

TRANSPORTATION PLAN

**For the Department of Energy
Miamisburg Environmental Management Project
Shipments of Transuranic Waste to Savannah River Site**

**Revision 2
June 5, 2002**

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1 PURPOSE

This plan outlines transportation operations, protocol and responsibilities relating to the shipment of transuranic (TRU) waste from the U.S. Department of Energy (DOE) Miamisburg Environmental Management Project (DOE-MEMP) Mound Site in Miamisburg, Ohio, to the Savannah River Site (SRS) in South Carolina. This plan will focus on the transportation process, on informing the appropriate federal and state points of contact regarding planned shipments and providing timely and accurate response to stakeholder inquiries, and on response to emergencies. This will be accomplished by:

- coordinating information activities for local, state, and federal agencies and stakeholders, and
- facilitating access to accurate and timely information and support in the event of an accident or other incident.

DOE-MEMP is responsible for the development and implementation of the transportation plan for the shipment of Mound TRU waste to SRS.

1.1 Background

Mound laboratory was built as an outgrowth of the World War II Manhattan project. In 1946 construction began on a site in Miamisburg, Ohio that became part of the nation's nuclear defense program. The facility, built primarily on a hill at the south end of the City, developed, manufactured and evaluated explosive components for the nuclear defense stockpile. Work with radioactive materials began at Mound in 1949, and continues today in support of the Radioisotopic Thermoelectric Generator (RTG) program that produces the main source for heat and power on deep space missions such as Galileo and Ulysses.

In 1989, Mound was placed on the National Priorities List (NPL) to address the possibility of residual contamination resulting from past operations and accidental releases. Inclusion on the NPL designated Mound as a closure site, eligible for federal clean up funds. As a closure site, DOE-MEMP has to date cleaned up and transferred three parcels of property, totaling approximately 100 of 306 acres, to the Miamisburg Mound Community Improvement Corporation (MMCIC) for reuse as a commercial industrial park. Since 1996 commercial operations have been co-located on the site as DOE-MEMP continues cleanup activities. Project completion is scheduled for 2006.

1.2 Mound's TRU Waste

Past operations at the Mound site generated waste contaminated with radioactive materials, and as part of the decontamination and demolition cleanup process more of this waste is being generated. Most of this waste is referred to as low level radioactive waste, and is routinely shipped via truck or rail to Envirocare in Utah or to the Nevada Test Site. A small portion of

Mound facility waste is referred to as transuranic (TRU) waste. TRU waste, a special class of waste, is classified as such because of the radioisotopes present and their concentrations.

Radioactive waste is defined as TRU when it contains 100 nanocuries per gram (nCi/g) (a measure of the concentration of the radioactive material) of radioisotopes having an atomic number greater than 92 (atomic number of uranium) and a half-life greater than 20 years. In practical terms, this most often refers to waste contaminated with plutonium (Pu).

At the Mound facility the most common isotope of plutonium is Pu-238. Waste contaminated with Pu-238 is characterized as TRU when each gram of waste contains 100 nanocuries (0.0000001 Curies) or 0.000000006 grams of Pu-238. Mound TRU waste includes piping, ductwork, equipment, gloves, protective clothing, filters, and similar materials as a product of site operations and the decommissioning of facilities. This type of waste is called "contact handled" TRU waste (CH-TRU). CH-TRU waste is characterized as such when the radiation given off by a container is less than 200 millirem per hour (mrem/hr). Radiation levels for Mound waste, much lower than the aforementioned limit, range from less than 0.1 mrem/hr to 60 mrem/hr. For comparison purposes, a typical chest x-ray results in 6 to 10 mrem of exposure. The radiation level on the outside of the railcar will be negligible, less than the natural background. The regulatory limit is 10 mrem/hr measured 2 meters from the surface of the car. In total, Mound has about 300 cubic meters of CH-TRU waste.

1.3 Waste Shipment

The Department of Energy Waste Isolation Pilot Plant (WIPP) near Carlsbad, New Mexico, has been certified to dispose of the Department's defense TRU waste. At WIPP, the waste is disposed in excavated rooms located in salt beds over 2100 feet below the surface. In accordance with the WIPP Land Withdrawal Act, TRU waste shipped to WIPP must be transported in Type B packaging certified by the U.S. Nuclear Regulatory Commission (NRC). The only available NRC-certified Type B package for contact-handled TRU waste shipments is the Transuranic Package Transporter, Model II, (TRUPACT-II). Currently, most of the TRU waste containers at Mound are physically too large, too heavy, and/or contain radioactive material exceeding the limits that may be shipped in the TRUPACT-II. A typical waste box is 88" X 54" X 54", whereas the TRUPACT-II cavity is a cylinder 72" high X 72" diameter. To ship Mound waste in the TRUPACT-II, the waste containers would need to be opened and the contents removed, cut to fit, and repacked in new containers sized to fit the TRUPACT-II. This operation would require special handling facilities that do not exist at Mound.

Construction and operation of a TRU waste repackaging facility at Mound is not practical or cost effective given the cleanup and land transfer process currently underway at the site. For this reason DOE-MEMP explored different avenues for a more beneficial resolution for the disposition of Mound's TRU waste. After lengthy research, DOE-MEMP has concluded that the most efficient and cost effective method to disposition Mound's TRU waste is to ship the waste to SRS via OHOX (formerly the ATMX) railcars. The reasoning is based on the following: SRS in South Carolina currently stores a much larger amount of the same type of TRU waste (i.e. TRU with Pu-238). SRS already plans to build the necessary facilities to process their waste. And SRS is a large facility (approximately 310 square miles) well situated to properly site the type of facility required to perform the work. Also, the SRS ongoing mission can easily accommodate the small amount of waste from Mound.

To transport the waste to SRS two railcars, specifically modified to ship TRU waste, have been refurbished. These railcars, designated OHOX, were used for years to safely ship TRU waste from the Rocky Flats and Mound sites to Idaho. A limited amount has also been shipped to SRS in the past. The cars have been fully refurbished and certified to current railroad and Department of Transportation (DOT) standards, and authorized for shipment of TRU waste under DOT Exemption E 5948, Revision 11. A copy of this Exemption is attached. To meet these standards, the trucks, wheels and axles, air brakes, and couplers were replaced. The cars were fully inspected to Association of American Railroads (AAR) standards and to the design requirements outlined in the Safety Assessment.

Mound expects to ship 7-10 railcars of TRU waste between September 2001 and December 2002. Normally, railcars will be shipped separately to maintain one in reserve in case of an accident.

2 TRANSPORTATION OPERATIONS

2.1 Applicable Regulations

The following regulations apply specifically to these shipments:

- 49 CFR 172, Hazardous Materials Tables and Hazardous Materials Communications Regulations
- 49 CFR 173, Shippers – General Requirements for Shipments and Packagings
- 49 CFR 107, Hazardous Materials Program Procedures; Subpart B, Exemptions
- DOE Order 460.1A, Packaging and Transportation Safety

2.2 Preparation and Shipment

DOE-MEMP has lead responsibility for the safe and efficient transport of the TRU waste from Mound to the SRS. To support these shipments, DOE-MEMP will conduct the following activities:

- Characterize the waste to be shipped for radioactivity, chemical, and physical content in accordance with DOT regulations and DOE requirements.
- Package the waste in accordance with DOT regulations and DOE requirements.
- Ensure radiological surveys are performed to establish the radiological condition of the cargo on board the OHOX railcars and ensure compliance with DOT regulations prior to departure of the shipment from Mound.
- Load the railcars in accordance with approved procedures.
- Provide a copy of the radiological survey and other characterization data to each Regional Coordinating Office and State authorities prior to departure of the shipment from Mound.
- Ensure the shipments are monitored on a 24-hour basis by BWXT of Ohio via Transportation Tracking and Communication System (TRANSCOM).
- Ensure all notifications are completed in accordance with established procedures.
- Provide shipment specific technical information to affected State and local authorities.

Cars will be placarded “Radioactive, Class 7” in accordance with DOT requirements. The OHOX cars must be separated from each other and other hazardous cargo by buffer cars. Total waste to be shipped is approximately 300 m³ with total radioactivity of about 1000 Ci. Each car is restricted to 200 Ci, and the Safety Assessment includes other cargo restrictions. The maximum weight of an OHOX car is 220,000 lb. Humping is not permitted, and the cars are marked “Do Not Hump” in several locations.

2.3 Inspection

BWXTO will perform radiological surveys of the loaded cars prior to departure from Mound. The railcars will be available for inspection by State authorities during loading and prior to departure from Mound. DOT Federal Railroad Administration (FRA) officials may inspect the cars at Mound prior to departure at their discretion. In addition, access for State authorities to rail yards for in-transit inspection may be arranged with the rail carrier. The cars and contents will also be available for inspection upon arrival and during unloading at SRS.

Routine maintenance and running gear inspection is planned at SRS prior to return of the empty cars to Mound.

2.4 Routing

The OHOX railcars will be shipped in normal train service with no special restrictions. (Note: The railroads have issued a tender providing for dedicated train service for these shipments.) The rail carrier is responsible for ultimate selection of the route to be used. Discussions with the carrier indicate that the route described below and shown on the attached route maps is preferred. DOE planning will focus on this route. The Mound site is served by Norfolk Southern, which will pick up the shipment at the Mound railroad spur. The direct route runs south through Cincinnati, OH, Lexington, KY, Chattanooga, TN, to Atlanta. Norfolk Southern will interchange to CSX Transportation in **Chattanooga** for transport to Augusta, GA, and on to Dunbarton, SC. At this point, a U.S. government line will carry the shipment onto its final destination on the Savannah River Site (SRS). The route is primarily main line track and is consistent with DOE route selection software. The attached route maps show the planned route, interchange points, and major population centers.

This preferred route has a normal driving time **on a general merchandise train** of approximately 170 hr. and a dwell time of approximately 37 hr. (Note: **Experience from the first shipment was a driving time of 24 hours with a dwell time of approximately 4 hours.**) Driving time is the time spent moving in a train. Dwell time is the time spent in classification yards. For this route, the cars will stop for classification at the Buckeye Yard in Cincinnati, Danville, KY, Chattanooga, TN, and Atlanta. Thus, total shipping time is estimated to be 207 hr, about 9 days (28 hr. dedicated train). Normal time in a given classification yard under this schedule would be less than a day, however this is not assured. **Although not required or requested by DOE, the rail carriers have chosen to run a dedicated train.**

The proposed route is the best and most direct, and it is unlikely that the carrier would change the routing unless a problem occurs on the route. In case of problems or delays on any part of the planned route, there are numerous alternates available to route around any problem. Should this occur, DOE-MEMP will inform State contacts as soon as possible of the revised routing. Shipment tracking described below will provide the actual location of the shipment at all times. There are no projected events that would result in the railcars being left on a siding. Bearings, trucks and other running gear on the OHOX cars are new, and a mechanical inspection will be completed prior to each shipment. Should any problem occur, BWXTO would resolve it with the rail carrier quickly.

2.5 Tracking of Shipments

The DOE unclassified Transportation Shipment Tracking and Communications system (TRANSCOM) will be utilized to monitor the progress of the rail shipments from the Mound site to SRS. TRANSCOM will provide DOE, carriers, and authorized States with route and positional information.

Access to TRANSCOM for these shipments will be coordinated with the DOE-MEMP and the TRANSCOM Communications Center. BWXTO will be the Designated User for these shipments.

To relieve State agencies of the necessity of continuously tracking shipments that may be days away from their State, DOE-MEMP will call each State on the business day prior to the shipment reaching the border with an estimate of the time of arrival in that State. This will allow the State to place appropriate staff on standby. DOE-MEMP will then notify the appropriate contact of the estimated time of arrival on the day of arrival, providing as near as feasible to a 2-

hour notice. Note: If the shipment is by dedicated train, the notification schedule will be as follows:

State:	24-hr Notification	2-hr Notification	Point of Contact
OH	Day prior to departure with confirmation at departure.	Confirmation of departure and of departing Ohio	Carol O’Claire (614) 889-7150 (614) 799-3915 Alt: Dan Redman (614) 688-3363
KY	Day prior to departure with confirmation at departure.	Confirmation of departure	John A. Volpe (502) 564-7818 Ext. 3692
TN	Day prior to departure with confirmation at departure.	When train reaches Danville KY	Debra Shults (615) 532-0426 Alt: Ruben Crosslin (615) 532-0424
GA	Day of departure	When train reaches Chattanooga TN	Jim Hardeman (404) 362-2675
SC	Day of departure	When train reaches Augusta GA	Benjamin Thomas III (803) 896-7069 Alt: Tamara Baker (803) 896-7578

Unlike truck shipments, the Mound rail shipments will not include the normal Qualcomm equipment, which requires operators on board. TRANSCOM operations will provide self-contained one-way GPS tracking equipment and coordinate with DOE-MEMP to install and test the tracking equipment on the OHOX railcars. Positional updates will be entered into TRANSCOM and available to authorized TRANSCOM Users at 30 minute intervals (15 min. updates scheduled) from point of dispatch to arrival at destination. Should unscheduled stops occur enroute, a message will be posted in TRANSCOM. Mound will maintain a 24-hour tracking operation during shipments. If TRANSCOM becomes unreliable, Mound will maintain contact with the railroad and provide periodic verbal notifications to the contacts listed above.

2.6 Emergency Response

As the originator of these shipments, DOE-MEMP has the primary responsibility for ensuring an appropriate response to an incident or accident involving the Mound TRU regardless of its regional location. Initial response to any emergency will be by local authorities. In coordination with state radiation authorities, DOE has offered and provided training to some state and local emergency response units in the hazards and methods of handling incidents involving radioactive materials. Dependent upon the outcome of dialog with state officials, additional training will be considered. In addition, DOE Radiological Assistance Program teams (RAP) are available to provide on-scene support in the event of an incident if requested. Rail carriers have established emergency response plans and have contingency plans for cleanup and recovery in the event of contamination. The rail carriers maintain cranes and repair equipment to remove damaged railcars and repair track once an emergency is stabilized. See the attached Emergency Management Plan for details.

3 COMMUNICATIONS

Communications external to DOE during the shipment of DOE-MEMP TRU waste to DOE-SR will be comprised of three distinct phases: pre-notification, response to inquiries, and emergency response. The process, audience, media, and timing of communications are tailored to the requirements of each phase.

3.1 Pre-notification

DOE-MEMP will inform the affected States and stakeholder groups of appropriate details of the shipments via the Contacts List two weeks prior to each shipment. In addition, DOE-CBFO will include Mound shipments in its annual and 8-week rolling shipping schedules. Public announcements are not planned at this time. DOE-MEMP will prepare and provide information to State and stakeholder agencies detailing the following:

- Description of the packaging and content, including the OHOX railcars, internal packaging, and waste inventory (Included in two week prenotification);
- Rail routes, including alternative routes (Included in this plan, States will be notified of deviations as available);
- Approximate shipping schedules (Included in two week prenotification; exact departure times will be released only to specifically authorized State officials); and
- Progress of each shipment to allow States effective use of TRANSCOM to track the shipments (24 hour and 2 hour notification).

An initial information packet will be provided 3 months prior to the first shipment, with additional information released when it is available.

3.2 Response to Inquiries

Prior to the initiation of shipments, DOE-MEMP developed fact sheets and sample responses to query (RTQs). These will be used as a basis for response to inquiries. If requested, DOE-MEMP will provide the fact sheets to the States and stakeholder organizations. If needed, DOE-MEMP will coordinate with the National Transportation Program on additional fact sheets that provide pertinent information.

Responses to inquiries will be coordinated with DOE-MEMP by the participants listed in Roles and Responsibilities. Timely response by the various participants may require that this coordination occur in parallel or after the initial response, however it is vital that DOE-MEMP be made aware of all inquiries and responses. Likewise, DOE-MEMP will distribute inquiries and responses to the stakeholders for their information.

3.3 Emergency Response

The rail carriers maintain emergency action plans for hazardous material incidents. The action plans are initiated by calling the railroads' Police Communication Center (800-453-2530 for Norfolk Southern, 800-242-0144 for CSX Transportation). In the event of a transport accident or other incident (e.g. public protest) involving Mound TRU shipments, the first call will most probably be to the railroad or to the local emergency management "911" system from the scene. Following that call, the railroad Communication Center, or possibly the on-scene local, state or railroad official will provide the BWXTO Mound 24-hour Security Communications Center (937-865-3118) with initial DOE system notification. The Emergency Coordinator will mobilize DOE emergency support, maintain communication with the on-scene officials, and inform DOE-MEMP.

DOE-MEMP will convene its Emergency Operations Center (EOC) in accordance with the Mound Emergency Plans and Procedures. The Waste Management Project, primarily responsible for conduct of the shipments, has a specific Emergency Response Procedure for Off-Site Transportation that also describes responsibilities for Security, Fire and other Mound organizations. The Mound Incident Command System will use specific event information regarding the accident/incident and if appropriate, categorize the event and make emergency notification in accordance with this plan. Courtesy notifications will also be made if the event is not of a magnitude of an emergency in accordance with established protocols. Events categorized as emergencies will warrant activation of the MEMP Emergency Operations Center.

DOE will assist State and local officials with Emergency Public Information upon request. DOE will coordinate with responding Emergency Public Information officials.

4 ROLES AND RESPONSIBILITIES

4.1 U.S. Department of Energy (DOE)/ Ohio Field Office (DOE-OH)/ Miamisburg Environmental Management Project (DOE-MEMP)

DOE-MEMP is responsible for preparation, loading, and transport of the TRU waste. DOE-MEMP is the coordinator of DOE support to emergency response. DOE-MEMP also serves as the primary point of contact for public and media inquiries and will directly respond to inquiries related to the Mound TRU waste shipments and coordinate with Savannah River Operations Office and state and stakeholder points of contact. BWXT of Ohio (BWXTO) is the prime contractor at Mound and will support DOE-MEMP in these responsibilities.

4.2 Savannah River Operations Office (DOE-SR)

DOE-SR will receive and temporarily store the TRU waste and return the empty railcars to Mound. DOE-SR coordinates with DOE-MEMP for emergency response and public communication and serves as the primary point of contact for public and media inquiries from Georgia and South Carolina stakeholders. Westinghouse Savannah River Company (WSRC) is the prime contractor at Savannah River and will support DOE-SR in accepting the TRU waste, responding to emergencies, and preparing responses to inquiries.

4.3 Carlsbad Field Office (DOE-CBFO)

Supports DOE-MEMP and DOE-SR in responding to inquiries involving interfaces of the MEMP TRU shipments to the National TRU Program. DOE-CBFO will also support emergency response training as requested by DOE Headquarters.

4.4 DOE Headquarters (DOE-HQ)

Coordinates responses with DOE-MEMP and serves as the primary point of contact for Congressional inquiries.

4.5 DOE National Transportation Program/Albuquerque (NTP/AL)

Manages TRANSCOM inquiries, coordinates with DOE-MEMP Program Office and the States for installation of TRANSCOM, TRANSCOM Training and notifications through TRANSCOM. Also provides public information products on general DOE transportation activities in support of the program and the other participants.

4.6 Railroad Companies: Norfolk Southern Railway Company (NS) and CSX Transportation, Inc. (CSXT)

The railroads are responsible for performance of transportation operations, proper handling of the railcars, and for emergency response in coordination with State and local officials. The railroads are responsible for routing of the railcars, including alternate routing if necessary.

4.7 State Agencies

State agencies are responsible for transportation safety and oversight within their State. FRA-certified State rail inspectors meet this responsibility. State agencies support local emergency response officials through training programs and technical assistance. They will also respond to public and media inquiries directly related to their responsibilities in accomplishing these shipments.

4.8 Southern States Energy Board (SSEB)

Represents member State officials and stakeholders in communications with the DOE regarding shipping plans.

4.9 The Council of State Governments' Midwestern Office (CSG-MW)

Represents member State officials and stakeholders in communications with the DOE regarding shipping plans.

4.10 U. S. Department of Transportation (DOT)

The DOT is responsible for transportation safety on a national level. The Federal Railroad Administration (FRA), a DOT organization, is responsible for rail safety oversight and enforcement, including trackage, railcars, and operations. The OHOX operating exemption is issued by DOT, and FRA has inspection authority for the loading, transportation, and maintenance of these railcars. DOT also responds to public and media inquiries directly related to their regulation of the shipment.

5 POINTS OF CONTACT

5.1 U. S. Department of Energy and Department of Transportation

Miamisburg Environmental Management Project

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5.2 State and Stakeholder Contacts

5.2.1 Council of State Governments, Midwestern Office

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5.2.2 Southern States Energy Board

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5.2.3 State of Georgia

Georgia Department of Natural Resources Environmental Protection Division

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5.2.4 State of Kentucky

Kentucky Emergency Management Agency

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5.2.5 State of Ohio

Ohio Department of Health

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Public Utilities Commission of Ohio

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Ohio Emergency Management Agency

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5.2.6 **State of South Carolina**

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5.2.7 **State of Tennessee**

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Tennessee Emergency Management Agency

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FIGURE 1
RAIL ROUTE FROM MOUND TO SAVANNAH RIVER

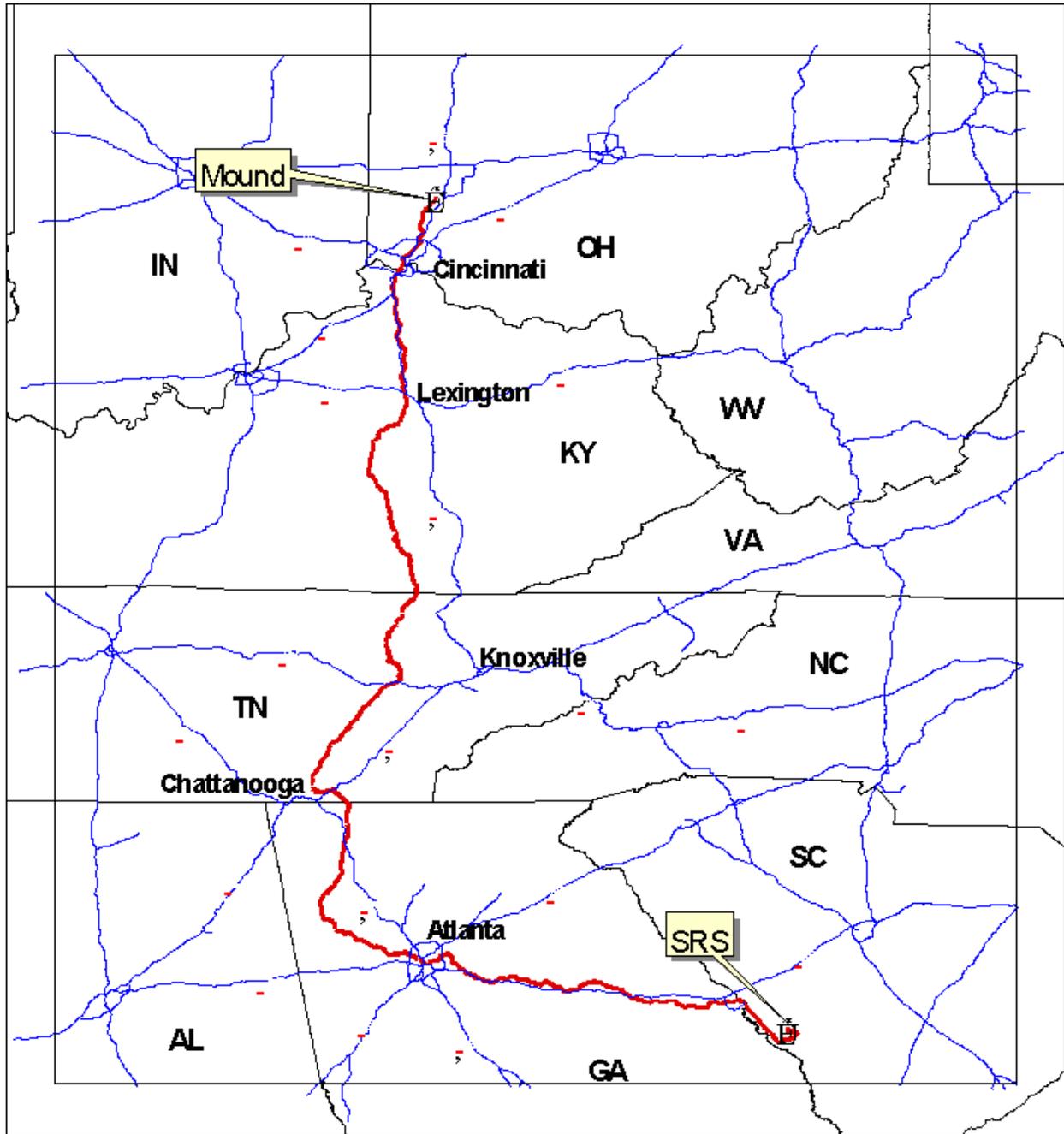


FIGURE 2
RAIL ROUTE THROUGH OHIO

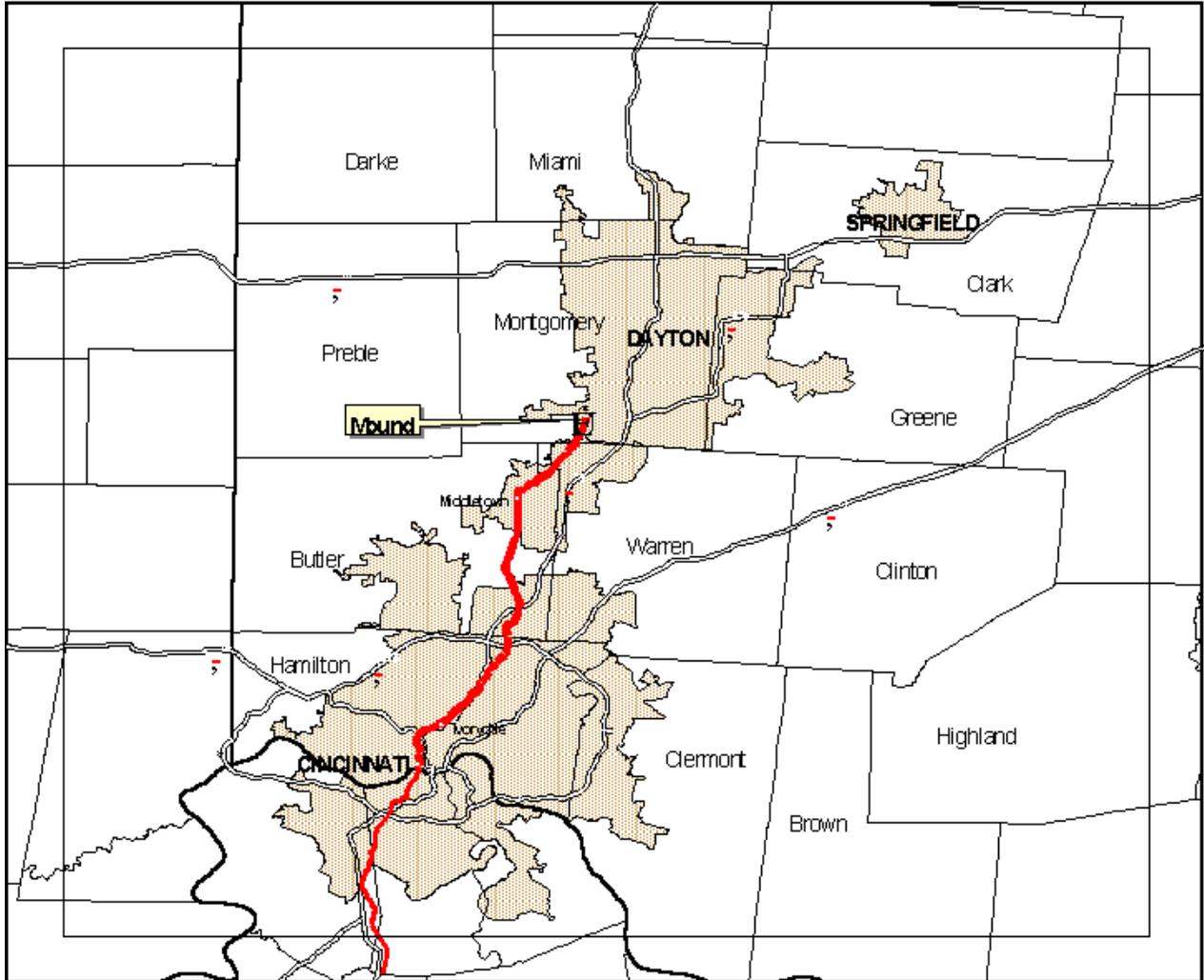


FIGURE 3
RAIL ROUTE THROUGH KENTUCKY

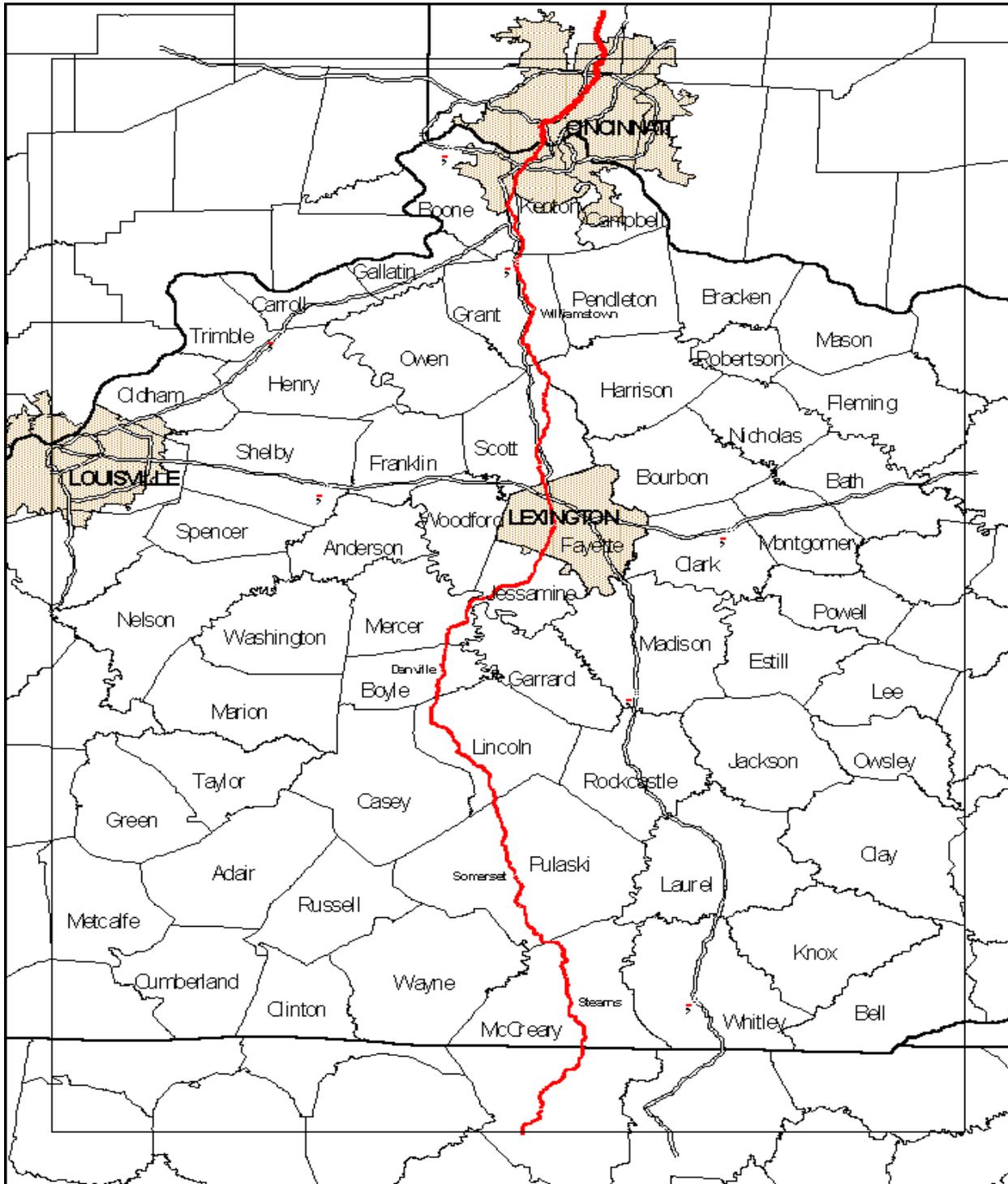


FIGURE 4
RAIL ROUTE THROUGH TENNESSEE

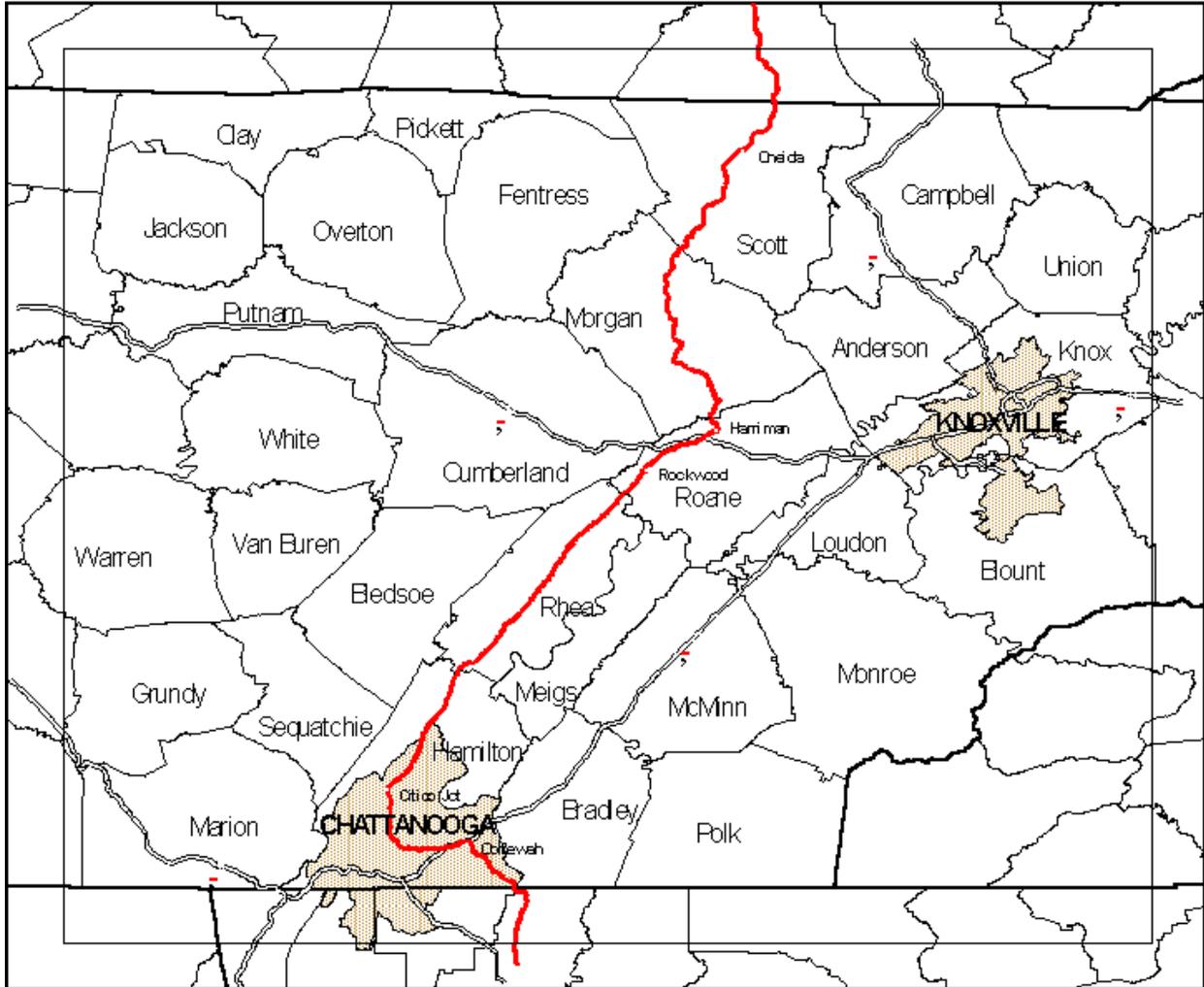


FIGURE 5
RAIL ROUTE THROUGH GEORGIA

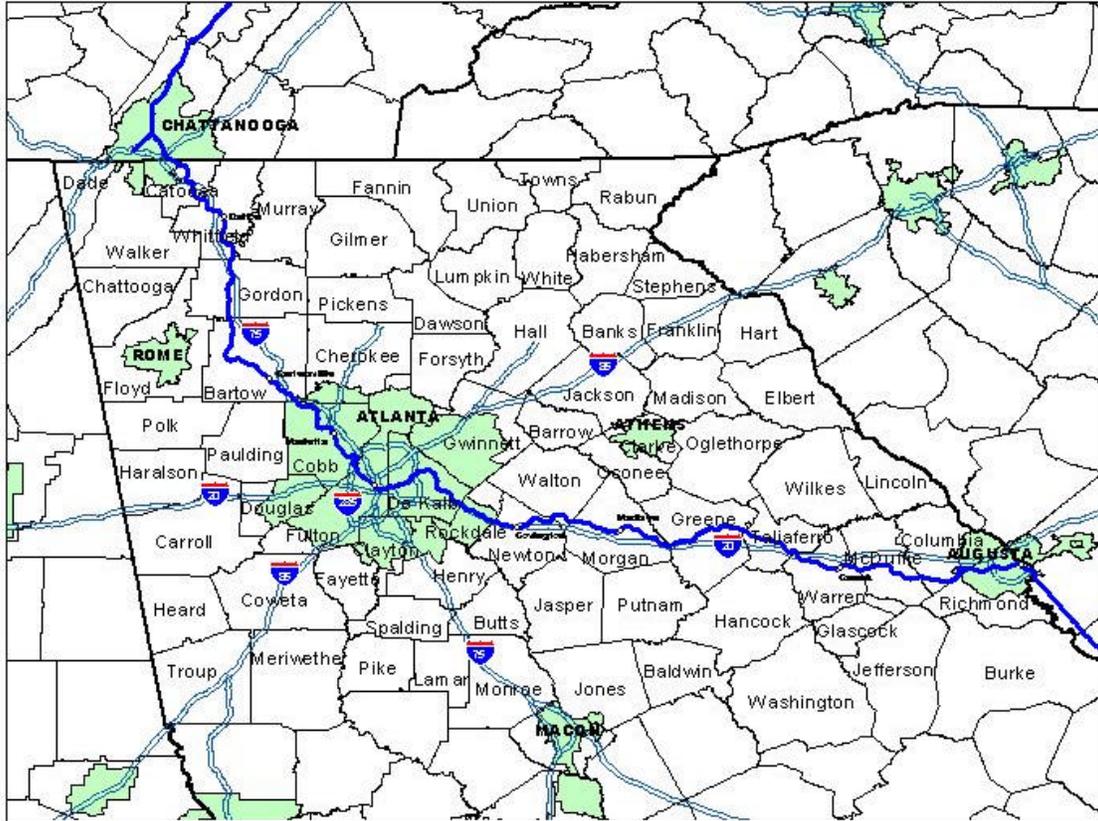
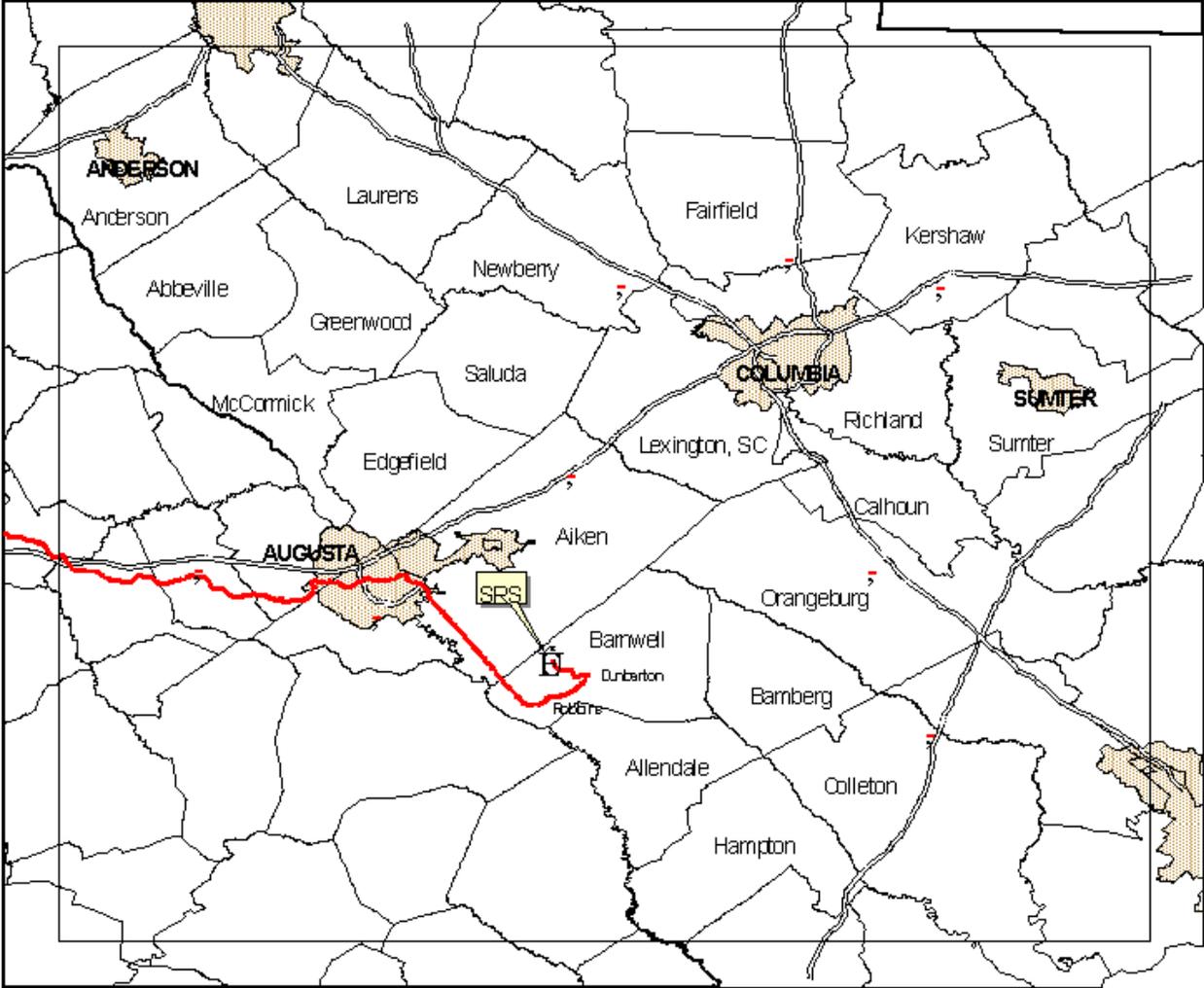


FIGURE 6
RAIL ROUTE THROUGH SOUTH CAROLINA



APPENDIX 1

DEPARTMENT OF ENERGY (DOE) EMERGENCY MANAGEMENT PLAN

INTRODUCTION

The DOE Emergency Management Plan identifies emergency planning and preparedness considerations and establishes emergency response roles and responsibilities for incidents/accidents involving shipments of TRU waste from the Mound site to the Savannah River Site (SRS).

NOTIFICATIONS AND COMMUNICATIONS

Mound will provide shipper-related emergency information and maintain a 24-hour emergency telephone contact list (Attachment 1) for technical advice and detailed information regarding these shipments.

EMERGENCY PREPAREDNESS

The State and local governments having jurisdiction over areas through which these shipments will pass have the responsibility for protecting the public and the environment and for establishing incident command should there be an incident/accident involving these shipments. The carrier for these shipments is responsible for providing emergency response assistance and recovery/restoration actions, if required. The appropriate Federal, State, or local government authority will also have the responsibility for recovery/restoration oversight activities at the incident scene. DOE will provide technical advice and assistance to these authorities and ensure that the carrier of these shipments performs the necessary cleanup and site recovery/restoration activities.

To provide an adequate response for transportation incidents/accidents, State and local governments are responsible for developing emergency response plans and procedures; organizing, training, and deploying first responders; and negotiating mutual aid agreements for incidents/accidents close to jurisdictional boundaries.

To assist State and local agencies, DOE has developed planning and training materials through the Transportation Emergency Preparedness Program (TEPP) to help provide the incremental skills necessary for response to incidents/accidents involving DOE radioactive material shipments. The planning materials can be accessed through the DOE Office of Transportation and Emergency Management website, www.em.doe.gov/otem. In addition, each DOE Regional Coordinating Office (see Figure 1 of this Appendix) has appointed a TEPP Coordinator to ensure emergency planning and preparedness activities are integrated into the transportation planning process. The TEPP Coordinator can provide assistance to State and local agencies in preparing for DOE transportation activities (e.g., assist in using the TEPP planning products, coordinate delivery of DOE training, provide technical assistance, resolve emergency preparedness issues, etc.). DOE TEPP Coordinators are identified in Attachment 2 of this Appendix.

EMERGENCY RESPONSE

The following establishes roles and responsibilities for the emergency response organizations supporting this plan:

Carrier

Rail carriers have established emergency response plans and have contingency plans for cleanup and recovery in the event of contamination. The train crew, if able, will make emergency notifications, undertake first aid actions, initiate incident scene control, provide assistance to first responders, and undertake other emergency actions as described in the *Norfolk Southern Emergency Action Plan for Hazardous Material Incidents*. CSX Transportation maintains a similar and coordinated plan.

First Responders

First Responders will respond to the incident scene and initiate response actions in accordance with local plans and procedures and the *Emergency Response Guidebook* (ERG2000). Guides 163 and 165 apply to the materials involved in the Mound TRU shipments (UN 2982 and UN2918) and provide information on potential hazards, public safety concerns, and emergency response actions. Emergency response information accompanying the shipping papers, normally available to responders from the Mound emergency contact or accessible via TRANSCOM, should also be consulted. The ERG2000 or other appropriate guidelines should be used for the initial response to other hazards that could be involved at the incident scene. In all cases, the Incident Commander for response to the Mound TRU shipments will be a local or State authority. If State or local responders have additional procedures that provide more specific guidance, then responders will follow those procedures.

State-Level Hazardous Materials (HAZMAT) or Radiological Response Teams

Some states maintain specialized HAZMAT and/or radiological response teams that may be activated to provide technical assistance and mitigation during emergencies. State teams are activated by the Incident Commander or other appropriate State or local authority.

DOE Miamisburg Environmental Management Project (MEMP)

In the event of a transport accident or other incident (e.g. public protest), the on-scene local, state or railroad official will provide the Mound 24-hour emergency notification number with the initial notification. The Emergency Coordinator will mobilize DOE emergency support if requested, maintain communication with the on-scene officials, and inform DOE-MEMP.

DOE-MEMP will convene its Emergency Operations Center (EOC) in accordance with the Mound Emergency Plans and Procedures. The Waste Management Project, primarily responsible for conduct of the shipments, has a specific Emergency Response Procedure for Off-Site Transportation that also describes responsibilities for Security, Fire and other Mound organizations. The Mound Incident Command System will use specific event information regarding the accident/incident and if appropriate, categorize the event and make emergency notification in accordance with this plan. Courtesy notifications will also be made if the event is not of a magnitude of an emergency in accordance with established protocols. Events categorized as emergencies will warrant activation of the MEMP Emergency Operations Center.

DOE will coordinate with responding Emergency Public Information officials, and if requested, deploy resources based on the location of the accident/incident in accordance with the established Radiological Assistance Program.

DOE-MEMP has lead responsibility for the safe and efficient transport of the TRU waste from Mound to the SRS. As the originator of these shipments, DOE-MEMP has the primary responsibility for ensuring an appropriate response to an incident or accident involving the Mound TRU regardless of its regional location. To support these shipments, DOE-MEMP will conduct the following activities:

- Ensure radiological surveys are performed to establish the radiological condition of the cargo on board the OHOX railcars and ensure compliance with Department of Transportation regulations prior to departure of the shipment from Mound.
- Provide a copy of the radiological survey data to each Regional Coordinating Office and State authorities prior to departure of the shipment from Mound (provided electronically).
- Ensure the shipments are monitored on a 24-hour basis by BWXT of Ohio.
- Ensure all notifications are completed in accordance with established procedures.
- Implement emergency response actions in accordance with established procedures if the Mound Incident Commander declares an Operational Emergency for an accident involving these shipments.
- Notify the Regional Coordinating Office of the affected region and request assistance in notification of and coordination with local and State authorities.
- Provide shipment specific technical information to affected State and local authorities.
- Provide assistance with mobilizing RAP team(s) upon the request of DOE or the appropriate State authority. Ensure the appropriate State authority is notified prior to deployment of a RAP team.
- If an incident/accident occurs that requires a lengthy mitigation/recovery period, DOE-MEMP will coordinate with DOE-HQ and the appropriate DOE Regional Coordinating Office to identify additional DOE technical resources to deploy to the incident scene. These DOE representatives will provide additional technical assistance and support to the responsible on-scene authority.
- If an accident occurs that warrants a response under a Federal Plan (e.g., the Federal Radiological Emergency Response Plan, National Contingency Plan, Federal Response Plan), DOE-MEMP will coordinate with DOE Headquarters and the Regional Coordinating Office in the affected region to designate a Federal On-scene Coordinator/Commander and conduct activities in support of that plan.

DOE Regional Coordinating Offices for Regions 2 (Oak Ridge), 3 (Savannah River), and 5 (Chicago)

- Notify Mound of any incident/accident involving the TRU waste shipment within their region.
- Assist DOE-MEMP in notification of and coordination with local and State authorities for incidents/accidents occurring within their region.
- Provide radiological assistance, including deployment of RAP team(s), upon the request of DOE or the appropriate State authority. Ensure the appropriate State authority is notified prior to deployment of a RAP team.
- If an accident occurs that warrants a response under a Federal Plan (e.g., the Federal Radiological Emergency Response Plan, National Contingency Plan, Federal Response Plan), coordinate with DOE-MEMP and DOE Headquarters to designate a Federal On-scene Coordinator/Commander and conduct activities in support of that plan.

Regional Radiological Assistance Program (RAP) Team(s)

DOE's RAP is administered through eight regions. See Figure 1 of this Appendix. RAP teams provide radiological monitoring and assessment services and advice/consultation to assist in resolving incidents/accidents involving radiological materials. If DOE is called upon to provide this assistance, the actions of its RAP team(s) will be in accordance with DOE Order 5530.3 and the Regional RAP Response Plans. Activation of DOE RAP team(s) is through the appropriate Regional Coordinating Office. The RAP team(s) will take the following actions:

- Upon request of DOE or the appropriate State authority, deploy to the incident scene. The DOE RAP Team Leader will report to the Incident Commander and/or the State on-scene authority to provide radiological advice and/or assistance to resolve the incident/accident.
- Provide radiological monitoring services and compare/confirm findings with other radiological teams at the scene.
- Provide an assessment and evaluation of the radiological data and provide advice and consultation to mitigate the radiological consequences of the incident/accident.
- Provide a copy of all data collected to the Incident Commander and/or the State on-scene authority.
- Provide information regarding the DOE response and support public information activities at the incident scene or Joint Information Center (if established).
- Request additional DOE Emergency Response Assets, if required.
- Provide access to additional DOE or DOE-contractor technical experts for advice on the characteristics of the materials, mitigation activities, the transport packages, etc.

RECOVERY

The railroad has primary responsibility for package and transporter recovery operations as described in the *Norfolk Southern Emergency Action Plan for Hazardous Material Incidents* and the related CSX Transportation plan. Recovery will not begin until the emergency phase of any incident/accident is terminated, following a decision that no radiological or other hazard is present. Recovery operations will be coordinated with the Incident Commander and/or the State on-scene authority. DOE-MEMP will assist the railroad in recovery operations, where appropriate.

ATTACHMENT 1

**Mound TRU Waste Shipment
Emergency Response Contact List**

<u>Agency</u>	<u>Phone</u>
Mound Security Communications Center	937-865-3118
Norfolk Southern Police Communications Center	(800) 453-2530
CSX Transportation Police Communications Center	(800) 232-0144
Savannah River Site Operations Center (SRSOC)	(803) 725-1911
DOE Region 2 Regional Coordinating Office - Oak Ridge Operations Office (Kentucky & Tennessee)	(865) 576-1005
DOE Region 3 Regional Coordinating Office - Savannah River Operations Office (Georgia & South Carolina)	(803) 725-3333
DOE Region 5 Regional Coordinating Office - Chicago Operations Office (Ohio)	(630) 252-4800
DOE Headquarters Watch Office	(202) 586-8100
TRANSCOM Control Center	(505) 845-6200
Georgia Emergency Management Agency	(404) 635-7200
Kentucky - Mayfield State Police Post	(502) 564-7815 (800) 255-2587 (alternate)
Ohio Department of Health	(614) 644-2727
South Carolina EPD Warning Point	(803) 737-8500
South Carolina DHEC Emergency Response	(803) 253-6488
Tennessee Emergency Management Agency Operations	(615) 741-0001 (800) 262-3300 (In state)

Note: All numbers listed above are available 24 hr. a day everyday.

ATTACHMENT 2

DOE Transportation Emergency Preparedness Program (TEPP) Coordinators

DOE Region 2 (AR, KY, LA, MO, MS, TN, VA, WV)	Brady Lester DOE Oak Ridge Operations Office (865) 576-8354 lesterpb@ornl.gov
DOE Region 3 (AL, FL, GA, NC, SC)	Christina T. Edwards DOE Savannah River Operations Office (803) 725-1791 christina.edwards@srs.gov
DOE Region 5 (IA, IL, IN, MI, MN, NE, ND, OH, SD, WI)	Noelle Kostecki DOE Chicago Operations Office (630) 252-2398 Noelle.Kostecki@ch.doe.gov

Note: TEPP Coordinators' numbers are not manned on a 24-hr. basis.

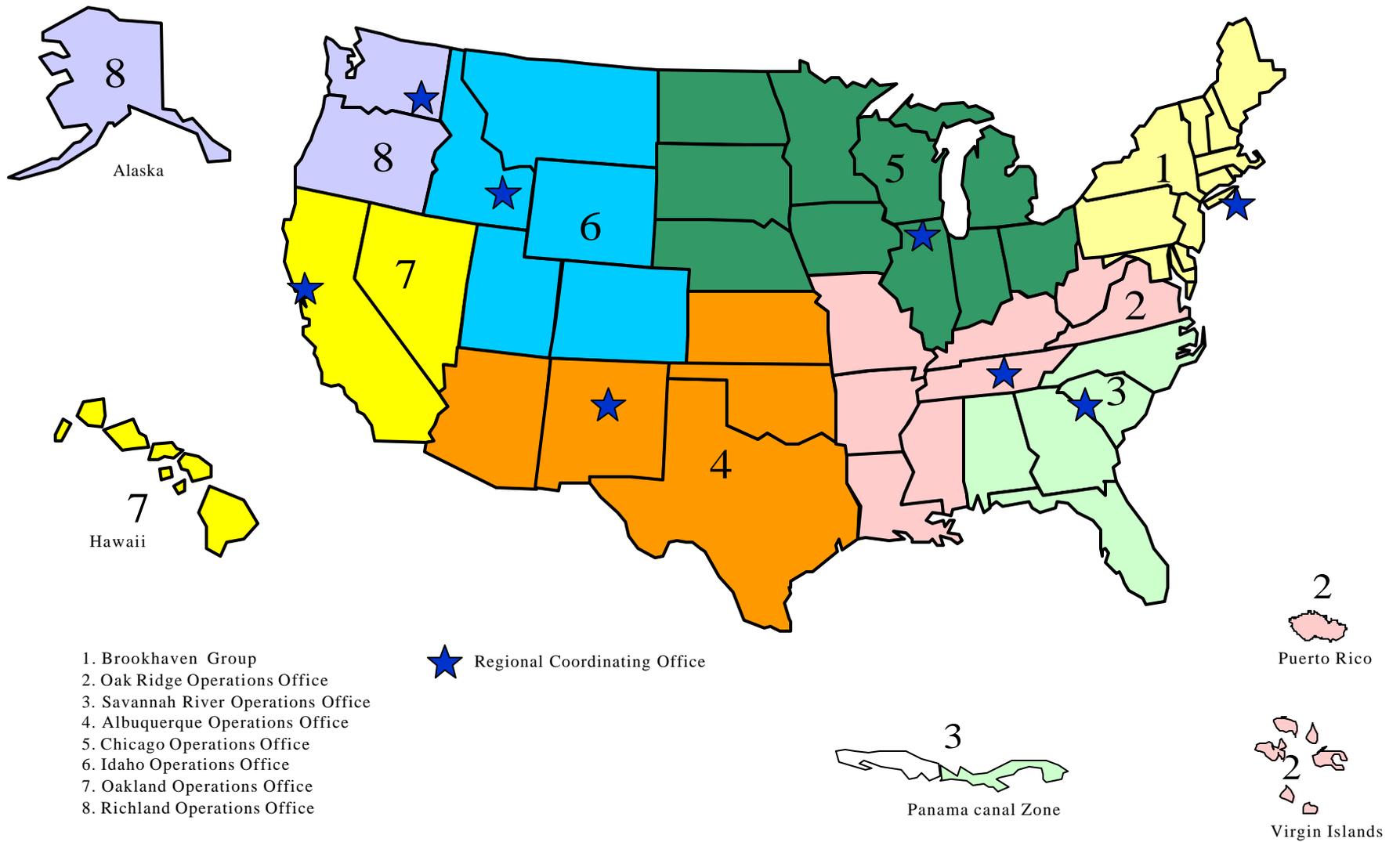


FIGURE 1 – Reaional Coordinatino