

ANNEX 10 (ESF-10)

HAZARDOUS MATERIALS

PRIMARY: Department of Health and Environmental Control

SUPPORT: Department of Agriculture; Department of Labor, Licensing and Regulation, Division of Fire and Life Safety and Division of Labor; Department of Natural Resources, Division of Land, Water, and Conservation, Division of Marine Resources, Division of Law Enforcement and Division of Wildlife and Freshwater Fisheries; Department of Public Safety; Department of Transportation, SC Forestry Commission; SC Law Enforcement Division; Clemson University Regulatory and Public Service Programs; Budget and Control Board, Division of State Information Technology; Department of Corrections; Office of the State Archeologist; Ports Authority; SC National Guard

I. INTRODUCTION

- A. Emergency or disaster events could result in hazardous materials being released into the environment. Fixed facilities (e.g., chemical plants, nuclear facilities, tank farms, laboratories, hazardous waste treatment, storage and disposal facilities), including radioactive materials, could be damaged so severely that existing spill control apparatus and containment measures are compromised. Transportation of hazardous materials by road, rail, pipelines, air, and waterways will inevitably result in releases. Abandoned hazardous waste is an ongoing regulatory concern that disasters may exacerbate.
- B. County and local responders may become overwhelmed by the magnitude of response required to assess, monitor, contain, remove and dispose of hazardous materials that are consequently released. Numerous simultaneous releases in various locations could result from large-scale catastrophic events. Standard communications media (phone lines, transmission towers, power sources, etc.) may be disrupted or destroyed. Damaged transportation infrastructure may delay and hinder response efforts to assess, contain, and remove hazardous material releases. Additional resources from outside the region may be necessary to supplement on-going efforts.
- C. Concern about facilities and infrastructure in affected areas during disaster situations necessitates the monitoring and verification of the status of regulated entities. Contact and inventory information required to be submitted in compliance with *Title III of the Superfund Amendments and Re-authorization Act* will be utilized, as well as GIS data layers compiled by the Department of Health and Environmental Control, to evaluate potential releases and monitor areas of concern.

- D. Communication and information collection through all means possible during disaster activations are necessary to prioritize and manage the allocation of resources into the affected areas of the State. The rapid assessment of the affected areas will enable accurate and timely requests from support agencies to deploy the assistance required. ESF-10 response consists of two components:
1. **RADIOLOGICAL** refers to radioactive hazardous substances or materials in a quantity or form that poses a risk to health and safety. When a discharge or release involves radioactive material, the state response will be consistent with South Carolina Operational Radiological Emergency Response Plan (SCORERP), South Carolina Technical Radiological Emergency Response Plan (SCTRERP), and SC Code of Regulations 61-63 (Supp. 1996).
 2. **NON-RADIOLOGICAL** or **CHEMICAL** refers to non-radioactive hazardous substances or materials in a quantity or form that poses a risk to health and safety.

II. **PURPOSE**

To coordinate with state, local, and federal resources to minimize the adverse effects on the population and the environment resulting from the release of, or exposure to, hazardous materials.

III. **CONCEPT OF OPERATIONS**

- A. The Department of Health and Environmental Control, Division of Waste Assessment and Emergency Response is responsible for the coordination of all ESF-10 administrative, management, planning, preparedness, mitigation, response and recovery activities to include developing, coordinating, and maintaining the ESF-10 SOP which detail both radiological and non-radiological responsibilities. All ESF-10 supporting agencies will assist the Department of Health and Environmental Control, Division of Waste Assessment and Emergency Response in the planning and execution of the above. All ESF-10 personnel must be trained on the principles of the National Incident Management System (NIMS) and Incident Command and integrate those principles into all ESF-10 planning and response operations.
- B. Coordination with all supporting and other appropriate departments/agencies and organizations will be performed to ensure operational readiness in time of emergency.

- C. State program assistance under this function will include the application of available personnel, equipment, and technical expertise necessary to contain, counteract, and supervise cleanup of hazardous materials that have become a threat to the state.
- D. The Commissioner of the Department of Health and Environmental Control, or his designee, will coordinate, integrate, and manage the overall state effort to detect, identify, contain, clean up, dispose of, or minimize releases of oil or hazardous substances and minimize the threat of potential releases. In the case of a radiological incident, this will include the disposal of food crops, water supply, feed, and animal products accidentally contaminated. The Department will maintain a contingency plan for spills and releases of oil and hazardous substances that will coordinate and establish necessary standard operating procedures for DHEC response work. The Bureau of Land and Waste Management (BLWM) will provide expertise on environmental effects of oil discharges, or releases of hazardous substances, pollutants, or contaminants and environmental pollution control techniques. It is likely that there will be several releases occurring simultaneously, making heavy demands on response resources. In order to make the best use of limited resources and to ensure the most efficient overall response, damage information must be gathered quickly, analyzed, and response priorities established as soon as possible.
- E. In the event of a radiological emergency, plans and procedures that detail emergency response activities are addressed in the following publications: SCORERP, SCTRERP, Spent Nuclear Fuel Emergency Action Plan (SNF EAP), H. B. Robinson Transportation Plan, Charleston Naval Weapons Station Memorandum of Understanding (CNS MOU), and the Westinghouse Commercial Nuclear Fuel Division Emergency Response Plan. SCDHEC also has developed standard operating procedures for fixed nuclear facilities, transportation of spent fuel, and Waste Isolation Pilot Project (WIPP) shipments. References can be obtained at the DHEC Division of Waste Assessment and Emergency Response.
- F. In coordination with, and in support of, the State Assessment Team (SAT), ESF-10 will assess the situation (both pre- and post-event), and in coordination with local emergency management officials, develop strategies to respond to the emergency.
- G. Local government has the responsibility for the protection and well being of its citizens. However, owners and shippers are responsible for subsequent cleanup and containment. Consequently, local governments, through the designated response agencies, will respond to hazardous material incidents of all types and sizes; make initial assessments as to the

severity/magnitude of the situation; and take appropriate first responder protection measures to prevent or minimize injuries and property damage.

- H. The SC Law Enforcement Division (SLED) and the South Carolina Emergency Management Division (SCEMD) are the lead agencies for crisis and consequence management respectively, regarding suspected or confirmed Terrorism or Weapons of Mass Destruction (WMD) incidents involving chemical, biological or radiological agents. ESF-10 will act in a support capacity (see Appendix 8, SC Terrorism Incident Plan of the SC Emergency Operations Plan).

IV. ESF ACTIONS

The emergency operations necessary for the performance of both radiological and non-radiological components of this function include but are not limited to:

- A. Preparedness
1. Prepare an inventory of existing threats using Superfund Amendments and Re-Authorization Act (SARA) Title III, Tier II information.
 2. Plan for response to hazardous materials incidents.
 3. Develop plans for communications, warning, and public information.
 4. Develop procedures for identification, control, and clean up of hazardous materials.
 5. Provide, obtain, or recommend training for response personnel using courses made available by FEMA, Department of Homeland Security (DHS), Department of Energy (DOE), Nuclear Regulatory Commission (NRC), SCEMD, DHEC, the South Carolina Fire Academy (SCFA), U.S. Environmental Protection Agency (USEPA) and manufacturers and transporters of hazardous materials, as well as training based on Occupational Safety & Health Administration (OSHA) requirements for each duty position.
 6. Maintain a listing of private contractors capable of performing emergency and/or remedial actions associated with a hazardous materials incident.
 7. Maintain an inventory of state assets capable of responding to a hazardous materials incident.

8. Develop plans and/or mutual aid agreements regarding hazardous materials incidents with local agencies, other state agencies, contiguous states, federal agencies, and private organizations as required.
9. Collect and utilize licensing, permitting, monitoring, and/or transportation information from the appropriate local, state, or federal agencies and/or private organizations to facilitate emergency response.
10. Participate in state exercises and conduct, at least annually, an ESF-10 exercise to validate this annex and supporting SOPs.
11. Ensure all ESF-10 personnel integrate NIMS principles in all planning. All ESF personnel must complete all required NIMS training, as outlined in the Department of Homeland Security (DHS) training guidance.
12. Ensure procedures are in place to document costs for any potential reimbursement.
13. Support the Emergency Management Assistance Compact (EMAC) by ensuring ESF personnel are trained on EMAC responsibilities, by pre-identifying assets, needs and resources that may be allocated to support other states, and by maintaining related information in WebEOC.
14. Provide an ESF-10 representative to the Recovery Task Force.

B. Response

1. ESF-10 will coordinate, with the Incident Command, all hazardous substance response-specific efforts and provide information to the SEOC for coordination of all other state efforts.
2. Provide 24-hour response capability and dispatch personnel to an incident scene as necessary.
3. ESF-10 will assess the situation to include: the nature, amount and location of real or potential releases of hazardous materials; pathways to human and environmental exposure; probable

direction and time of travel of the materials; potential impact on human health, welfare, safety, and the environment; types, availability, and location of response resources, technical support, and cleanup services; and priorities for protecting human health, welfare and the environment.

4. After reviewing reports, gathering and analyzing information and consulting with appropriate agencies, determine and provide, as available, the necessary level of assistance.
5. Provide Protective Action Recommendations (PAR), as the incident requires.
6. Provide for monitoring to determine the extent of the contaminated area and consult with appropriate support agencies to provide access and egress control to contaminated areas; request assistance from the 43rd Civil Support Team, as required.
7. Consult with appropriate local, state, or federal agencies and/or private organizations with regard to the need for decontamination. Coordinate with ESF-8 regarding decontamination of injured or deceased personnel.
8. Coordinate decontamination activities with appropriate local, state, and federal agencies.
9. Coordinate with appropriate local, state, and federal agencies to ensure the proper disposal of wastes associated with hazardous materials incidents; and assist in monitoring or tracking such shipments to appropriate disposal facilities.
10. Coordinate with ESF-1 for the use of air assets, and technical advice and assistance on regulated railroad lines.
11. Coordinate with ESF-3 for technical assistance on water, wastewater, solid waste, and disposal.
12. Coordinate with ESF-12 for technical advice and assistance on intrastate and interstate pipelines.
13. Coordinate with ESF-19 for use of National Guard assets.
14. Coordinate with the SEOC Logistics cell for the location and use of staging areas for the deployment of personnel, assets, and materials into the affected zones.

15. Identify and provide a liaison officer if required, for each EMAC request to facilitate arrival and onward movement of EMAC support at appropriate EMAC Mobilization Units and staging areas.

C. Recovery

1. Terminate operations when the emergency phase is over and when the area has been stabilized by responsible personnel. DHEC will track continued or needed remediation as necessary.
2. Request and maintain documented records of all expenditures, money, and physical resources of the various governmental department/agencies involved in emergency operations. Ensure that ESF-10 team members or their agencies maintain appropriate records of costs incurred during the event.
3. Anticipate and plan for arrival of, and coordinate with, Federal personnel in the SEOC and the Joint Field Office (JFO).
4. ESF-10 will support long-term recovery priorities as identified by the Long-Term Recovery Committee and Recovery Task Force.

D. Mitigation

1. Support and plan for mitigation measures including monitoring and updating mitigation actions in the State Hazard Mitigation Plan.
2. Review, evaluate and comment on proposed State Hazard Mitigation Plan amendments, upon initiation and within review period.
3. Support requests and directives from the Governor and/or FEMA concerning mitigation and/or re-development activities.
4. Document matters that may be needed for inclusion in agency or state/federal briefings, situation reports and action plans.

V. **RESPONSIBILITIES**

- A. General: ESF-10 will train personnel on EMAC procedures to include; identifying agency resources to sustain emergency operations, pre-scripting anticipated needs on specific EMAC messages.
- B. Department of Health and Environmental Control
 1. Identify, train, and assign DHEC personnel to staff ESF-10 in the SEOC.

2. Notify all ESF-10 supporting agencies on activation.
3. Provide technical assistance in identifying areas that may contain hazardous materials.
4. Review files submitted by industry to DHEC regarding presence of chemicals covered under the Emergency Planning and Community Right to Know Act (EPCRA) Tier II program (computer accessible).
5. Provide and/or coordinate technical assistance on hazards associated with chemicals known to be present in the disaster area. These activities include decontamination and long-term remediation.
6. Provide technical assistance on hazardous material recognition and identification
7. Provide laboratory assistance to include analyzing and identifying contaminants, pesticides, and other toxic materials in soils, vegetation, and water.
8. Coordinate responsible party responses or the use of Federal/State contractors to control and contain a hazardous material release to protect public health and/or the environment.
9. Develop and coordinate the South Carolina Technical Radiological Response Plan.

C. Department of Agriculture

1. Identify, train, and assign personnel to maintain contact with and prepare to conduct operations in support of ESF-10 during periods of activation.
2. Provide collection, sampling, and laboratory analysis assistance. SCDOA maintains equipment/instrumentation and supplies necessary to perform chemical analyses on a variety of samples that may be associated with hazardous materials releases.
3. Provide technical assistance to include securing representative samples of materials suspected of chemical contamination.
4. Provide laboratory assistance to include analyzing and identifying contaminants such as pesticides and certain other toxic materials in

soils, vegetation, and to some extent, in water. Chemical assistance provided includes identification of chemical, macroscopic, and microscopic analyses of food and feed products to determine quality and/or safety (excludes microbiologic analyses). Field laboratory equipment includes grain probes, sample containers, for sampling collection and some chemical analysis.

D. Department of Labor, Licensing and Regulation

1. Division of Fire and Life Safety

- a. Identify, train, and assign personnel to maintain contact with and prepare to conduct operations in support of ESF-10 during periods of activation.
- b. Act as a liaison, when needed, between local fire departments and the DHEC On-Scene Coordinator during hazardous materials incidents.
- c. Provide assistance under the Firefighter Mobilization Act to support ESF-10 operations.
- d. Assist in coordination in collecting and securing containers of liquefied petroleum gas (LPG).

2. Division of Labor

- a. Identify, train, and assign personnel to maintain contact with and prepare to conduct operations in support of ESF-10 during periods of activation.
- b. Provide consultation on health and safety issues.

E. Department of Natural Resources

1. Identify, train (including communications training) and assign personnel to conduct operations in support of ESF-10 during periods of activation.

2. Law Enforcement Division

Provide support for communications, water-related evacuation, personnel, security, all-terrain vehicles, and watercraft.

3. Land & Water Conservation, Marine and Wildlife & Freshwater Fisheries Divisions

Provide scientific and technical advice and assistance regarding natural resources or other wildlife and fisheries issues.

F. Department of Public Safety

1. Identify, train, and assign personnel to maintain contact with and prepare to conduct operations in support of ESF-10 during periods of activation.
2. Provide communications support, security, transportation, and traffic control.

G. Department of Transportation

1. Identify, train, and assign personnel to maintain contact with and prepare to conduct operations in support of ESF-10 during periods of activation.
2. Provide traffic control devices, heavy equipment, supplies, and personnel to facilitate access to hazardous material site. Support includes materials such as sand, gravel, and etc. to help mitigate a release. These support actions will be limited to the Occupational Safety and Health Administration (OSHA) training of the involved personnel.

H. SC Forestry Commission

1. Identify, train, and assign personnel to maintain contact with and prepare to conduct operations in support of ESF-10 during periods of activation.
2. Provide heavy equipment and aircraft support.

I. SC Law Enforcement Division

1. Identify, train, and assign personnel to maintain contact with and prepare to conduct operations in support of ESF-10 during periods of activation.
2. Provide aviation support for surveillance and transportation of essential personnel.
3. Provide fixed and mobile non-EPA laboratory services for

environmental samples.

- J. Clemson University Regulatory and Public Service Programs
 - 1. Identify, train, and assign personnel to maintain contact with and prepare to conduct operations in support of ESF-10 during periods of activation.
 - 2. Provide laboratory services and analysis.
 - 3. Provide an agrichemical database to include locations, type, and quantity.

- K. Budget and Control Board, Division of State Information Technology
 - 1. Identify/train ESF-10 personnel and assist ESF-10 with communications related issues and resolutions in support of ESF-10 operations during periods of activation.
 - 2. Provide radios and communications equipment.

- L. Department of Corrections
 - 1. Identify, train, and assign personnel to maintain contact with and prepare to conduct operations in support of ESF-10 during periods of activation.
 - 2. Provide correctional facility work crews for non-hazardous cleanup operations.

- M. Office of the State Archeologist
 - 1. Identify, train, and assign personnel to maintain contact with and prepare to conduct operations in support of ESF-10 during periods of activation.
 - 2. Provide technical support in locating and assessing hazardous material damage to inland and offshore archeological sites.

- N. Ports Authority
 - Coordinate resources and provide storage space as needed by ESF 10.

- O. National Guard
 - 1. Provide specialized equipment and trained operators in support of disaster response efforts.

2. Provide equipment, mobile laboratory resources, and trained members of the 43rd Civil Support Team to respond in support of ESF 10.

VI. FEDERAL ASSISTANCE

- A. This annex is supported by National Response Framework ESF-10, Oil and Hazardous Materials Response. Assistance related to hazardous materials incidents is available from, but not limited to, the following federal agencies under the National Oil and Hazardous Pollution Contingency Plan (NCP):
 1. Environmental Protection Agency (EPA)
 2. Department of Defense (DOD)
 3. Department of Homeland Security (DHS) / United States Coast Guard (USCG)
 4. Nuclear Regulatory Commission (NRC)
 5. Department of Energy (DOE)
- B. Response actions carried out by Federal ESF-10 are conducted in accordance with the National Oil and Hazardous Substances Response System (NRS) described in the NCP. Key components of the NRS include the National Response Team (NRT), Regional Response Teams (RRT), and Federal On-Scene Coordinators. During a response RRTs will deploy their respective agency response resources and provide assistance and advice to Federal OSC(s). Either the EPA or USCG Co-Chair of the RRT serves as the regional lead, for ESF-10 within its region.
- C. The RRT Regional Chair will coordinate will coordinate with the PFO, FCO, other responding federal agencies, and state officials. The Regional Chair will designate a representative to the Advance Element of the Emergency Response Team (ERT-A) and determine staffing requirements of the full ERT at the JFO.
- D. ESF-10 response activities include situation assessment, identification of support resources, and coordination of federal support of on-scene response operations.
- E. All State ESF-10 personnel will be familiar with the National Response Framework (NRF) and the corresponding annex with Federal counterpart concepts, actions and responsibilities. This familiarization will include but

not be limited to the make up, functions and responsibilities of the Incident Management Assistance Teams (IMAT) and the Joint Field Office (JFO).

- F. State ESF-10 will coordinate with Federal ESF-10 to obtain federal assistance as required.

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