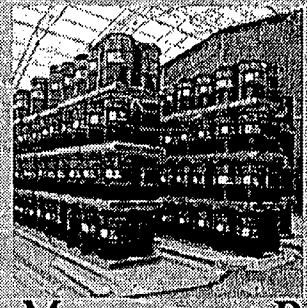
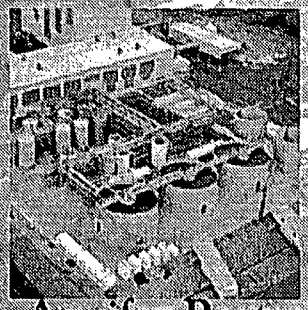
FERNALD CLEANUP PROGRESS BRIEFING
JANUARY 1999

OU4 - Silos Project

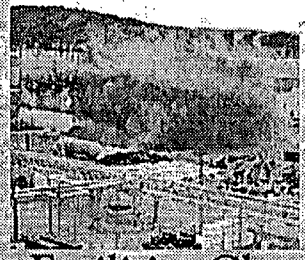
OU1 - Waste Pits Remedial Action Project



Waste Management Project



OU5 - Aquifer Restoration/ Wastewater Project



OU3 - Facilities Closure & Demolition Project

OU2 - On-Site Disposal Facility Project

Project Management

OU5 - Soil Characterization & Excavation Project

Graphics #5457.1 1/99

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FERNALD CLEANUP PROGRESS BRIEFING
JANUARY 1999

6:30 p.m.	Recap of Public Involvement	Gary Stegner
6:40 p.m.	Planned Off-Site Waste Shipments	John Sattler
7:30 p.m.	Shipment Tracking, Emergency Response & Notification	RP Scholz
7:45 p.m.	Question and Answer Session	
8:30 p.m.	Adjourn	

Graphics # 5457.2 1/99

PUBLIC INVOLVEMENT - TRANSPORTATION

- Cooperative Planning & Training meetings - 3/98 & 5/98
- OU1 Transportation and Disposal Plan available for public review - 4/98
- Reily Township meeting - 6/98
- FRESH meeting - 9/98
- Fernald Citizens Advisory Board Off-Site Committee meeting - 10/98
- Butler County Local Emergency Planning Committee (LEPC) meeting - 10/98
- DOE-NV presentation to Fernald stakeholders on Draft Intermodal Environmental Assessment (EA) - 10/98
- Hamilton County LEPC meeting - 11/98
- Waste Pits Project feature topic at Cleanup Progress Briefing - 11/98
- Transportation Workshop - 1/99

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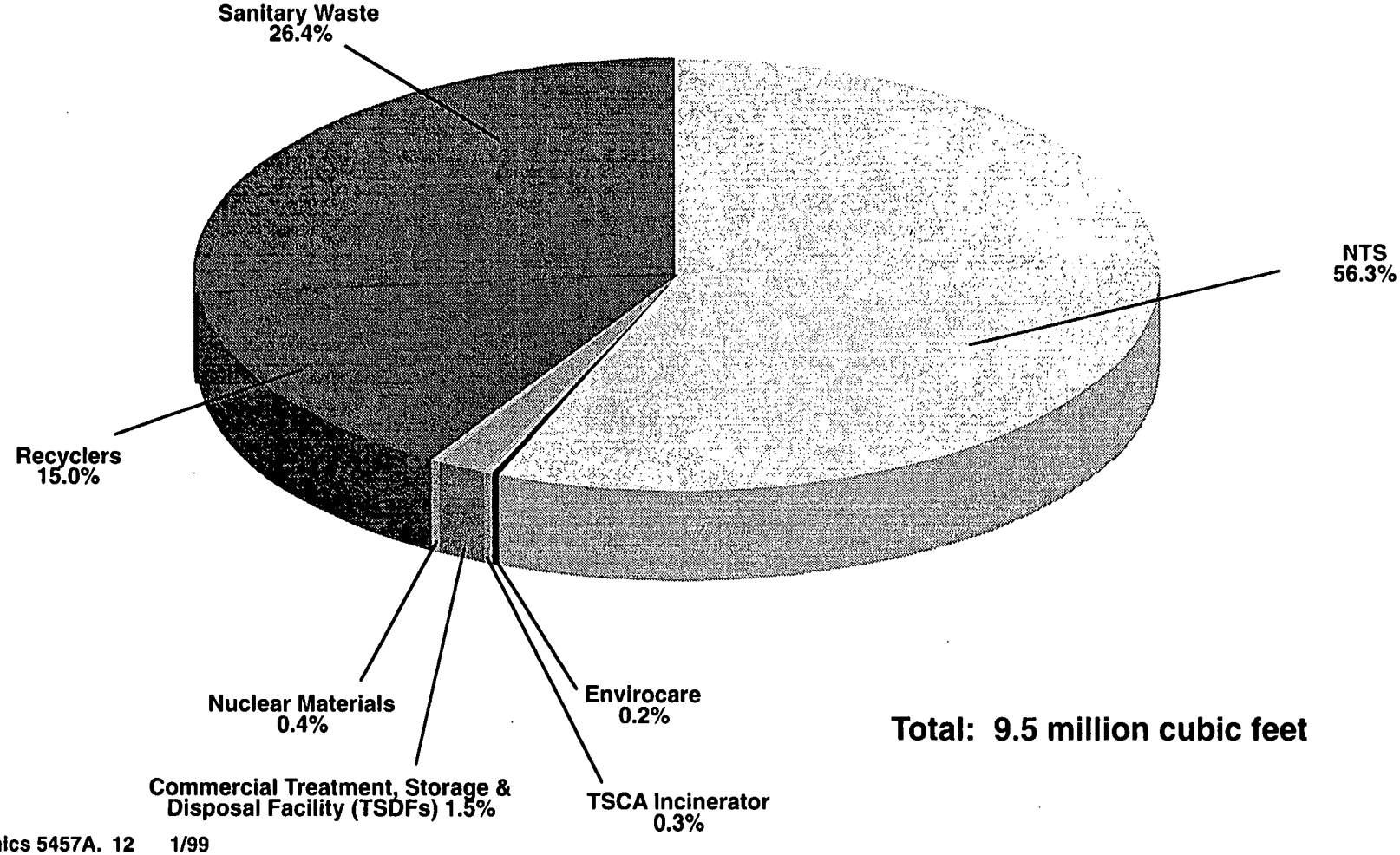
HISTORICAL FERNALD WASTE/ MATERIAL SHIPMENTS (FY '85 - FY '98)

FERNALD



Total: 9.5 million cubic feet

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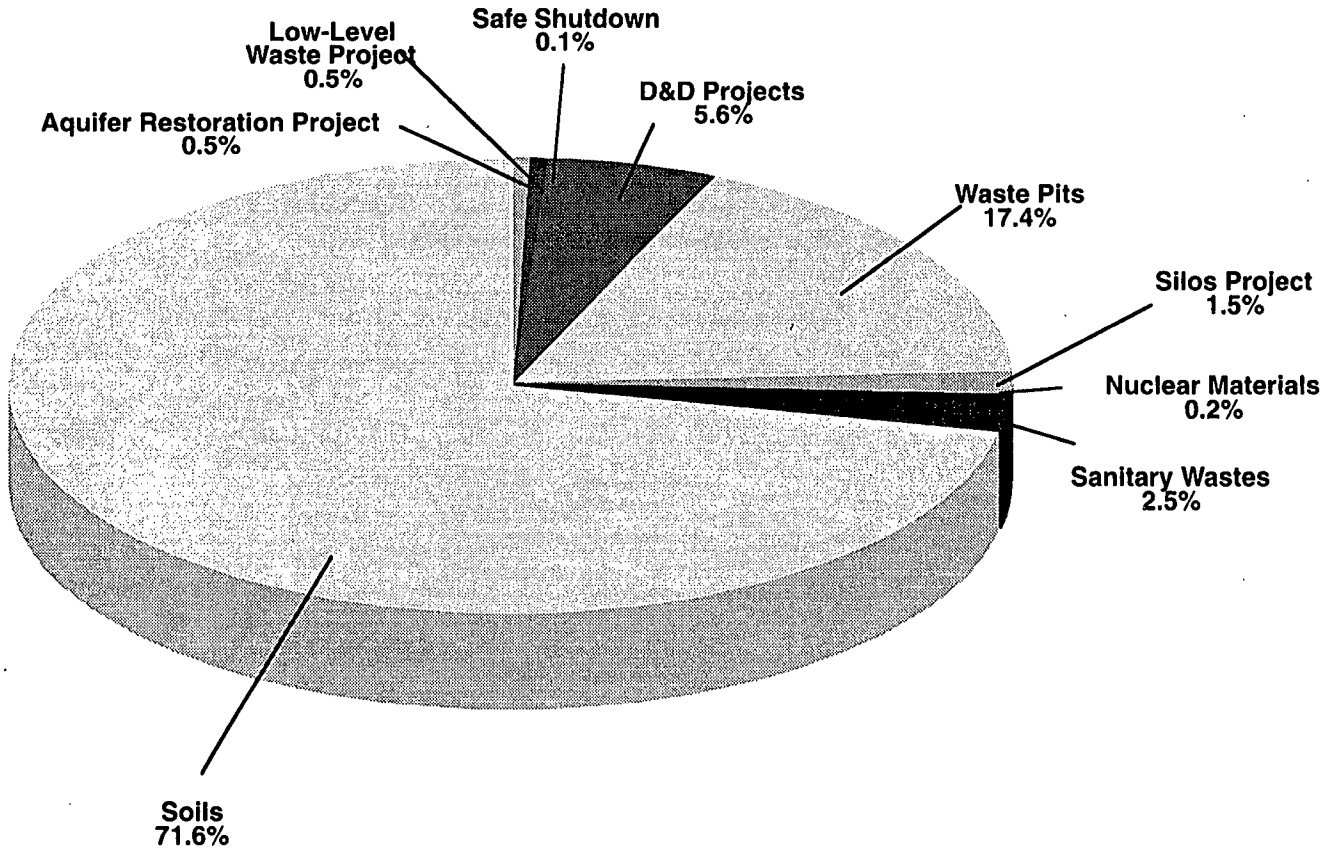
ESTIMATED FUTURE WASTE GENERATION BY PROJECT

FERNALD



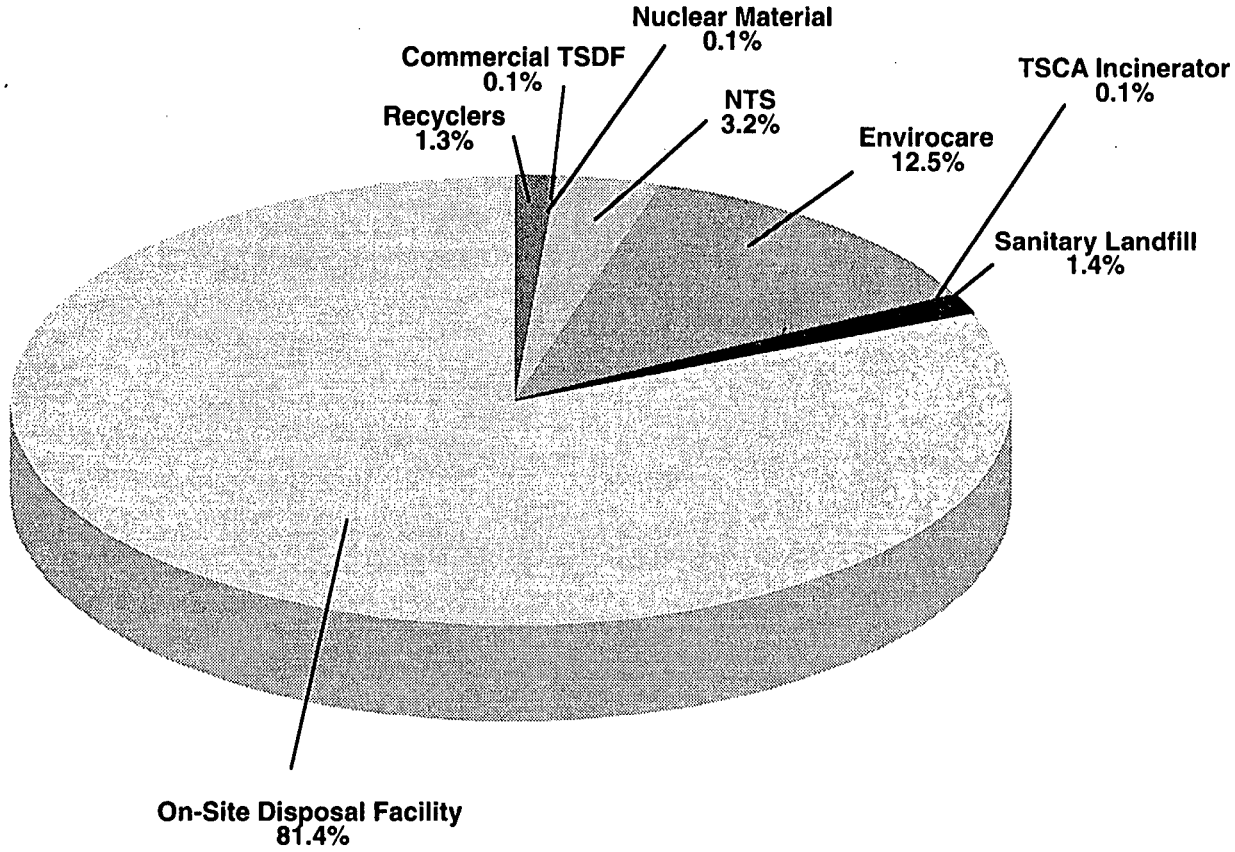
Total: 110 million cubic feet

Estimated Future Waste Generation by Project

Soil and Water Projects		
Aquifer Restoration Project	Off-Site Treatment/Disposal	600,000
Soil Characterization & Excavation Project	On-Site Disposal Facility	78,000,000
	Off-Site Treatment/Disposal	800,000
Waste Pit Remedial Action Project	Envirocare	18,000,000
	Off-Site Treatment/Disposal	100,000
	On-Site Disposal Facility	1,100,000
Facility Closure and Demolition Projects		
Safe Shutdown	Off-Site Treatment/Disposal	200,000
D&D Projects	On-Site Disposal Facility	5,800,000
	Off-Site Treatment/Disposal	300,000
Silos Project	Off-Site Treatment/Disposal	1,000,000
	On-Site Disposal Facility	600,000
Waste Management		
Nuclear Materials	Material Sales	100,000
	Off-Site Treatment/Disposal	100,000
Sanitary Waste	Off-Site Sanitary Landfill	2,700,000
Low-Level Waste	Off-Site Treatment/Disposal	600,000
TOTAL CUBIC FEET		110,000,000

PLANNED WASTE/MATERIAL DISPOSITION PATHWAY (FY '99 - FY '08)

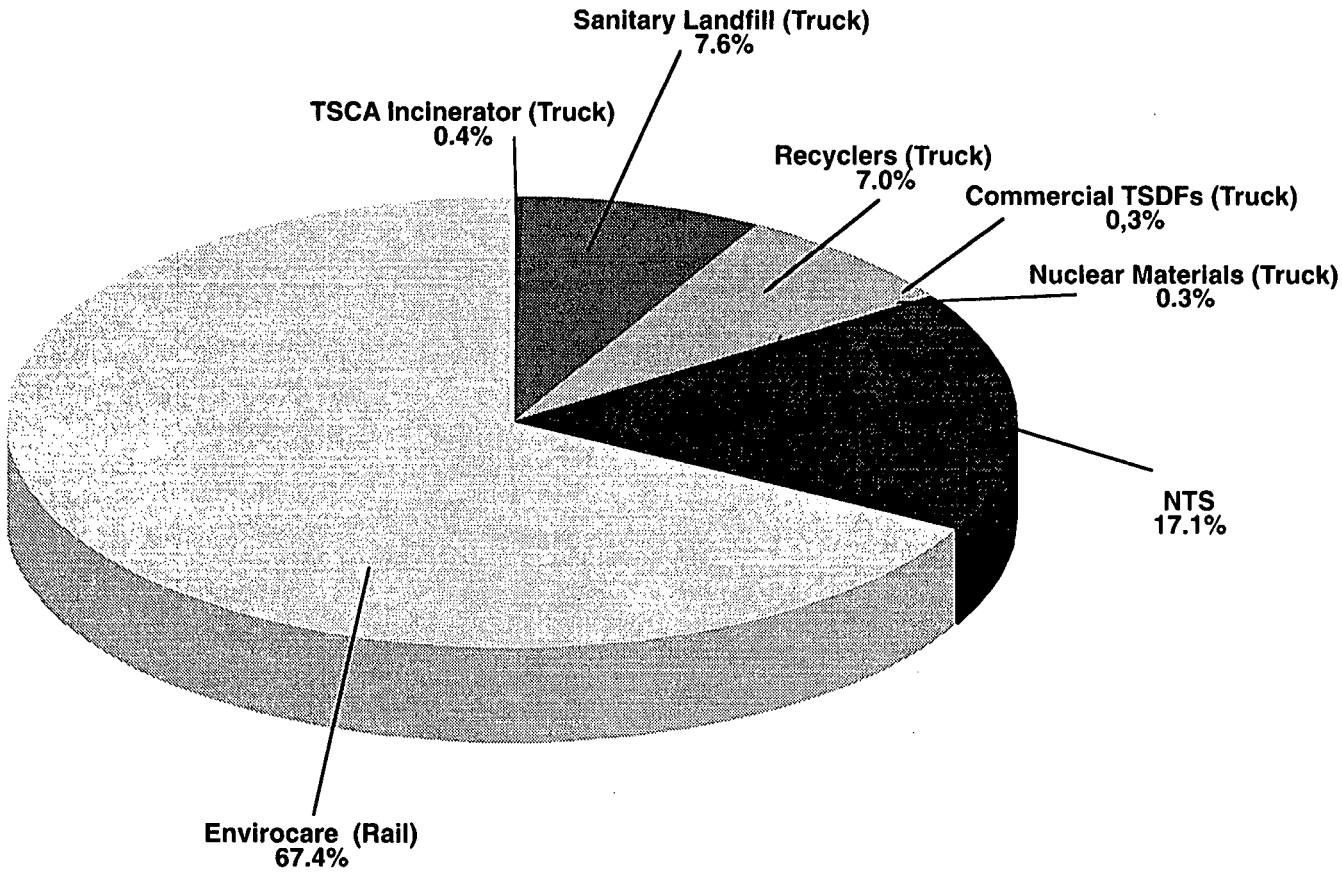
FERNALD



Total: 105 million cubic feet

PLANNED OFF-SITE WASTE/MATERIAL DISPOSITION (FY '99 - FY '08)

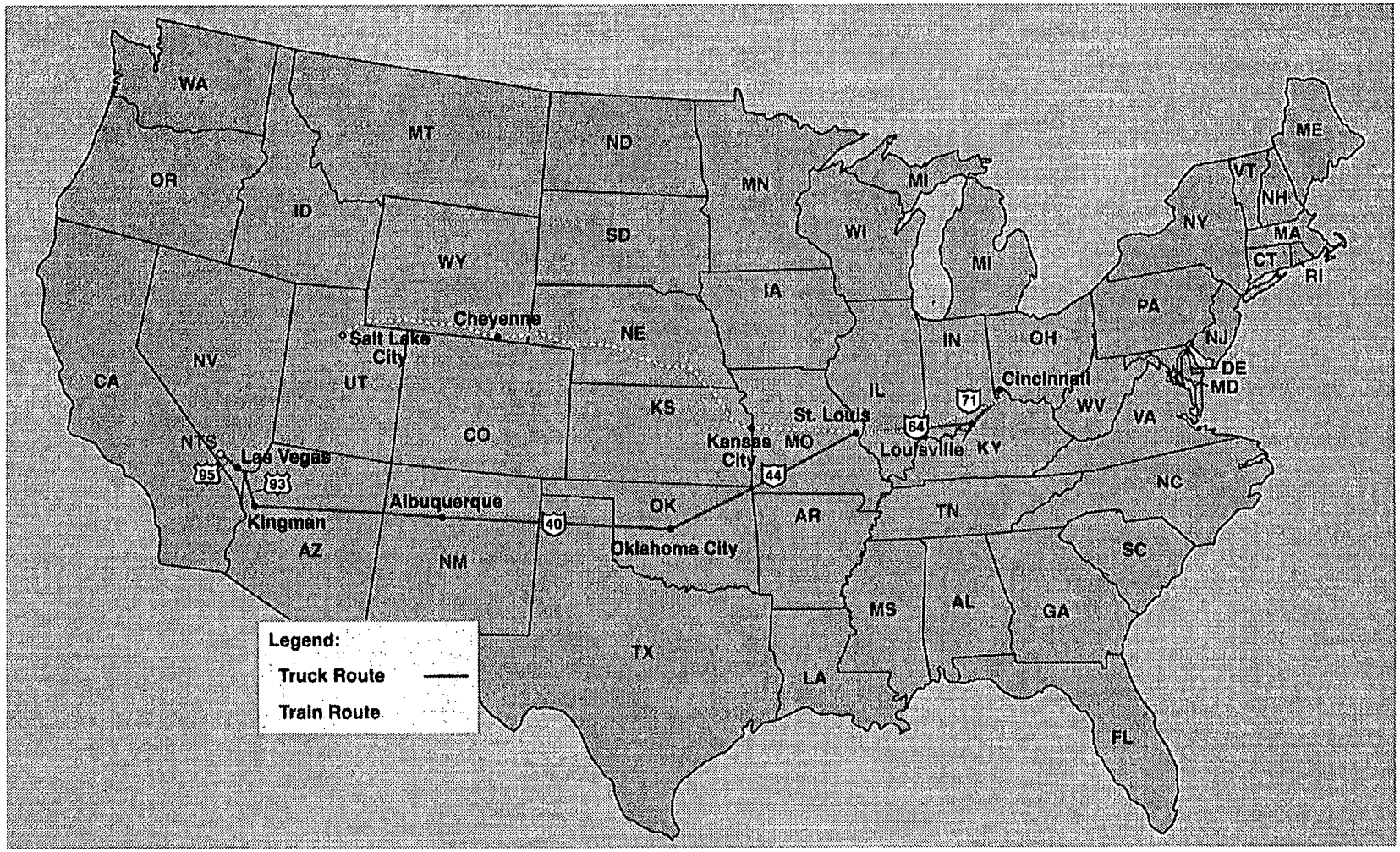
FERNALD



Total: 20 million cubic feet

TRANSPORTATION ROUTES

FERNALD



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TRAIN CONFIGURATION

FERNALD

• Train type:	Unit train
• Number of trains:	3
• Train length:	47 cars
• Shipment period:	5 years
• Departure frequency:	~ every 14 days
• Number of train shipments:	~ 125

UNIT TRAIN ADVANTAGES

FERNALD

- Faster transit time
- En-route delays minimized
- Railcar utilization under DOE control
- Railcar location tracking is simplified
- Lower overall cost
- Lower number of train shipments

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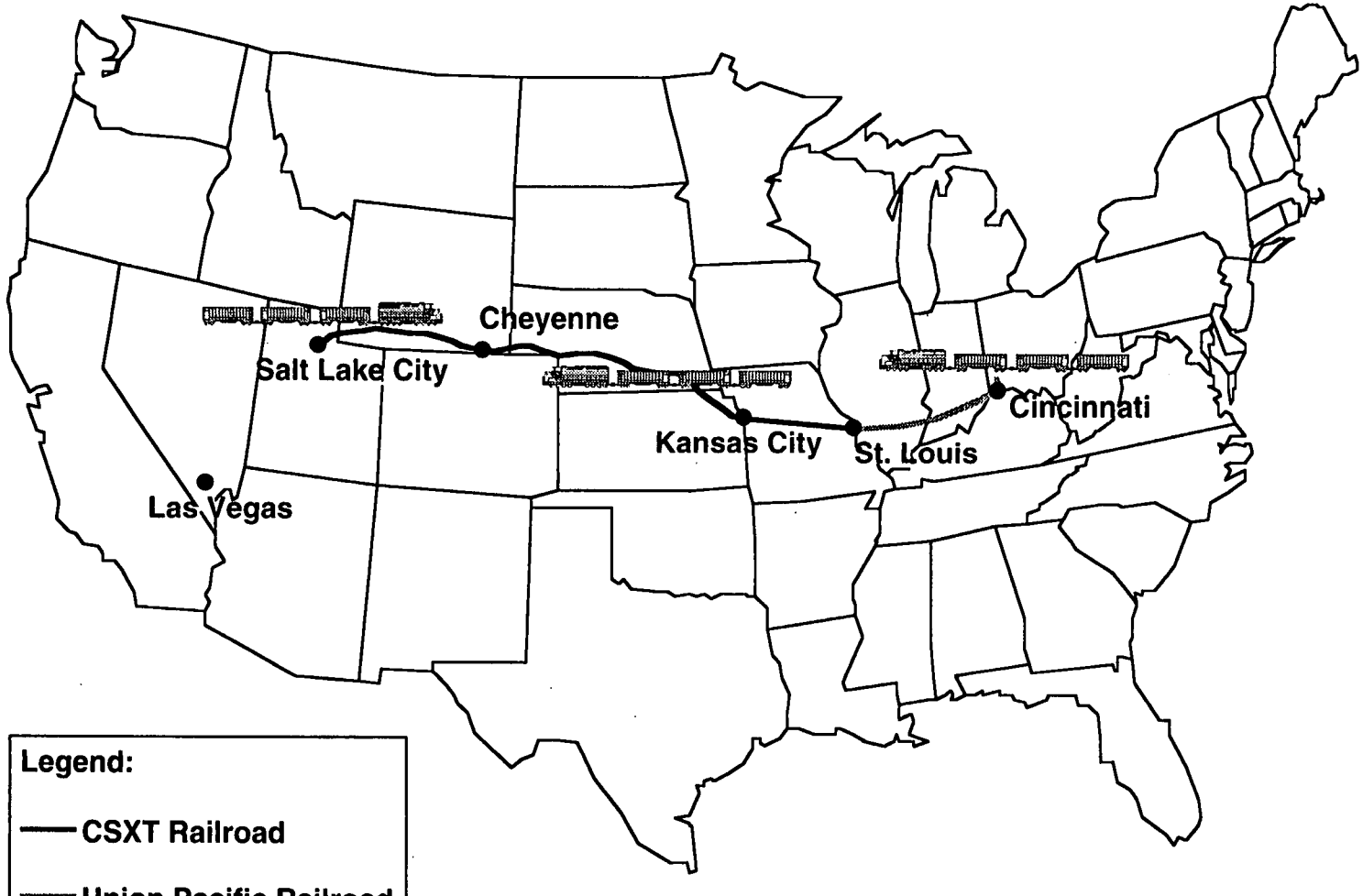
1923

RAIL ROUTE TO ENVIROCARE

FERNALD



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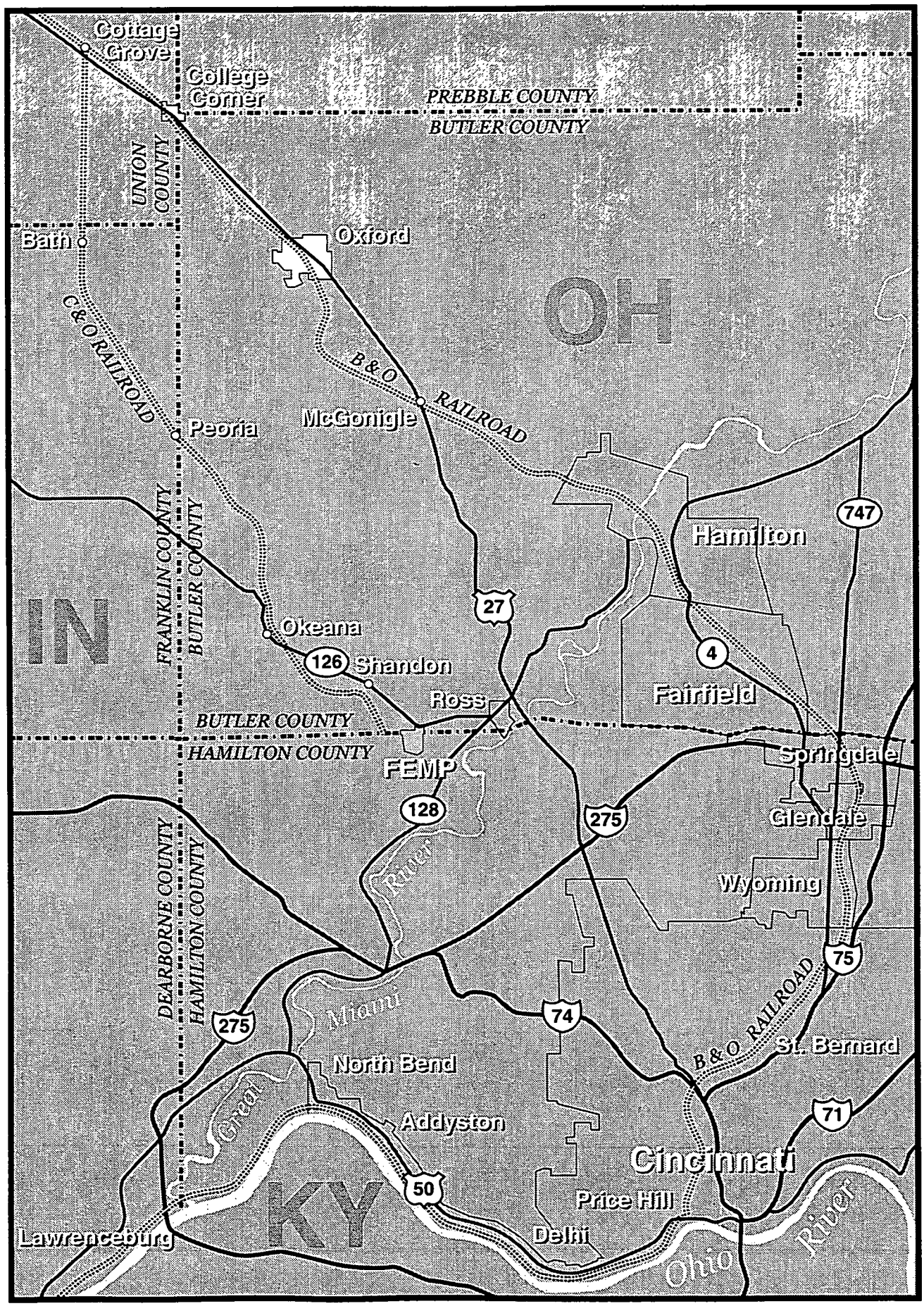
RAIL ROUTE FOR WASTE PITS REMEDIAL ACTION PROJECT



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GONDOLA RAILCAR

FERNALD

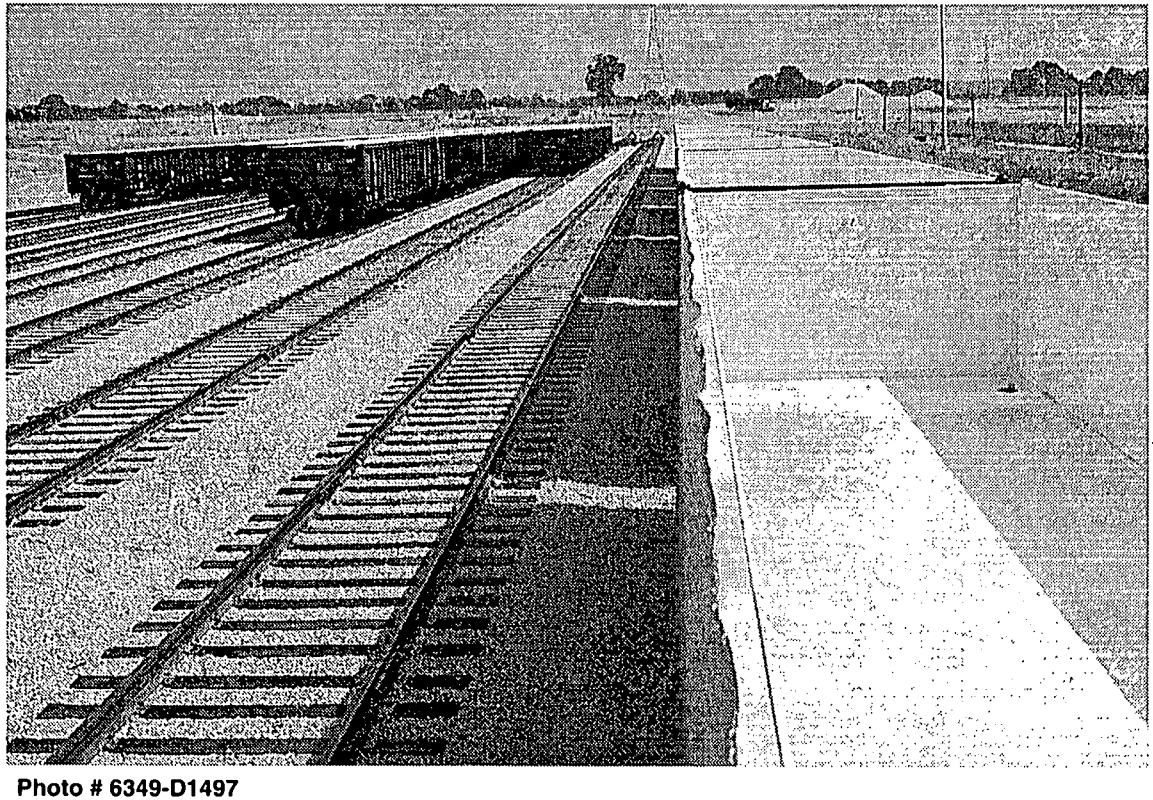
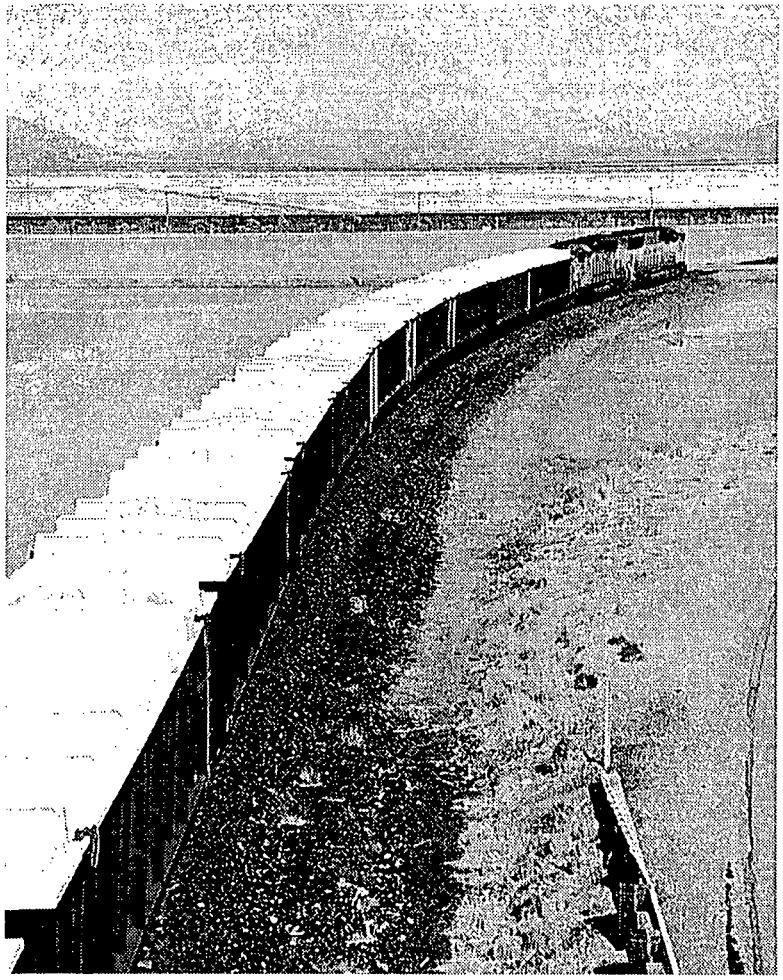


Photo # 6349-D1497

UNIT TRAIN OF GONDOLA CARS

FERNALD



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1923

GONDOLA CAR WITH PLASTIC LINER

FERNALD

Graphics 5084.16 5/98

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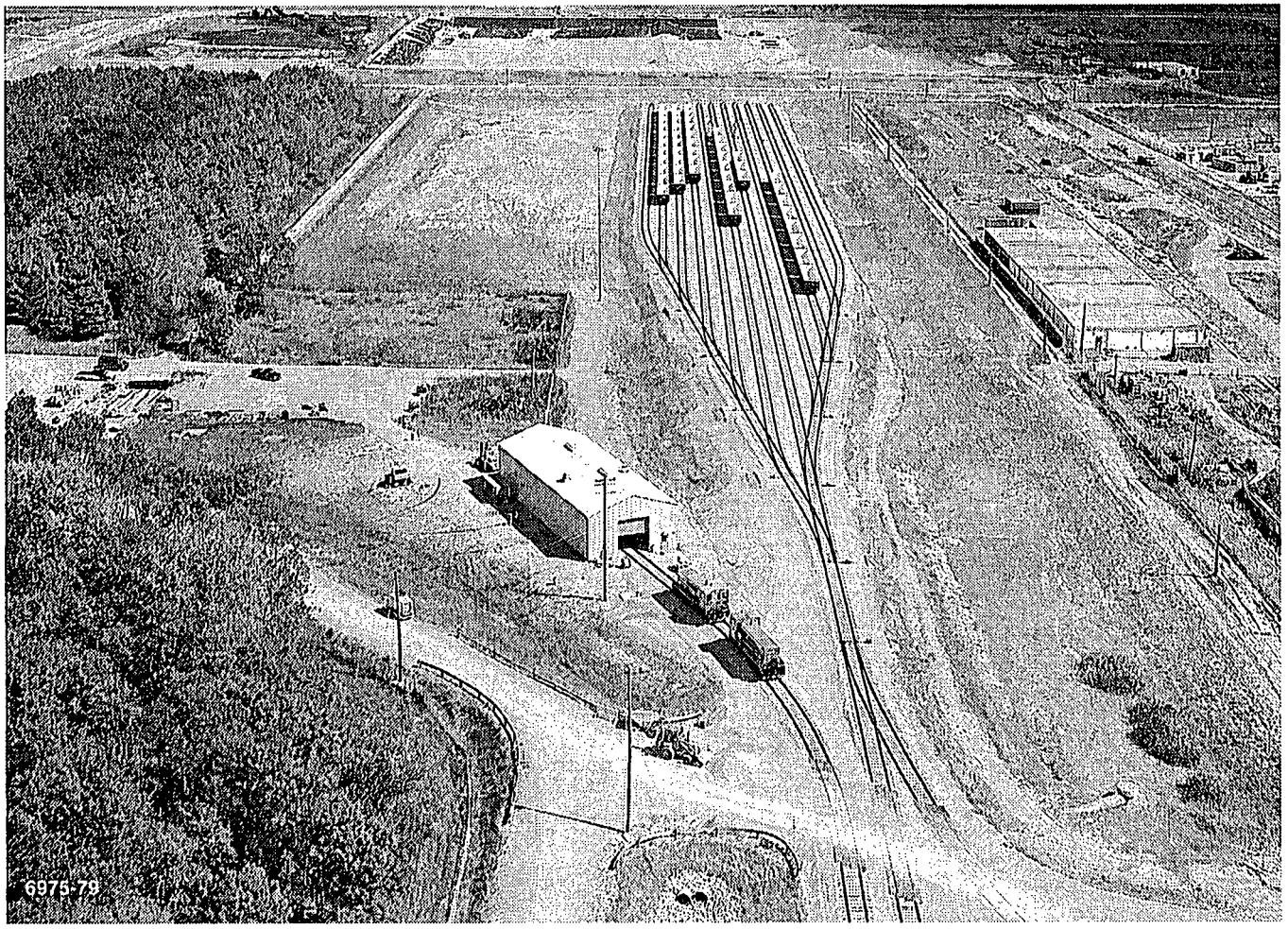
NORTH RAIL YARD

FERNALD



Graphics 5337.18 10/98

WASTE SHIPMENTS TO NEVADA TEST SITE (NTS)

FERNALD

- All corrective actions complete
- DOE-OH & DOE-NV approved resumption of shipments
- Awaiting concurrence from DOE-HQ

FY '99 WASTE SHIPMENTS TO NTS

FERNALD

- 262,000 cubic feet
- Complete Standard Startup Review (SSR)
- Low moisture content wastes
- ISOs and other approved boxes

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CONTAINER USE, EVALUATION AND PROCUREMENT

FERNALD

- Interim procurement of containers
- M-100
  - DOE family of standardized shipping containers
- CGR modified box testing and approval

TRANSPORTATION MODES AND ROUTES TO NTS

FERNALD

- Shipments will resume using the previous direct truck route
- DOE-NV Environmental Assessment (EA)
- DOE-FEMP evaluation

INTERMODAL TRANSPORTATION ENVIRONMENTAL ASSESSMENT

FERNALD

- Draft EA issued September 1998
- Comment period extended until February 1999
- EA is not a decision document

INTERMODAL TRANSPORTATION EA ALTERNATIVES

FERNALD

- Intermodal (rail/truck combination)
  - Caliente, NV - in town
  - Caliente, NV - south of town
  - Barstow, CA
  - Yermo, CA
- Truck
  - Northern route
  - Southern route
- No Action
  - Continue current practice

NO ACTION ALTERNATIVE

FERNALD

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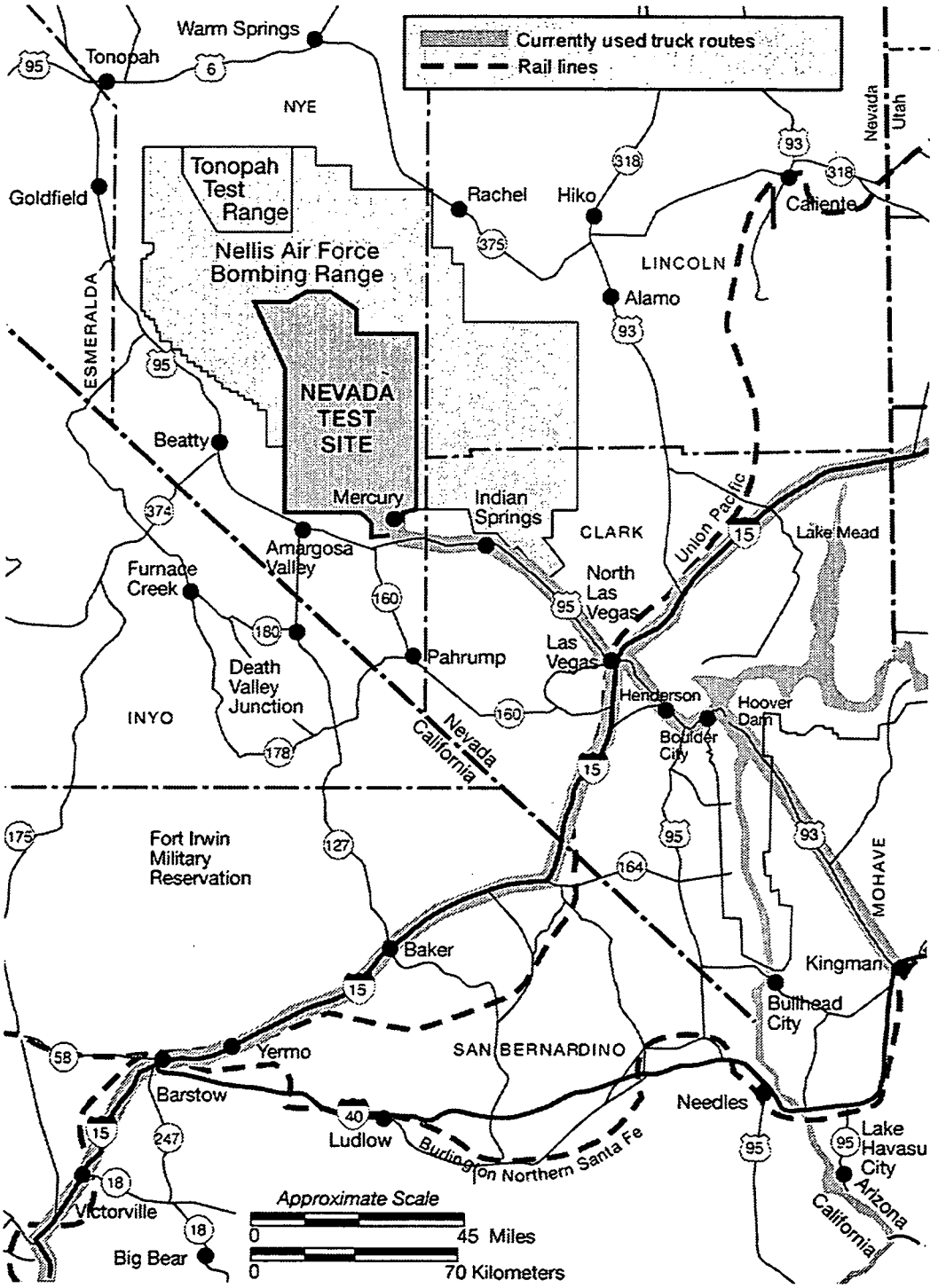

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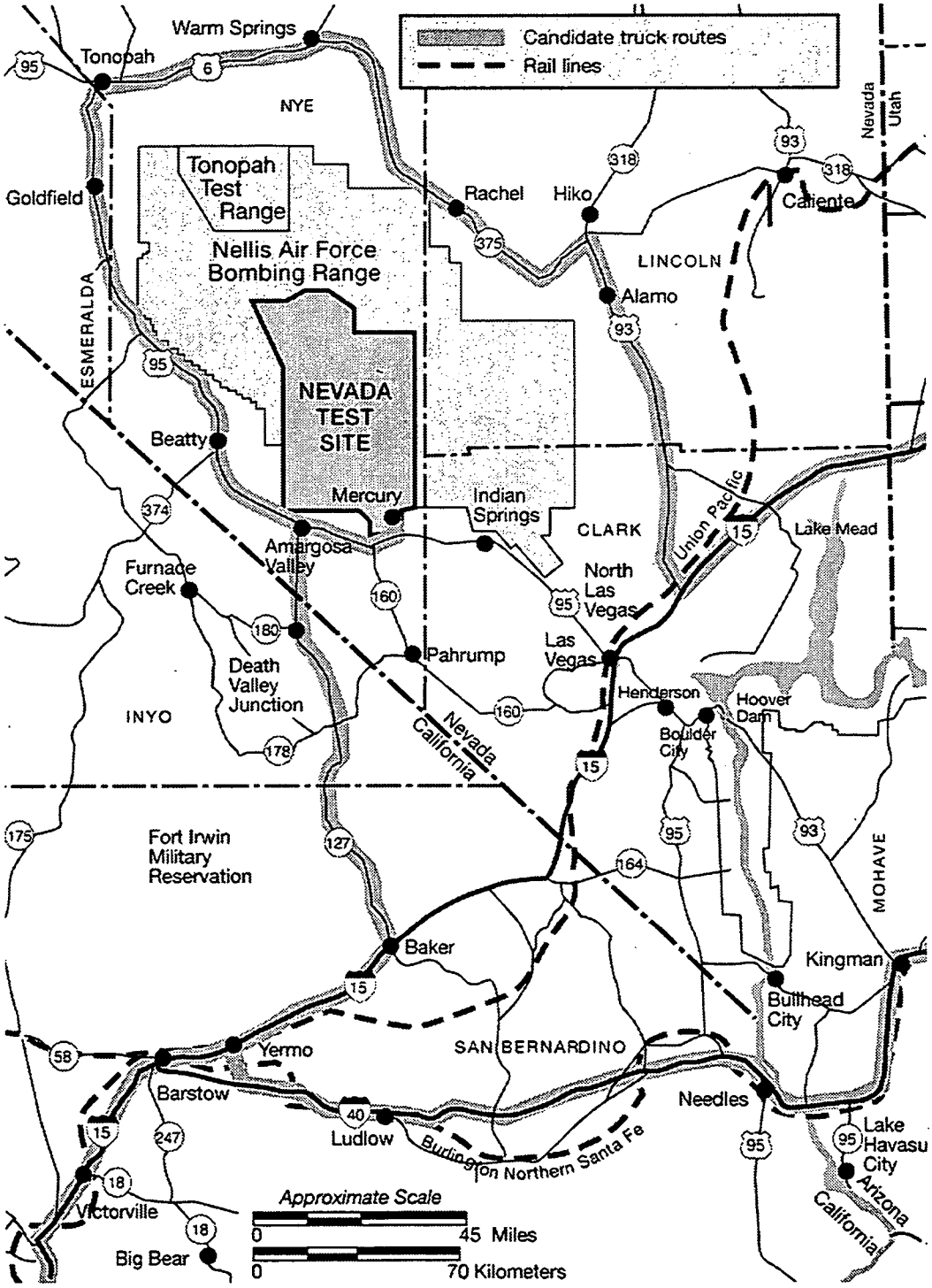
ALL TRUCK ALTERNATIVE

FERNALD



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CALIENTE OPTION

FERNALD

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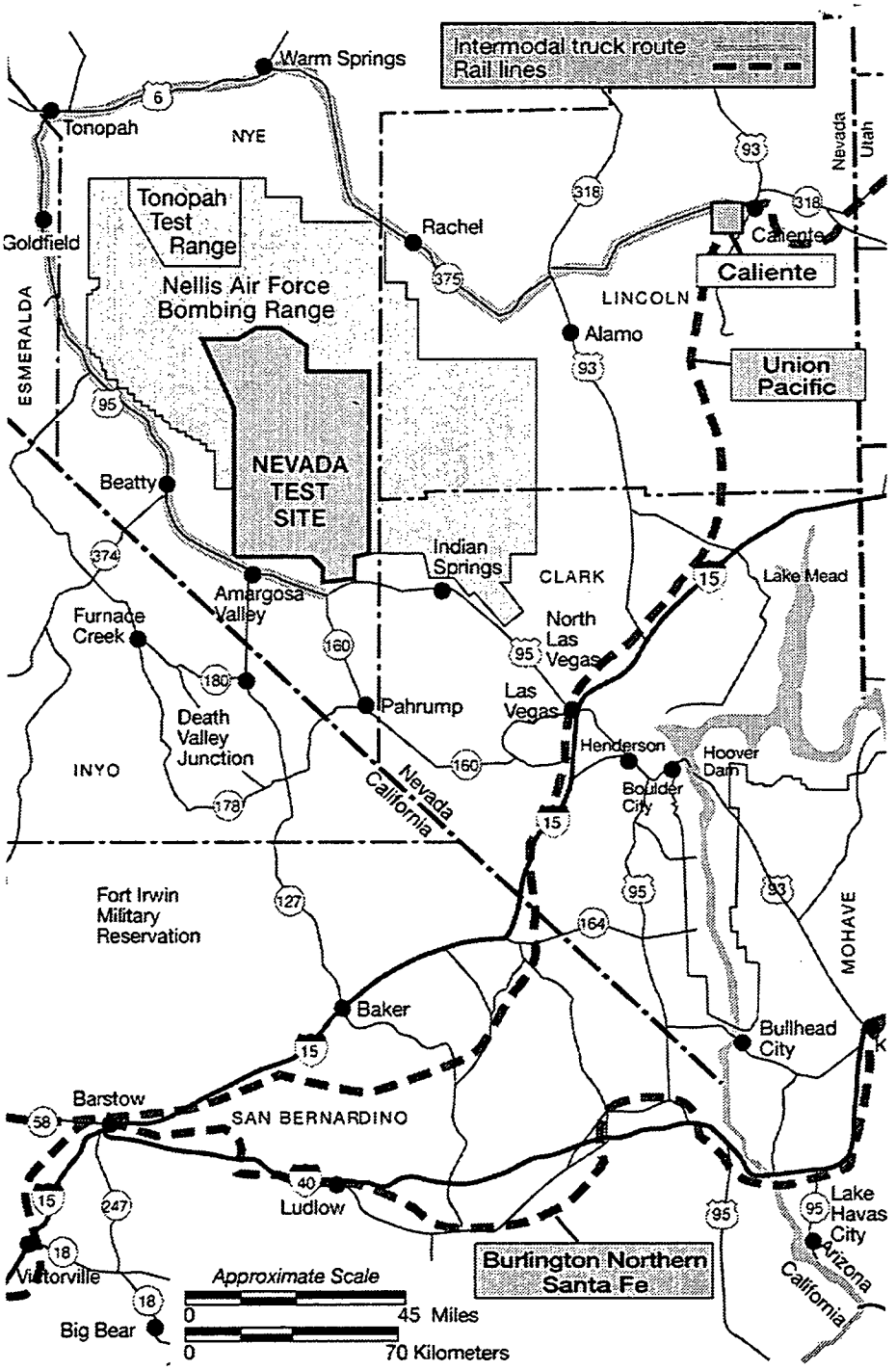
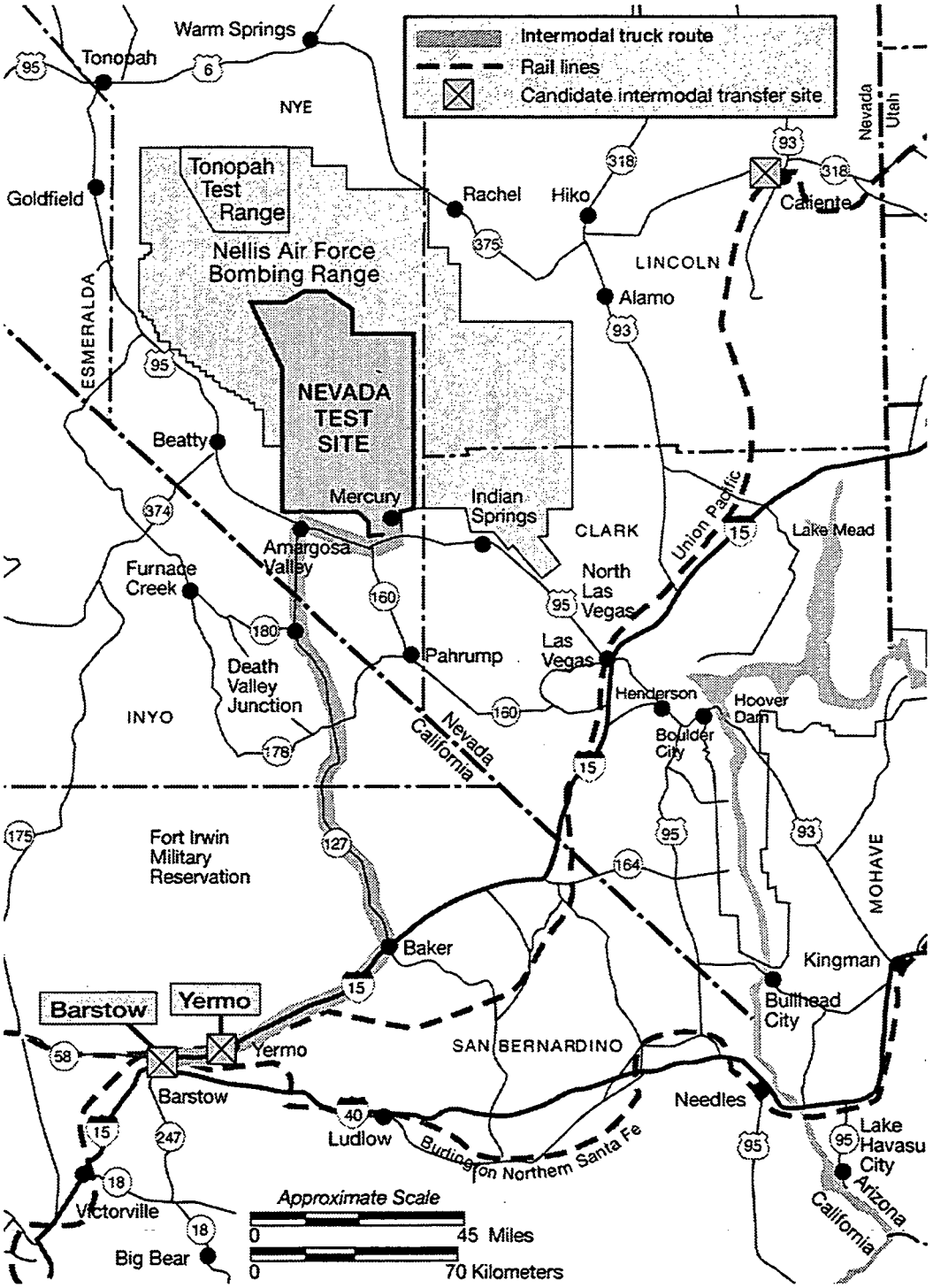


BARSTOW/YERMO OPTION

FERNALD



FERNALD EVALUATION OF TRANSPORTATION ALTERNATIVES

FERNALD

- Alternate truck route awaiting actions by DOE-NV
- Intermodal transport evaluation (preliminary projections)
  - Cost analysis by 2/99
  - Risk assessment by 6/99
  - Programmatic requirements, including procurement, direct rail loadout vs. truck-rail-truck, etc., by 5/99
  - Stakeholder interaction
  - Final decision by 10/99

T-HOPPERS

FERNALD

Photo # 6714-249

1923

SEALAND CONTAINER

FERNALD

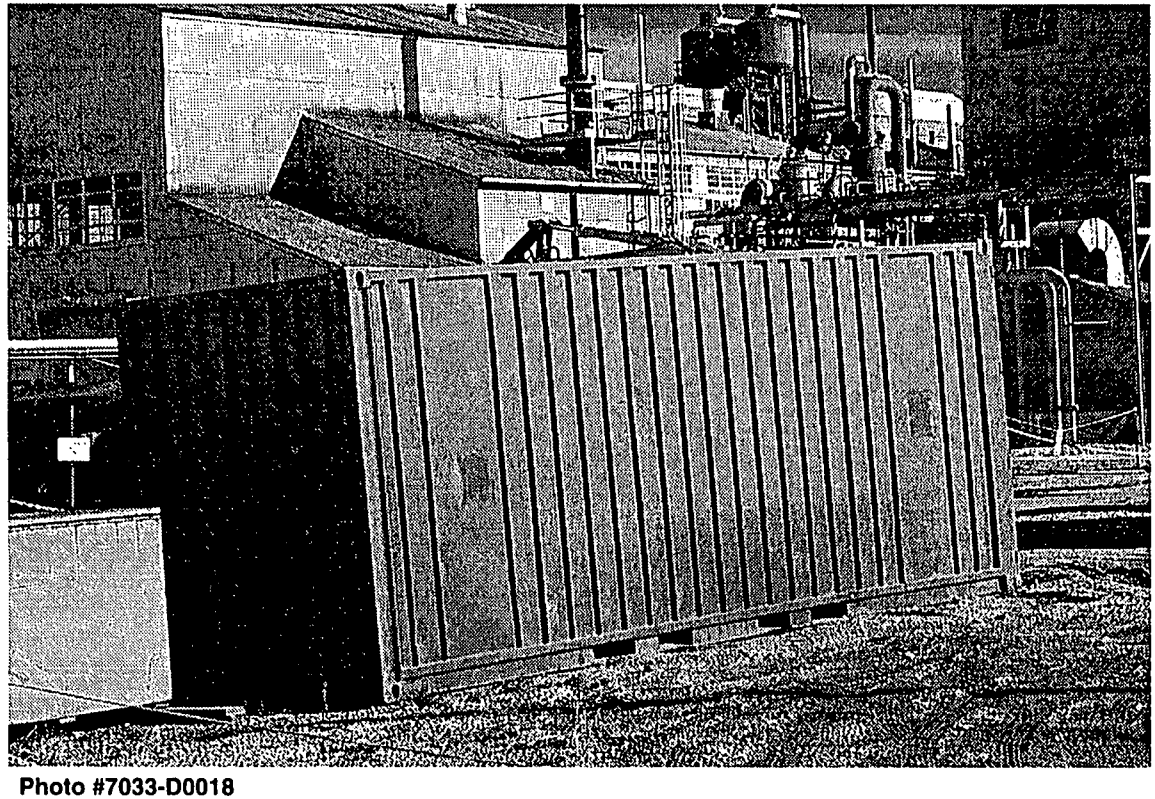
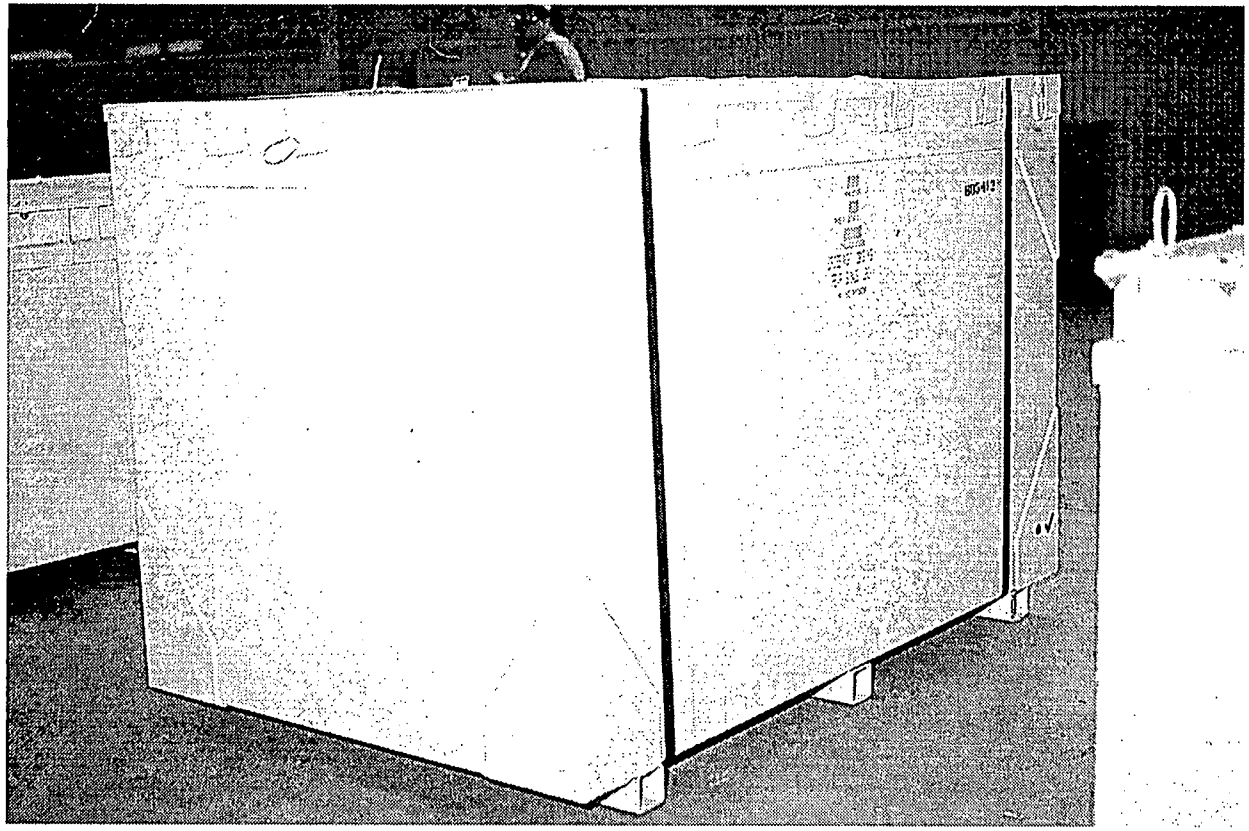


Photo #7033-D0018

METAL BOX

FERNALD



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HALF HIGH METAL BOX

FERNALD

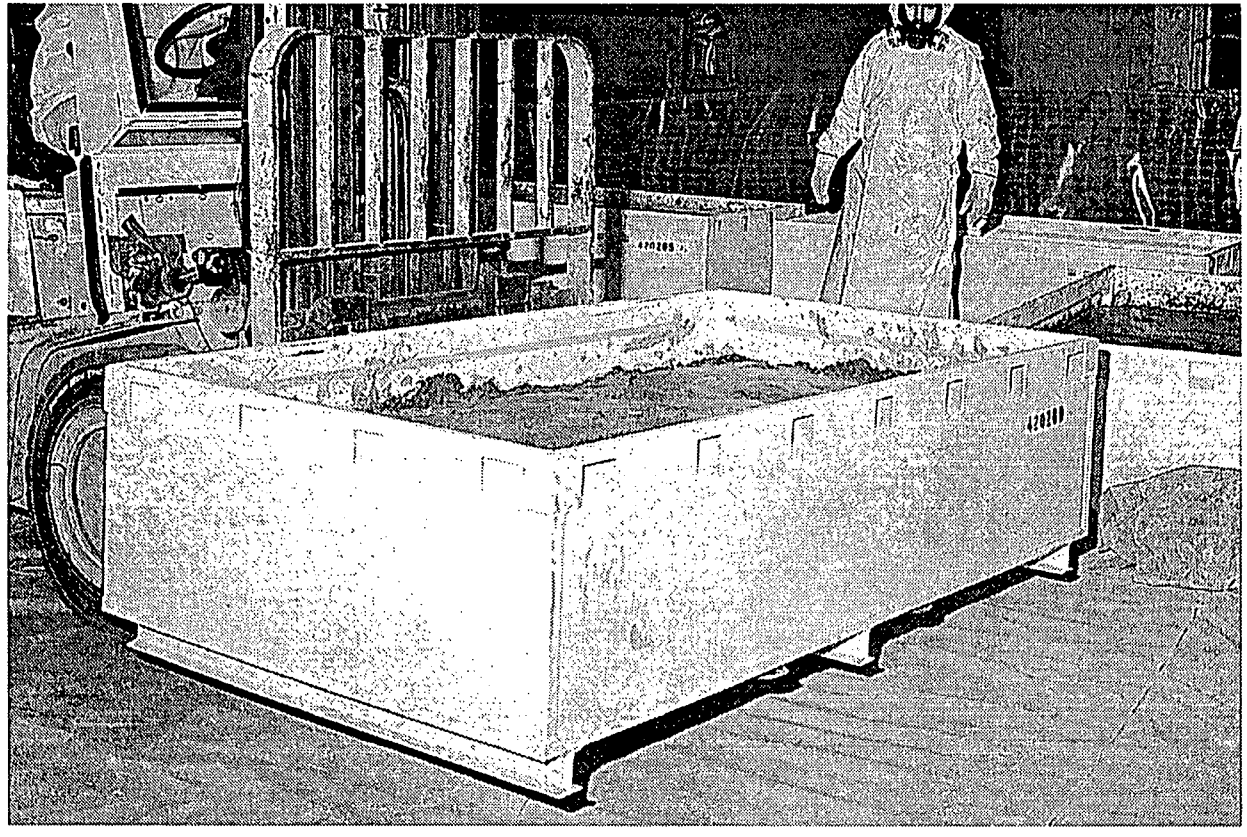

Photo # 6289-9

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TOP LOAD METAL BOX

FERNALD

Photo # 5303-41

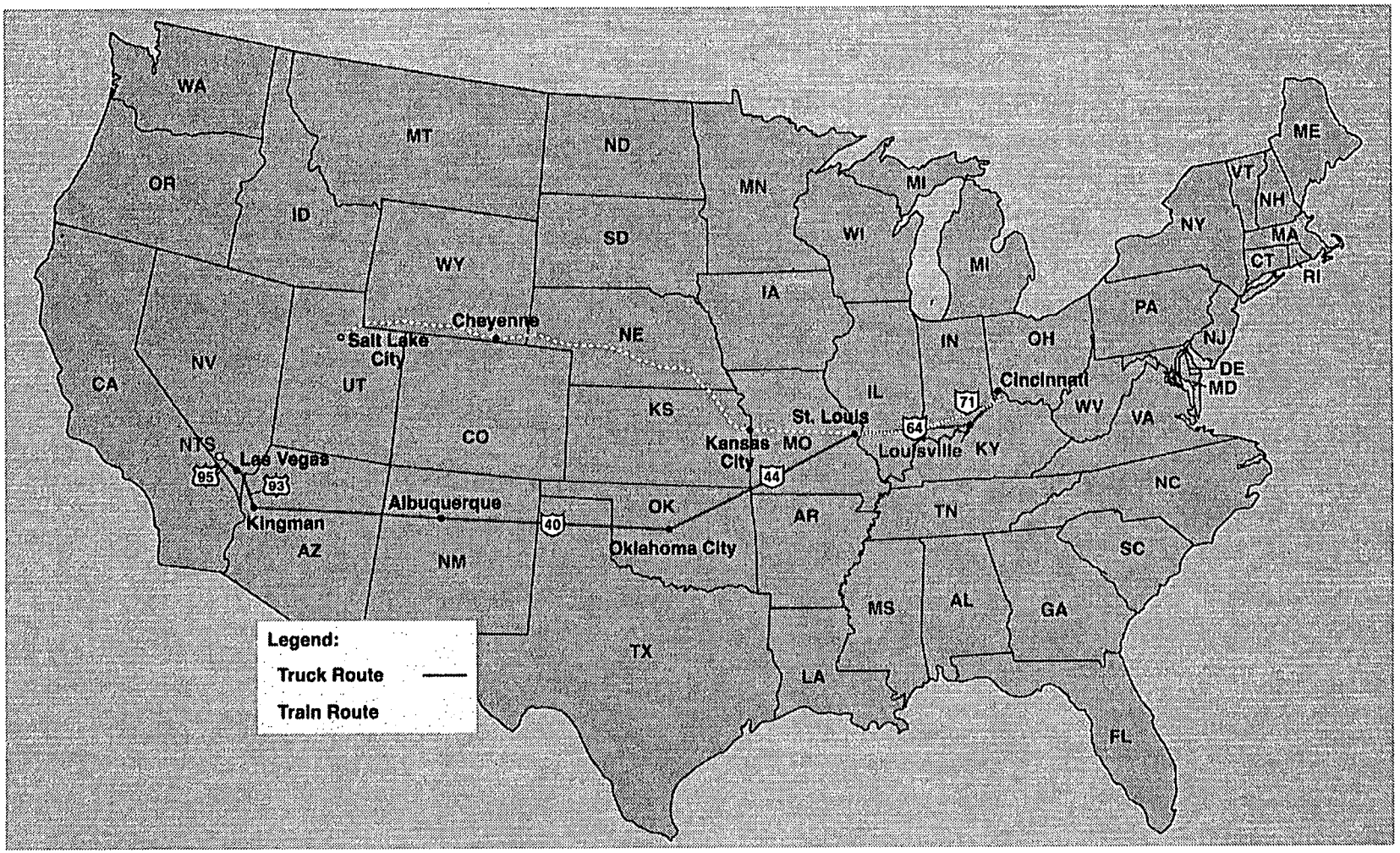
ROLL-OFF CONTAINER

FERNALD

Photo # 6868-D36

TRANSPORTATION ROUTES

FERNALD



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REDUCING TRANSPORTATION RISK

FERNALD

Truck

- Rigorous testing
- Incorporate lessons learned
- Absorbent materials
- Treatment of material to reduce moisture content

Rail

- Unit trains
- New cars
- Double lined
- Covered
- Rail upgrades
- Training

SHIPMENT TRACKING

FERNALD

- Truck drivers call Fernald daily to give current location and status as to their estimated time of arrival

- Railcars are tracked through a computerized system using automatic equipment identification tags

UNIT TRAIN ADVANTAGES

FERNALD

- Faster transit time
- En-route delays minimized
- Railcar utilization under DOE control
- Railcar location tracking is simplified
- Lower overall cost
- Lower number of train shipments

SIX LEVELS OF EMERGENCY RESPONSE

FERNALD

1. Driver and train crew
2. Transporter emergency response
3. Local authorities
4. State emergency response
5. DOE Radiological Assistance Teams
6. Fernald emergency response capabilities

Graphics 5457B. 6 1/99

FERNALD EMERGENCY RESPONSE RESOURCES

FERNALD

- Communications Center provides 24-hour point of contact for access to Fernald resources
- Hazardous Materials Unit is available, as requested, through existing Mutual Aid Agreements to respond within 40-mile radius of Fernald site
- Emergency Operations Center provides technical support to on-scene incident commander and access to site resources

EMERGENCY RESPONSE SUMMARY

FERNALD

- Existing infrastructure
- Transportation Emergency Response Plan
- Technical representative assigned
- Contracted cleanup support
- International Association of Fire Fighters (IAFF) training
- Exercises - table top, mock drill

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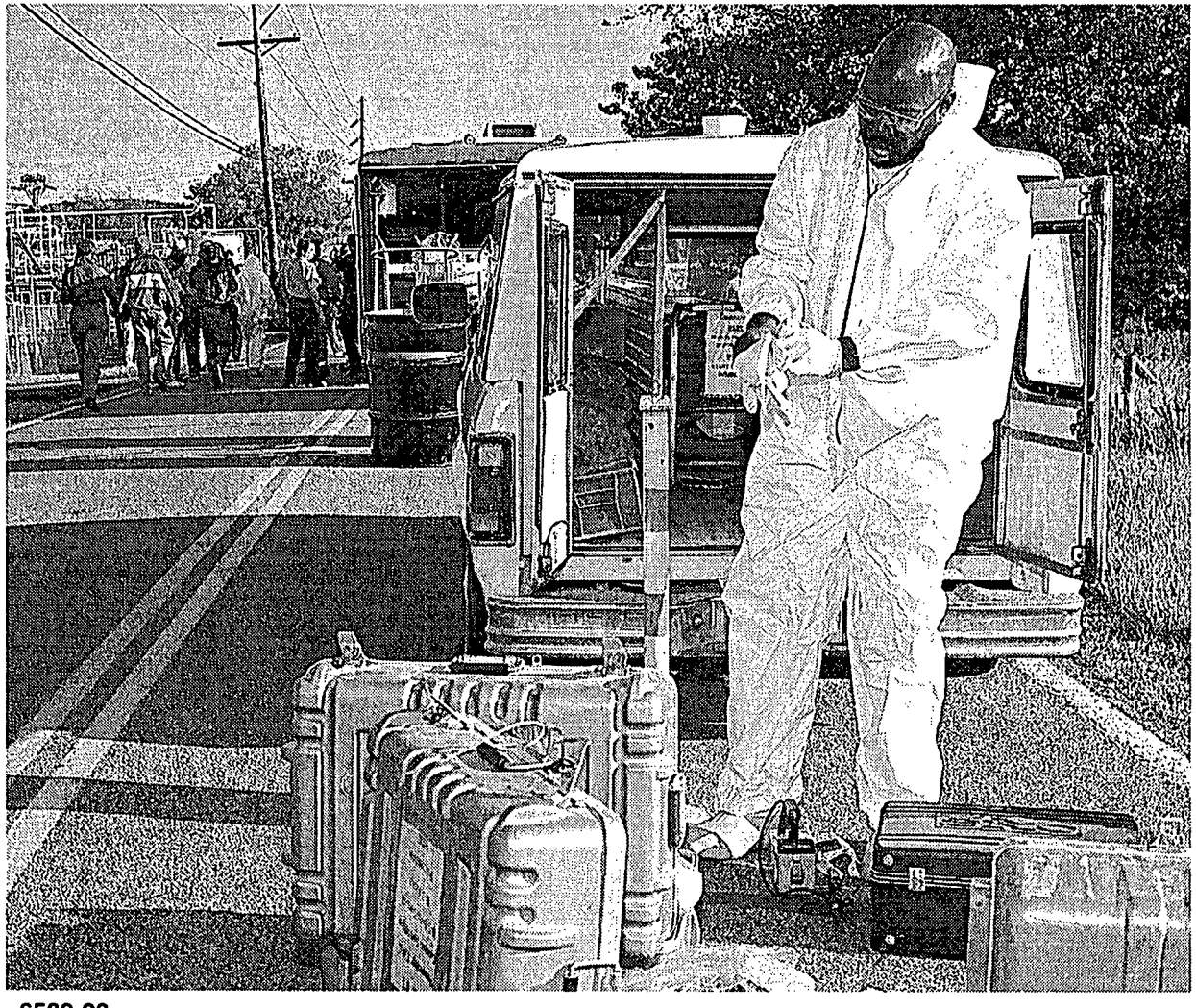
EMERGENCY RESPONSE EXERCISE

FERNALD



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COMMITMENT TO SUPPORT LOCAL RESPONDERS

FERNALD

DOE and Fluor Daniel Fernald are committed to:

- **providing on-scene support of local agencies for cleanup,**
- **monitoring affected area, and**
- **material recovery in the event of material loss during shipment**

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1923

NOTIFICATION

FERNALD

- DOE and Fluor Daniel Fernald will exceed Department of Transportation requirements by providing advance notification of rail shipments to:
  - Butler and Hamilton County Emergency Management Agencies (EMA)
  - Cooperative Planning & Training Committee
  - Affected state EMAs along transportation route, including Ohio, Indiana, Illinois, Missouri, Kansas, Nebraska, Wyoming, Utah
  - Fernald stakeholders through established communications channels