

ESF 10

ENVIRONMENTAL RESPONSE

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EMERGENCY SUPPORT FUNCTION 10

ENVIRONMENTAL RESPONSE

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EMERGENCY SUPPORT FUNCTION 10

ENVIRONMENTAL RESPONSE

HAZARDOUS MATERIALS

- I. Lead State Agency:** Tennessee Emergency Management Agency
- II. Support State Agencies:** Department of Environment and Conservation - Solid Waste
Department of Environment and Conservation - Air Pollution
Department of Environment and Conservation - Water Pollution
Department of Environment and Conservation - Groundwater
Department of Transportation
Commercial Vehicle Enforcement
Department of Commerce and Insurance - State Fire Marshal
Department of Safety - Tennessee Highway Patrol
U. S. Coast Guard

III. Introduction

A. Purpose

1. The purpose of this sub function is to provide support to local governments in dealing with actual or potential releases of non-radioactive hazardous materials (hazmat).

B. Scope

1. This sub function covers hazmat releases occurring for any reason, including:
 - a. As a secondary result of another disaster (i.e., earthquake or flooding),
 - b. As a result of a transportation accident,
 - c. As a result of a fixed facility release.

IV. Policies

A. TEMA regularly supports local responses to hazmat releases by dispatching an area coordinator to the scene to assist with the technical aspects of the containment and recovery operations. TEMA also provides notification to the National Response Center and to appropriate state environmental and response agencies.

B. Federal agencies, especially the Environmental Protection Agency, routinely monitor hazmat responses in Tennessee for violations of federal environmental laws. The federal government has

developed a nationwide response capability, known as Regional Response Teams (RRTs), to assist state and local responders in dealing with the effects of such events. Federal response activities are carried out under the provisions of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

C. Incidents involving radiological materials will be handled under the Radiological Materials sub function within this ESF. This is necessary because, although in many local jurisdictions radiological incidents are handled by the same agency (ies) as are other hazardous materials, radiological materials pose a unique threat in terms of the measures necessary to deal with actual or potential releases.

V. Situation and Assumptions

A. Situation

1. The accidental discharge of hazardous materials is a daily occurrence in Tennessee. Fortunately, the vast majorities of these discharges are relatively insignificant and pose no serious threat to nearby populations.
2. Large numbers of hazardous materials are transported via highway, air freight, rail, and pipeline across the state daily. A minute number of these are involved in accidents on any given day.
3. Several major industrial concerns and numerous lesser organizations manufacture, process, store, or utilize hazardous materials on a daily basis.

B. Planning Assumptions

1. Accidental hazmat releases will continue to occur on a daily basis.
2. Any hazmat incident may progress to a point where it becomes a serious threat to the surrounding community (ies).
3. Several hazmat incidents may occur simultaneously following a major disaster such as an earthquake.
4. Exceptions to current disposal practices may be necessary during major emergencies.

VI. Concept of Operations

A. General

1. In most cases, the response to hazardous materials incidents is handled by the local jurisdiction, typically the local fire department or, occasionally a specialized hazardous materials (hazmat) team. TEMA routinely provides an area coordinator to assist local jurisdictions with significant releases.
2. If necessary, the state (i.e., TEMA) can call out certain state environmental personnel (e.g., the Department of Environment and Conservation's Water Pollution Control Division) to assist local agencies in dealing with the consequences of releases. Additionally, TEMA routinely notifies the National Response Center of activities associated with hazmat releases in Tennessee.
3. Frequently, state and local officials contact the federal Environmental Protection Agency for assistance in dealing with the technical aspects of hazmat incidents.

4. Disposal of hazardous waste is invariably handled by a private clean-up company, with the shipper or originating facility being responsible for the costs of the response and remediation of affected areas.

5. The TEMA Director is the chairman of the State Emergency Response Commission (SERC), required by Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). Additionally, each of the state's 95 counties has a Local Emergency Planning Committee (LEPC) as required by SARA, with representation from all segments of the public and private sector. TEMA is the repository of all records and data generated as a result of the requirements of Title III and other components of the SARA act in Tennessee.

B. Organization and Responsibilities

1. Tennessee Emergency Management Agency

- a. Administer the programs associated with the SARA act and the Hazardous Material Emergency Plan (HMEP).
- b. Provide technical support to local governments in dealing with hazardous materials releases.
- c. Provide conduit through which local officials can request assistance from other state agencies concerning hazardous materials.

2. Department of Environment and Conservation - All Tasked Divisions

- a. Provide technical advice and support to local and state hazmat teams with respect to the potential effects of released materials and proper methods of remediation of those effects.
- b. Provide an individual to act as the Emergency Services Coordinator (ESC), as well as an alternate to insure 24-hour availability.

3. Department of Transportation

- a. Provide personnel and equipment to assist with diking operations and other control measures during hazmat incidents.

4. Commercial Vehicle Enforcement

- a. Provide regulatory authority with regard to enforcement of federal motor carrier rules concerning the shipment of hazmats.
- b. Provide personnel to support hazmat incident operations (within capabilities).

5. Department of Commerce and Insurance - State Fire Marshal's Office

- a. Coordinate fire service activities involving hazardous materials.

6. Department of Safety - Tennessee Highway Patrol

- a. Provide personnel to support safety requirements during hazmat operations.

7. U. S. Coast Guard (USCG)

- a. Provide hazmat operations on waterways where USCG has jurisdiction.

VII. Mitigation and Preparedness Activities

A. All Tasked Agencies

1. Develop procedures and policies concerning self-protection measures to be taken during hazmat operations (commensurate with level of response offered), including:
 - a. The use of self-contained breathing apparatus as appropriate,
 - b. The use of appropriate levels of protective clothing,
 - c. The use of an incident command structure,
 - d. The recognition and identification of hazardous materials and their dangers, and
 - e. The application of other appropriate protective actions on a case-by-case basis.

B. Tennessee Emergency Management Agency

1. Maintain records associated with Title III of SARA and HMEP.
2. Provide training to hazmat response personnel.
3. Administer training and planning grants associated with SARA and HMEP.
4. Assist local response organizations with identifying hazmat users and developing plans for response to incidents at those sites.
5. Develop a state hazmat response plan or SOP.
6. Develop hazmat response capabilities.
7. Develop database of hazardous waste clean-up companies.
8. Designate appropriate TEMA staff to coordinate hazmat response activities with other emergency response agencies during major emergencies.
9. Distribute federal DOT Emergency Response Guidebook to state and local emergency response agencies and personnel.

C. Department of Environment and Conservation - All Tasked Divisions

1. Develop procedures for responding to scenes of hazmat incidents to assist local officials with environmental damage assessment activities, remediation support, and other technical advice and support as required.
2. Develop working knowledge of federal environmental laws with regard to hazardous materials.

D. Department of Transportation (TDOT)

1. Develop procedures and guidelines for deploying personnel and equipment to assist state and local response personnel during major hazmat incidents.

2. Develop policies concerning TDOT use of hazmat (i.e., fuels, oils, asphalt, etc.) that insure minimization of chances for TDOT-caused hazmat incidents.

E. Commercial Vehicle Enforcement

1. Provide training for CVE enforcement officers concerning hazardous materials.
2. Develop procedures for deploying personnel to assist state and local response groups with hazmat containment operations with respect to motor carriers and interstate natural gas/crude oil pipelines.

F. Department of Commerce and Insurance - State Fire Marshal's Office

1. Develop procedures for coordinating fire service activities with the activities of hazmat response organizations during major emergencies.
2. Identify fire departments throughout the state with hazmat response capabilities.

G. Department of Safety - Tennessee Highway Patrol

1. Develop procedures for deploying personnel to assist with scene security, traffic control, and other activities at hazmat incident sites.

H. U. S. Coast Guard (USCG)

1. Develop procedures for handling hazmat spills occurring on inland waterways under the jurisdiction of the USCG.
2. Develop procedures for deploying personnel and equipment in support of hazardous material operations of state and local organizations.
3. Encourage the development of mutual-aid agreements among industrial concerns along major rivers and waterways for the containment of hazardous materials spilled into the water.

VIII. Response and Recovery Actions

A. All Tasked Agencies

1. Send ESCs to SEOC and REOCs as requested by TEMA.
2. Attend briefings, coordinate activities with other participant organizations.
3. Set up work area(s), report needs to SEOC Readiness Officer, and initiate response/recovery activities as dictated by situation.
4. Maintain logs of activities, messages, etc.
5. Initiate internal notification/recall actions.
6. Notify field personnel of appropriate protective actions, given an identified threat.
7. Maintain records of individuals exposed to chemicals at incident sites and provide for follow-up monitoring and/or treatment if required.

B. Tennessee Emergency Management Agency

1. Notify and dispatch appropriate local, state, and federal personnel to assist with hazmat operations.
2. Maintain logs and records concerning the incident and its effects.
3. Notify the National Response Center.
4. Contact the Chemical Emergency Transportation Center (CHEMTREC) if requested by local or state response personnel.
5. Notify appropriate state ESCs or other contact personnel.
6. Coordinate response activities of mutual aid personnel/agencies, including fire and EMS agencies.
7. Provide information to ESF 5 concerning extent and nature of problem(s).
8. Contact clean-up companies, shippers, and others with an interest in the incident, as requested by on-scene personnel.
9. Initiate federal involvement (through appropriate regional office) if warranted.
10. Task other agencies and ESFs as necessary to carry out missions.
11. Develop priorities for response when multiple incidents are involved.

C. Department of Environment and Conservation - All Tasked Divisions

1. Deploy personnel to assist with hazardous material operations as requested by TEMA.
2. Maintain records of agency activities with regard to recommendations made by division personnel.
3. Request assistance from other ESFs and participant organizations as required to perform assigned missions.
4. Implement provisions for waiving regulation requirements during emergencies.

D. Department of Transportation

1. Deploy personnel and equipment to support hazmat incident operations as requested by TEMA.

E. Commercial Vehicle Enforcement

1. Deploy personnel to assist with hazmat control operations as they relate to motor carrier safety.
2. Enforce provisions of state and federal transportation regulations with respect to the hauling or transportation of hazardous materials.

3. Assess damage to pipelines and associated equipment and provide information to ESF 5 (through ESF 12). Provide estimates to TEMA concerning the effects of escaped crude oil, natural gas, and other products from interstate pipeline systems when ruptures occur.

F. Department of Commerce and Insurance - State Fire Marshal's Office

1. Coordinate activities of fire service organizations with those of hazardous materials response organizations during major emergencies.

G. Department of Safety - Tennessee Highway Patrol

1. Deploy personnel to secure areas around established perimeters of hazardous material accident scenes, assist with traffic control activities, and assist with evacuation/movement activities (all through ESF 13).

H. U. S. Coast Guard (USCG)

1. Respond to hazmat incidents on waterways under the jurisdiction of the USCG.
2. Deploy personnel and equipment in support of state and local hazmat operations when requested.
3. Initiate actions provided for under existing mutual aid agreements.

IX. Training

A. TEMA provides several different courses related to hazardous materials. These include:

1. The Incident Command System,
2. Hazardous Materials Awareness,
3. Chemistry of Hazardous Materials,
4. Hazardous Materials Team Operations I & II, and
5. Many other field delivered courses concerning hazardous materials.

B. The state Fire Academy in Murfreesboro provides limited training with regards to hazardous materials.

C. The National Fire Academy in Emmitsburg, Maryland, offers several resident and field delivered courses in hazardous materials response and remediation activities.

EMERGENCY SUPPORT FUNCTION 10

ENVIRONMENTAL RESPONSE

RADIOLOGICAL MATERIALS

I. Lead State Agency: Dept. of Environment & Conservation - Radiological Health

II. Support State Agencies: Tennessee Emergency Management Agency

Department of Health

Commercial Vehicle Enforcement

Tennessee Valley Authority

Civil Air Patrol

Department of Agriculture

U. S. Department of Energy

III. Introduction

A. Purpose

1. The purpose of this sub-function is to provide support to local governments in dealing with radiological incidents.

B. Scope

1. Radiological incidents may occur through any one or more of the following means:
 - a. An accident at a nuclear power plant,
 - b. The detonation (either accidentally or intentionally) of a nuclear weapon, domestically or overseas,
 - c. The uncontrolled re-entry of nuclear-powered spacecraft,
 - d. An accident during the transportation of radioactive material or waste or,
 - e. An accident during use of radioactive materials at a commercial facility.

IV. Policies

A. Preparedness for the state's nuclear power plants (Watt's Bar and Sequoyah) will be handled as provided in the specific plans developed by TEMA through agreements with the Tennessee Valley Authority.

B. Preparedness for the DOE Oak Ridge facilities will be handled as provided in the plans developed by TEMA through agreements with the U. S. Department of Energy.

C. The Tennessee Valley Authority and the U. S. Department of Energy are responsible for the on-site emergency preparedness functions at their respective facilities.

D. A specific plan for the attack hazard has been developed and is available through the Tennessee Emergency Management Agencies Hazard-Specific Plan.

V. Situation and Assumptions

A. Situation

1. The Tennessee Valley Authority operates two nuclear power plants within the state of Tennessee: the Watt's Bar plant, some 50 miles north of Chattanooga, and the Sequoyah plant, which is located just north of the city of Chattanooga. Additionally, the Brown's Ferry plant is located in Alabama just south of the state line. A serious incident at these facilities could affect Tennesseans.

2. Although the Cold War has ended, several countries still possess the capability of deploying nuclear weapons, either into the United States or other countries. Additionally, several countries are attempting to acquire the technology that would allow them to possess nuclear weapons. Given the sociopolitical environment in many countries, it is not unlikely that one or more nuclear weapons could be used by one country against another. There is also the possibility of an accidental discharge. The net effect would be the production of radioactive fallout which, if the weapon itself does not directly affect this country, may find its way into this state.

3. Several aging satellites in space are growing weaker and becoming less able to maintain an adequate orbit. If these are not retrieved before they reenter the earth's atmosphere, they tend to break up and spread debris across vast expanses of the planet's surface. Many of these are powered by small nuclear reactors, and they too break up. This was the case with the COSMOS satellite in the late 1970s, which deposited radioactive debris over more than 20,000 square miles.

4. The U. S. Department of Energy operates three research and processing facilities in Oak Ridge. These plants produced weapons grade nuclear material until the end of the Cold War. Now they are used primarily for research. There are significant quantities of low-level radioactive waste at these sites, however, and more is being deposited there daily.

5. Significant quantities of radioactive waste and other materials are transported across the state on a daily basis. Additionally, many medical facilities, industrial concerns, and others utilize radioactive pharmaceuticals and other materials on a daily basis.

B. Planning Assumptions

1. Nuclear weapons will continue to be developed in this and other countries.

2. The state's nuclear power plants will continue to operate.

3. Radioactive materials will continue to be shipped across and within the state of Tennessee.

4. Nuclear accidents overseas (and domestically) will produce fallout to some degree. This fallout may affect the state of Tennessee and its citizens.

5. The Federal Emergency Management Agency (or other federal agency) will provide adequate and timely warnings to TEMA regarding radiological accidents.

VI. Concept of Operations

A. Nuclear Power Plants

1. The Tennessee Valley Authority is responsible for on-site emergency preparedness and response measures. Once the situation expands to the point of becoming a threat to the area off site, TVA must notify TEMA of that possibility. TEMA will then activate the respective plan for that facility. All emergency measures taken by state agencies will be governed by the plan for the facility, which is required by the Nuclear Regulatory Commission as a condition for licensing.

B. DOE Oak Ridge Facility

1. The U. S. Department of Energy is responsible for on-site emergency preparedness and response measures. The contractor operating the facility, Martin Marietta Energy Systems, is delegated that responsibility through an agreement with DOE. As with the nuclear power plants, DOE must notify TEMA if a situation develops that might threaten the off site area. TEMA will activate the emergency plan it has prepared and all subsequent actions will be dictated by that plan and the events that take place.

C. Transport of Nuclear Weapons or Weapons Grade Material

1. The responsibility for dealing with accidents involving nuclear weapons or nuclear components in transit lies with the U. S. Department of Defense (DOD). DOD will request assistance from TEMA should it become necessary. All civilian actions will be governed by the general principles contained herein.

D. Other Radiological Incidents

1. Other radiological incidents could occur during the use or transport of radioactive materials within or through the state. Local emergency response personnel will arrive on the scene first and, after making a determination that radioactive material are involved, will secure the area and await representatives from TEMA, the Public Service Commission, and/or the Division of Radiological Health, Department of Environment and Conservation.

E. Organization and Responsibilities

1. Department of Environment and Conservation - Division of Radiological Health

- a. Develop and enforce procedures for monitoring and assessment of radioactive releases.
- b. Make protective action recommendations with respect to the threats imposed by radioactive releases.
- c. Monitor/Assure the clean-up of radioactive contaminants.
- d. Work with TEMA, TVA and DOE to coordinate the response to off-site releases at their respective facilities.
- e. Provide an individual to act as the Emergency Services Coordinator (ESC) in the SEOC, as well as an alternate to insure 24-hour availability. Personnel for support staff must also be provided.

2. Tennessee Emergency Management Agency
 - a. Develop plans for dealing with off-site releases for the TVA nuclear plants and the DOE-Oak Ridge facilities.
 - b. Develop the radiological response mechanisms for the state.
 - c. Maintain the state's supply of RADEF instruments.
 - d. Provide radiological response training to state and local emergency response personnel.
 - e. Provide 24-hour warning point for notification of radiological accidents from TVA, the Department of Energy, or other federal agency.
3. Department of Health
 - a. Assist in assessment of potential health effects associated with radiological accidents.
4. Commercial Vehicle Enforcement
 - a. Provide assistance during transportation accidents involving motor carriers.
5. Tennessee Valley Authority
 - a. Develop on-site emergency capabilities at the TVA nuclear power plants.
 - b. Coordinate development of off-site programs with TEMA, Radiological Health, and others as applicable.
6. Civil Air Patrol
 - a. Provide assistance in aerial monitoring of radiation.
7. Department of Agriculture
 - a. Assess impact of radiological releases on dairy and food production capabilities.
 - b. Develop protective action guidance concerning the use of food produced in areas where radioactive contamination exists.
8. U. S. Department of Energy
 - a. Develop on-site emergency capabilities at the DOE Oak Ridge facilities.
 - b. Coordinate development of off-site programs with TEMA, Division of Radiological Health, and others, as applicable.

VII. Mitigation and Preparedness Activities

A. All Tasked Agencies

1. Develop procedures and policies concerning self-protection measures to be taken during radiological operations (commensurate with response level), including:

- a. The use of self-contained breathing apparatus as appropriate
- b. The use of appropriate levels of protective clothing,
- c. The use of an incident command structure,
- d. The recognition and identification of dangers associated with radiological accidents of all types,
- e. The use of dosimeters and recording methods, and
- f. The application of other appropriate protective actions on a case-by-case basis.

B. Department of Environment and Conservation - Division of Radiological Health

- 1. Develop procedures and policies concerning the response of Division of Radiological Health personnel to radiological incidents (including FNF, transportation accidents, etc.).
- 2. Develop procedures for deploying monitoring teams/equipment in support of radiological response activities (FNF, DOE and others).
- 3. Develop capabilities of tracking exposure to radioactive materials by state and local emergency response personnel and providing display of radiation exposure/ contamination data in SEOC (and provide same to federal officials if necessary).
- 4. Develop protective action guidance materials for use during FNF events and other radiological releases.
- 5. Develop format for distribution of emergency information to citizens in areas affected by potential or actual radiation releases (through PIO).
- 6. Coordinate with TVA and DOE the development of radiological response measures associated with respective facilities.
- 7. Develop database of organizations/companies that can decontaminate or clean areas contaminated with radioactive materials.
- 8. Develop and implement licensing process for radioactive material users.
- 9. Advise the state and the utility, as appropriate, in matters concerning the use of potassium iodide.

C. Tennessee Emergency Management Agency

- 1. Develop radiological response plans for:
 - a. Watt's Bar Nuclear Power Plant,
 - b. Sequoyah Nuclear Power Plant, and
 - c. The DOE Oak Ridge facilities.
- 2. Assist with the development of the Brown's Ferry Nuclear Power Plant Radiological Response Plan by the Alabama Emergency Management Agency.

3. Provide training to state and local emergency response personnel in radiological monitoring and response operations.
4. Provide periodic testing of fixed siren warning systems for the nuclear power plants and the DOE facilities.
5. Provide 24-hour warning point for contact by FEMA or other federal agency concerning actual or potential radiological incidents.
6. Maintain inventory, testing, and repair of radiological instrument cache. Deploy instruments to state and local emergency response organizations.
7. Develop state and county radiological response plans and programs.

D. Department of Health

1. Develop procedures for assisting with the assessment of potential and actual health effects on civilian populations as a result of radiological releases.
2. Develop procedures for radiological screening, recommendations for whole body counting, and decontamination of persons at mass care centers and emergency worker/vehicle decontamination points.

E. Commercial Vehicle Enforcement

1. Enforce provisions of federal transportation regulations governing transport of radiological materials.
2. Develop procedures for deploying personnel to support response operations involving radiological transportation accidents.

F. Tennessee Valley Authority

1. Assist TEMA and the Division of Radiological Health with the development of response plans for TVA operated nuclear power plants.
2. Develop emergency response plans for on-site contingencies at TVA operated nuclear power plants.
3. Develop, install and maintain community warning systems around TVA plants (See ESF 2).

G. Civil Air Patrol

1. Develop procedures for deploying CAP aircraft in support of aerial monitoring operations.

H. Department of Agriculture

1. Develop procedures for assessing impact of radiological releases on food and dairy production capabilities.
2. Develop format for distribution of public information concerning the consumption and distribution of foodstuffs and livestock in areas affected by radiation releases (through PIO).

I. U. S. Department of Energy

1. Assist TEMA and Radiological Health with the development of response plans for DOE operated facilities.
2. Develop emergency response plans for on-site contingencies at DOE operated facilities.
3. Develop, install and maintain community warning systems around DOE facilities (See ESF 2).

VIII. Response and Recovery Actions

A. All Tasked Agencies

1. Send ESCs to SEOC and REOCs as requested by TEMA.
2. Attend briefings, coordinate activities with other participant organizations.
3. Set up work area(s), report needs to SEOC Readiness Officer, and initiate response/recovery activities as dictated by situation.
4. Maintain logs of activities, messages, etc.
5. Initiate internal notification/recall actions.
6. Notify field personnel of appropriate protective actions, given an identified threat.

B. Department of Environment and Conservation - Division of Radiological Health

1. Deploy personnel to SEOC, RMCC, and other field sites as required by situation. Initiate monitoring activities as required.
2. Implement procedures for tracking personnel exposure to radiation.
3. Assist EMS units with decontamination (technical support).
4. Make protective action recommendations based on monitoring findings.
5. Disseminate public information through PIO staff.
6. Implement protective actions as required. Task other participant organizations as required.
7. Provide monitoring and assessment data to ESF 5.
8. Make arrangements with clean-up companies to remove damaged radioactive materials.

C. Tennessee Emergency Management Agency

1. Activate warning systems as dictated by situations (ESF 2).
2. Activate SEOC, REOCs as required.
3. Deploy area coordinator(s) to assist with civilian accidents.
4. Assist local jurisdictions with radiological response activities.

5. Coordinate activities with FEMA, DOD, NRC, and other federal agencies.

D. Department of Health

1. Assist with assessment of effects on civilian and emergency response personnel affected by radiation releases.
2. Distribute KI as necessary.
3. Provide assessment data to ESF 5.
4. Task other ESFs and participant organizations for assistance if necessary.

E. Commercial Vehicle Enforcement

1. Deploy personnel to investigate and assist with transportation accidents involving radioactive materials.

F. Civil Air Patrol

1. Deploy aircraft to provide aerial monitoring capabilities if requested.

G. Department of Agriculture

1. Deploy personnel to monitor and assess impact of radiation releases on food and dairy production facilities.
2. Distribute protective action guidance to farmers regarding appropriate measures to be taken with respect to protecting livestock and stored food from radiological contamination (through PIO).
3. Disseminate public information concerning the consumption of food and dairy products produced in areas affected by radioactive releases.

H. Tennessee Valley Authority

1. Notify TEMA of unusual occurrences at TVA power plants.
2. Implement procedures in radiological response plans for concerned facility (ies).
3. Coordinate all actions concerning off-site measures with SEOC.

I. U. S. Department of Energy

1. Notify TEMA of unusual occurrences at DOE facilities.
2. Implement procedures in radiological response plans for concerned facility (ies).
3. Coordinate all actions concerning off-site measures with SEOC.

IX. Training

- A. TEMA provides several courses related to radiological response operations, including:

1. Radiological Monitor Course,
2. Radiological Response Team Course,
3. Aerial Radiological Monitoring Course,
4. Radiological Monitor Instructor Course, and
5. Radiological Defense Officer Course.

B. FEMA provides Radiological Response Team Train-the-Trainer courses at its facility in Emmitsburg, Maryland, as well as several other national security-oriented radiological courses.

C. The Division of Radiological Health emergency responders must comply with training and experience requirements established by the Division. This includes completion of the 5-week Health Physics course, the RERO/REO course, two years of work experience in the Division (which will include supervised incident response). The Director of the Division of Radiological Health must approve any deviation from this policy.

D. Other training is provided in-house by the agencies concerned.

F. TEMA maintains a capability to provide expedient radiological monitoring training to state and local emergency response and shelter management personnel, if necessary.

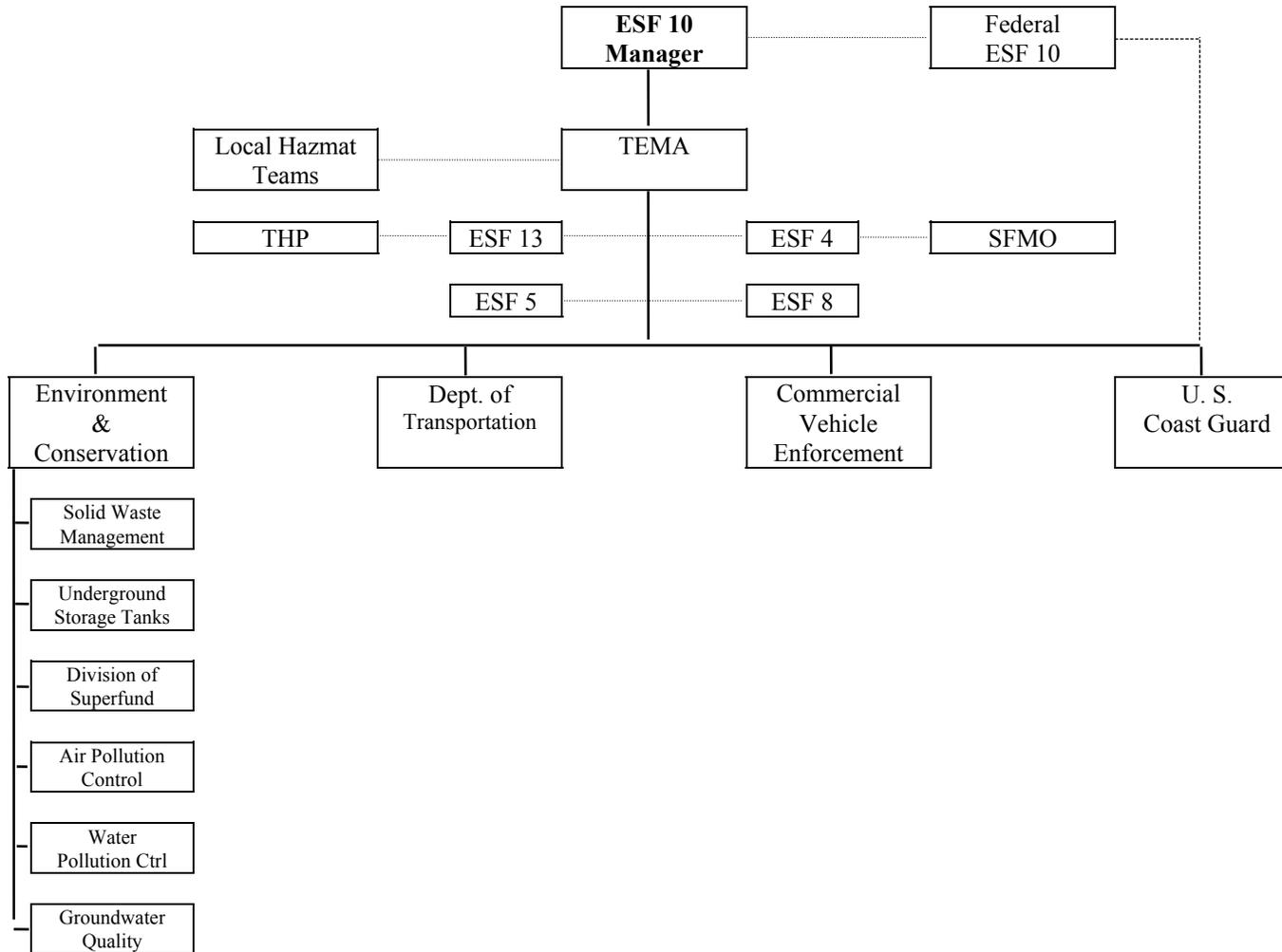
EMERGENCY SUPPORT FUNCTION 10

APPENDICES

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- Appendix 2 State ESF 10 (Radiological Materials) Organizational Chart
- Appendix 3 Interstate Highway System in Tennessee
- Appendix 4 Major Railroad Systems in Tennessee
- Appendix 5 Major Pipelines in Tennessee
- Appendix 6 Interstate Natural Gas Pipelines
- Appendix 7 State Radiological Response Organization for Response to Accidents at Nuclear Power Plants

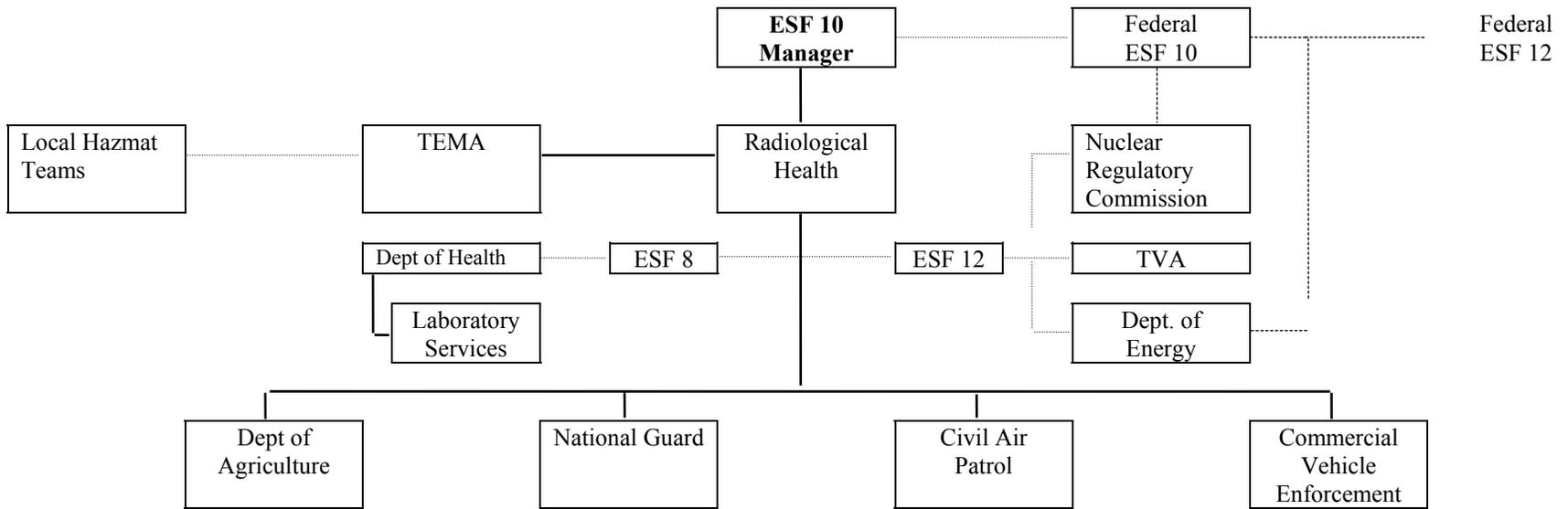
APPENDIX 1 TO ESF 10

STATE HAZARDOUS MATERIALS ORGANIZATIONAL CHART



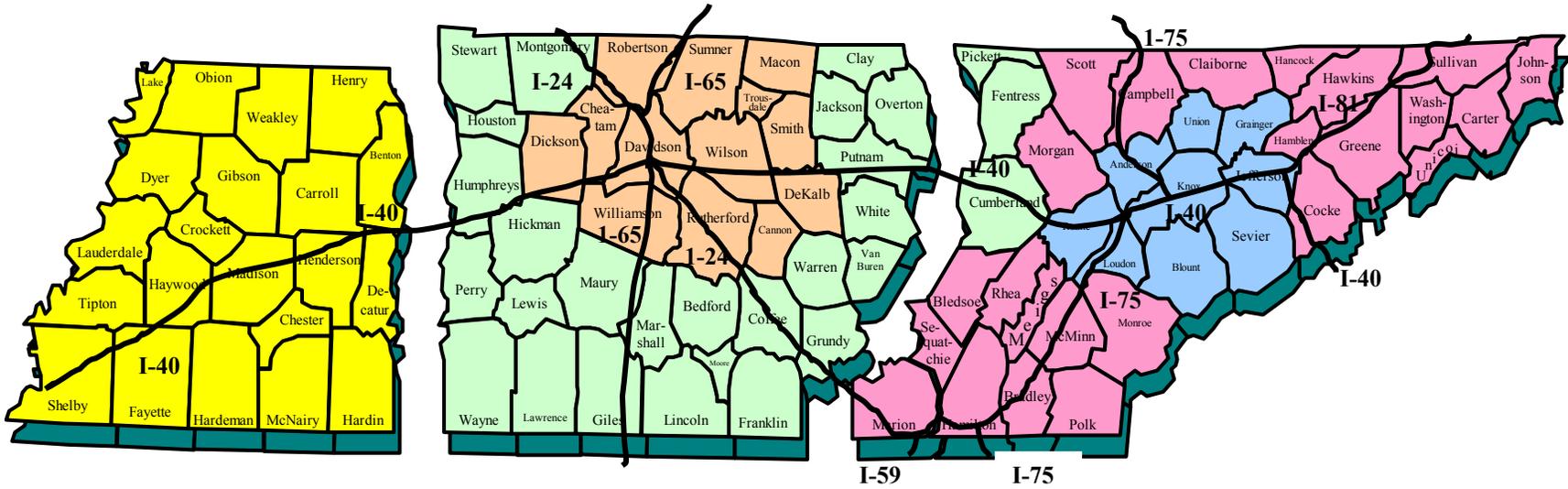
APPENDIX 2 TO ESF 10

STATE RADIOLOGICAL MATERIALS ORGANIZATIONAL CHART



APPENDIX 3 TO ESF 10

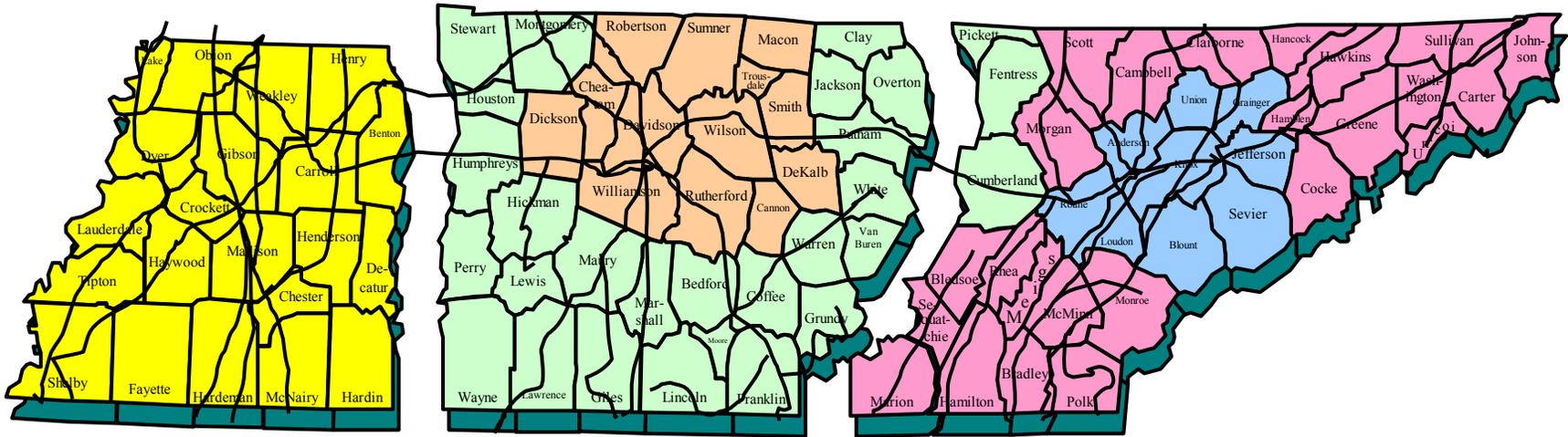
INTERSTATE HIGHWAY SYSTEM IN TENNESSEE



Interstate routes are the only routes approved for radioactive waste transportation in Tennessee

APPENDIX 4 TO ESF 10

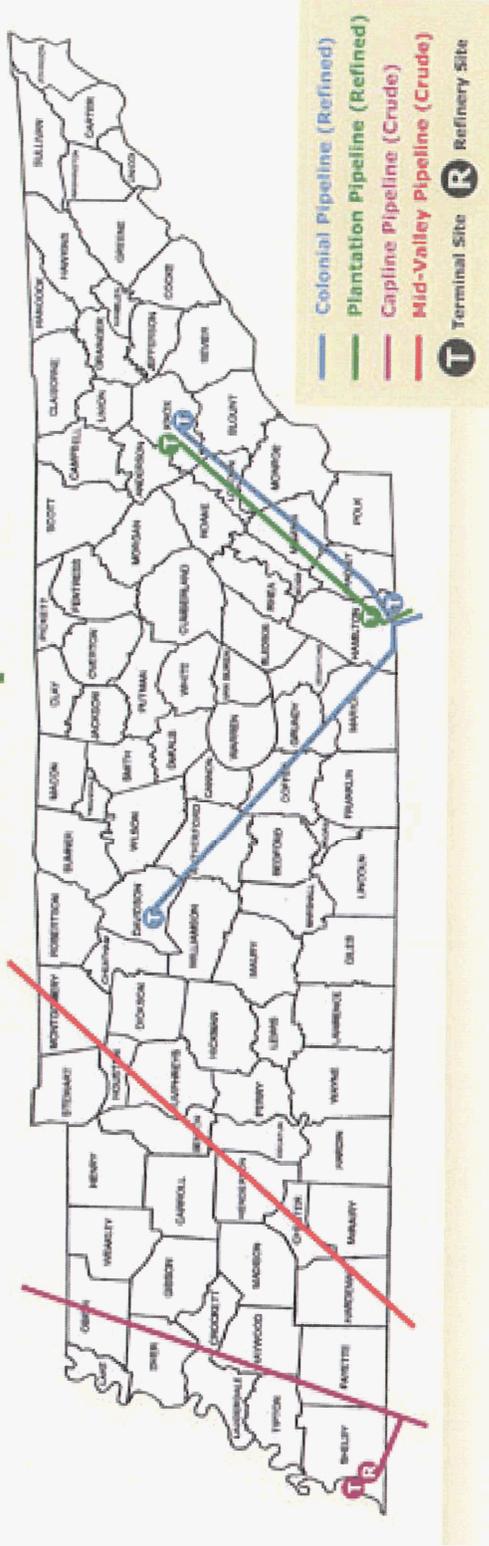
MAJOR RAILROAD SYSTEMS IN TENNESSEE



APPENDIX 5 TO ESF 10

MAJOR PIPELINES IN TENNESSEE

Petroleum Pipelines



Colonial Pipeline Co.
 3390 Peachtree Rd., NE
 Suite 1400
 Box 18855
 Atlanta, GA 30326
 (404) 261-1470

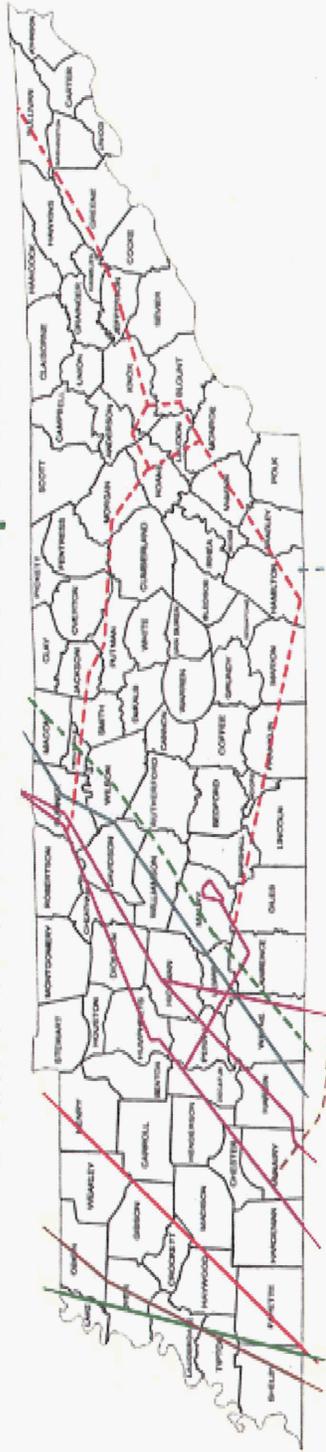
Plantation Pipeline Co.
 Box 18616
 Atlanta, GA 30326
 (404) 261-2137

Capline Pipeline
 Shell Pipeline Corp.
 Mid-Continent Div. Office
 8500 N. Michigan Rd.
 Box 68099
 Indianapolis, IN 46268
 (317) 872-7440

Mid-Valley Pipeline
 (operated by) Sun Pipeline
 907 South Detroit
 Box 2039
 Tulsa, OK 74102
 (918) 586-6997 / 6000

Appendix 6 to ESF 10 Interstate Natural Gas Pipelines

Interstate Natural Gas Pipelines



- Trunkline Gas Co.
5400 Westheimer Ct.
P.O. Box 1642
Houston, TX 77256-5310
(713) 627-5400
www.duke-energy.com
- Texas Gas Transmission
3800 Frederica Street
P.O. Box 20009
Owensboro, KY 42301
(502) 926-8686
- ANR Pipeline
500 Renaissance Center
Detroit, MI 48243
(313) 496-0200
www.coastalcorp.com/anr
- Tennessee Gas Pipeline Co.
500 Renaissance Center
Detroit, MI 48243
(313) 496-0200
www.coastalcorp.com/anr

- Columbia Gulf Transmission Co.
2603 Augusta
P.O. Box 693
Houston, TX 77057
(713) 267-4100
www.columbiaenergygroup.com
- Texas Eastern Transmission Corp.
5400 Westheimer Ct.
Houston, TX 77256-5310
(713) 627-5400
www.duke-energy.com
- Southern Natural Gas Co.
1900 5th Avenue North
P.O. Box 2563
Birmingham, AL 35203-2563
(205) 325-7410
www.epenergy.com
- East Tennessee Natural Gas Co.
Two Brentwood Commons
750 Old Hickory Blvd.
Brentwood, TN 37027
(615) 661-3551

— Midcostal Interstate
Transmission, Inc.

APPENDIX 7 TO ESF 10

STATE RADIOLOGICAL RESPONSE ORGANIZATION FOR RESPONSE TO ACCIDENTS AT
NUCLEAR POWER PLANTS AND THE DOE OAK RIDGE FACILITY

