

**OHIO EMERGENCY OPERATIONS PLAN  
EMERGENCY SUPPORT FUNCTION #10  
HAZARDOUS MATERIALS/WEAPON OF MASS DESTRUCTION**

**Primary Agency:** Ohio Environmental Protection Agency (Ohio EPA)

**Support Agencies:** Ohio Department of Health (ODH)  
Ohio Department of Commerce, Division of State Fire Marshal (SFM)  
Ohio Emergency Management Agency (Ohio EMA)  
Adjutant General's Department, Ohio National Guard (ONG)  
Ohio Department of Commerce (ODC), Division of Industrial Compliance and Labor  
Ohio Department of Agriculture (ODA)  
Public Utilities Commission of Ohio (PUCO)  
Ohio State Highway Patrol (OSHP)  
Ohio Department of Transportation (ODOT)  
Ohio Department of Natural Resources (ODNR)

## **I. INTRODUCTION**

### **A. Purpose**

1. Emergency Support Function #10 (ESF-10), Hazardous Materials/Weapons of Mass Destruction (WMD), describes the organization, responsibilities, and resources to provide a coordinated state response to supplement local resources for an actual or potential release. This includes the inadvertent or intentional release of a hazardous material, as well as the intentional dissemination of a chemical, biological, radiological, nuclear, flammable/explosive substance (WMD).
2. ESF-10 addresses the following during hazardous materials/WMD incidents:
  - a. Providing resource support to local jurisdictions as requested.
  - b. Coordination of state agencies in support of local response.
  - c. Coordination with federal agencies through the National Response Framework (NRF), including the NRF ESF-10: Oil and Hazardous Materials Response Annex, and National Oil and Hazardous Substance Pollution Contingency Plan (NCP, 40 Code of Federal Regulations Part 300).
  - d. Providing protective action recommendations to local jurisdictions.
  - e. Assessment of the health effects of a hazardous material/WMD release.
  - f. Sampling of air, water, soil, and other materials to test for contamination.

g. Assistance in recovery and mitigation.

## B. Scope

1. The scope of ESF-10 is determined by the scale of the incident and local requests. ESF-10 tasks can range from prevention or detection of a release or spill, resource assistance to local jurisdictions, coordination of state and federal operations, to the final containment/mitigation/restoration of the spill. State and federal agencies respond only as resource providers and act in coordination and advisory roles.
2. Three different agencies have a legislative responsibility to respond to hazardous materials incidents, and missions are assigned to lead agencies depending on the materials involved:
  - a. Chemical – Ohio EPA
  - b. Biological – ODH, Bureau of Infectious Diseases
  - c. Radiological/Nuclear – ODH, Bureau of Radiation Protection
  - d. Explosive/Fire – SFM
3. For detailed information on specific state agency functions consult that agency's SOPs. Consult individual Local Emergency Planning Committees (LEPCs) chemical emergency response and preparedness plans for detailed information on local level response and support during hazardous materials incidents.
4. For accidents or incidents at commercial nuclear power plants follow the procedures of the [\*State of Ohio Plan for Response to Emergencies at Commercial Nuclear Power Plants\*](#) (REP Plan).
5. In the case of terrorism or suspected terrorism, ESF-10 response will be coordinated with the law enforcement aspects of the [\*Terrorism Incident Annex\*](#).

## C. Federal Legislation

1. Federal laws such as the Comprehensive Emergency Response Compensation Liability Act (CERCLA), Resource Conservation & Recovery Act (RCRA), Superfund Amendments & Reauthorization Act (SARA), Clean Air Act (CAA), and Occupational Safety & Health Administration (OSHA) policies require facilities with Extremely Hazardous Substances (EHSs) to maintain a facility response plan and a spill prevention control and countermeasures plan.
2. Ultimately, it is the owner/operator's legal responsibility for the minimization of risk to the public and environment, and for the cleanup of an incident, including

restoration of the area. The owner/operator is required to clean up the spill if capable, or hire a contractor to conduct the work.

3. If the owner/operator is not capable, willing, financially able, or cannot be located to take care of the problem, Ohio EPA may hire a contractor to perform the cleanup and disposal operations. If the situation is beyond local and state agency capabilities, U.S. Environmental Protection Agency (USEPA) and U.S. Coast Guard (USCG) can assist in cleanup operations.
4. State agencies can legally seek restitution from the owner/operator to recover the costs incurred by the agency in investigating, mitigating, minimizing, removing, or abating any unauthorized spill or release or discharge of the material into or upon the environment that requires emergency action to protect the public health or safety or the environment. If the owner/operator refuses to make restitution, Ohio EPA may refer the matter for collection through litigation by the Ohio Attorney General's Office (AGO).

#### D. State Emergency Response Commission (SERC) Requirements

##### 1. Local Requirements

- a. Ohio Revised Code (ORC) 3750 is the state implementation of SARA Title III.
- b. ORC 3750.04 requires counties, through LEPCs, to annually update and maintain an approved chemical emergency response plan.
- c. LEPC plans describe local capability to respond to a hazardous materials incident and addresses facilities containing Extremely Hazardous Substances (EHSs) within their jurisdiction. Plan requirements include maps where the facilities are located, likely transportation corridors where an incident might occur, and emergency planning zones around potential incident sites.

##### 2. State Requirements

- a. ORC 3750.02 requires the State of Ohio to develop and exercise a state hazardous materials plan. This plan has been written following the guidelines of the National Response Team, Hazardous Materials Emergency Planning Guide (NRT-1), which has been adopted as the standard of care by the SERC.
- b. The SERC and the state agencies that are represented in it shall jointly exercise this plan at least annually, in conjunction with the exercise of an LEPCa plan. Ohio EMA chairs the Planning and Exercise Sub-Committee of the SERC, and is the agency in charge of the required yearly exercise.
- c. State hazardous materials exercise evaluations are conducted in accordance with the same SERC rules required by LEPCs (OAC 3750.20.70), for more

information refer to [\*Ohio's Hazardous Materials Exercise Evaluation Manual \(HM-EEM\)\*](#). For exercises involving Nuclear Power Plants, refer to the REP Plan (NUREG 0654).

- d. After the state plan is exercised, a critique must be conducted by the participants and exercise evaluators to identify any deficiencies in the plan. A written report is then submitted to all participants. The SERC is required to review the state plan and make such revisions in it as the SERC considers necessary or appropriate. Ohio EMA is responsible for incorporating all corrections to the plan and submitting them to all plan holders. Corrections should be sent to the Ohio EMA Plans Branch.

## **II. SITUATION**

- A. Hazardous materials or WMD incidents can occur at any time and without notice. Areas affected may be small and localized or large, affecting mass populations, environments and multiple properties. These incidents can occur by accident, by malicious intent, or concurrently with a natural disaster.
- B. Large quantities of hazardous materials are produced, transported, used, and stored in the State of Ohio:
  1. Considerable amounts of hazardous materials are transported through Ohio via interstate highways, railways, by air, and by barges (Lake Erie and the Ohio River).
  2. Ohio EPA reports over 7,500 facilities with EHSs or hazardous chemicals (2010).
  3. U.S. EPA reports 410 active and 1,203 archived Superfund sites (2010). There are four nuclear facilities that could significantly impact Ohio: Perry Nuclear Power Plant in Lake County; Davis-Besse Nuclear Power Station in Ottawa County; Beaver Valley Power Station in Shippingport, PA (approximately four miles east of Columbiana County line in Ohio); and Fermi Nuclear Power Plant in Monroe, MI (several northwest Ohio counties are included in the 50 mile ingestion zone).
  4. Department of Energy (DOE) Portsmouth Facility (Pike County) processes large amounts of extremely hazardous materials and has some nuclear material, including.
  5. Ohio EPA maintains lists of hundreds of commercial hazardous waste management facilities for use in the storage, treatment, and disposal of hazardous materials.
  6. ODNR and Ohio EPA maintain lists for hundreds of injection wells used to dispose of hazardous materials.

7. ODH issues and maintains a list of radioactive licensees, waste brokers, disposal services and facilities by county.

#### C. Assumptions

1. Some state agencies may individually respond to smaller incidents (that do not require the activation of the SEOC) to address regulatory concerns.
2. If the SEOC activates, it will operate according to the [EOP Base Plan](#) to coordinate state resources, request federal assistance, and provide technical assistance.
3. All primary, lead, and support state agencies are familiar with this emergency support function, know how to activate it, have trained personnel in the types of response needed, and have the capability of protracted operations.
4. All primary, lead, and support state agencies have developed SOPs, guidance, current lists of personnel, telephone rosters, and equipment which will be available during an incident.
5. State agencies may have mutual aid and/or letters of agreement with other state, federal, and private organizations for additional equipment and personnel. If state agencies cannot process the request, the State Emergency Operations Center (SEOC) will utilize the Emergency Management Assistance Compact (EMAC) according to ORC 5502.40.

### III. CONCEPT OF OPERATIONS

#### A. Overview

1. Ohio EPA is the primary agency assigned to coordinate the state hazardous materials response and recovery effort. Ohio EPA agency will staff the ESF-10 desk at the SEOC and coordinate with other local, state and federal response agencies to ensure assistance is provided to local agencies.
2. During SEOC activation, lead agencies (depending on the material involved) will coordinate through the ESF-10 desk to accept missions and report on actions taken. Lead agencies still maintain their own authorities and are responsible for developing the appropriate tactics to accomplish the mission.
3. All of the agencies listed in this plan can serve as support agencies in response to incidents, regardless of the hazardous material.
4. State response forces with legislative authority to respond can be activated at the request of local governments, can self deploy based on reports of releases received through state agency emergency response hotlines, and or at the direction of the Governor.

5. Should an incident reach proportions that overwhelm local/county response capabilities, certain procedures must be followed in requesting state assistance. Refer to *The State of Ohio Emergency Operations Plan*, Procedures for Requesting State Disaster Assistance.
6. All responding state agencies work within the Unified Incident Command System at the scene. State response and support forces follow the procedures and guidelines in the respective agency SOPs.

## B. Relationships Between Levels of Government

### 1. County and Municipal

- a. County and municipal governments are responsible for the safety of persons and property in their respective jurisdictions. Local responders are always the initial responders to hazardous materialshazmat incidents. Roles and responsibilities of these forces are identified in County and local EOPs, SOPs, and facility plans.
- b. When county-level capabilities, including mutual aid, are not sufficient to address the incident, the chief executive or designee may declare an emergency for their affected jurisdiction.
- c. Requests for state assistance or the activation of the Ohio Fire Response Plan are made through the County EMA Director to Ohio EMA.

### 2. State

- a. County EMA Directors contact the SEOC Duty Officer to report incidents and request state assistance. Ohio EMA will direct all requests for resources to the appropriate state agency.
- b. State regulatory agencies are often notified and activated under their normal response capabilities and may already be on-scene. Further state response actions will be coordinated with and approved by the appropriate regulatory agencies before action is taken.
- c. If conditions warrant, Ohio EMA will activate the SEOC to provide state coordination and facilitation of operations.
- d. The Governor, through the Executive Director of Ohio EMA, is responsible for overall decision-making and coordination of state emergency operations.
- e. Ohio may request assistance from a variety of regional and national response teams which can offer expertise, equipment, and staff during an incident that does not require a declaration.

- f. Requests for federal assistance and/or a presidential disaster declaration are made through the SEOC to FEMA Region V.
3. Federal
- a. Under a presidential emergency or disaster declaration, the NRF is followed and assistance can be provided through federal ESFs.
  - b. Federal response actions include efforts to detect, identify, contain, cleanup, or dispose of released hazardous materials in support of state and local efforts.
  - c. The NRF's Oil and Hazardous Materials Incident Annex addresses oil and hazardous materials pollution; "Spills of National Significance" that are conducted through concurrent implementation of the NRF and the NCP. If radiological materials are involved, the coordination will take place through the NRF ESF #10 and the Nuclear/Radiological Incident Annex.
  - d. The federal agencies involved in a hazardous materials response make up the National Response Team, and depending on the type and size of the incident can include the following:
    - i. Environmental Protection Agency (USEPA)
    - ii. Department of Agriculture (USDA)
    - iii. Department of Defense (DoD)
    - iv. Department of Energy (DOE)
    - v. Department of Health and Human Services (HHS)
    - vi. United States Coast Guard (USCG)
    - vii. Federal Emergency Management Agency (FEMA)
    - viii. Department of the Interior (DOI)
    - ix. Department of Justice (DOJ)
    - x. Department of Labor (DOL)
    - xi. Department of State (DOS)
    - xii. Department of Transportation (DOT)
    - xiii. General Services Administration (GSA)
    - xiv. Nuclear Regulatory Commission (NRC)
    - xv. National Oceanographic & Atmospheric Administration (NOAA)
  - e. Federal and state ESFs will establish a direct liaison with each other and will jointly work at the SEOC, Joint Field Office (JFO) and/or at the site of the incident.

### C. Direction and Control

- 1. Field response direction and control is performed at the on-scene command post, established at the local level, and managed by the Incident Commander. Per Ohio Revised Code (ORC) 3737.80, in hazardous materials incidents:

“the chief of the fire department in whose jurisdiction the emergency situation is occurring or his designee is responsible for primary coordination of the on-scene activities of all agencies of the state, the United States government, and political subdivisions that are responding to the emergency situation until the chief relinquishes that responsibility to a representative of one of the responding public agencies and so notifies that representative.”

2. Other areas under direction and control of the Incident Commander include the staging area (local and state responder’s assembly area for personnel and equipment) and field monitoring team sites.
3. The main objectives of all state agency responders deployed into the field (at the site or in the local EOC) is to act as liaisons to the local responders, provide technical assistance, regulatory advice, compliance assistance, facilitate and direct state and federal assistance resources, and make recommendations on how to mitigate the problem. State responders follow state agency SOPs and Response Action Checklists.

#### D. Local Notification and Response

1. When a hazardous materials incident occurs, the response forces at the local level will receive notification from dispatch and make the initial response to control the situation. Local entities have emergency response plans for dealing with hazardous materials releases and have the means for initial and, in many cases, complete response to hazardous materials incidents.
2. Responders will receive the best direction for response actions from the manufacturer, owner, or operator of the hazardous material. ChemTrec (1-800-424-9300) is also a good reference and is officially recognized by the USDOT as the central emergency information service for transportation of hazardous materials incidents. ChemTrec also notifies the responsible shippers to follow-up and notifies the National Response Center (NRC) of significant incidents.
3. The owner/operator is required to report a release of an extremely hazardous substance, a hazardous substance, or oil in an amount equal to or exceeding the reportable quantity, as required by ORC 3750.06 and ORC 3748 to several sources:
  - i. Local fire department
  - ii. LEPC
  - iii. Ohio EPA, 1-800-282-9378 (for any unauthorized release of pollutants, oil, chemical incidents, or other wastes)
  - iv. ODH, 614-722-7221 (for radiological/biological incidents)
  - v. NRC, 1-800-424-8802 (federal requirement)

Notifications to special facilities such as schools, day care centers, hospitals, nursing homes, etc. are the responsibility of local government.

Notifications to other agencies may be required depending on the hazard:

- i. SFM, 1-800-589-2728
  - ii. PUCO, 1-800-642-3443
4. It is the local jurisdiction's responsibility to keep the public advised of the situation. The majority of the public will listen and heed warnings and protective action instructions. County EOPs address Emergency Alert Systems (EAS) and local public notification in detail.
  5. Meteorological information during a hazardous materials incident is crucial for determining response actions. Weather reports can be obtained by portable weather stations on site, and reports from National Oceanographic & Atmospheric Administration (NOAA), NWS, National Warning System (NAWAS), Federal Aviation Administration (FAA), ODOT's contracted weather service, and Radio Amateur Civil Emergency Service (RACES) weather spotters.
  6. Some hazardous materials incidents will be beyond the abilities of local responders. County EOCs can activate to assist in acquiring and managing resources. Incident Commanders can request local mutual aid assistance. Some jurisdictions may also have specific mutual aid agreements with non-governmental and/or private entities.
  7. The Incident Commander and/or the local EOC can request regional Hazardous Materials Teams by calling the Central Dispatch Center (1-888-822-4900) to activate the Ohio Fire Response Plan. When this plan is activated the SEOC is notified.
  8. Any additional requests for mutual aid will be processed through the County EMA Director. Under a local emergency declaration, the Intrastate Mutual Aid Compact (IMAC) may be utilized under ORC 5502.41.
  9. Any local requests for assistance from state agencies will be processed through the County EMA Director and forwarded to the SEOC.

#### E. Warning Systems and Emergency Public Notification

1. The initial warning of the public of an impending or actual hazardous materials emergency, and disseminating additional information is the responsibility of local government. For information on state public information refer to the [\*Ohio Emergency Operations Plan, ESF-15 Emergency Public Information and External Affairs.\*](#)
2. The State of Ohio has the ability to disseminate warnings to the public and may serve as an alternate or as backup to county EAS. For detailed information on state warning systems consult the [\*Ohio Emergency Operations Plan, ESF-2 Communications, Tab A Warning Plan, State of Ohio EAS Plan,\*](#) or one of the twelve [\*Operational Area EAS Plans.\*](#)

## F. Personal Protection of Citizens

1. Protection of citizens is a primary concern of first responders. The Incident Commander and local elected officials have the final authority and responsibility for evacuation decisions and implementation.
2. Refer to local EOPs, LEPC hazardous materials plans, and American Red Cross agreements for evacuation, medical support, and shelter information. These plans will take into account local factors such as notification, geography, transportation routes, and resources.
3. Some state agencies may assist local jurisdictions in performing these duties; refer to the [\*Ohio EOP ESF Annexes\*](#) for more information.
4. Depending on the incident, indoor sheltering and/or evacuation/relocation should be used. The decision will be based upon the specific material that has been released or spilled, its properties, toxicity, the arrival time of the plume, if applicable, and the time required for the endangered populations to evacuate the area.
5. Sheltering in place is often the best way to protect citizens in the area of a hazardous materials incident until the plume passes. If the wind speed causes the plume to move rapidly, nearby populations might not have time to evacuate. Citizens should seal/shut off all outside air sources (doors, windows, HVAC, dryer vents, etc.) and listen to radio or TV for additional instructions.
6. Evacuation is appropriate if the incident appears to be of a long-term nature, if sheltering in place will not protect the citizen, and if it can be accomplished prior to the plume's arrival.
7. Relocation for a long period of time, or permanently, may be necessary if the incident contaminates the soil, water, food, homes, etc. in the area. Relocation would last until the area is decontaminated or becomes safe due to time delay, and re-entry is allowed (see section III. Part O). There are several state and federal agencies that can assist in long-term relocation operations. Refer to the [\*State of Ohio Disaster Housing Strategy\*](#) for more information.

## G. Containment

1. Local hazardous materials hazmat teams coordinate the initial containment or prevention of the spread of the released material. Containment methods are incident specific; refer to the standard operating procedures of the responding fire departments, hazardous materials teams, and the responding state agencies.

2. Ohio EPA can provide assistance to local responders regarding response and containment measures for release of pollutants, oil, chemical incidents, or other wastes.
3. ODH can provide assistance to local responders regarding response and containment measures for radiological/biological incidents.

#### H. Initial Notification of State Response Agencies

1. The initial reporting of an incident to state agencies is typically made by local responders, a private citizen, the owner/operator, etc. Notification can be received by several state agencies: Ohio EPA, ODH, SFM, OSHP, PUCO, or Ohio EMA.
2. The state agency receiving the first notification or discovering the incident will contact the agency having lead responsibility for response based on the type of hazardous material (see page 2). The Ohio EMA Duty Officer is the back-up notification point of contact.
3. Most incidents are resolved through the combination of local and mutual aid resources, or with the assistance of the lead state agency.
4. If the response is beyond the capacity/capability of the lead agency, Ohio EMA shall be notified to coordinate assistance and resources from additional state agencies.
5. If two or more state agencies are involved, joint assessment of the problem and identification of the state actions required should be conducted. The SEOC may be activated to facilitate this state coordination. Notification of SEOC activation procedures is outlined in the *Ohio EOC Concept of Operations Plan*.

#### I. State Response Personnel Safety

1. Agencies that respond to hazardous materials incidents have SOPs in which responders are trained. These SOPs are kept on file at respective agency offices, and should be consulted for agency specific worker protection and guidelines. Response to incidents, methods of protection, and actions taken are dependent on the material involved and incident variables.
2. Hazardous materials SOPs should address the following topics: entering and leaving the scene; accounting for personnel; safety and health equipment; and decontamination.
3. Exposure limits are listed in SOPs for each local and state responding agency.
  - a. In cases where no established limit exists, the SEOC Assessment Group will consult with the manufacturer and references to set limits for specific operations.

- b. ODH has an agreement with the Central Ohio Poison Control Center for consultation in establishing standards for emergency worker exposure.
- c. For radiological incidents, the ODH has set exposure limits for radiation workers and the general population as authorized by ORC 3748.04.
- d. For chemical incidents, Threshold Limit Values (TLV) and exposure limits have been established and set by several agencies.
- e. Emergency Response Planning Guides (ERPG) estimate what physical reactions the public will have to chemical exposure. The scale ranges from ERPG1 (detectable, temporary mild effects) to ERPG3 (severe effects, not life threatening). The ERPG should serve as a planning tool and not a standard to protect the public, as there is no safety factor built in and it doesn't account for hypersensitive individuals.
- f. Another listed limit that is important is the Immediately Dangerous to Life and Health (IDLH) limit value. IDLHs are listed in several documents: NIOSH pocket guide, USEPA chemical profiles, Material Safety Data Sheets (MSDS) available from industry, and the CAMEO database.

#### J. State Emergency Operations Center

1. If the SEOC activates, it will operate according to the [\*EOP Base Plan\*](#) to coordinate state resources, request federal assistance, and provide technical assistance. The SEOC activation can range from activation of the Assessment Group only, to a full activation of all state ESFs.
2. The SEOC may not activate if responders only require specialized assistance available through a federal agency. Prior to notifying any federal agency for radiological incidents, the ODH Bureau of Radiation Protection must be contacted.
3. When the SEOC is activated, the SEOC Assessment Group is formed to use data from the field to provide technical analysis and assistance. Assessment Group experts can provide assistance when requested to:
  - a. Track meteorological conditions
  - b. Project hazardous materialshazmat concentrations using atmospheric dispersion/plume models (e.g. ALOHA, RASCAL, HOTSPOT)
  - c. Recommend protective actions (i.e. evacuations or shelter in place)
  - d. Project dose, dose rates and exposure rates
  - e. Estimate offsite consequences

- f. Project the environmental impact
  - g. Assess resources required from federal or private industry
  - h. Advise on various transportation closures (air, rail, water, road)
  - i. Evaluate, develop guidance, and provide technical review of remediation, disposal, recovery, and re-entry plans
4. Recommendations for the public and emergency responders are given to local officials/Incident Commanders/county EOC (or via the Executive Group if activated). Local representatives have the final decision concerning safety within their jurisdiction and can modify or reject state recommendations during the evacuation phase. . State Agencies can issue advisories to the public; Embargoes must be followed and will be enforced.
  5. State Agencies can issue advisories to the public to recommend actions to reduce the potential for harm. In some circumstances, state agencies can issue embargoes or orders under their agencies' authority to halt specific actions in the hazard area to prevent harm to the public. These embargos/orders must be followed and will be enforced.
  6. The Ingestion Zone Re-entry and Return Advisory Group (IZRRAG) activates during radiological incidents to advise the Executive Group on matters relating to control of deposited radioactive material. IZRRAG works with the Assessment Group to determine areas where the public may or may not reside and where food may or may not be harvested, ingested, or sold.

#### K. State Hazardous Materials Resources and Capabilities

1. Each state agency with legislative authority for hazardous materials maintains a list of resources available and SOPs for activation and deployment of personnel, equipment, and supplies for response operations at its own discretion. When the SEOC is activated, Ohio EMA is the state coordinating agency for mission requests from the County EOCs.
2. Many state agencies maintain lists of and agreements with contractors that have expertise in hazardous materialshazmat operations, personnel, specialized equipment, and laboratory services. These lists are kept on file in respective agency offices.
3. Additional experts and equipment can be accessed through organizations such as ChemTrec, the Ohio Chemistry Technology Council, the American Chemical Council, the Great Lakes Spills Cooperative, the Petroleum Council, the Conference of Radiation Control Program Directors, and the Centers for Disease Control and Prevention (CDC).

#### 4. State Hazardous Materials Response Teams

- a. Ohio EPA On-Scene Coordinators (OSCs) provide technical assistance to the local Incident Commander and oversight of cleanup activities which are the responsibility of the owner/operator. An OSC may also report to the county EOC to assist in the coordination of field activities. An OSC:
  - i. Coordinates monitoring of contamination/pollution during an incident
  - ii. Provides advice on acceptable cleanup levels based on potential health effects and environmental regulation
  - iii. Provides guidance for disposal of hazardous materials
  - iv. Provides plume modeling through ALOHA
  - v. Completes a report on the investigation and response for the incident
- b. Ohio EPA Evidence Response Team (ERT) provides support to lead agencies in the processing of a WMD crime scene to secure evidence and assess environmental impacts as a result of the incident. This includes entry into hazardous environments (hot zone) in Level A PPE. This team would work closely with the National Counter-Terrorism Evidence Response Team (NCERT).
- c. Ohio EPA Radiation Assessment Team (RAT) provides sampling of soil, forage (ground cover), snow, drinking water, and surface water.
- d. ODH, Bureau of Radiation Protection (BRP), has a 24 hour radiological emergency response capability and has incident response procedures for radiological incidents. BRP will respond to requests from local incident command to make recommendations for effective control of radiation and radioactive materials. The BRP maintains a dedicated incident response vehicle containing a variety of protective equipment, instrumentation and equipment for the localization, identification, quantification, isolation and recovery of radioactive sources and contaminants.
- e. The ONG, CBRNE Enhanced Response Force Package (CERFP) supports the Incident Commander by assisting with search and rescue, decontamination, medical requirements, and security of scene.
- f. The ONG, 52<sup>nd</sup> Civil Support Team can provide Weapons of Mass Destruction support to civil authorities, if terrorism is suspected as the cause of the incident, through the IC at a CBRNE site by:
  - i. Presumptively identifying unknown CBRNE agents/substances
  - ii. Assessing current and projected consequences
  - iii. Advising on response measures
  - iv. Assisting with appropriate requests for state support

## L. Federal Hazardous Materials Response Teams

1. The state can also request personnel and equipment from federal agencies such as U.S. EPA, DOE, the Region V RRT, and private organizations.
2. U.S. Environmental Protection Agency (U.S. EPA):
  - a. U.S. EPA Region V provides technical assistance and On-Scene Coordination including emergency response in the form of air and water quality monitoring, soil monitoring, site assessment, and drum over-packing. U.S. EPA will respond to most emergencies if requested by the state or a federal agency. Ohio EPA and U.S. EPA coordinate on any emergency response response in Ohio.
    - i. Environmental Response Team (ERT) is a group of EPA technical experts who provide:
      - Around-the-clock assistance at the scene of hazardous substance releases
      - Expertise in such areas as treatment, biology, chemistry, hydrology, geology, and engineering
      - Support to the full range of emergency response actions, including unusual or complex emergency incidents
      - Special equipment and experienced responders, and can provide the OSC or lead responder with experience and advice.
    - ii. Radiological Emergency Response Team (RERT) coordinates or assists Federal, state, tribal, and local response efforts before, during, and following a radiological incident by providing support in various forms:
      - Technical advice and assistance to prevent or minimize threats to public health and the environment.
      - Advice on protective measures to ensure public health and safety.
      - Assessments of any release for dose and impact to public health and the environment.
      - Monitoring, sampling, laboratory analyses and data assessments to assess and characterize environmental impact. Staff from EPA's National Air and Radiation Environmental Laboratory and its Radiation and Indoor Environments National Laboratory provides monitoring and assessment services both at the labs and at the response site, if needed.

- Technical advice and assistance for containment, cleanup, restoration, and recovery following a radiological incident.
- iii. National Decontamination Team (NDT) – NDT provides scientific support and technical expertise for decontamination of buildings, building contents, public infrastructure, agriculture, and associated environmental media. Specialized resources include:
  - Expertise, such as biochemistry, microbiology and medicine, health physics, toxicology, HVAC engineering, and industrial hygiene
  - Airborne Spectral Photometric Environmental Collection (ASPECT)
  - NDT Mobile Communications
  - Portable High Throughput Integrated Laboratory Identification (PHILIS)
  - Hazardous Environment Robotic Observer (HERO)
  - Radiation Task Force Leader (RTFL)
  - Decon Portfolio
  - Equipment Module
- iv. National Counter-Terrorism Evidence Response Team (NCTERT) Composed of investigative and scientific personnel to provide investigative, scientific, and forensic technical advice, assistance, and other threat assessment in support of responders.
- b. U.S. Department of Energy (DOE) – DOE is the OSC at all DOE-owned facilities. The only remaining DOE facility in Ohio is the Portsmouth Gaseous Diffusion Plant. Detailed information on this site is contained in the DOE Annex (Tab A). DOE has the following resources available to respond, regardless of the location of the incident.
- c. The National Nuclear Security Administration (NNSA) has scientists, engineers, and technicians with experience in managing the nation’s nuclear weapons program. DOE/NNSA responds immediately to any type of radiological accident or incident anywhere in the world with the following seven radiological emergency response assets:
  - i. Aerial Monitoring System (AMS) uses helicopter and fixed wing aircraft to detect, measure, track, and produce maps of radiation exposure and concentration radioactive material at an emergency in support of ground monitoring teams.

- ii. Atmospheric Release Advisory Capability (ARAC) develops timely, accurate, realistic, and predictive plots or maps, generated by sophisticated computer models, of potential radiation dose and exposure assessments, and estimates of the path of nuclear contaminants released into the atmosphere.
  - iii. Accident Response Group (ARG) is deployed to manage or support the successful resolution of a U.S. nuclear weapons accident anywhere in the world.
  - iv. Federal Radiological Monitoring and Assessment Center (FRMAC) coordinates and manages all Federal radiological monitoring and assessment activities during major radiological emergencies within the United States in support of state, local, and Tribal governments through the Lead Federal Agency (LFA).
  - v. Nuclear Emergency Support Team (NEST) provides the nation's specialized technical expertise to the Federal response in resolving nuclear/radiological terrorist incidents. Technical support includes: search teams, bomb identification, diagnostic teams, disabling teams, public information, technical assistance, and accident assessment teams.
  - vi. Radiological Assistance Program (RAP) provides a flexible, around the clock response capability to Federal agencies, state, Tribal, and local governments and to private businesses or individuals for incidents involving radioactive materials. RAP's support ranges from giving technical information or advice over the phone to sending highly trained people and state-of-the-art equipment to the accident site to help identify and minimize any radiological hazards.
  - vii. Radiation Emergency Assistance Center/Training Site (REAC/TS) maintains an around-the-clock response center to provide treatment and medical consultation for injuries resulting from radiation exposure and contamination. REAC/TS can also provide direct support including deployable equipment and personnel trained and experienced in the treatment of radiation exposure, to assist Federal, state, Tribal, and local organizations.
- d. Region V Regional Response Team (RRT) provides support during very large releases or during releases that cross State or International boundaries.
- i. The RRT is composed of federal agencies as well as a representative from each of the FEMA Region V States (Ohio EPA is the State of Ohio representative on the RRT).

- ii. The Region V RRT is co-chaired by the USCG Ninth District and US EPA Region V, either of which may provide a Federal On-Scene Coordinator (FOSC) to an incident.
  - iii. The RRT can provide a state OSC with assistance in the form of technical advice, equipment, personnel, funds, and the coordination.
  - iv. The RRT coordinates assistance and advice to the FOSC and/or the Remedial Project Manager during response actions.
  - v. For detailed information on the RRT, its member agencies, activation of the RRT, or Ohio's relationship and responsibilities refer to the *Regional Contingency Plan*, sections II (Notification & Reporting) and IV (Responsibilities).
- e. U.S. Coast Guard (USCG) – USCG responds to incidents on navigable waterways and can also respond to land-based spills. Generally, the source of the spill and the physical location of the release determine whether the U.S. EPA or the USCG has the federal lead- USCG will have the lead in all releases originating from vessels.
- i. The USCG is a Federal OSC and can supply personnel and equipment for incidents within its boundaries involving port or vessel related losses.
  - ii. The 9th USCG District offices are located and operate on Lake Erie in Cleveland and Toledo. They can respond to hazardous materials incidents on Lake Erie, its tributaries, and on land up to 10 miles inland.
  - iii. There are also three USCG Atlantic Strike Teams that can provide assistance.
  - iv. The 8<sup>th</sup> USCG District operates and can respond to hazardous materials incidents on in-land navigable waterways and the Ohio River within Ohio's borders.
  - v. The 9th and 2nd Districts have agreements with the Ohio EPA covering the response to hazardous materials incidents on all Ohio waterways.
- f. U.S. National Response Team (NRT) is an organization of 15 Federal departments and agencies responsible for coordinating emergency preparedness and response to oil and hazardous substance pollution incidents.
- i. The Environment Protection Agency (EPA) and the U.S. Coast Guard (USCG) serve as Chair and Vice Chair respectively.
  - ii. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) and the Code of Federal Regulations (40 CFR part 300) outline the role of the NRT and Regional Response Teams (RRTs).

- iii. The response teams are also cited in various federal statutes, including Superfund Amendments and Reauthorization Act (SARA) – Title III and the Hazardous Materials Transportation Act [HMTA].
- g. FBI Hazardous Material Response Team (HMRT) responds to criminal acts and incidents that involve hazardous materials. The team provides technical and scientific response to assist with crime scene and evidence-related operations in cases involving chemical, biological, and radiological materials and wastes.
- h. U.S. Department of Transportation operates the Railroad Safety Board and the National Transportation Safety Board; both investigate the causes of transportation accidents. The agency has no response role other than post-incident investigations.

#### M. Monitoring, Sampling, and Assessment

1. Local responders and hazardous materials hazmat teams can be assisted by state agencies to detect and evaluate hazards and provide an incident assessment based on the potential health effects of the material. This information determines the response taken by the hazardous materials response teams.
2. The State's role in advising and assisting in monitoring, sampling, and assessment is to gather and furnish information for response assessment and material disposal to the facility, local, state, or federal responders. State personnel work in coordination with the SEOC Assessment Group to provide:
  - a. Hazardous materials response teams
  - b. Monitoring and sampling
  - c. Sample analysis evaluation
  - d. Dose/concentration exposure and rate projections
  - e. Incident and/or hazard assessment and response
3. Field monitoring teams collect data to help define hazardous material movement and concentrations, validate model dose/exposure projections, and verify the basis for protective action recommendations. Field monitoring teams set up at sites in the most advantageous locations possible to collect samples and information to pass along to the Assessment Group at the SEOC.
4. Hazardous materials sampling instruments are available for air (Ohio EPA and ODH BRP), water and soil (ODNR and ODH BRP), and vegetation (ODA and ODH BRP). Environmental sampling is incident specific and is accomplished as per respective agency SOPs. Field analysis of water, air, and hazardous substances is limited.

5. Several state agencies have in-house or contracted laboratories to provide analytical information on samples:
  - a. ODA- In-house
  - b. Ohio EPA- In-house and contracted
  - c. ODH- In-house radiological and biological analysis laboratory
  - d. ODNR- In-house (limited capabilities)
  - e. SFM- In-house
  - f. OSHA Bureau- Contracted
6. The Ohio EPA On Scene Coordinator (OSC) can provide field monitoring/sampling information on chemicals to the Incident Commander. ODH personnel can provide monitoring/sampling information on biological and radiological contamination.
7. Monitoring and sampling results are applied to dose/concentration projections to determine response and protective action recommendations which are immediately forwarded to the affected jurisdictions' Incident Commands/EOCs. The SEOC Assessment Group, if activated, can make initial and long-term protective action recommendations based on this information.
8. For incidents affecting the Ohio River, Ohio EPA OSCs work in conjunction with the Ohio River Sanitation Commission (ORSANCO) in evaluating spill impact. ORSANCO provides downstream concentration projections via automated chromatographs.
9. The on-scene field forces (local and state) will continue monitoring the air, water, soil, and animals to determine if the situation is intensifying or dissipating and the level of contamination. The Assessment Group can make protective action recommendations on contaminants and when to allow the repatriation of evacuees.
10. After sheltering/evacuation recommendations are lifted, there may still be restrictions on food, water, operating in contaminated areas, etc.

N. Water and Food Evaluation and Control

1. If water, food, livestock or agriculture is contaminated in a hazardous materials incident, state agencies assist in the damage assessment, sampling, monitoring, evaluation and control of these items.

<u>Water</u>	<u>Food</u>	<u>Livestock/Agriculture</u>
ODH (private)	ODA/ODH	ODA
ODNR (streams)	Local Health Depts.	Local Veterinarians
Local Water District		
Ohio EPA (public, groundwater, streams)		

2. Assessment and sampling are done initially to determine if protective actions must be implemented to provide uncontaminated food within the affected area. All warnings, instructions, and/or restrictions in the use or consumption of food and water will be relayed to the public through the EAS, the media, health advisories, and/or other established means.
3. Evaluation of food, processing, and distribution on the state level is accomplished by ODA. Food control is accomplished by ODA, with assistance from local health departments.
4. ODH provides technical and field assistance to local health departments in evaluating food service operations.
5. ODA samples and evaluates livestock, poultry, crops, food, food ingredients, milk, and milk products for contamination.
6. ODNR will sample and analyze fish and wildlife that may become part of the human food consumption chain.
7. If field samples are found to exceed the compliance guidelines set by the US Department of Agriculture (USDA), Food & Drug Administration (FDA), or ODA, control actions may be issued to prevent contaminated food from being consumed or entering the market. Follow up monitoring and collections will continue until the threat has diminished.
8. ODH Public Health Lab handles samples collected for the purpose of analyzing for radioactive material. Samples may also be sent to an outside, accredited laboratory.
9. ODA, in coordination with ODH, will issue health advisories for all food products and food ingredients, including but not limited to Grade A and B milk, meat, poultry, fruits, vegetables, and processed foods for safety in human consumption.

10. Water regulation and restriction control is performed by ODH, ODNR, and Ohio EPA with coordination from local level response and water utility personnel. Water control includes private water systems, public waterways, ground water, and public water supplies.
11. Ohio EPA implements state and federal safe drinking water standards. In conjunction with public water supply utilities and ODH, Ohio EPA will sample and/or monitor drinking and ground water as necessary and coordinate the use of health advisories warning of contamination or restrictions on the water use when appropriate.
12. The Bureau of Environmental Health (ODH) is responsible for certifying the effectiveness of local health departments' private water programs. They may consult with local health departments to assist in abatement of water related public health hazards and with Ohio EPA regarding results of non-radiological contamination and pollutants following an incident. ODH will also conduct private water system sampling in coordination with Ohio EPA or with ODH Bureau of Radiological Protection in the event of a radiological release.
13. ODNR's Divisions of Water and/or Geologic Survey can provide data, models, and interpretation of field data in relation to an affected area's hydro geologic characteristics to determine susceptibility and extent of pollution to surface, groundwater, and aquifers. In addition, they can also provide technical assistance on appropriate courses of action, effects on and availability of groundwater, and procurement of emergency water supplies.

#### O. Re-entry

1. Re-entry is allowing the public to return to the recently endangered area to continue normal daily activities. Once safe levels have been attained, the Incident Commander will make the determination on removing protective actions and allowing re-entry. Operations are incident-specific.
2. State agencies (Ohio EPA, ODH, ODA, ODNR) can provide technical assistance through monitoring and sampling to determine if a health or environmental hazard continues to exist, and what types/level of activities could be conducted upon re-entry. Private cleanup contractors and federal agencies also have the equipment and expertise to assist in this determination.
3. A determination for re-entry is based upon the acceptable residual levels of the released material in the air, water, vegetation, and soil as established in statute, by rule, or through risk assessment.
4. The public will be informed when areas are opened for re-entry in the same ways they were warned to leave: sirens, emergency alert broadcast systems (EAS), media, etc. State agencies can make recommendations on how to best implement re-entry and

assist with operations (similar to those used for evacuation) such as warning, traffic control, transportation assistance, etc.

#### P. Decontamination

1. State agencies may conduct decontamination for their own specialized teams, or they may rely on local fire/hazardous materials hazmat teams or cleanup contractors to decontaminate state personnel and equipment (methods are based on individual local and state agency SOPs).
2. Medical facilities such as hospitals have varying degrees of decontamination equipment and SOPs that address treatment for hazardous materials exposures. Some hospitals do not accept hazardous materials victims until they go through mass decontamination.
3. The inspection, inventory, decontamination, replacement and return of equipment to field operation are the responsibility of each individual state agency. Equipment involved in a radiological event is subject to the review by ODH BRP.
4. For radiological incidents, ODH Bureau of Radiation Protection coordinates: any decontamination efforts and population monitoring.
  - a. Radiological population monitoring efforts;
  - b. All personnel and equipment radiological decontamination efforts;
  - c. Tracking and control of radiologically contaminated equipment, materials, tools, and vehicles;
  - d. Tracking and control of radiological waste; and
  - e. Review and evaluation of all equipment, materials, tools, and vehicles released from radiologically contaminated areas.

#### Q. Cleanup, Restoration, and Disposal

1. Cleanup is the act of physically eliminating/removing/disposing the residue or the actual spilled material. Cleanup operations are incident specific and are the responsibility of the owner/operator. A list of environmental cleanup contractors is available through Ohio EPA.
2. State agencies oversee the cleanup operations and provide technical assistance to the owner/operator or contractor, and usually do not get involved in the actual "hands-on" work. State agencies have lists of approved storage or disposal sites according to CERCLA, RCRA and ORC 3748.

3. Ohio EPA and/or ODH may review the work plan for remediation and cleanup based on protective health guidelines, risk assessment, or other applicable requirements.
4. Restoration of the contaminated area to its original state or acceptable level of contamination and could range from very minor (strictly cleaning up the debris), to extremely extensive- which may take years (i.e. replacing contaminated soil, replanting trees and flora, replacing fish and wildlife populations). State agencies provide regulatory oversight of the owner/operator and contractors. Some state agencies could assist in the operations.
5. Contaminated debris related to the incident must be separated from non-contaminated debris and sent to a special site for disposal. The [Ohio EOP ESF-3, Tab A, Debris Management Plan](#) for further details.
6. Wildlife rehabilitation... OEPA and ODNR will provide support and coordination of agencies participating in rehab.....
7. Post-incident accident surveying and continued confirmatory sampling/monitoring of the air, water, and soil would be based on the recommendations of the Ohio EPA, ODH, ODA and/or ODNR.

#### R. Documentation & Investigative Follow-Up

1. Documentation includes the recording of information during and after an incident from each involved agency, including all of the pertinent actions and resources used, from notification to the close-out of incident operations. Methods of documentation, whether they are individual logs, team logs, field reports or specific formal reports, are specific to each responding agency; refer to the individual agency's SOPs.
2. Investigative follow-up is performed at the scene by state and federal agencies to determine the circumstances prior to and the actual cause of the incident. Some incidents require no investigation as the causes are apparent. State agencies potentially involved in the investigation include: Ohio EPA, SFM, ODA, ODH, ODNR, Ohio EMA (for purposes of a response evaluation and critique), PUCO, OSHP, and ODOT. Federal agencies involved also include: the FAA for incidents involving air transportation; the Federal Railroad Administration; the National Transportation Safety Board for all modes of transportation accidents; the US Nuclear Regulator Commission and USDOE for radiological incidents, the Department of Defense concerning military incidents; USEPA, USCG, USDOT, USCDC , the Chemical Safety Board, and the Bureau of Explosives.
3. At the end of an incident the local responders and state agencies (if involved) will be asked to critique and report on the overall emergency operations to the lead responding agency. Documented reports and investigative follow-up reports are to be consolidated into a final incident report of recommendations, distributed to all

participating agencies, and kept on file for future reference. A copy will also be sent to the Governor, if appropriate.

4. Documentation and investigative follow-up may be used to monitor for long term health effects, for state agencies to take legal actions against the owner/operator if they are negligent or violating safety laws, and for recovery of response costs.

#### S. Training

1. All state agency personnel who deal with hazardous materials incidents during any phase of the operation (mitigation, preparedness, response, or recovery) should obtain initial (Awareness Level) and advanced training (Operations, Technician, Specialist, or On-Scene Incident Commander Levels) appropriate for their role in order to meet the requirements of OSHA 1910.120 (HAZWOPER).

### **IV. ORGANIZATION AND ASSIGNMENT OF RESPONSIBILITIES**

#### A. Organization

1. The direction and control of state response agencies is dependent upon the magnitude of the particular incident. Small incidents may be directed and controlled at the scene of the incident; whereas large scale/major incidents that involve a multiple state agency response require a greater degree of coordination. Agencies will be activated by Ohio EMA for assessment, response, and recovery operations at the SEOC if needed.
2. Ohio EPA is the primary state agency that coordinates state support for hazardous materials incident response and remediation. Responsibilities include manning the ESF-10 desk, coordinating ESF-10 activities and support agencies in the SEOC, tracking missions, conducting briefings and writing reports. Where possible, the ESF-10 agency will defer to the lead agency for specific brief outs and reports for mission details.

#### B. Assignment of Responsibility

1. Lead Agencies
  - a. The Ohio EPA, ODH, and SFM have a legal responsibility to be the initial responding state agencies during hazardous materials incidents according to each agency's enabling legislation, as found in the Ohio Revised Code.
  - b. These three lead agencies will provide personnel, technical advice/assistance, and equipment to the incident site command post, off-site local command post, staging area, involved county EOC, mass care shelters, SEOC, or any other place they may be needed.

- c. The agencies are capable of sustaining continuous 24-hour operations in the roles of protective operations, either in the EOCs or the field. These agencies are notified of the situation using appropriate notification procedures. Specific roles and responsibilities for each agency are outlined in the following pages.
2. Ohio Environmental Protection Agency (Ohio EPA)
- a. Ohio EPA's lead response function in a chemical hazardous materials incident is to support local response efforts and provide technical assistance to abate water, land and air pollution, protect human health and ensure the safety of public waters and drinking water supplies. Ohio EPA also provides technical assistance on the management and disposal of solid, infectious, and hazardous wastes. Chapter 3704, 3734, 3745, 3750, and 6111 of the ORC provide the legal authority for the Ohio EPA's actions.
  - b. As the lead agency for chemical incidents, Ohio EPA will report to the SEOC. A team of personnel may also be called to the SEOC to support operations. Members of this team may include the following:
    - i. Emergency Response Section Manager
    - ii. Emergency Response Supervisor
    - iii. Ohio EPA Duty Officers
    - iv. Radiological Health Physicist
    - v. Public Drinking Water or Solid Waste Support Staff
    - vi. Other Agency Representatives as the situation dictates
  - c. SEOC response involves:
    - i. Acting as the lead agency during chemical hazardous materials incidents,
    - ii. Supporting other State agencies, to provide advice, monitoring, and coordination of the removal, neutralization, and/or disposal of hazardous materials from the incident scene in compliance with appropriate laws and regulations,
    - iii. Providing a representative to the Assessment Room to perform chemical dose projection and other assessment functions,
    - iv. For chemical incidents, acting as a liaison with U.S. EPA and USCG when their assistance is involved or requesting activation of an incident specific Regional Response Team in accordance with the National Contingency Plan,
    - v. Taking environmental sampling of soil, water, and vegetation and providing analysis through contracted and in-house laboratories,
    - vi. For chemical waste, acting as the lead agency for regulation of hazardous waste management (except for transportation registration and regulation),
    - vii. For chemical waste and/or other contaminated materials, advising the counties of the selection of debris disposal sites as it relates to environmental protection,
    - viii. Assisting the counties in obtaining Federal assistance for the restoration of damaged public facilities and property, and

- ix. For chemical incidents, directing and monitoring the decontamination of public waterways and potable water facilities in anticipation of and during an incident.
- d. Testing of public drinking water is coordinated between Ohio EPA and the local public water utility to ascertain the water's safety for consumption. d.The water utility is responsible for notifying the public of any water use restrictions.
- e. Field Response: The Ohio EPA is designated under section 3750.06 of the ORC to receive notification of oil and hazardous substances (CERCLA-103) releases to the environment from facilities and transporters. The Division of Environmental Response and Remediation (DERR) provides notification to other state agencies, as necessary. Ohio EPA On-Scene Coordinators (OSCs) respond to hazardous materials incidents. Upon arriving at a hazardous materials incident, OSCs investigate and assess the source and extent of pollution, and evaluate or initiate containment measures. The OSC provides technical assistance to the local Incident Commander, and provides direction to the owner/operator that is responsible for cleanup.
- f. Ohio EPA may also dispatch field responders to:
  - i. Assess the impact of a release and evaluate cleanup alternatives.
  - ii. Report results of assessments and incident information to the SEOC.
  - iii. Liaison with County Emergency Operations Centers and federal responders.
  - iv. Provide technical assistance and support on management and disposal of debris, and infectious and solid waste.
  - v. Provide technical assistance and support to local water treatment facilities to protect water supplies.
  - vi. Provide guidance concerning collection of samples from a suspected biological incident.
  - vii. Ensure that the Ohio Protocol for Handling Biologic Incidents is followed.

For radiological incidents, Ohio EPA assists ODH with assessment by conducting environmental sampling of soil, water, and vegetation to quantify the level of radioactive contamination.

- g. Restoration: Ohio EPA's role in restoration activities in response to a hazardous materials incident is related to cleanup. This involves coordinating the removal, neutralization, and proper disposal of hazardous and contaminated materials from the incident scene.
- h. USCG, USEPA and Regional Response Team (RRT) Liaison: Ohio EPA is the state's liaison to the USCG, USEPA and RRT. If the state feels that it requires additional technical assistance, or that the incident will exceed the state's financial limitations, the state, through OEPA's Division of Emergency and Remedial Response, may request assistance from the USCG, USEPA and RRT.

### 3. Ohio Department of Health (ODH)

- a. ODH is the lead state agency for incidents involving nuclear, radiological or biological incident response and remediation.
- b. The lead response function of ODH in a hazardous materials incident is to minimize or limit significant exposures to radiological material and biological agents, as well as provide technical coordination of state agencies for nuclear, radiological or biological incident response and remediation.
- c. ODH coordinates the Assessment Group in the State EOC for nuclear or radiological incidents and:
  - i. makes protective recommendations for the general public, the institutionalized, first responders, and other emergency workers; and
  - ii. passes these protective recommendations to the Executive Group (if operational) for approval or directly to appropriate local officials, Unified Command, or local Incident Command.
- d. For biological incidents, the ESF 8, Public Health and Medical Services Annex C, “Human Infectious Disease Incident Plan” discusses this process for protective recommendations and actions.
- e. ODH may dispatch field responders to:
  - i. assess the impact of a release and evaluate cleanup alternatives.
  - ii. report results of assessments and incident information to the SEOC.
  - iii. liaison with County Emergency Operations Centers and federal responders.
  - iv. Provide technical assistance and support on management and disposal of debris, and infectious and solid waste.
  - v. Provide technical assistance and support to local water treatment facilities to protect water supplies.
- f. Radiological Incidents: Lead- Bureau of Radiation Protection (BRP)

As the lead agency for radiological incidents, ODH will report to the SEOC. A team of personnel may also be called to the SEOC to support operations.
- g. SEOC response involves:

- i. providing representatives to lead the SEOC Assessment Group, perform dose projections/plume modeling or other assessment of the hazard, review protection action guidelines, develop and issue protective recommendations;
  - ii. providing advice to local health departments;
  - iii. developing recommendations for mass prophylaxis and make appropriate recommendations to local officials or public health organizations; coordinating and directing radiological sampling by local or state field monitoring teams;
  - iv. coordinating and directing radiological monitoring by local emergency responders;
  - v. making ODH laboratory facilities available to the Ohio EMA and other State agencies following an incident; and
  - vi. making physicians available to answer medically related questions.
  
- h. Field response: In most events, an ODH Radiological On-Site Supervisor may report to the incident scene or county EOC to coordinate field activities, obtain data, and provide technical assistance to the Incident Commander. ODH personnel respond to the field and work with local health department personnel and the local Health Commissioner to perform monitoring and provide health services. In nuclear or radiological events that warrant a field response, ODH will send a qualified incident responder or a team of responders, depending on the magnitude of the event and the request from local officials or incident command.
  
- i. ODH field response involves:
  - i. dispatching ODH Health Physicist representatives/team to assist local officials, the Incident Commander, hospital, or the affected facilities, depending on the magnitude and scope of the event;
  - ii. obtaining radiological data for the Incident Commander and SEOC;
  - iii. advising the Incident Commander on techniques to minimize radiation exposure to emergency responders;
  - iv. advising the Incident Commander on radiological monitoring;
  - v. advising the Incident Commander on control of radiological contamination;
  - vi. if the Assessment Group of the SEOC is not operational, provide an assessment of the incident and protective recommendations to local officials or incident command;
  - vii. providing health advice based on monitoring results;
  - viii. investigating exposures and potential health problems from radiological/ nuclear materials exposures;
  - ix. coordinating with ODH Bureau of Environmental Health;
  - x. coordinating with local health departments to ensure the capability of safe food handling at mass feeding centers established for an incident;
  - xi. providing guidance concerning collection of samples for nuclear or radiological incidents; and
  - xii. maintaining the proper chain of custody for samples/evidence that is sent to the ODH lab for analysis.

- j. Restoration and recovery activities include:
- i. Regulatory oversight, in coordination with Ohio EPA and U.S. EPA as applicable:
    - Specifying the radiological site cleanup criteria that satisfy the state's free-release criteria listed in 3701:1-38-22 of the Ohio Administrative Code or that have been negotiated and are as low as reasonable achievable while ensuring public health and safety of the critical group or affected population;
    - Review and approval of the site remediation plan and activities by the owner/operator or contractor;
    - Performing confirmatory radiological monitoring to verify the site cleanup criteria have been met by the owner/operator or contractor and that the site is ready for release and reutilization; and
    - Ensuring that efforts to control the spread or migration of radiological contamination are established along with a program to collect and control radiological waste in accordance with the Debris Management Plan.
  - ii. Evaluating and assigning radiological dose to the members of the affected population, including emergency workers;
  - iii. Establishing a program to track long term health effects from the radiological dose, in coordination with the CDC;
  - iv. Coordinating the release of reentry health and safety information to the public or affected population;
  - v. Leading the state's reentry activities, including coordinating the sampling of food, water, wildlife, and the environment by other state agencies, as appropriate.
  - vi. ODH should be consulted for techniques for spill containment and cleanup for any incident involving a radiological/nuclear agent.
- k. Biological: Lead- Bureau of Infectious Diseases (BID)

As the lead agency for biological incidents, ODH will report to the SEOC and activate [\*ESF 8 Public Health and Medical Services Plan\*](#) including [\*Tab C, "Human Infectious Disease Incident Plan"\*](#).

SEOC response involves:

- i. Providing health advisories and recommendations to local health departments, medical providers, and the general public;
- ii. Developing recommendations for mass prophylaxis and making appropriate recommendations to local health departments and medical providers, and;
- iii. Providing recommendations regarding patient testing, where needed.

BID should be consulted for techniques for spill containment and cleanup for any incident involving a biologic agent.

1. Chemical: Support- Bureau of Environmental Health (BEH)

BEH provides technical assistance for toxic chemicals to Ohio EPA.

SEOC and field response includes:

- i. Ensuring the safety of private water through private water system sampling, oversight of LHDs, and the provision of public information.
- ii. Coordinating with Ohio EPA and local health departments on the identification of alternate water supplies to individuals.
- iii. Coordinating with Ohio EPA on assessing public health exposure and impacts from release of toxic chemicals to the environment.
- iv. Providing health advisories and recommendations.

4. Department of Commerce - State Fire Marshal (SFM)

- a. SFM is the lead agency for technical coordination of state agencies for fire/explosion incident response and remediation.
- b. SFM can assist in communications at the off-site incident command post(s).
- c. If requested by the Incident Commander or when appropriate, can dispatch the SFM Major Incident Response Vehicle (MIRV) to:
  - i. Assist local organizations in the establishment of an off-site incident command post for emergency personnel.
  - ii. When able, provide communications links between the field and other response organizations to aid in coordinating response units.
  - iii. Provide information related to firefighting response, hazardous materials and the availability of firefighting equipment on an area-specific basis.
  - iv. Provide a portable weather station to assist in on-site weather assessment.
- e. When appropriate, assist in the investigation of the cause, origin, and circumstances of fires and explosions.

## C. Support Agencies

### 1. General

- a. The State of Ohio support agencies provide additional support, personnel, advice, and equipment to the county and state agencies already involved. The support agencies are also capable of sustained continuous twenty-four hour operations.
- b. Notification of support agencies and their personnel is conducted in the same manner. Any state agencies not listed here may provide additional support based on the needs of the particular hazardous materials incident.

### 2. Ohio Emergency Management Agency (Ohio EMA)

- a. Ohio EMA supports the activities of all state agencies by providing communications, information support, and off-site coordination during emergency response and recovery. Refer to the [\*Ohio State Emergency Operations Plan, ESF-5 Annex\*](#) for more detailed information.
- b. In addition, Ohio EMA will activate the SEOC to coordinate state agencies and/or provide a representative to the Assessment Room to perform dose assessment and concentration exposure determinations.
- c. Ohio EMA may deploy Field Liaisons to the County EOC to assist with coordinating field activities and providing information to the SEOC.
- d. The State of Ohio Emergency Mobile Communications Vehicle can be deployed to the field to assist with communications. This resource would be placed strategically as required by the specific situation.
- e. The State PIO may report to the field JIC near the affected site to coordinate incident information with the SEOC.
- f. Ohio EMA Radiation Monitoring Teams may be requested by ODH to support air monitoring. This team reports to the Command Post or Staging Area and is placed strategically as required by the specific situation.

### 3. Adjutant General's Department, Ohio National Guard (ONG)

- a. The Ohio National Guard (ONG), commanded by the Governor and Adjutant General of Ohio, provides military support, when available, to civil authorities to protect life and property and preserve peace and order in times of emergency, at the direction of the Governor of Ohio. When a Governor's declaration has been issued, ONG can provide general and unique services.

- b. ONG acts pursuant to Chapters 5911 - 5923 of the Ohio Revised Code.
  - c. ONG provides Weapons of Mass Destruction support to civil authorities, if terrorism is suspected as the cause of the incident, through the 52<sup>nd</sup> Civil Support Team at a CBRNE incident site by:
    - i. Presumptively identifying unknown CBRNE agents/substances
    - ii. Assessing current and projected consequences
    - iii. Advising on response measures
    - iv. Assisting with appropriate requests for state support
4. Ohio Department of Agriculture (ODA)
- a. ODA's support response function in a hazardous materials incident is to coordinate with state and local health officials to evaluate the needs and actions for protection against radiological, biological and chemical damage related to the possible contamination of livestock, foodstuff, and crops. ODA coordinates food control and assesses damage, as necessary, and will handle issues as they relate to the licensing, storing, handling and application of pesticides.
  - b. Title 9 of the ORC provides the legal authority for the ODA's actions.
  - c. SEOC response involves:
    - i. Reporting to the SEOC to coordinate field activities and provide specific information as needed;
    - ii. Assisting Ohio EMA in the contact of county agricultural societies to arrange for the use of county fairgrounds, as needed;
    - iii. Assisting in obtaining additional food products from commercial sources whenever required;
    - iv. Issuing control actions including embargo, quarantine, isolation, confiscation, or destruction of crops, livestock, and foodstuffs that may be contaminated (limited action until pertinent testing complete);
    - v. Supporting State and county emergency agencies in the acquisition and distribution of retail food and mass feeding supplies;
    - vi. Obtaining additional assistance from the USDA through State and county emergency organizations (i.e. Nutrition Center in Chicago);
    - vii. Coordinating with Federal counterparts in affected areas to estimate crop and livestock damage;
    - viii. Coordinating with Federal counterparts to estimate food product supply and demand during an incident; and
    - ix. Forwarding disaster damage reports to the State Emergency Committee of the Agricultural Stabilization and Conservation Service for possible aid from the USDA.

- d. Field response involves:
  - i. Deploying to the field with five teams with representatives from the following ODA divisions: Animal Industry, Dairy, Food Safety, Livestock, Meat Inspection, and Plant Industry).
  - ii. Providing control and assessment for damage to livestock, foodstuffs, and crops and addresses issues related to the licensing, storing, handling, and application of pesticides.
    - i. Sampling for testing of foodstuffs for contamination, when necessary;
    - ii. Coordinating with State and local health officials to evaluate needs and actions related to livestock, foodstuff, and crops.
  - iii. Providing damage assessment teams to County EOC, as needed
  - iv. Performing livestock, foodstuff, and crop sampling, as needed.
  - v. Performing limited laboratory analysis on collected samples.
- e. Restoration: The ODA has a monitoring/evaluation role in restoration activities in response to a hazardous materials incident. ODA performs follow-up collections to test for contamination of livestock, foodstuffs, and crops.

5. Ohio Department of Commerce - Division of Industrial Compliance and Labor

- a. The Division of Industrial Compliance and Labor's support response functions in a hazardous materials incident are to ensure the protection of the public, the environment, and property as it relates to employed persons, places of employment, and buildings and establishments.
- b. This protection involves providing Industrial Hygienists for sampling and monitoring. Industrial Hygienists are not trained or equipped to provide these services in uncontrolled environments (i.e., outside of the industrial or workplace setting).
- c. Title 41 of the ORC provides the legal authority for the Division to perform the above actions.
- d. SEOC response includes:
  - i. Reporting to the SEOC to coordinate field activities and provide specific information as needed.
  - ii. Providing hazardous materials information from hardcopy and computer databases.
  - iii. Providing backup sample analysis capability through a laboratory contract, if necessary.
- e. Field response includes:

- i. Responding to the field to conduct monitoring, if necessary.
    - ii. Performing basic sample analysis.
  - f. Restoration: The Division only becomes involved in restoration through the examination of restoration efforts concerning building codes and worker protection.
6. Public Utilities Commission of Ohio (PUCO)
- a. In the event of a hazardous materials transportation incident, the support function of PUCO is to provide technical assistance and information regarding the vehicles, packaging and practices used to transport hazardous materials by highway and rail.
  - b. PUCO can provide point of contacts for companies that transport hazardous materials in the state of Ohio by highway and rail.
  - c. Immediately following a hazardous materials incident, PUCO Transportation Department staff will begin activities consistent with the agency's regulatory responsibilities.
  - d. PUCO's authority to regulate motor carriers is found in §4923.03 (private carriers) and §4921.04 (for-hire carriers) of the Ohio Revised Code. These sections direct PUCO to supervise and regulate the safety, service and transport of hazardous materials by private motor carriers and for-hire motor carriers in Ohio.
  - e. PUCO is Ohio's motor carrier regulatory agency and is the lead state agency for the Motor Carrier Safety Assistance Program (MCSAP) administered by the United States Department of Transportation (US DOT) Federal Motor Carrier Safety Administration (FMCSA). The MCSAP provides federal funding for many of the motor carrier safety and enforcement activities conducted by the PUCO and the Ohio State Highway Patrol. As Ohio's MCSAP lead agency, the PUCO is responsible for developing the state's Commercial Vehicle Safety Plan as well as providing information to the FMCSA regarding hazardous materials incidents involving the interstate and intrastate highway transport of hazardous materials, hazardous wastes and hazardous substances.
  - f. PUCO railroad inspectors are certified by the Federal Railroad Administration (FRA) to enforce the USDOT safety and hazardous materials requirements for railroads transporting hazardous materials into, out of or through Ohio. The PUCO assists the FRA in the investigation of incidents involving the rail transport of hazardous materials.

- g. SEOC response includes:
  - i. Reporting to the SEOC to provide technical and regulatory information and coordinate agency field staff as needed;
  - ii. Functioning as state liaison with federal commercial vehicle and railroad safety agencies (i.e. Federal Motor Carrier Safety Administration, Federal Railroad Administration, Research and Special Programs Administration, Federal Highway Administration, etc.);
  - iii. Maintaining communications with other state agencies to dispatch/transfer supplies and materials needed for handling a hazardous materials incident; and
  - iv. Providing information on applicable hazardous materials transport requirements.
  
- h. Field response includes:
  - i. PUCO Transportation Department field staff responding to the site of a highway or railroad hazardous materials transportation incident to assist the lead state agency.
  - ii. Providing technical details and specifications on the construction, performance and use of the bulk and non-bulk packaging used to transport hazardous materials by highway and rail as well as carrier contact and the regulatory status of individual highway and rail carriers operating in Ohio.
  - iii. Providing communications resources to the lead state agency.
  
- i. The PUCO Transportation Department's hazardous materials specialists are trained to the Occupational Safety & Health Administration (OSHA) and National Fire Protection Association (NFPA) requirements for technician level emergency responders.
  
- j. Restoration: PUCO Transportation Department can provide personnel and communications resources when needed by other agencies. The PUCO Consumer Services Department can obtain information from electric, gas, water or waste water utilities on the status of service in areas affected by a hazardous materials incident.

7. Ohio State Highway Patrol (OSHP)

- a. OSHP's support response function in a hazardous materials incident is to provide support to other State and local law enforcement agencies. Generally, this support consists of traffic control and information gathering and dissemination.
  
- b. Chapter 5503 of the Ohio Revised Code provides the legal authority for the OSHP's actions.

- c. SEOC response includes:
  - i. Reporting to the SEOC to coordinate field activities and provide specific information as needed.
  - ii. Contacting Ohio EMA and the appropriate lead agency in a timely fashion when a hazardous materials incident occurs.
  - iii. Staffing the OSHP communications network in the SEOC, as needed.
  - iv. Coordinating information from the field for use in the SEOC, particularly with ODOT on evacuation routing.
  
- d. Field response includes:
  - i. An OSHP Post Commander or Assistant Post Commander may report to the County EOC along with a District Staff Officer to coordinate field activities and information.
  - ii. OSHP personnel respond to the off-site incident command post and provide area control. These personnel report to the Post Commander or designee who, in turn, keeps the District Headquarters Staff apprised of all activities.
  - iii. The OSHP personnel work with the Incident Commander to respond to the incident.
  - iv. Providing traffic control, enforcement, traffic crash investigation, criminal investigation and related tasks on state highways and state owned or leased property.
  - v. Assisting in area control, evacuation, and emergency rescue as needed in coordination with local law enforcement agencies.
  - vi. Providing helicopters/fixed wing aircraft for reconnaissance;
  - vii. Relaying equipment to the incident scene via helicopters and fixed wing aircraft.
  - viii. Providing meteorological data from NOAA (accomplished by the main office and all district offices).
  - ix. Providing protection for the Governor and other visiting dignitaries, as needed.
  - x. Providing communications and situation information.
  - xi. Assisting in the voluntary evacuation of people and property, as required.
  
- e. In addition to the above, the OSHP can provide the Ohio State Highway Patrol Emergency Command Vehicle to Sheriff Departments, Police Departments, and Emergency Management Agencies. The Emergency Command Vehicle is a mobile command post and communications center. It contains specialized radio and telephone equipment that enables technicians to coordinate all law enforcement and emergency frequencies.
  - i. The command vehicle is available for use by approved agencies during emergency situations where a self-contained remote communications system is needed. An OSHP communications officer and driver will be provided

when the command vehicle is requested. These officers will setup the radio and telephone frequencies and are specially trained in the care and use of this equipment.

- ii. The command vehicle equipment includes: Programmable radios with encryption available; Multi-channel tape recorder; Auxiliary power unit; Telephones (cellular and land lines); Conference/command room; Four dispatch positions; Video monitoring; Cable TV access; Hostage negotiation/monitoring room; Copier and fax machine, and; weather station.
  - iii. The command vehicle can be used during civil disturbances; natural disasters, and; technological incidents.
  - iv. For information on obtaining the vehicle, contact the Ohio State Highway Patrol in Columbus at 614-466-2660, or their local patrol post.
- f. Restoration: The OSHP Office of Licensing and Commercial Standard's Motor Carrier Enforcement Unit and the Office of Field Operation's Crash Reconstruction Unit have a role in restoration activities of investigating accidents involving commercial carriers in order to assist the courts or the PUCO in assessing penalties against the owner/operator.

#### 8. Ohio Department of Transportation (ODOT)

- a. ODOT's support response function in a hazardous materials incident is to provide information, equipment, and area control related to highways, bridges, aviation and mass transportation facilities.
- b. Titles 45, 49, and 53 of the ORC provide the legal authority for the ODOT's actions. ODOT is notified when a spill occurs on a State route which may affect traffic and when a cleanup may block a road.
- c. SEOC response includes:
  - i. Reporting to the SEOC to coordinate field activities and provide information as needed.
  - ii. Providing information and personnel to Ohio EMA, the IC, and/or the off-site ICP to communicate road conditions, impassable state roads or restricted areas.
  - iii. Coordinating the ODOT communications network in the field, as needed.
- d. Field response includes:
  - i. Providing traffic assistance to the Incident Commander, and/or the off-site ICP.
  - ii. Coordinating with local entities to determine and designate both available and prohibited routes of travel in the incident area.
  - iii. Assisting in maintaining access to state corridors for first responders.

- iv. Assisting the SEOC in providing area reconnaissance during an incident situation.
- v. Providing engineering damage assessment teams, as needed.
- vi. Providing aerial transportation for radiological monitoring teams and field samples to lab sites.
- vii. Assisting in rescues and other conditions requiring ODOT resources including the use of ODOT garages in affected districts.
- viii. Providing vehicles, heavy equipment, and materials such as sand, oil dry, kitty litter etc. to assist as appropriate.
- ix. Providing signage as requested by the Incident Commander to safely regulate traffic speeds in the hazard area.
- x. Providing requested technical resources for the inspection, repair, alteration, condemnation and destruction of damaged transportation facilities following an incident, and diking or diverting materials.
- xi. Assisting with construction and engineering services on rural State highways in an incident area.
- xii. Assisting county governments in obtaining federal assistance for the restoration of damaged public facilities and property.
- xiii. Estimating the cost to restore any state highways or rest areas damaged by hazardous materials and completing the work.

9. Ohio Department of Natural Resources (ODNR)

**\*\*NEW – NEEDS DEVELOPMENT\*\***

- a. ODNR's support response function in a hazardous materials incident is to provide....
- b. \_\_\_\_\_ ORC provides the legal authority for the ODNR's actions.
- c. SEOC response includes:
  - i. Reporting to the SEOC to coordinate field activities and provide information as needed.
  - ii. Add more here....
- d. Field response includes:
  - i. Testing of public drinking water is coordinated between Ohio EPA, ODNR, and the local public water utility to ascertain the water's safety for consumption by humans and animals.
  - ii. Needs development...

## **V. References and Authorities**

### **A. Federal**

1. Superfund Amendments & Reauthorization Act (SARA)
  - a) Emergency Planning and Community Right-to-Know Act (Title III)
2. National Oil & Hazardous Materials Contingency Plan
3. Title 49 CFR, Parts 100 through 199
4. Pipeline and Hazardous Materials Transportation Act
5. Comprehensive Environmental Response Compensation Liability Act
6. Occupational Safety & Health Administration Standards
7. Clean Water/Federal Water Pollution Control Act, PL95-2F1
8. Hazardous Materials Transportation Uniform Safety Act, PL101-615
9. Federal Hazardous Substances Act, PL97-414
10. Solid Waste Disposal Act
11. Oil Pollution Act
12. Clean Air Act
13. Resource Conservation and Recovery Act

### **B. State**

1. ORC 3750 Hazardous Materials Emergency Planning
2. ORC 5502.38 Effects of SARA on EMA
3. ORC 3745.13 Cost Recovery
4. ORC 3737.80 Incident Command
5. ORC 4921 and ORC 4923 Regulation of Motor Transportation Companies and Private
6. Motor Carriers

7. ORC 3748 Radiation Control Program
8. OAC 3750 SERC Rules

C. Local

1. For local laws and ordinances pertaining to hazardous material response and planning refer to individual County Emergency Operations Plans, Hazardous Materials Plans, and Annexes.

## VI. ACRONYMS AND DEFINITIONS

### A. Acronyms

ALOHA	Areal Locations of Hazardous Atmospheres (plume model software)
ATSDR	Agency for Toxic Substances & Disease Registry
BRP	Bureau of Radiation Protection (ODH)
CAA	Clean Air Act
CAMEO	Computer Aided Management of Emergency Operations
CAS	Crisis Action System
CBRNE	Chemical, Biological, Radiological, Nuclear, Explosive
CDC	Centers for Disease Control and Prevention
CERCLA	Comprehensive Environmental Response Compensation Liability Act
CFR	Code of Federal Regulations
ChemTrec	Chemical Transportation Emergency Center
CWA	Clean Water Act
DoD	Department of Defense
DOI	Department of Interior
DOJ	Department of Justice
DOL	Department of Labor
DOE	Department of Energy
DOS	Department of State
DOT	Department of Transportation
EAS	Emergency Alert System
EHS	Extremely Hazardous Substances
EOC	Emergency Operations Center
EOP	Emergency Operations Plan
EPCRA	Emergency Planning & Community Right-to-Know Act (SARA Title III)
ERPG	Emergency Response Planning Guidelines
ERT	Evidence Response Team (Ohio EPA)
ESF	Emergency Support Function
FAA	Federal Aviation Administration
FDA	Food & Drug Administration
FEMA	Federal Emergency Management Agency
GSA	General Services Administration
GLC	Great Lakes Commission
HHS	U.S. Dept. of Health & Human Services
Hazmat	Hazardous Material(s)
HM-EEM	<i>Hazardous Material-Exercise Evaluation Manual</i>
ICS	Incident Command System
IDLH	Immediately Dangerous to Life or Health
JFO	Joint Field Office
LEPC	Local Emergency Planning Committee
LEPD	Local Emergency Planning District
MSDS	Material Safety Data Sheet
NAWAS	National Warning System

NCERT	National Counter-Terrorism Evidence Response Team
NCP	National Oil and Hazardous Substance Pollution Contingency Plan
NIOSH	National Institute for Occupational Safety & Health
NOAA	National Oceanographic & Atmospheric Administration
NRC	National Response Center
NRC	Nuclear Regulatory Commission
NRF	National Response Framework
NRT	National Response Team
NRT-1	<i>Hazardous Materials Emergency Planning Guide</i>
NRT-2	<i>Developing a Hazardous Materials Exercise Program</i>
OAC	Ohio Administrative Code
ODA	Ohio Department of Agriculture
ODC	Ohio Department of Commerce
ODH	Ohio Department of Health
ODNR	Ohio Department of Natural Resources
ODOT	Ohio Department of Transportation
OEMA	Ohio Emergency Management Agency
OEPA	Ohio Environmental Protection Agency
ONG	Ohio National Guard
ORC	Ohio Revised Code
ORSANCO	Ohio River Valley Sanitation Commission
OSC	On-Scene Coordinator
OSHA	Occupational Safety & Health Administration
OSHP	Ohio State Highway Patrol
PPE	Personal Protection Equipment
PUCO	Public Utilities Commission of Ohio
RACES	Radio Amateur Civil Emergency Service
RAD	Radiation (Protection)
RAT	Radiation Assessment Team (Ohio EPA)
RCRA	Resource Conservation & Recovery Act
REAC/TS	Radiation Emergency Assistance Center/Training Site (DOE)
RQ	Reportable Quantity
RRT	Regional Response Team
SARA Title III	Superfund Amendments & Reauthorization Act, Title III: Emergency Planning & Community Right-to-Know Act
SEOC	State Emergency Operations Center
SERC	State Emergency Response Commission
SFM	State Fire Marshal
SOP	Standard Operating Procedure
SPCC	Spill Prevention Control & Countermeasures
TLV	Threshold Limit Value
UCS	Unified Command System
USCG	United States Coast Guard
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
WMD	Weapon of Mass Destruction

## B. Definitions

Acute - Severe, but of short duration. Acute health effects are those that occur immediately after exposure to hazardous substances.

Acutely Toxic Chemicals - Chemicals that can cause short- and long-term health effects after a single, brief exposure. These chemicals can cause damage to living tissue, impairment of the central nervous system, severe illness, or, in extreme cases, death.

Aquifer - An underground rock formation composed of material such as sand, soil, or gravel that can store and supply water to wells and springs. Most aquifers used in the United States are within a thousand feet of the earth's surface.

Chemical Transportation Emergency Center (ChemTrec) - A program providing information and/or assistance to emergency responders. ChemTrec contacts the shipper or producer of the material for more detailed information, including on-scene assistance when feasible.

Chronic - Of long duration or frequent occurrence. Chronic health effects are those that become apparent or continue for some time after exposure to hazardous substances.

Clean Air Act (CAA) - Federal law enabling air quality standards to be set and monitored. Also requires facilities with certain chemicals to develop risk management plans.

Cleanup - Actions taken to deal with a release or threatened release of hazardous substances that could affect health and/or the environment. Broadly describes various response actions or remedial actions such as investigations or studies.

Clean Water Act (CWA) - Federal law enabling water quality standards to be set and monitored.

Command Post - Facility located at a safe distance upwind from an accident site where the On-Scene Coordinator, Incident Commander, responders, and technical representatives can make response decisions, deploy manpower and equipment, maintain liaison with media, and handle communications.

Computer Aided Management of Emergency Operations (CAMEO) - A computer program and database (developed by NOAA and USEPA) that uses SARA Title III reporting information to associate hazardous materialshazmat inventories with respective facilities. The program can model several release scenarios for planning purposes. MARPLOT, a mapping program, can work in conjunction with CAMEO to plot facilities, special populations, and other significant icons, on a map with roadways, rivers, and census information.

Comprehensive Environmental Response Compensation Liability Act (CERCLA) - A federal law passed in 1980 and modified in 1986 by the SARA. The Acts created a special tax that goes into a Trust Fund, commonly known as "Superfund," to investigate and cleanup abandoned or uncontrolled hazardous waste sites. Under the program USEPA can either: 1) pay for site cleanups when parties

responsible cannot be located or are unwilling or unable to perform the work, or 2) take legal action to force parties responsible to clean up the site or pay the federal government for the cost of cleanup.

Cost Recovery - A legal process where potentially liable parties can be required to reimburse responders for the cost of response and cleanup actions.

Emergency Alert System (EAS) - A system designed to warn the public to reduce property damage, injuries and deaths caused by natural and man-made disasters. The EAS system is compatible with satellite, broadcast and cable technologies.

Emergency Operations Center (EOC) - A fixed facility where municipal, county, state, federal, and private entities meet during an emergency situation to gather information, make decisions, and direct/coordinate necessary actions to bring the emergency to a close.

Emergency Operations Plan (EOP) - All-hazards plan that provide general assessment and procedures for entities to use during different disasters.

Emergency Planning and Community Right-To-Know Act (EPCRA) - An act (also known as SARA Title III) specifying requirements for organizing the planning process at the state and local levels for extremely hazardous substances; minimum plan content; requirements for facility owners and operators for informing officials about applicable substances they use/store/produce; mechanisms for informing the public of covered facilities and substances.

Evacuation - Removal of residents and other persons from an area of danger.

Exercise - A simulated emergency designed to test response methods and procedures, and used to supplement training.

Extremely Hazardous Substances (EHS) - A list of chemicals identified by the USEPA on the basis of toxicity, and listed under Title III of SARA.

Facility - Defined in Section 302 of SARA Title III as all buildings, equipment, structures, and other stationary items which are located on a single site or on contiguous or adjacent sites and which are owned or operated by the same person (or by any persons which control, is controlled, or under common control, with such person). For purposes of emergency release notification, the term includes motor vehicles, rolling stock, and aircraft.

Ground Water - Water found beneath the earth's surface that travels between materials such as sand, soil, or gravel. In aquifers, ground water occurs in such quantities that it can be used as supply for drinking, irrigation, or other purposes.

Hazardous Material (hazmat) - Any substance or material in a quantity or form which may be harmful to humans, animals, crops, water systems, or other elements of the environment if released. Hazardous materials include: explosives, gases (compressed, liquefied, or dissolved), flammable and combustible liquids, flammable solids or substances, oxidizing substances, poisonous and infectious substances, radioactive materials, and corrosives.

Hazardous Materials Management - The correlated activities of agencies for the prevention or mitigation of the immediate direct effects on public health, safety and the environment of a hazardous materials release. These direct effects include fire, explosion, contamination and radioactive exposure. This is the responsibility of the lead agency.

Hazardous Substances (Superfund) - Substances designated as hazardous under CERCLA (also known as Superfund). CERCLA incorporates substances listed under the Clean Water Act, the Clean Air Act, RCRA, and the Toxic Substances Control Act Section 7.

Hazardous Substances - Any material that poses a threat to the public health and/or the environment. Typical hazardous substances are materials that are toxic, corrosive, ignitable, explosive, or chemically reactive.

Incident Command System (ICS) - The combination of facilities, equipment, personnel, procedures, and communications for operating within a common organizational structure, with responsibility for management of assigned resources, to effectively accomplish stated objectives at the scene.

Local Emergency Planning Committee (LEPC) - A committee whose members are nominated by County Commissioners and appointed by the SERC. The LEPCs formulate a comprehensive hazardous materials emergency plan for its district.

Material Safety Data Sheet (MSDS) - A compilation of information required under the OSHA Hazard Communications Standard about the identity of hazardous chemicals, health and physical hazards, exposure limits, and precautions. Section 311 of SARA Title III requires facilities to submit MSDSs under certain conditions.

Mutual Aid - when jurisdictions or agencies provide assistance between two or more entities during emergencies.

National Oil and Hazardous Substance Pollution Contingency Plan (NCP) - A plan, found in 40 CFR Part 300, prepared by USEPA, to put into effect the response powers and responsibilities created by CERCLA and the authorities established by Section 31 of the Clean Water Act.

National Response Center (NRC) - A communications center for activities related to response actions. The NRC is located at USCG headquarters in Washington D.C. The center receives and relays notices of releases to the appropriate OSC and RRT, and reports to the NRT when appropriate. The NRC provides facilities for the NRT to use when a national response action is required.

National Response Team (NRT) - A team consisting of 15 federal agencies: DoD, DOI, DOT, USCG, USDA, USEPA, FEMA, DOS, DOJ, HHS, NRC, DOL, GSA, NOAA, and DOE. The team is the principal organization for implementing the National Contingency Plan. The NRT serves as a standing committee to develop and maintain preparedness, to evaluate methods of responding to releases, and to recommend revisions to the National Contingency Plan. The NRT may make recommendations to appropriate agencies on training, equipping, and the protection of

response teams. Research, development, and evaluation for the improvement on capabilities can fall under the NRT's purview.

National Response Team-1 (NRT-1) - The hazardous materials planning guide, updated in 2001 and developed by the NRT. This guide lists the guidelines for the writing of local and state hazardous materials emergency plans as required by SARA. It has been adopted by the Ohio State Emergency Response Commission (SERC) as its standard of care for hazardous materials planning in Ohio.

On-Scene Coordinator (OSC) - The pre-designated agent of the USEPA, that provides direction and coordination of pollution control efforts at the scene of a release. The OSC determines pertinent facts about the release such as the nature, the amount, location, resources available, and installations that may be affected. The OSC shall coordinate the needed resources for containment and cleanup.

Owner/Operator - Individual(s) or company(s) potentially responsible for, or contributing to, the contamination problems at a hazardous materials site. Whenever possible, the law requires them to clean up contaminated sites.

Plume - Effluent cloud resulting from a continuous release.

Resource Conservation and Recovery Act (RCRA) - A framework for the proper management and disposal of all wastes. RCRA directs USEPA to identify hazardous wastes, generically and by specific class of waste streams. Generators and transporters are required to use good management practices and to track the movement of wastes with a manifest system. Owners and operators of treatment, storage, and disposal facilities also must comply with standards, which are generally implemented through permits issued by the USEPA.

Regional Response Team (RRT) - A team composed of federal agencies and a representative from each state in a federal region. OSCs may request that the RRT convene to provide advice in specific areas requiring resolution. Under the NCP, RRTs may be convened by the Chair when a hazardous materials release exceeds the response capability available to the OSC; crosses regional boundaries; poses a substantial threat to public health, welfare, or environment, or significant amounts of property. Regional Contingency Plans specify detailed criteria for activation of RRTs. RRTs may review plans developed in compliance with SARA Title III upon the request of LEPCs.

Remedial Action - An immediate action taken over the short-term to address a release or threatened release of hazardous substances.

Reportable Quantity (RQ) - The quantity of a hazardous substance that triggers reporting under CERCLA. If a substance is released in amounts that exceed the RQ, the release must be reported to the NRC, the SERC, the LEPC Emergency Coordinator.

Superfund Amendments & Reauthorization Act (SARA) - Title III of SARA includes detailed provisions for community planning and is also known as the Emergency Planning and Community Right to Know Act (EPCRA).

Spill Prevention Control and Countermeasures (SPCC) Plan - Plan covering the release of hazardous substances as defined under authority of the Clean Water Act.

State Emergency Response Commission (SERC) - A commission appointed by the Governor in accordance with SARA Title III. Duties of the commission include designating Local Emergency Planning Districts (LEPDs), appointing Local Emergency Planning Committees (LEPCs), supervising and coordinating the activities of planning committees, reviewing emergency plans, receiving chemical release notifications, and establishing procedures for receiving and processing request from the public for information on facilities and chemicals.

Threshold Limit Value--Time Weighted Average (TLV-TWA) - Concentrations for a normal 8-hr workday, 40-hr workweek to which nearly all workers may be repeatedly exposed, day after day, without adverse effects.

Threshold Limit Value--Short Term Exposure Limit (TLV-STEL) - Concentrations to which workers can be exposed continuously for short periods without suffering: irritation; chronic or irreversible tissue damage; narcosis of sufficient degree to increase the likelihood of accidental injury, impaired self rescue, or materially reduce work efficiency.

Toxicity - The ability of a substance to cause damage to living tissue, impairment of the central nervous system, severe illness, or death when ingested, inhaled, or absorbed by the skin.

Weapon of Mass Destruction (WMD) - As defined in Title 18, U.S.C. § 2332a: (1) any explosive, incendiary, or poison gas, bomb, grenade, rocket having a propellant charge of more than four ounces, or missile having an explosive or incendiary charge of more than one-quarter ounce, or mine or similar device; (2) any weapon that is designed or intended to cause death or serious bodily injury through release, dissemination, or impact of toxic or poisonous chemicals or their precursors; (3) any weapon involving a disease organism; or (4) any weapon that is designed to release radiation or radioactivity at a level dangerous to human life.

Ohio Emergency Operations Plan  
Tab A to ESF 10 Hazardous Materials/WMD

State of Ohio Emergency Response Attachment for Incidents at  
U.S. Department of Energy (DOE) Facilities

**This Document has been classified as a SECURE Document  
as per Ohio Revised Code 149.433 and is maintained  
under separate cover.**

Ohio Emergency Operations Plan  
Tab B to ESF 10 Hazardous Materials/WMD

TRANSPORTATION PREPAREDNESS FOR RADIOLOGICAL /  
NUCLEAR MATERIALS

Currently Being Drafted