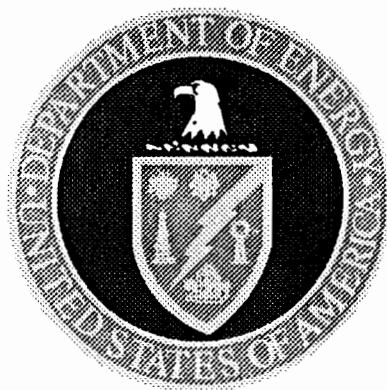


**RADIOACTIVE AND HAZARDOUS
MATERIALS COMMITTEE**



**GEORGE DIALS, MANAGER
CARLSBAD AREA OFFICE**

OCTOBER 24, 1994

941021



CARLSBAD AREA OFFICE IS IN TRANSITION AND TRANSITION REQUIRES CHANGES

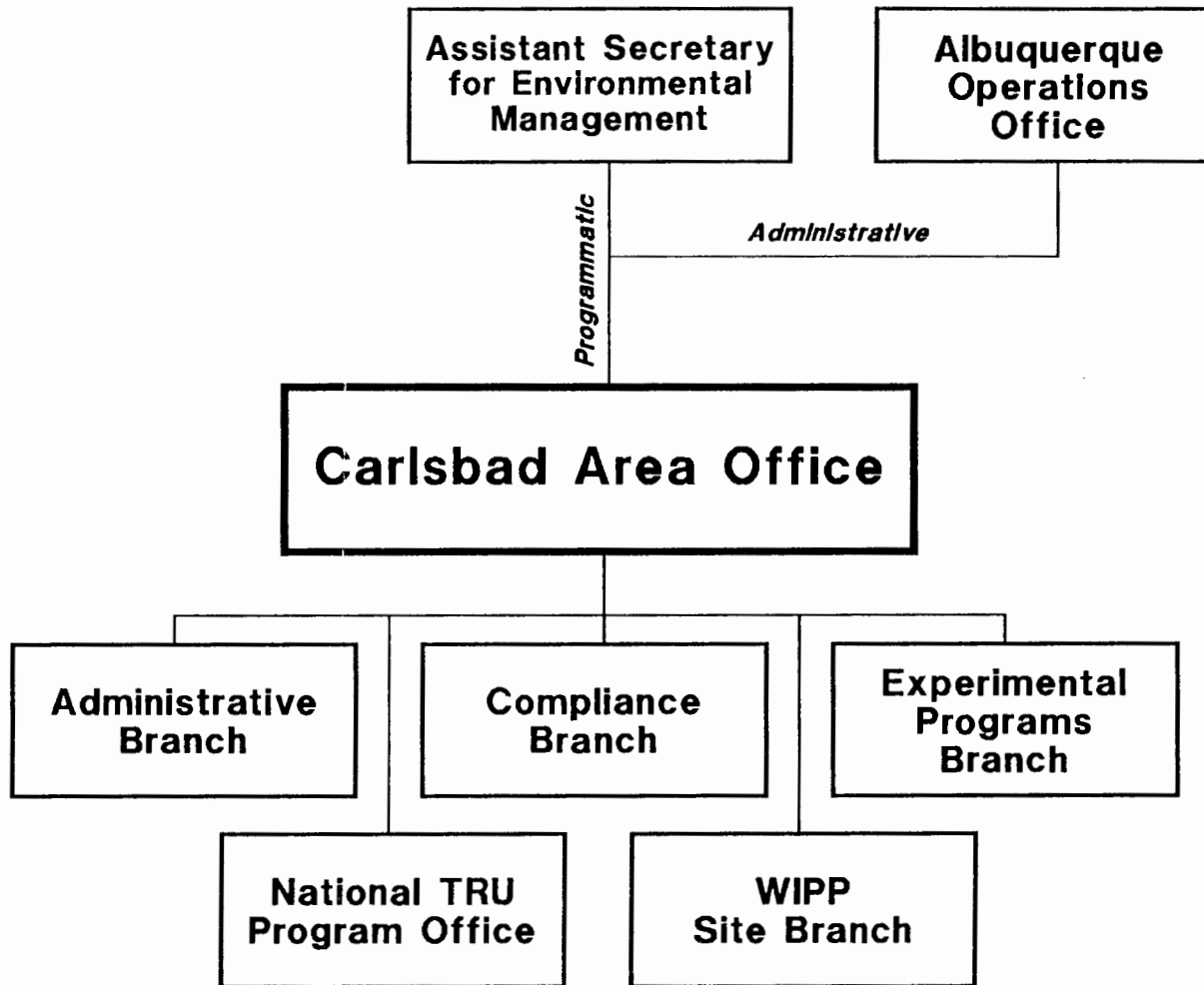
- **Formed a new DOE organization**
- **National Transuranic Office established in CAO**
- **Westinghouse and Sandia transitioning from RAD waste tests at WIPP to accelerated compliance activities**
- **Accelerated compliance causes DOE to look for new methods to evaluate what is needed**



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 TRU waste and by establishing an effective system for management of TRU waste from generation to disposal.

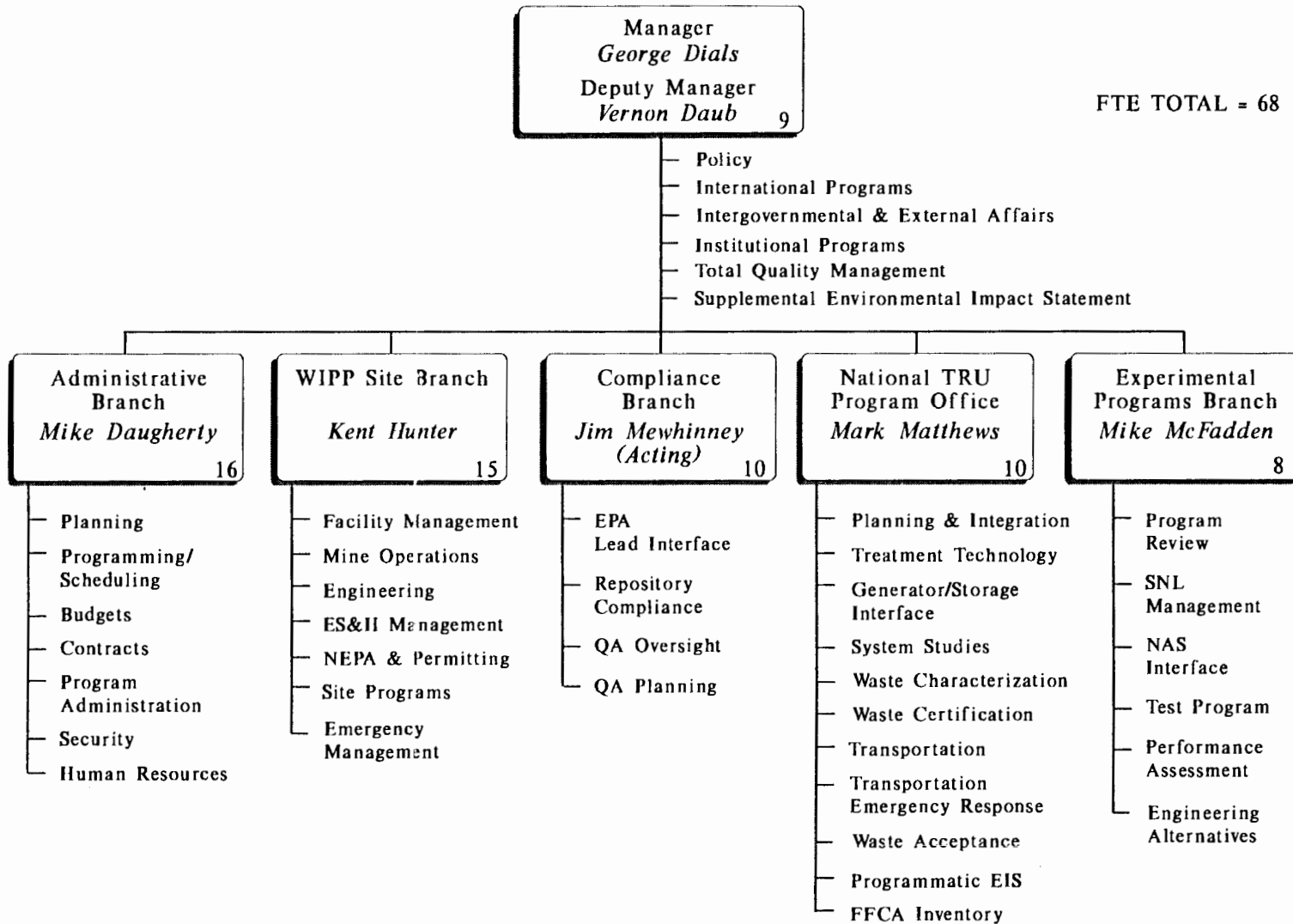




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CARLSBAD AREA OFFICE



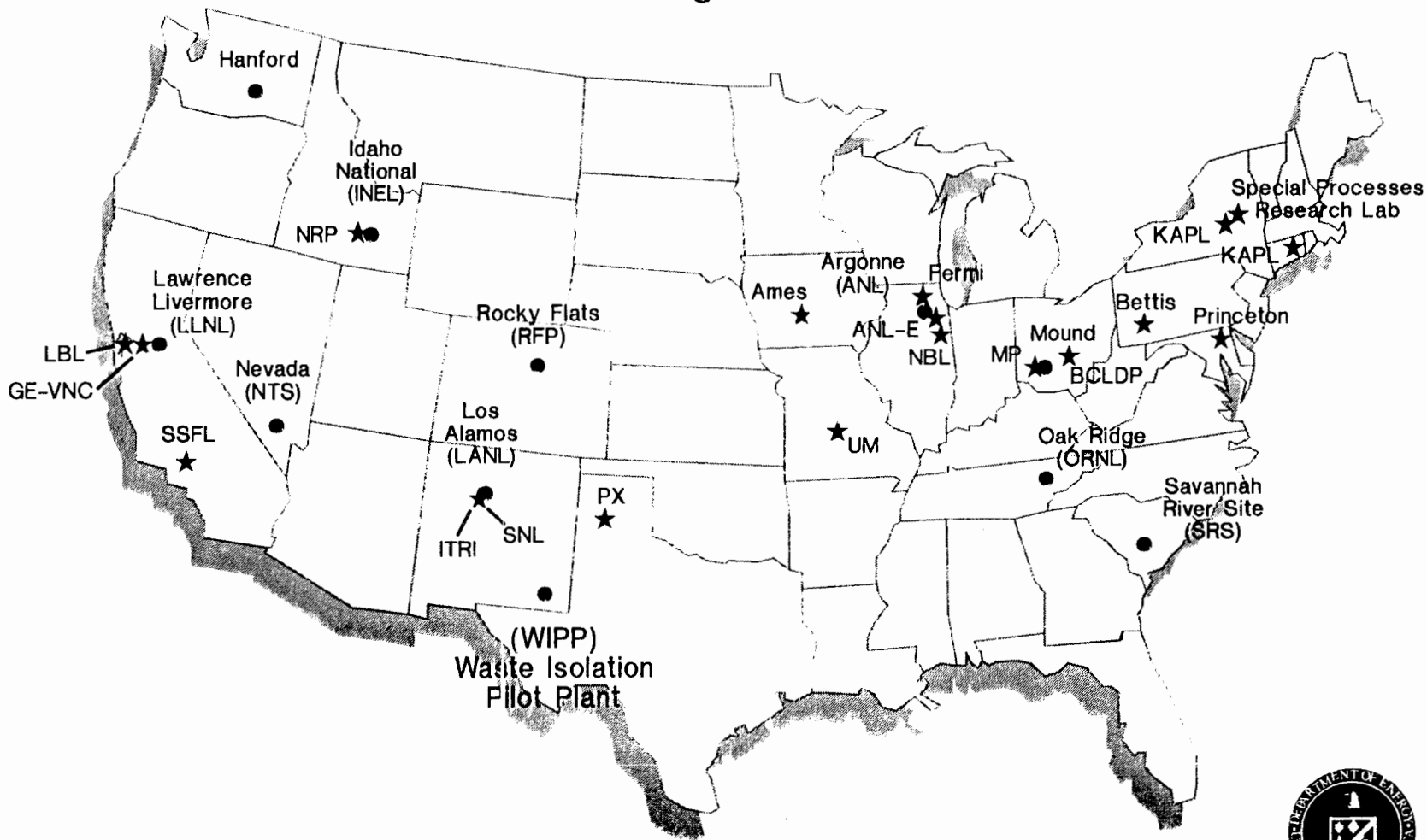
October 21, 1994

1094H:6601



TRU DEFENSE WASTE GENERATING AND STORAGE SITES

Including Small Sites





WELCOME
TO THE WIPP UNDERGROUND
YOU HAVE JUST ENTERED AN
ENVIRONMENT COMMITTED TO
SAFETY

CARLSBAD AREA OFFICE COMMITMENT TO SAFETY

- **Emphasized in employee orientation, training, and daily interactions**
- **Environment, safety and health criteria in all managers' evaluation plans**
- **Federal Employee Safety Committee**



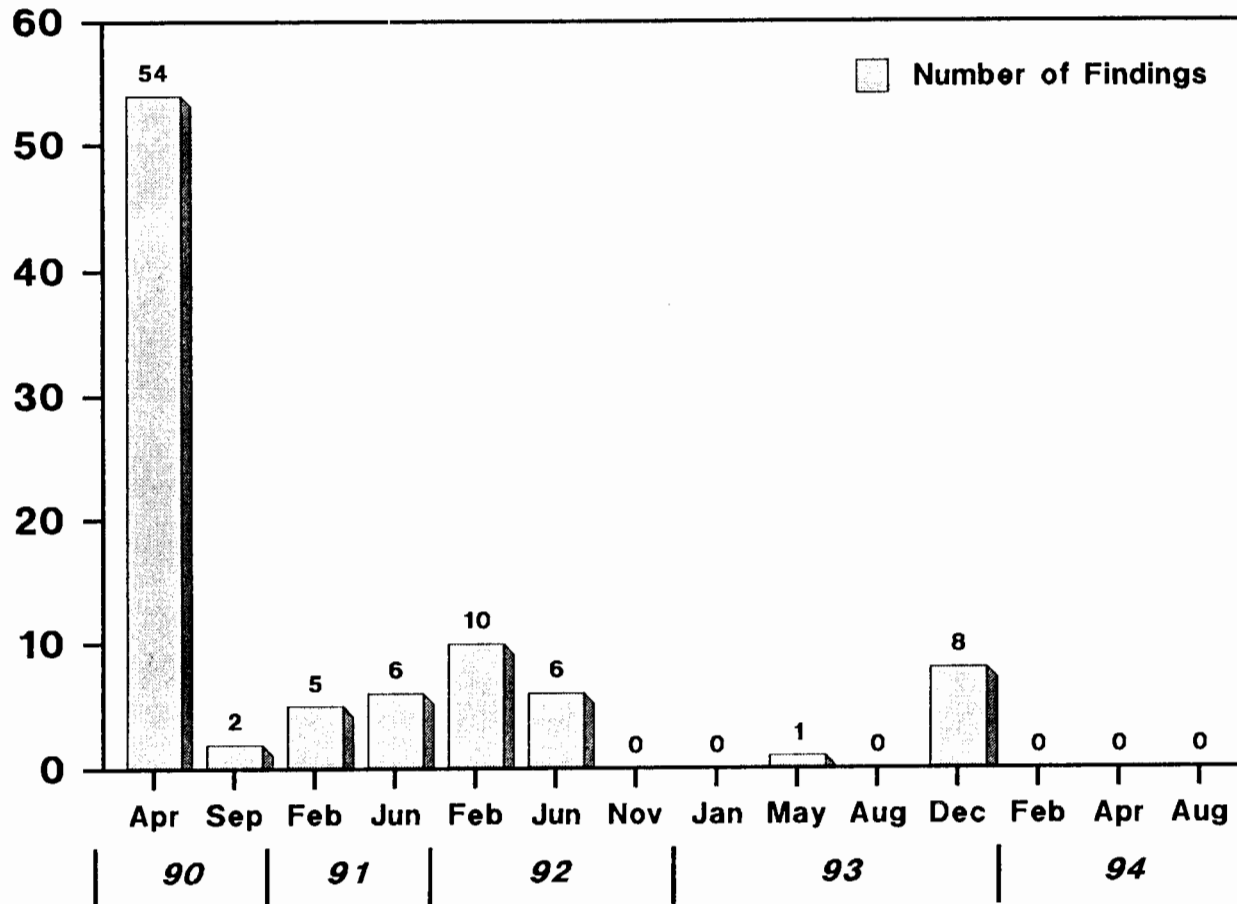
WIPP CONTRACTOR COMMITMENT

- **Reflected in superior safety performance**
 - **Mine Safety and Health Administration inspections**
 - **Injury case rate**
 - **Voluntary Protection Program Star Status**



MINE SAFETY AND HEALTH ADMINISTRATION INSPECTIONS

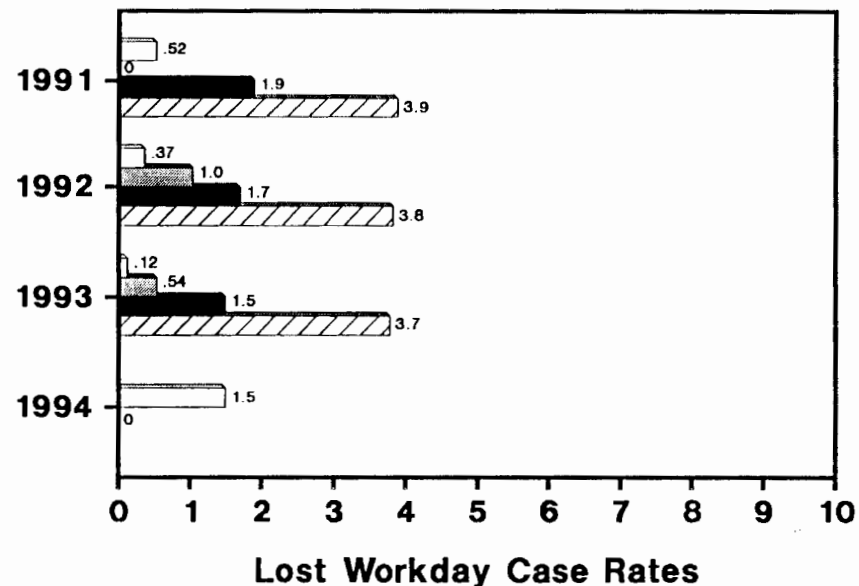
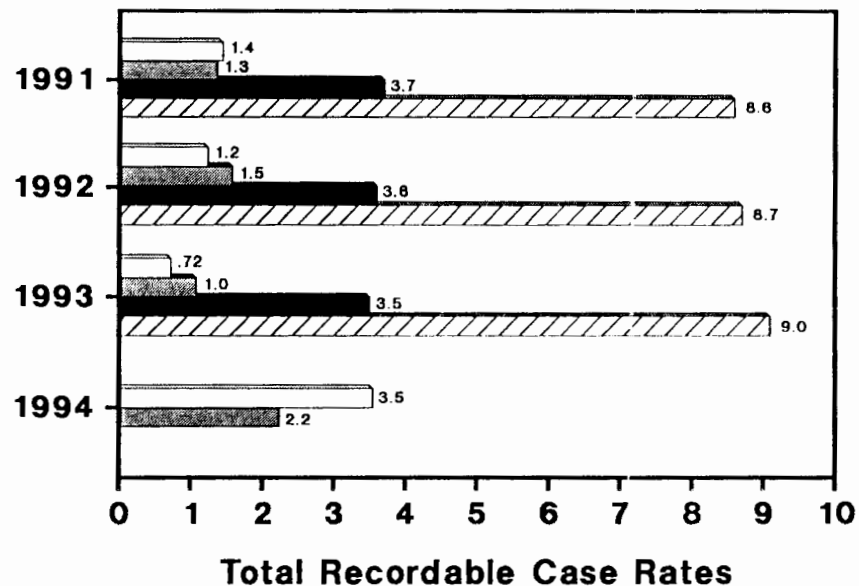
Findings per Inspection



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WASTE ISOLATION PILOT PLANT INJURY/ILLNESS CASE RATES



Rate = Number of Injuries X 200,000/Work Hours

- WID
- WIPP Subcontractors
- DOE Average *(Only Available Through Second Quarter 1993)*
- ▨ Industry Average *(Only Available Through 1993)*



VOLUNTARY PROTECTION PROGRAM

- **Voluntary Protection Program established in 1993 by Secretary of Energy Notice**
 - **Recognizes contractor excellence in safety and health programs**
- **Program elements**
 - **Management leadership**
 - **Employee involvement**
 - **Annual program evaluation**
 - **Worksite hazard analysis**
 - Prevention and control**
 - **Safety and health training**
- **Westinghouse Waste Isolation Division first government contractor to earn "Star" status**
 - **Outstanding protectors of safety and health**
 - **Highest level attainable**





Department of Energy

VPP

STAR SITE

NATIONAL MINE RESCUE TEAM CHAMPIONSHIP

August 17-18, 1994
Las Vegas, Nevada

- **WIPP Blue Mine Rescue Team won national championship**
 - **Competed in field of 38 private industry and government teams**
 - **Judged by Mine Safety and Health Administration representatives**
- **Individual honors National Benchman's Competition**
 - **First place, Fred Miller - WIPP Silver Team**
 - **Second place, Joe Baca - WIPP Blue Team**
- **Trophies captured include**
 - **National Mine Rescue Traveling Trophy**
 - **Congressional Trophy**
 - **Dragger Self-Rescuer Trophy**
 - **Assistant Secretary for U.S. Department of Labor Traveling Trophy**

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GOALS OF THE CARLSBAD AREA OFFICE WORKING ENVIRONMENT

- **Minimize risk of injury to personnel**
- **Protect facility and programs from property damage, accidents, and fires**

1994 Safety Objective

- **Maximize employee participation in key elements of the Voluntary Protection Program**



994H.65851

“You represent the best project, the only project that is likely to proceed on schedule...and complete its work in a timely fashion. We (DOE) need to focus on the things that are working well...We want a nation finally ready to deal with nuclear waste...WIPP has to open. It must open.”

**- Secretary of Energy Hazel O’Leary
to Carlsbad, NM community
March 5, 1994**



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ACCELERATED COMPLIANCE

- **Objectives**

- **Meet all applicable federal, state, and other regulations**
- **Protect human health, welfare, and the environment**
- **Employ cost-effective methodology**
- **Help solve the national radioactive waste problem**
- **Provide national and international leadership in radioactive waste management**



ACCELERATED COMPLIANCE APPROACH

- **Focus on activities needed for compliance**
- **Perform simulated waste tests in laboratories**
- **Consolidate leadership for WIPP and transuranic waste management in Carlsbad**



COMPONENTS OF COMPLIANCE

- **Resource Conservation and Recovery Act, Part B Permit**
 - **Requires protection against hazardous components of WIPP waste**
 - **New Mexico Environment Department (NMED) issues Part B Permit jointly with Environmental Protection Agency**
 - **New Mexico Environment Department authorized DOE to modify permit application to cover disposal operations with a complete revised application by 5/31/95**
 - **State's decision sought by 12/97**



COMPONENTS OF COMPLIANCE

(cont.)

- **No-Migration Variance Petition**
 - **Would exempt DOE from treatment of waste for certain restricted hazardous constituents for disposal at WIPP**
 - **Environmental Protection Agency-HQ issues variance determination**

- **TRUPACT-II certification**
 - **Requires DOT approval of container for shipping waste to WIPP**
 - **Certification issued by Nuclear Regulatory Commission, June 1994**



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COMPONENTS OF COMPLIANCE

(cont.)

- **Supplement Environmental Impact Statement**
 - **Requires DOE to evaluate potential impacts of disposal operations**
 - **Secretary of Energy approves proposed action after considering comments from regulatory agencies and stakeholders**

- **Compliance with federal statutes and regulations mandated by Land Withdrawal Act**
 - **Clean Air Act**
 - **Solid Waste Disposal Act**
 - **Safe Drinking Water Act**
 - **Toxic Substances Control Act (PCBs)**
 - **Superfund**



COMPONENTS OF COMPLIANCE

(cont.)

- **40 CFR 191 Long-term Protection Standards**
 - Requires demonstration of WIPP's ability to contain hazardous and radioactive wastes for 10,000 years
 - Regulations set forth in 40 CFR 191
 - Criteria for compliance with regulations will be defined in 40 CFR 194
 - DOE will submit compliance package to EPA for certification
 - EPA will certify compliance



ACCELERATED COMPLIANCE SCHEDULE

- **Draft Compliance Certification to EPA, March 1995**
- **No Migration Variance Petition for Disposal to EPA, May 1995**
- **Draft revised RCRA Part B Application to NMED, June 1995**
- **Final compliance package to EPA, December 1996**
- **Final Disposal Phase Supplement Environmental Impact Statement, October 1997**
- **Secretary of Energy decision regarding opening of WIPP, January 1998**
- **Disposal operations begin, June 1998**
- **Schedule issues**
 - **Schedule is aggressive but achievable**
 - **We must have a target if we are to make progress**

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WIPP Disposal Decision Plan

April 5, 1994

FY 1994	FY 1995	FY 1996	FY 1997	FY 1998	FY 1999
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> Regulatory/Technical Processes </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <p>WIPP Program Compliance Status (Oct 3/94)</p> </div> <div style="width: 30%;"> <p>Environmental Protection Agency (EPA) Issue 40CFR194 1/95*</p> <p>Issue Biennial Environmental Compliance Report 10/94*</p> </div> <div style="width: 30%;"> <p>Submit No Migration Variance Petition for Disposal to EPA 5/95</p> <p>Submit Draft Compliance Certification Package (191) to EPA 3/95</p> <p>Submit Revised Resource Conservation & Recovery Act (RCRA) Part B Application to New Mexico Environment Department (NMED) 6/95</p> </div> <div style="width: 15%;"> <p>Submit Compliance Certification Package (Rev. 0) to EPA 12/96*</p> <p>Issue Biennial Environmental Compliance Report 10/96*</p> </div> <div style="width: 15%;"> <p>Issue Final Disposal Phase Supplemental Environmental Impact Statement 10/97</p> <p>No Migration Determination Issued 6/97</p> </div> <div style="width: 15%;"> <p>EPA Certification 12/97*</p> <p>RCRA Permit Issued 12/97*</p> </div> <div style="width: 15%; border: 1px solid black; padding: 5px;"> <p style="text-align: center;">Notes</p> <p>1995-1999 milestones are dependent on funding allocation from Program Budget Cycle.</p> <p>Contact David Holmes, 505/234-7314, for information or questions related to this document.</p> <p>* All associated compliance LWA requirements.</p> </div> </div>					
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> Stakeholders/Oversight </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <p>(A) (B) S S S S</p> </div> <div style="width: 15%;"> <p>(A) (B) S S S S</p> </div> <div style="width: 15%;"> <p>(A) (B) S S S S</p> </div> <div style="width: 15%;"> <p>(A) (B) S S S S</p> </div> <div style="width: 15%;"> <p>(A) (B) S S S S</p> </div> <div style="width: 15%;"> <p>(A) (B) S S S S</p> </div> </div>					
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> Experimental Programs & Performance Assessment (PA) </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <p>Sandia National Laboratories (SNL) Documentation to 3/95 Draft Compliance Package 12/94</p> </div> <div style="width: 15%;"> <p>Final Models to PA for 9/96 Complementary Cumulative Distribution Function (CCDF) 9/95</p> </div> <div style="width: 15%;"> <p>Publish Sealing Systems Design Report 10/95</p> </div> <div style="width: 15%;"> <p>Final Data Input to Models for 9/96 CCDF 3/96</p> </div> <div style="width: 15%;"> <p>Final CCDF Calculations to Compliance Package 9/96</p> </div> <div style="width: 15%;"> <p>Final Performance Input for the 12/96 Compliance Certification Package 10/96</p> </div> </div>					
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> National Transuranic Program Office Waste Characterization </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <p>Publish First Baseline Inventory Report 6/94</p> </div> <div style="width: 15%;"> <p>Performance Based Waste Acceptance Criteria Preliminary Baseline Assumptions 10/94</p> <p>Inventory Definition to Compliance Package 3/95</p> </div> <div style="width: 15%;"> <p>Provide Supplemental Inventory Data to PA Based on Waste Characterization Plan 12/95</p> </div> <div style="width: 15%;"> <p>Inventory Definition to Final Compliance Package 12/96*</p> </div> </div>					
<div style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> Operations </div> <div style="display: flex; justify-content: space-between;"> <div style="width: 15%;"> <p>Nuclear Regulatory Commission (NRC) Recertifies TRUPACT II 8/94</p> </div> <div style="width: 15%;"> <p>Complete Remote Handled (RH) Strategy 3/95</p> </div> <div style="width: 15%;"> <p>Complete RH Safety Study 10/95*</p> </div> <div style="width: 15%;"> <p>NRC Approval of RH Safety Analysis Report for Packaging 1/96</p> </div> <div style="width: 15%;"> <p>Issue Decommissioning & Post Decommissioning Plan 10/97*</p> <p>Carrier Operational 6/97</p> <p>Complete Disposal Phase Final Safety Analysis Report 3/97</p> </div> <div style="width: 15%;"> <p>Notify States & Indian Tribes of Intent to Transport 12/97*</p> <p>Operational Readiness Declaration 12/97</p> </div> <div style="width: 15%;"> <p>Begin CH Disposal Operations 6/98 <i>(180 Day Post EPA Certification Waiting Period Met)</i></p> </div> <div style="width: 15%;"> <p>RH Operational Readiness Declaration 3/99</p> <p>Begin RH Disposal Operations 6/99</p> </div> </div>					

Stakeholder/Oversight Legend

- (N) NM & Environmental Evaluation Group Quarterly Meetings
- (S) National Academy of Sciences Quarterly Meetings
- (E) EPA Scheduled Meetings
- (B) Annual Bureau of Mines Safety Evaluation
- (A) Annual NM State Advisory Panel Medical Training Report

Schedule for additional periodic Stakeholder meetings to be determined. Stakeholder milestones are based on best current estimate.

Approved:
George E. Dials 4/5/94
 George E. Dials Date
 Manager, Carlsbad Area Office

RELATIONSHIPS WITH REGULATORS AND OVERSIGHT GROUPS

- **Monthly technical exchange meetings with Environmental Protection Agency**
 - **Focused discussions on technical and compliance topics**
 - **Draft Compliance Package will go to Environmental Protection Agency to get regulator feedback before final submission**



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RELATIONSHIPS WITH REGULATORS AND OVERSIGHT GROUPS

(cont.)

- **Regular meetings with state organizations**
 - **Regulator: New Mexico Environment Department**
 - **Technical oversight: New Mexico Environmental Evaluation Group**
 - **Governor's Oversight: Governor's Consultative Task Force on Radioactive Wastes**
 - **Radioactive and Hazardous Materials Committee**
 - **WIPP Medical Working Group**



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OUTREACH INITIATIVES

- **Public Affairs strategic plan will improve outreach effort**
- **Tours and speakers bureau will target key audiences**
- **Toll-free phone line will enhance information flow**
- **Stakeholder newsletter will provide timely information**



WIPP STAKEHOLDER FORUM

- Held September 26–27 in Albuquerque
- Invited 170 individuals
 - 70 persons attended
- Environmental Protection Agency
- Local governments
- Oversight groups
- Media
- Congressional representatives
 - Stakeholders presented issues
 - DOE listened
- State governments
- Tribal governments
- Environmental groups
- Citizen groups
- Regional government groups



STAKEHOLDER MEETINGS

- Environmental Protection Agency technical exchange meetings
 - February 22-25, 1994
 - March 24, 1994
 - May 3-5, 1994
 - June 14-15, 1994
 - September 22-23, 1994
 - October 24-26, 1994 *
 - November 28-30, 1994 *
 - January 10-12, 1995 *
- Environmental Evaluation Group/New Mexico Environment Department/New Mexico Energy, Minerals, and Natural Resources Department quarterly meetings
 - January 12, 1994
 - April 13, 1994
 - July 21, 1994
 - October 20, 1994 *
- Resource Conservation and Recovery Act meetings with state agencies
 - January 28, 1994
 - March 31, 1994
 - August 24-25, 1994
 - August 31, 1994
- Budget meeting (activity data sheets)
 - March 30, 1994
- Panel 1 utilization meeting
 - May 19, 1994

* *Future meetings*



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STAKEHOLDER MEETINGS

(cont.)

- **System Prioritization Method workshops**
 - August 30-31, 1994
 - September 28-29, 1994
 - October 27-28, 1994 *
 - December 1-2, 1994 *
 - January 9, 1995 *

- **Community update meetings in southeastern New Mexico**
 - Artesia, May 11, 1994
 - Roswell, May 11, 1994
 - Hobbs, June 2, 1994
 - Carlsbad, June 21, 1994

* *Future meetings*



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CARLSBAD AREA OFFICE

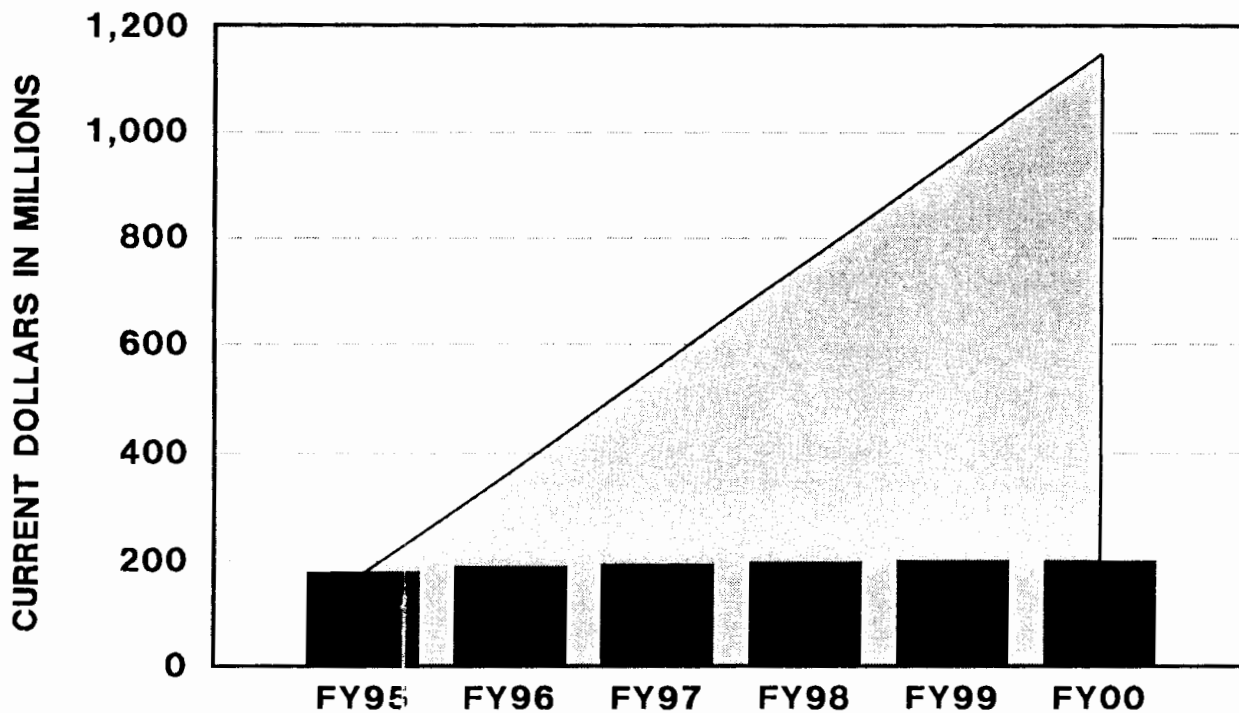
Resources



- **Government has spent \$1.571 billion on establishing a permanent disposal repository since 1976**
 - **Siting and construction phase cost approximately \$.922 billion and was completed in 1990**
 - **Test Phase strategy was changed in 1993 to lab testing instead of in-situ**
- **Now averaging \$185 million a year for testing, site operations, and compliance certification**
- **Will require approximately \$755 million between FY95 and FY98 to complete testing, submit compliance packages, and bring the site staff back up to receive TRU waste**



CARLSBAD AREA OFFICE

WIPP Budget Requirements



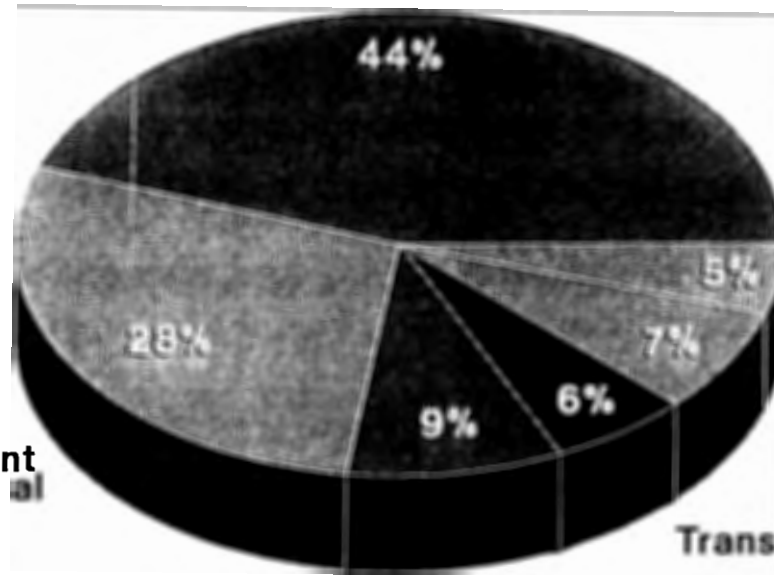
	FY95	FY96	FY97	FY98	FY99	FY00
 CUMULATIVE	178.6	365.3	558.7	754.5	951.9	1150.4
 INCREMENT	178.6	186.7	193.4	195.8	197.4	198.5



CARLSBAD AREA OFFICE

Requested Budget by Function (FY94-FY98)

Site Operations
\$401



Experiment
\$255

Generator Sites
\$43

Technical Support
\$67

Uranic Integration
\$55

Carlsbad Area Office Management/Stakeholder
\$85

(Dollars in Millions)



CARLSBAD AREA OFFICE

Resource Issues

Good News

- **Revised test strategy**
 - **Estimated \$139M cost savings**
 - **Two-year earlier WIPP operating proposed (FY 1998 versus FY 2000)**
- **Carlsbad Area Office implementation**
 - **Accelerated compliance approach**
 - **Disposal Decision Plan**
 - **System Prioritization Method**
 - **Cost savings now estimated at \$208M**
 - **Commitment to FY 1998 disposal operations**

Concerns

- **Maintaining budget levels to support the Disposal Decision Plan**
- **Funding for the National Transuranic Program**
- **Integration of storage/generator site activities**



COMMITMENT TO SUCCESS

- **Disposal Decision Plan provides a time line to opening WIPP**
- **System Prioritization Method will determine activities leading to compliance**
- **DOE/contractor team jointly committed to achieving scheduled milestones**
- **Barriers to success have been identified**
 - **Working to remove the barriers**
- **Best-in-class**
 - **Voluntary Protection Program**
 - **Safety**
 - **Contract reform**



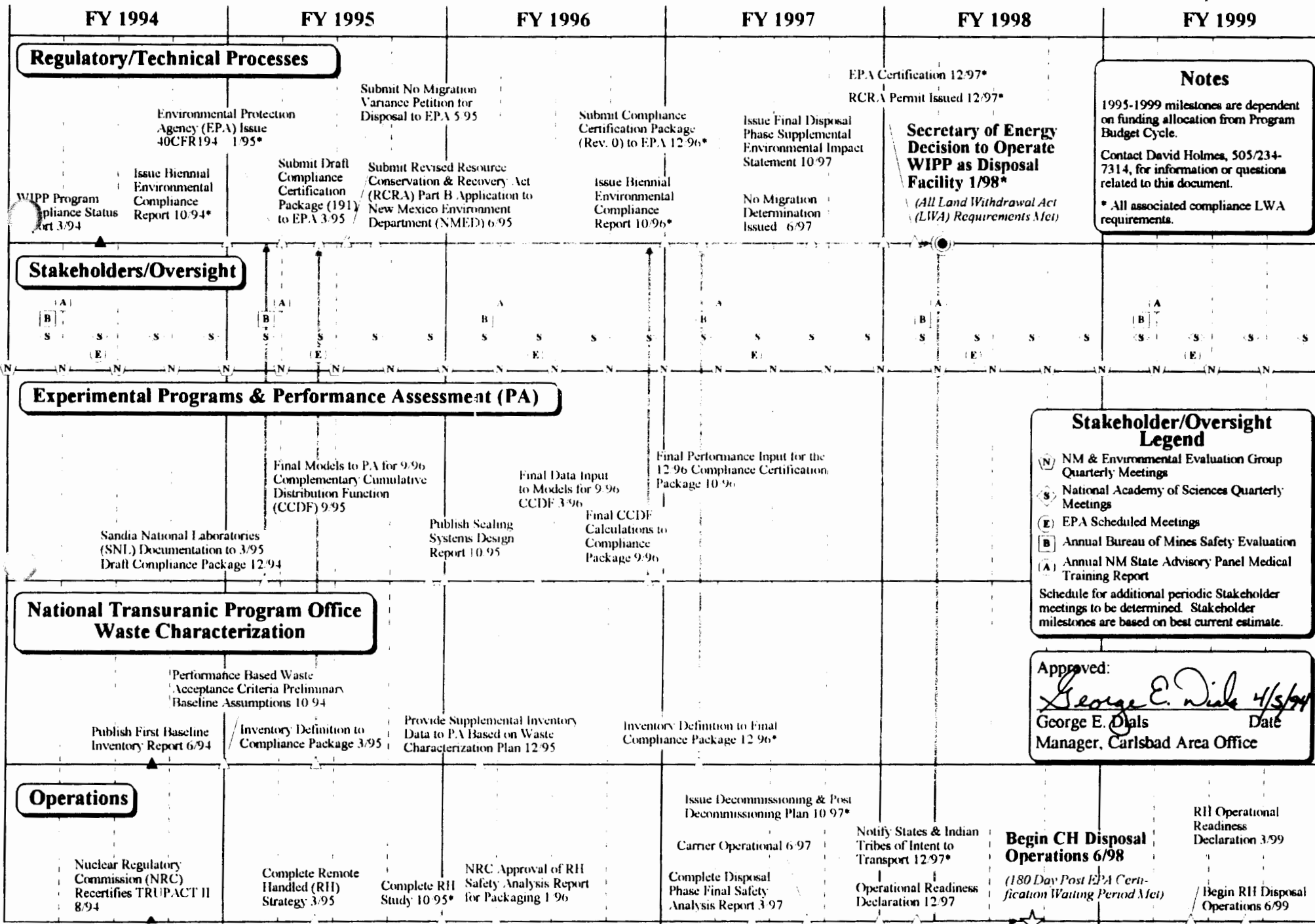
DISPOSAL DECISION PLAN

- **Time line of major activities leading to opening of WIPP**
- **Key milestones in each major activity area**
- **Developed through analysis and interaction among programmatic groups**
 - **DOE, contractors, regulators**
 - **Approved April 5, 1994**
- **Treated as living document**
 - **Will be modified to reflect budgetary, scientific, programmatic changes**



WIPP Disposal Decision Plan

April 5, 1994

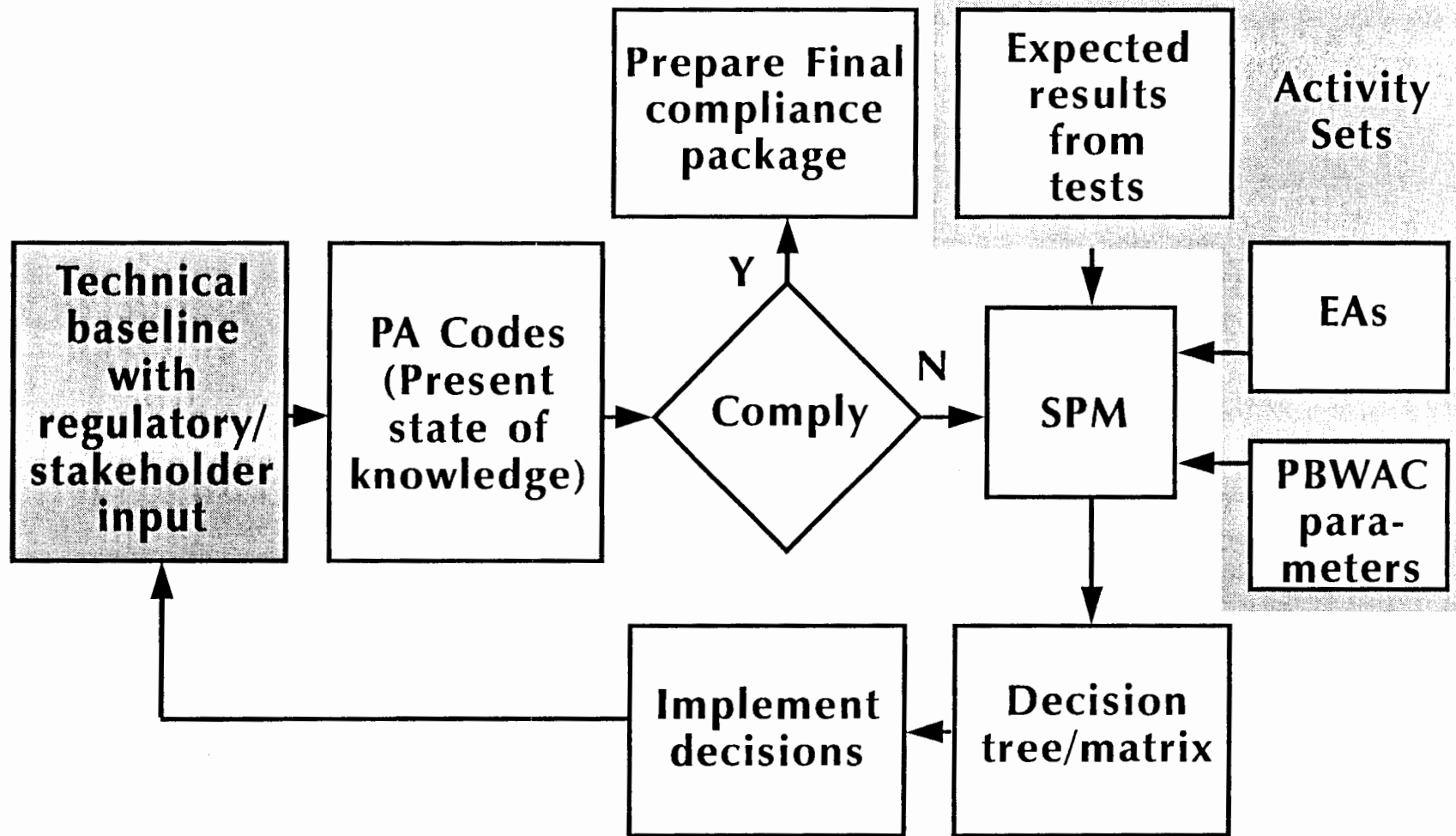


SYSTEM PRIORITIZATION METHOD FOCUS ON COMPLIANCE

- **Process to determine activities leading to demonstration of compliance at a given cost, schedule, and probability of success**
- **Compliance approach that addresses regulators/stakeholders concerns**
- **Provides adequate confidence in performance assessment process to regulators/stakeholders**



SYSTEM PRIORITIZATION METHOD STRATEGY



EA - Engineered Alternatives

PBWAC - Performance-Based Waste Acceptance Criteria

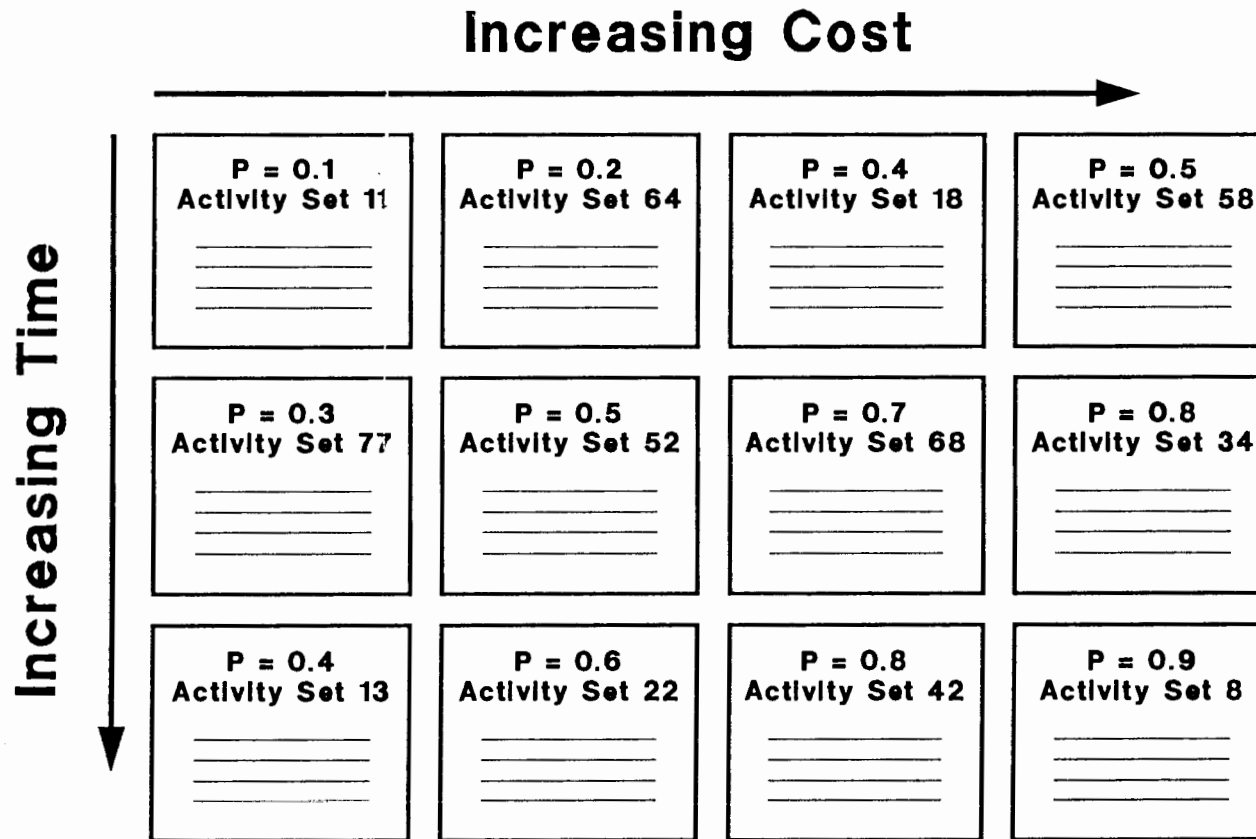
PA - Performance Assessment

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DECISION TREE/MATRIX

EXAMPLE OF THE RESULT

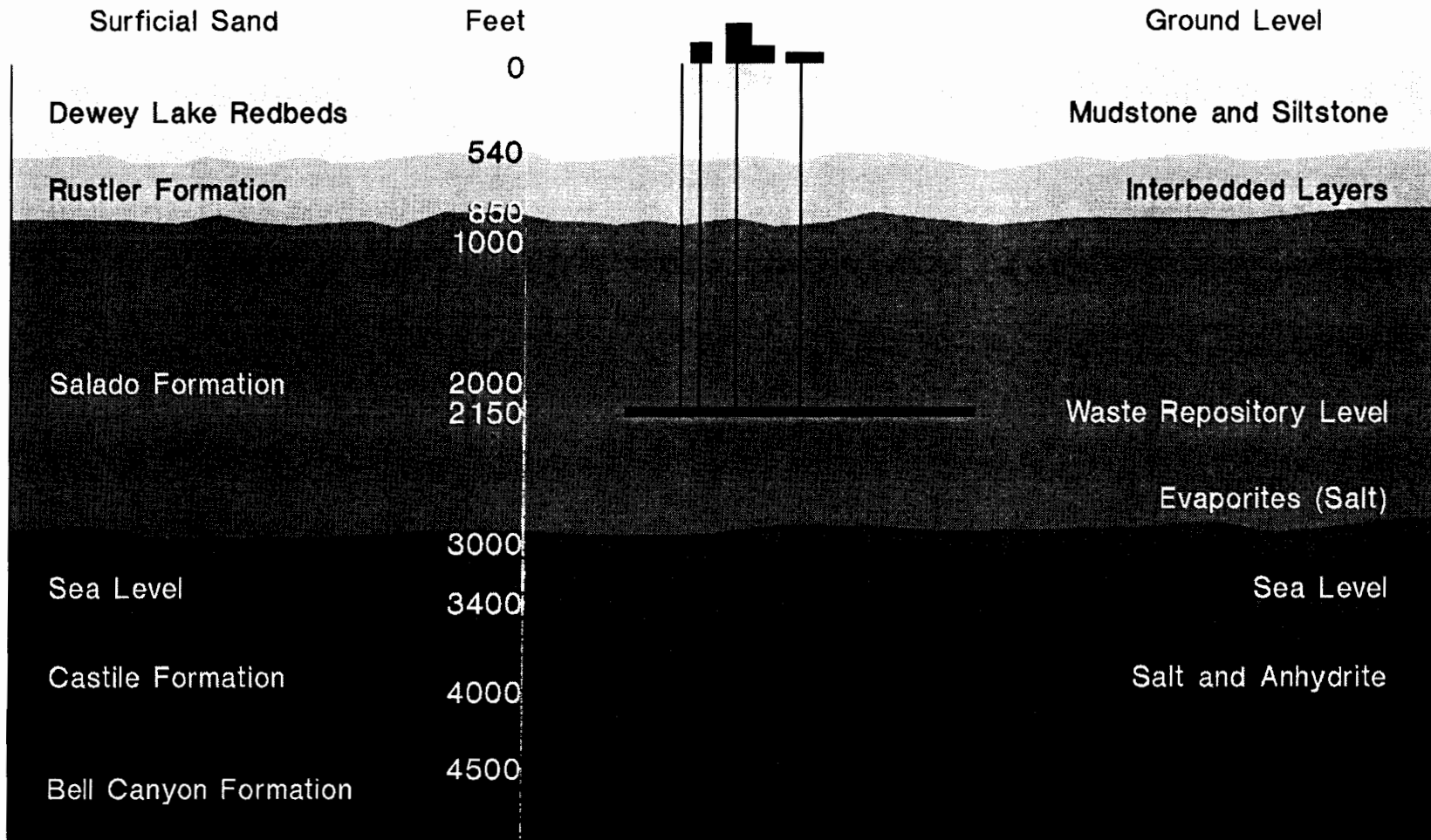


An Activity Set includes various experiments, engineered enhancements, models, etc.

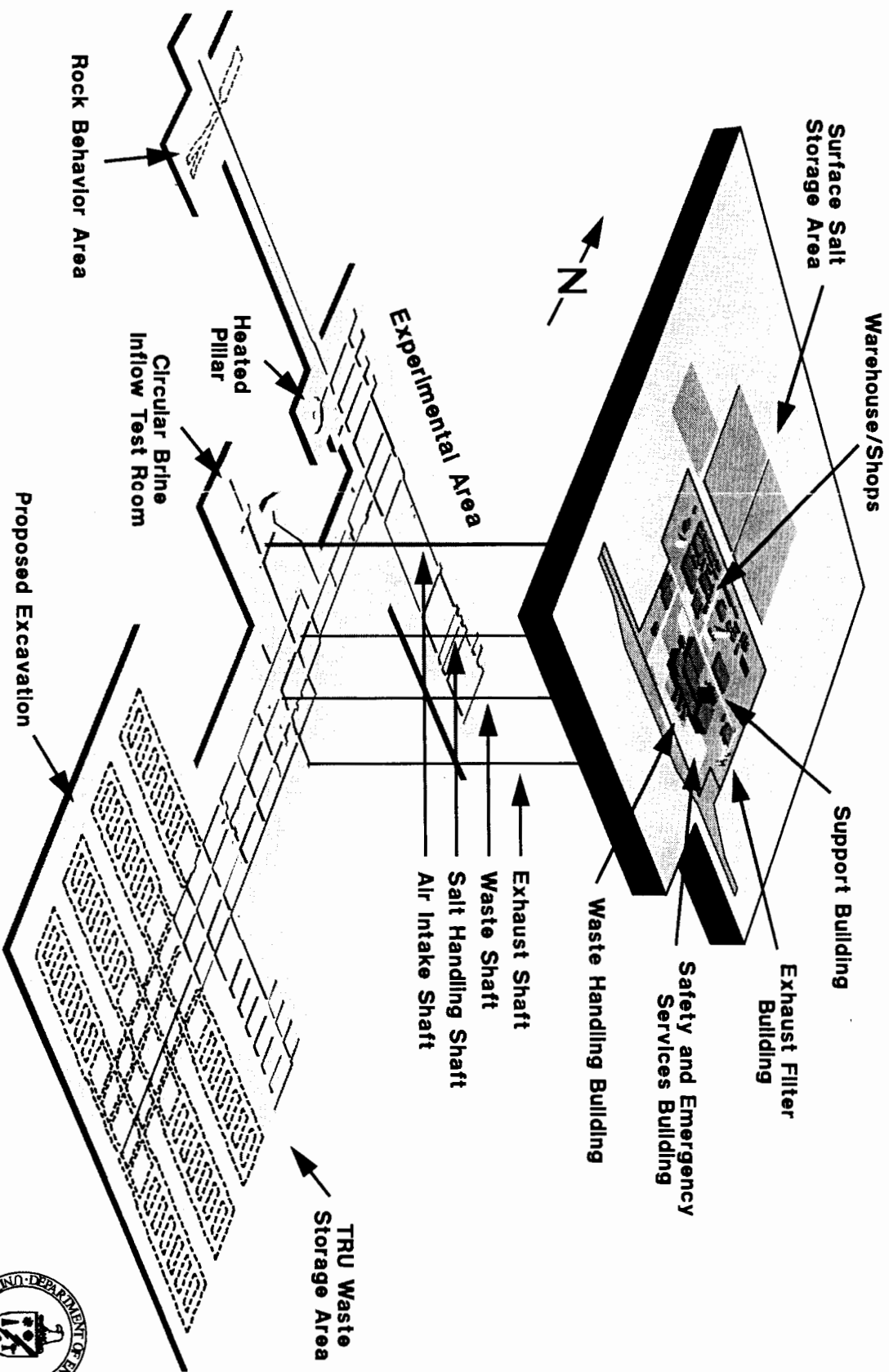
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GEOLOGIC PROFILE



WIPP LAYOUT



*The WIPP is a world class facility
engineered to the highest standards.
It's the right solution to the national
TRU waste problem*

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