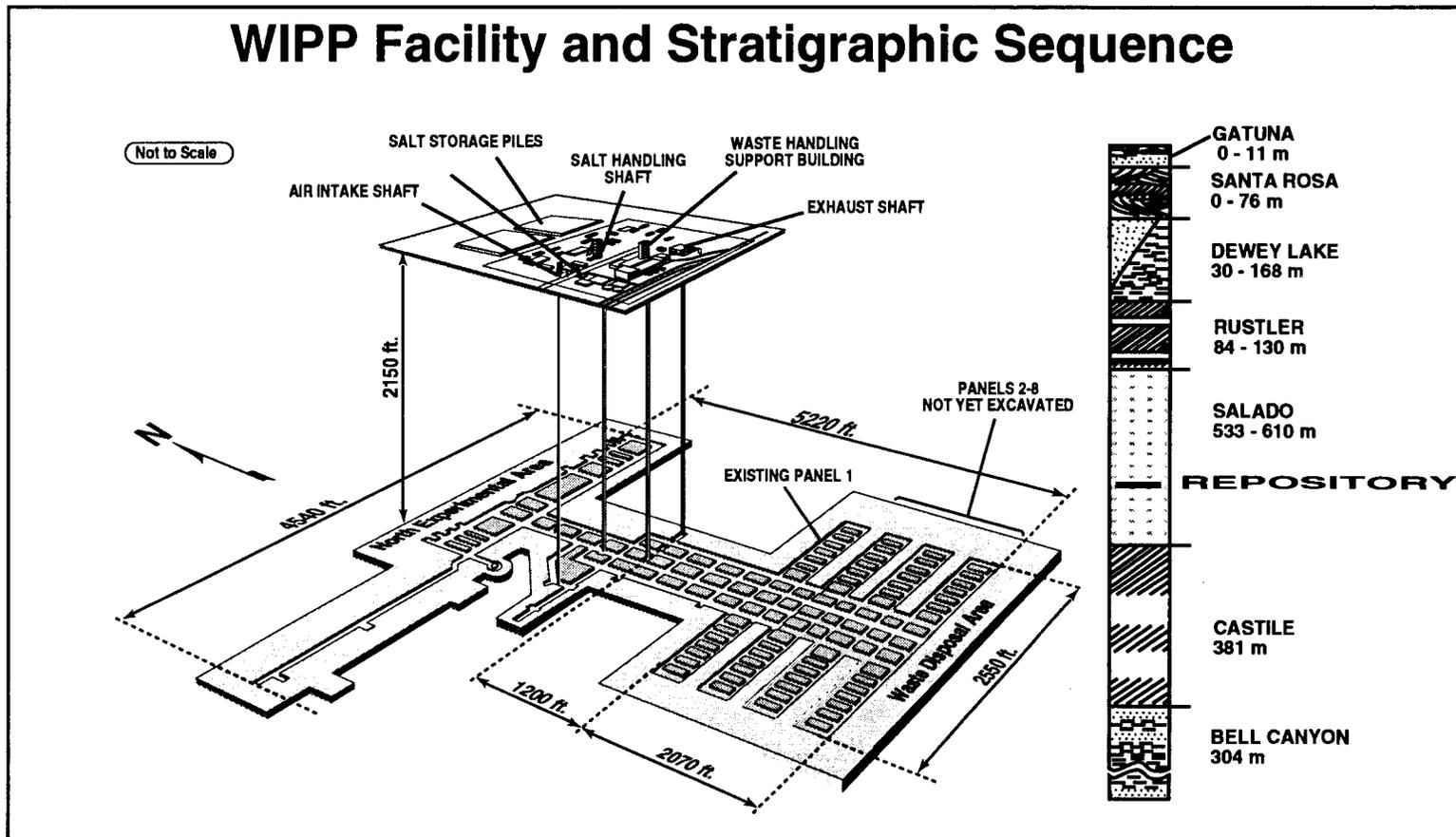
Hanford	Hanford Reservation, WA	LBL	Lawrence Berkeley Laboratory, CA
INEL	Idaho National Engineering Laboratories, ID	SSFL	Santa Susanna Field Laboratory, CA
RFETS	Rocky Flats Environmental Technology Site, CO	NTS	Nevada Test Site, NV
LANL	Los Alamos National Laboratory, NM	ANL-E	Argonne National Laboratory-East, IL
ORNL	Oak Ridge National Laboratory, TN	Mound	Mound Laboratory, OH
SRS	Savannah River Site, SC	KAPL	Knolls Atomic Power Laboratory, NY
LLNL	Lawrence Livermore National Laboratory, CA	SNL	Sandia National Laboratory, NM



* Total anticipated CH volumes destined for WIPP based on Baseline Inventory Report, Rev. 2



WIPP Facility and Stratigraphic Sequence



WIPP IS:

- First deep geologic repository in United States
- Permanent disposal for defense-generated nuclear waste
- On schedule for mid-1998 disposal operations



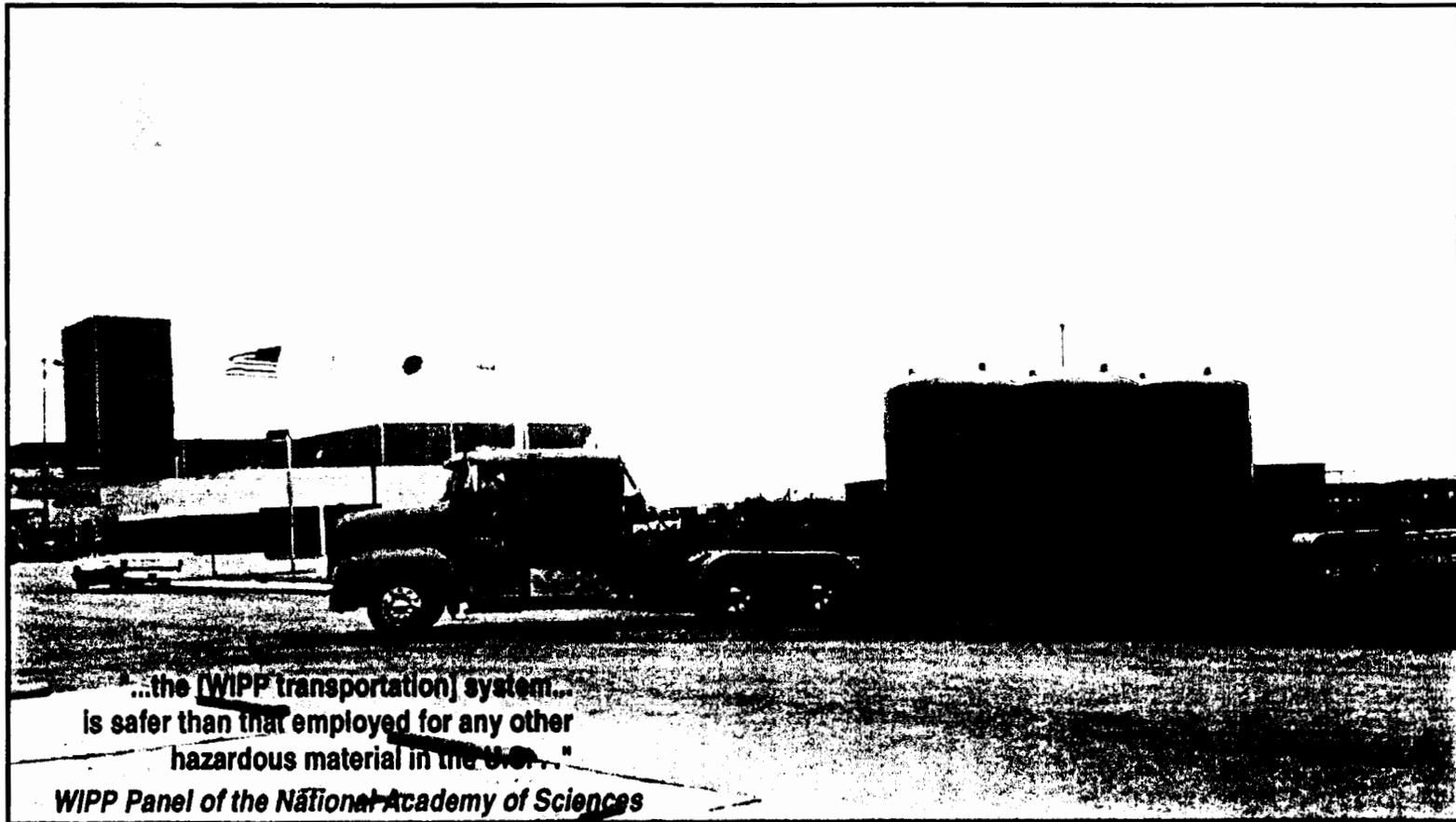


SAFETY FIRST AT WIPP

- **Voluntary Protection Program**
- **New Mexico Mine Operator of the Year**
- **Mine rescue team national championship**
- **Completed 2 million employee-hours without a lost workday due to occupational injury or illness**



THE WIPP TRANSPORTATION SYSTEM IS SAFE



- Monitored by satellite tracking system
- Drivers are highly trained
- Procedures for accident prevention
- Emergency responders are trained



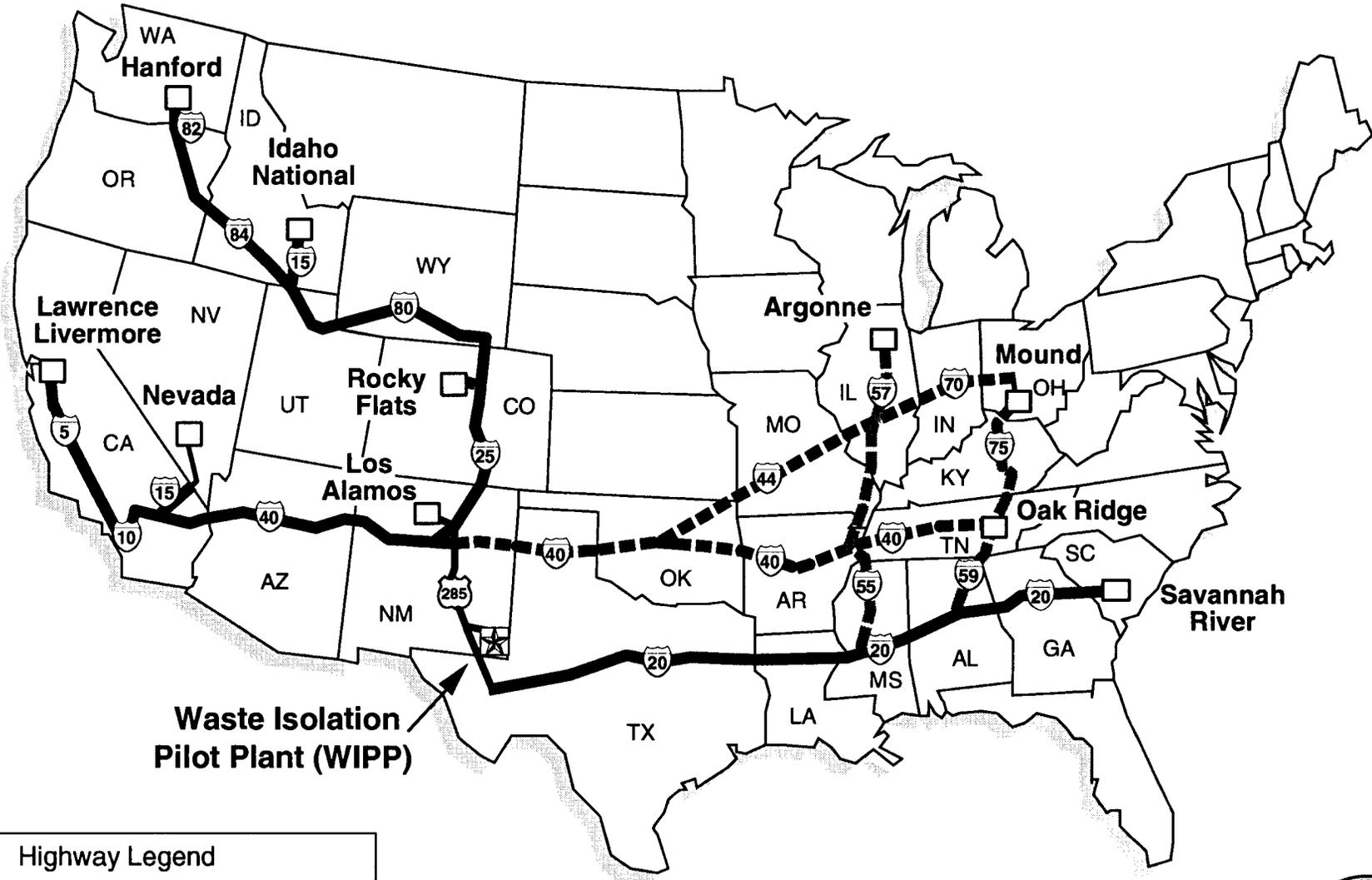
TRUPACT SHIPMENTS

- Number of TRUPACT shipments will increase as more waste is certified for shipment

Date	Trailers/Week
April 1998	2
September 1998	4
September 2001	10
September 2003	17



PROPOSED TRU SHIPMENT ROUTES



Waste Isolation Pilot Plant (WIPP)

Highway Legend	
Proposed Interstate Highways	
Formerly Designated Routes	
Interstate Highways	
U. S. Highways	



TRUPACT SHIPMENTS

(cont.)

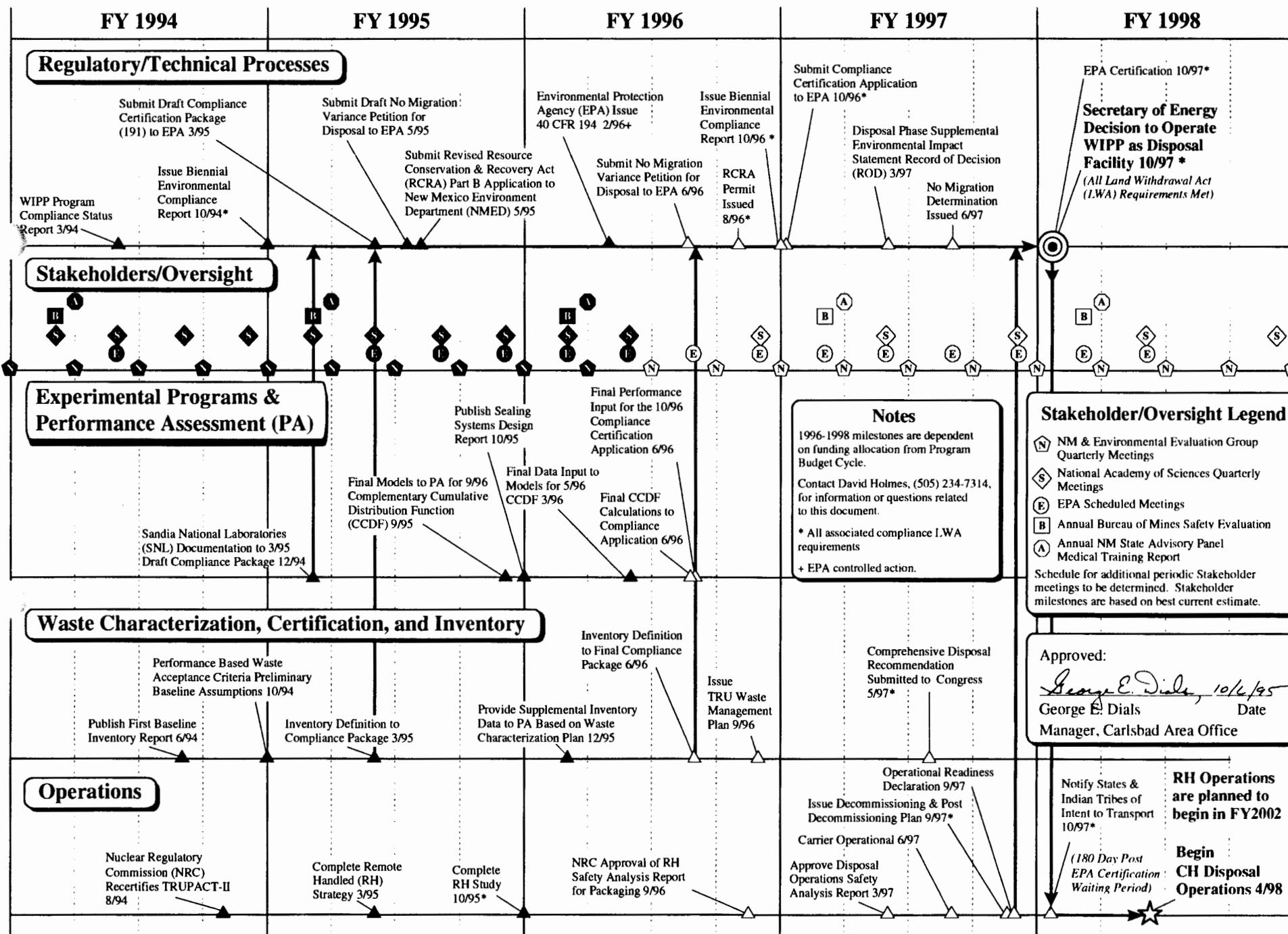
- Shipment routes are phased in order to provide emergency response training

Site	Date
Los Alamos/Idaho/Rocky Flats	April 1998
Savannah River	May 1998
Oak Ridge	November 1998
Lawrence Livermore/Nevada	November 1999
Mound/Argonne-East	October 2000
Hanford	September 2001



WIPP Disposal Decision Plan

Updated 4/2/96
Revision 2
October 6, 1995

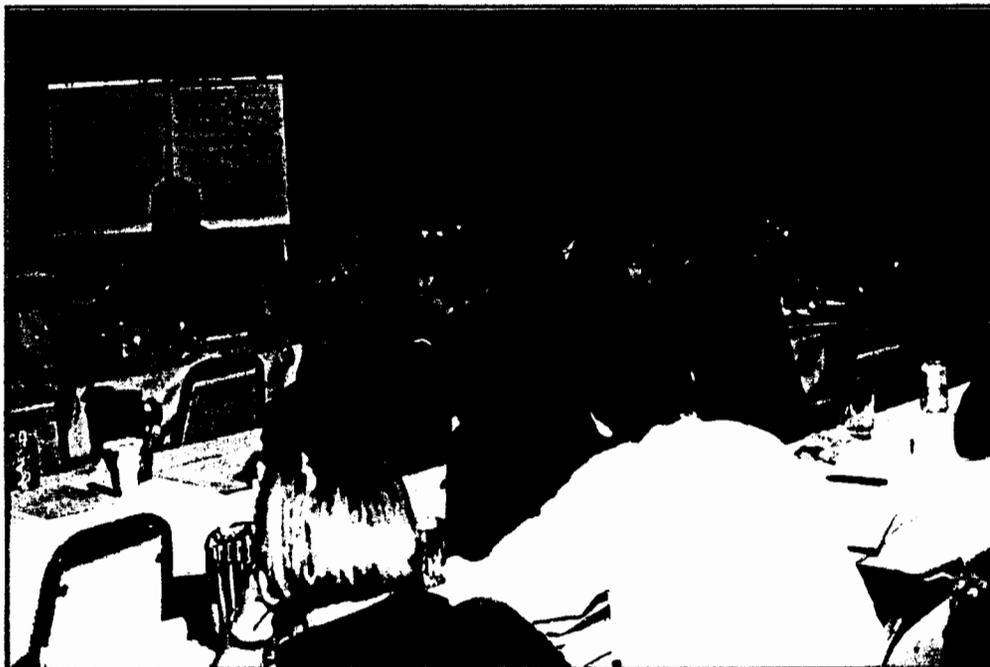


KEY MILESTONES COMPLETED

Since Last Status Briefing

- **Baseline Inventory Report (BIR Rev. 2) issued**
- **EPA issued 40 CFR 194**
- **Final experimental data to models**
- **Waste Acceptance Criteria Rev. 5 issued**





LICENSING FRAMEWORK AND RECENT PERMIT/LICENSING SUBMITTALS

<u>Submittals</u>	<u>Governing Regulations</u>	<u>Licensing/Permitting Agency</u>
<i>Hazardous Waste</i>		
No-Migration Variance Petition 31 May 1995	40 CFR 268	United States Environmental Protection Agency
Part B Permit Application 31 May 1995	40 CFR 264	New Mexico Environment Department
<i>Radioactive Waste</i>		
Draft Compliance Certification Application, 31 March 1995	40 CFR 191 40 CFR 194	United States Environmental Protection Agency



RCRA PART B STATUS

- **NMED order dated 9/2/94 specified updated application submittal no later than 5/31/95**
- **Revision 5 submitted 5/26/95**
- **NMED determined administrative completeness on 7/25/95**
- **NMED issued technical Notice of Deficiency on 3/14/96**
- **WIPP responded to NOD on 4/12/96**



NO-MIGRATION VARIANCE PETITION

- **CAO submitted "operational phase" NMVP to EPA OSW in May 1995**
- **Received draft comments from EPA in January 1996**
- **Responses prepared to address EPA comments**
- **CAO will submit final NMVP to EPA in June 1996**



40 CFR 191 COMPLIANCE CERTIFICATION APPLICATION

- **Draft submitted to EPA in March 1995**
- **Plan to submit final application in phased format through August 1996**
 - **Allows EPA to maximize review time**
 - **EPA will provide general *completeness* comments**
- **Final application complete by October 1996**



LAND WITHDRAWAL AMENDMENTS ACT

- **HR 1663 - Skeen, Schaefer, Crapo**
- **S 1402 - Craig, Kempthorne, Johnston**

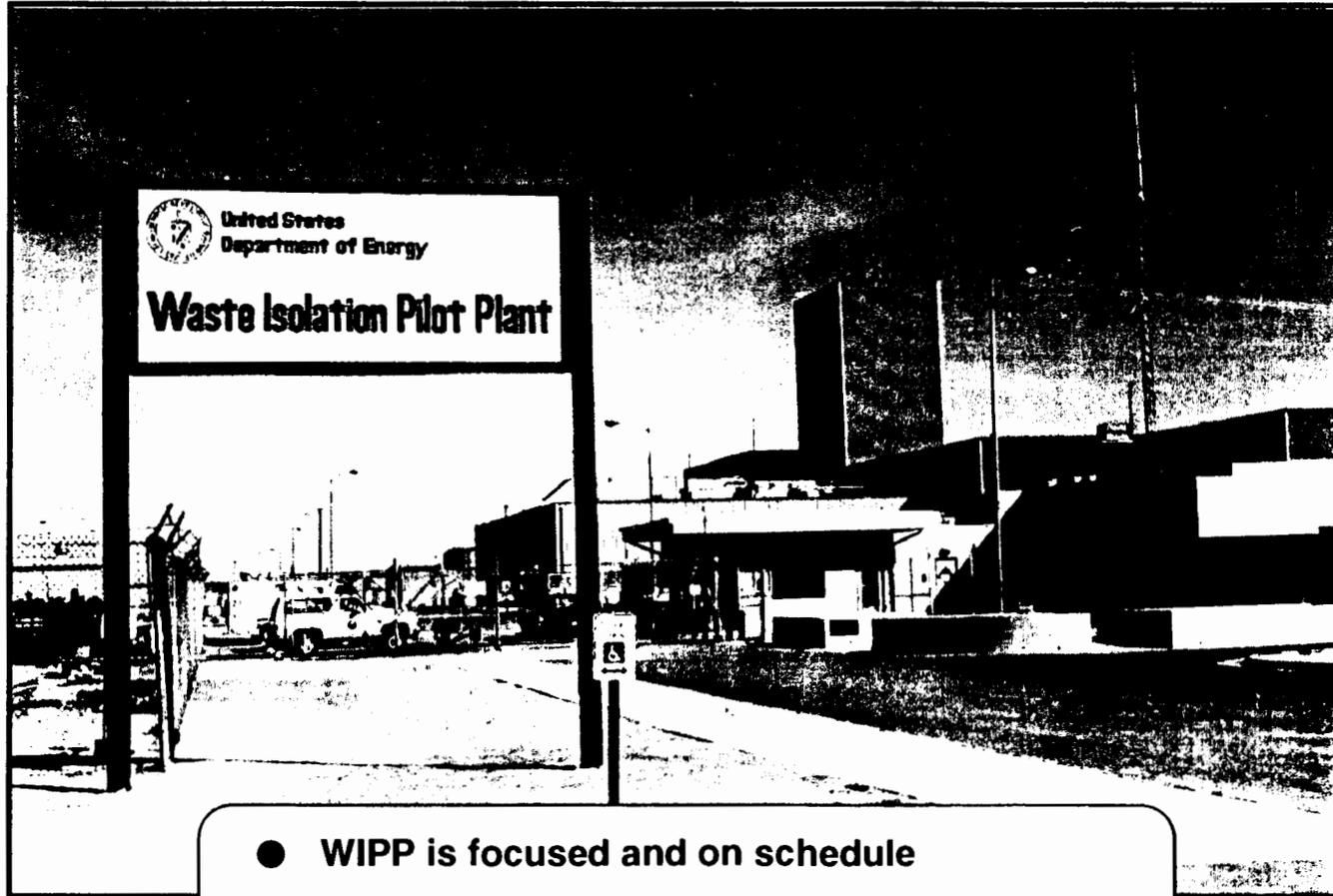


THE AMENDMENTS...

- **Change EPA's role**
 - **HR 1663 - EPA certifies (1 year); DOE submits application in increments**
 - **S 1402 - EPA certifies, but scope limited (6 months)**
- **Repeal 180-day waiting period**
- **Eliminates plans/studies as disposal requirement**
 - **HR 1663 - repealed**
 - **S 1402 - plans/studies required at later date**
- **Exempts WIPP waste from RCRA land disposal restrictions**
- **Accelerates opening**
 - **HR 1663 - November 30, 1997**
 - **S 1402 - June 30, 1997**



WIPP: One valuable step towards solution of the national nuclear waste disposal problem



- WIPP is focused and on schedule
- Transportation system is operational and safe
- Path to regulatory compliance identified
- Disposal operations will begin April 1998
- LANL will be the first site to ship TRU waste to WIPP followed soon thereafter by LANL



WIPP SHIPMENT ROUTES

Designated by the State of New Mexico



* Not part of WIPP shipment route



OVERVIEW and STATUS
of
FEDERAL WIPP LEGISLATION

● **H.R. 1663, THE WIPP LAND WITHDRAWAL AMENDMENT ACT**

KEY PROVISIONS

- PROVIDES FOR THE INCREMENTAL SUBMISSION AND REVIEW OF DOE'S COMPLIANCE CERTIFICATION APPLICATION IN ACCORDANCE WITH 40 CFR 191
- DELETES CERTAIN EXISTING RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) REQUIREMENTS (*i.e.*, LAND DISPOSAL RESTRICTIONS, 40 CFR 268)
- ELIMINATES CERTAIN PREREQUISITES TO OPENING WIPP FOR DISPOSAL (*e.g.*, 180-DAY CONGRESSIONAL "WAITING" PERIOD; COMPLETION OF TRU WASTE DISPOSAL RECOMMENDATIONS)
- PROVIDES \$20 MILLION IN "ECONOMIC ASSSITANCE TO THE STATE OF NEW MEXICO UPON ENACTMENT OF THE BILL; AUTHORIZES PAYMENT OF \$20 MILLION PER YEAR THEREAFTER FOR 15 YEARS
- ACCELERATES THE OPENING OF WIPP FOR DISPOSAL OPERATIONS (TO NOVEMBER 1997)

STATUS OF LEGISLATION

- INTRODUCED ON MAY 17, 1995, BY CONGRESSMAN JOE SKEEN (R-NEW MEXICO); CO-SPONSORED BY DAN SCHAEFER (R-COLORADO) AND MIKE CRAPO (R-IDAHO)
- REFERRED JOINTLY TO THE HOUSE COMMITTEE ON COMMERCE AND THE COMMITTEE ON NATIONAL SECURITY
- HEARING BEFORE THE (HOUSE COMMERCE) ENERGY AND POWER SUBCOMMITTEE ON JULY 21, 1995; SUBCOMMITTEE PASSED THE BILL ON JULY 28
- BILL AMENDED BY FULL HOUSE COMMERCE COMMITTEE (SCHAEFER AMENDMENT) ON MARCH 13, 1996, AND PASSED ON A VOICE VOTE
- NO ACTION TO DATE BY HOUSE COMMITTEE ON NATIONAL SECURITY; NOT KNOWN WHETHER THIS COMMITTEE WILL TAKE ANY ACTION
- LEGISLATION WOULD THEN GO TO THE FULL HOUSE FOR A VOTE

● **S. 1402, THE WIPP LAND WITHDRAWAL AMENDMENT ACT**

KEY PROVISIONS

- COMPANION BILL TO H.R. 1663
- LIMITS EPA'S REGULATORY ROLE REGARDING THE DOE DISPOSAL APPLICATION (e.g., CERTIFICATION AUTHORITY WOULD BE RETAINED BY EPA, BUT A 6-MONTH REVIEW OF DOE'S APPLICATION IS MANDATED)
- EXEMPTS WIPP FROM THE EXISTING RCRA LAND DISPOSAL RESTRICTIONS (NO-MIGRATION REQUIREMENTS)
- ELIMINATES VARIOUS EXISTING PREREQUISITES TO OPENING WIPP FOR DISPOSAL OPERATION, BUT STILL REQUIRES DOE TO CONDUCT CERTAIN PRESCRIBED STUDIES
- PROVIDES \$20 MILLION IN "ECONOMIC ASSSITANCE TO THE STATE OF NEW MEXICO UPON ENACTMENT OF THE BILL; AUTHORIZES PAYMENT OF \$20 MILLION PER YEAR THEREAFTER FOR 15 YEARS
- ACCELERATES THE OPENING OF WIPP FOR DISPOSAL OPERATIONS (TO JUNE 30, 1997)

STATUS OF LEGISLATION

- INTRODUCED ON NOVEMBER 8, 1995, BY SENATOR LARRY E. CRAIG (R-IDAHO); CO-SPONSORED BY J. BENNETT JOHNSTON (D-LOUISIANA) AND DIRK KEMPTHORNE (R-IDAHO)
- REFERRED ONLY TO THE SENATE ENERGY AND NATURAL RESOURCES COMMITTEE
- NO ACTION ON THE BILL BY THE SENATE ENERGY COMMITTEE DURING 1995
- NO HEARINGS OR OTHER ACTION SCHEDULED THUS FAR IN 1996 BY THE SENATE ENERGY COMMITTEE

SOURCE: CHRIS J. WENTZ, COORDINATOR, N.M. RADIOACTIVE WASTE CONSULTATION TASK FORCE, APRIL 1996.