OHIO EMERGENCY OPERATIONS PLAN
HAZARDOUS MATERIALS INCIDENT ANNEX

Primary Agencies:
Ohio Environmental Protection Agency (OEPA)
Ohio Department of Health (ODH)
Ohio Department of Commerce, Division of State Fire Marshal (SFM)

Support Agencies:
Ohio Emergency Management Agency (OEMA)
Adjutant General's Department, National Guard (ONG)
Ohio Department of Commerce, Bureau of Occupational Health and Safety (ODC-BOHS)
Ohio Department of Agriculture (ODAge)
Public Utilities Commission of Ohio (PUCO)
Ohio State Highway Patrol (OSHP)
Ohio Department of Transportation (ODOT)

I. Introduction

A. Purpose

This annex describes roles and coordinating mechanisms for managing hazardous materials incidents in the State of Ohio. This annex delineates the responsibilities of each of the primary state agencies that regulate various hazardous materials under the statutory authority of the Ohio Revised Code, except for accidents or incidents at commercial nuclear power plants in or near the borders of Ohio, where the Ohio agencies follows the procedures of the *State of Ohio Plan for Response to Emergencies at Commercial Nuclear Power Plants*. This includes substances considered Weapons of Mass Destruction (WMD) (i.e. chemical agents, biological agents, radiological/nuclear material, and explosive devices) (Ref: State of Ohio Emergency Operations Plan, Terrorism Incident Annex).

B. Scope

This annex provides the organizational structure for responding to releases of hazardous materials in the State of Ohio. It describes the interface between the state and the federal government, which will respond under the National Response Plan (NRP) through the concurrent implementation of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP). It also describes the basic structures by which the State of Ohio and its political jurisdictions plan and prepare for, as well as prevent and respond to hazardous materials releases.

II. Concept of Operations

A. General

1. Local: County and municipal governments are responsible for the safety of persons and property in their respective jurisdictions. Response forces at this level of government are always the initial responders to hazmat incidents. Roles and responsibilities of these forces are identified in local plans. When the Ohio EOC is operational, local emergency requests for state hazardous materials response resources and services will be communicated to the Ohio EOC and will be directed to the appropriated ESF. When the Ohio EOC is not operational, local emergency requests for state assistance from state agencies will be coordinated with and approved by the appropriate regulatory agencies before action is taken.

2. State: When county-level capabilities, including mutual aid are not sufficient to address the disaster, the chief executive or designee may declare an emergency for their affected jurisdiction and request state assistance in coordination with the County EMA Director. The Governor through the Executive Director of Ohio EMA is responsible for overall decision-making and coordination of state emergency operations.

3. Federal: Through the National Response Plan (NRP), assistance is provided to Ohio through federal Emergency Support Functions (ESF). Federal and state ESFs will establish direct liaison with one another at the Ohio EOC, at the DFO and at the site of the emergency. The NRP's Oil and Hazardous Materials Incident Annex addresses those oil and hazardous materials pollution Incidents of National Significance that are conducted through concurrent implementation of the NRP and the National Oil and Hazardous Substances Pollution Contingency Plan (NCP).

4. Predetermined Arrangements: Arrangements for such things as resource sharing, notification, response, and training are in place at the State level in the form of mutual aid agreements and/or working agreements. These documents establish policies and procedures for various agencies, prior to an incident's occurrence. The pre-determined location for state coordination of response and support is the State Emergency Operations Center/Joint Dispatch Facility located at 2855 W. Dublin Granville Rd., Columbus, Ohio.

5. Outside Resources: Several State Agencies contract with outside organizations for resources such as laboratory services. OEPA maintains a current list of contractors for containment and cleanup purposes. Outside resources are contracted and used in accordance with State Laws and Rules and individual agency agreements.

6. Relationship to Other Plans: This plan is written with the full cooperation of all agencies and organizations identified in the plan. The planning process involved interviewing lead and support agencies. Further, all agencies had the chance to review the plan and comment on the content. This plan is not meant to supersede

any existing State or Federal plans or SOPs (except for earlier versions of this particular plan). The plan is designed to meet the standards set forth by the Superfund Amendments and Reauthorization Act (SARA) legislation and National Response Team (NRT) guidance, which has been adopted by the Ohio State Emergency Response Commission (SERC) as its standard of care. It is designed to compliment or enhance existing plans, SOPs, and/or laws.

B. Emergency Classification Levels

1. Hazardous Materials incidents can occur at anytime and anywhere. When these incidents occur they can be small or large, escalating to a worsened condition. An emergency classification level system has been established, which is called the Crisis Action System (CAS). The three CAS levels are comparable to the National Response Team's NRT-1 Hazardous Materials Emergency Planning Guide's three emergency response levels. Local governments and other state organizations will inform Ohio EMA when emergencies and/or disasters occur in their jurisdictions. Upon this notification, Ohio EMA will initiate a graduated program of response known as the Crisis Action System (CAS). The CAS ensures that the level of state response corresponds to the level of the emergency and/or disaster that exists. For more information on the CAS levels used by the state of Ohio, please refer to the Basic Plan of the Ohio Emergency Operations Plan (EOP).

C. Initial Notification of Response Agencies

1. The initial notification of an impending or actual incident can be made by one of several sources: private citizen, industry, local responder, state responder, etc. Likewise, notification can be received by several state agencies: OSHP, Ohio EMA, SFM, OEPA and ODH. The spiller is required to report releases of hazardous materials as required by ORC 3750. These notifications may go to the National Response Center (NRC), Ohio EPA (800-282-9378), the ODH Bureau of Radiation Protection (614-644-2727), fire departments, and the appropriate LEPCs.

   a. In all hazardous materials incidents and based on the nature of the incident and the training and judgment of the state agency receiving the first notification or discovering the incident, that state agency will decide if the agency having primary responsibility for response should be contacted. If the primary agency responds and the response required is beyond the capacity of the primary agency, the primary agency shall notify the EMA for coordination of effort.

   b. While the Governor's Office has general oversight of all state agencies, the State of Ohio has two levels of responding State Agencies: Primary and Support agencies. Primary State agencies are: the ODH; the OEPA, and the SFM. Other state agencies are Support agencies and can be called to assist as necessary. Notable agencies that may be called in specifically for a Hazardous

Materials incident are Ohio EMA, ODC (OSHA Bureau); PUCO; SHP; ODOT; ODA and the National Guard. Primary agencies can also serve as support agencies in incidents.

2. When notified, designated representatives of each agency will assess the actual or potential hazard for fire or explosion, release of toxic substances, radiation, or any other environmental concern in line with their functional responsibilities. Whenever the participation by two or more primary agencies in an incident response is necessary, coordination shall be made to permit joint assessment of the problem and identification of the actions required. The State EOC may be activated to facilitate this coordination.

   a. 24-Hour Emergency Telephone Numbers: The Ohio EMA 24 hour telephone is 866-Ohio EMA. The alternate notification point is the SHP and their telephone number is 614-466-2660. Several other agencies have "800" telephone numbers: OEPA at 800-282-9378; SFM at 800-589-2728, and; PUCO at 800-642-3443. The ODH Bureau of Radiation Protection's Phone number is (614)644-2727. Calling the Ohio EMA does not relieve spillers from the regulatory requirement to notify the National Response Center, OEPA, the ODH Bureau of Radiation Protection (for radiological incidents) and the appropriate LEPC.

3. Documentation

   a. The person receiving the initial notification call at Ohio EMA will document and record all available and pertinent incident information on the Ohio EMA Incident Information Form. When subsequent calls are made to the primary state agency, the Ohio EMA duty officer will pass along all incident information he/she has received.

   b. Each individual agency shall also have a telephone roster for essential contacts as are related to their agency.

   c. Notifications of emergency classification levels to special facilities such as schools, day care centers, hospitals, nursing homes, etc. are the responsibility of local level government agencies. Refer to local EOPs and Hazmat Annexes for such lists.

D. Direction and Control

1. Emergency Operations Center

   a. The Assessment Group is a section of the EOC Operations Group. Detailed information on this section is contained in the "On-going Incident Assessment" section of this plan. The Assessment Group/On-Site, Primary Agency is dependent on the nature of the incident and the agency’s statutory authority. There are four main types of hazmat incidents: environmental threat;

radiological threat, biological threat, and fire/explosion threat. The agencies in the Assessment Group, for each type of hazmat incident, are as follows with the Assessment Group/On-Site, Primary Agency listed first.

Environmental Threat	Nuclear/Radiological or Biological	Fire/Explosion
OEPA (Primary)	ODH (Primary)	SFM (Primary)
ODH	OEPA	OEPA
SFM	SFM	ODH
Ohio EMA	Ohio EMA	Ohio EMA

b. The other agencies in the Assessment Group support and advise the incident's primary agency when they are not the Assessment Group/On-Site, Primary Agency for the incident. Ohio EMA is part of the Assessment Group. If wildlife is a concern, ODNR may be represented in the assessment room and if agriculture is a concern, ODA may be represented in the assessment room.

c. The roles and responsibilities of the above agencies, including each agency's chain of command, are listed in the "Primary Agencies" and "Support Agencies" sections of this annex. To compliment their roles and responsibilities, each agency has SOPs that detail how to carry out specific tasks. Further, each agency may have Response Action Checklists to ensure all aspects of a task are carried out. SOPs and Checklists are kept on file at each respective agency.

d. The primary function of the State EOC Assessment Group is to coordinate state resources and make protective recommendations to local officials for the Public and emergency responders. State EOC representatives will make recommendations, based on technical analysis, to local representatives. Local representatives can adopt, modify or reject state recommendations in their protective action decision, based on local conditions and other variables the State may not be aware of at the time of issuance. Local representatives have the final decision concerning safety (within their jurisdiction). The technical recommendations made by the State EOC are generated from the Assessment Group and passed to local decision makers or the local incident command via the Executive Group, if operational, or directly to the appropriate local decision maker if the Executive Group is not operational. A function of the State EOC is to assess incident consequences to the public, environment, and property. The assessment room is where State agency technical experts meet to:

   i. Track meteorological conditions;
   ii. Estimate offsite consequences and project hazardous materials concentrations to the public using atmospheric dispersion models;
   iii. Project dose, dose rates and exposure rates, and;
   iv. Project the environmental impact.

e. The data to make these projections (Protective Action Guidelines) and recommendations come from State Field Responders and/or local authorities. State agencies may utilize the capabilities of the State EOC, which includes the

use of various assessment computer programs for estimating doses. Section III of this annex contains additional information on incident assessment. State representatives must rely on their experience and subject knowledge when evaluating computer models and the results of the computer models.

f. After assessing the situation, the State EOC determines whether additional assistance is required from the Federal government or private industry. The State EOC coordinates requests for assistance with all involved parties. This could include contacting state, federal, contiguous state, or private industry officials (e.g. U.S. Coast Guard, FAA, and private Rail companies) to stop or reroute applicable airway, railway, waterway, roadway, or other forms of commercial and/or private traffic near or through the affected area. When incidents are small, not requiring state assistance, but requiring specialized assistance available through the Federal government, responders may interface directly with the Federal government without activation of, or consultation with, the State EOC. However, prior to notifying any federal agency for radiological incidents, the ODH Bureau of Radiation Protection must be called at 614-644-2727.

g. In addition to the assessment room, the State EOC is equipped with electronic and hardcopy maps, charts, and status boards to record and analyze emergency information during the decision-making process, and log and retain a record of events for historical purposes. The EOC has many communication media for the relay of information between Local forces and the State EOC. For detailed information on communications systems, please reference Emergency Support Function (ESF) #2 of the State EOP. The State EOC also is equipped with televisions/monitors and a satellite downlink to keep representatives abreast of situations across the state and the country. Each EOC representative has two telephones at his/her disposal for voice and data communications between agencies.

h. The State EOC is designed to operate on a 24-hour basis. The State EOC has dormitories and a kitchen for prolonged operations. Detailed information on all aspects of the State EOC is contained in the *State EOP* and the Ohio Emergency Operations Center Standard Operating Procedures (EOC SOP).

E. Field Response Direction and Control

1. Generally field direction and control is performed at the on-scene command post, staging areas, and field monitoring locations. The on-scene field command post is established at the local level and is managed by the Incident Commander, the local jurisdictional fire chief, who under ORC 3737.80 is in charge of a hazardous materials incident scene. The staging area is the local and state forces assembly area for personnel and equipment. The field monitoring team sites are the most advantageous locations possible to collect samples and information to pass along to the Assessment Room Group at the State EOC.

2. If State agency forces notify and involve their individual field response personnel, whether they are located at the site or in the local EOC, their main objective is to act as liaison to the local forces and make recommendations on how to mitigate the problem. Field forces generally operate according to their individual agency's SOPs and Response Action Checklists.

   a. For information on the communications capabilities between state and local forces, the mobile communications vehicle, and the field forces, please reference Emergency Support Function (ESF) # 2 of the State EOP**.**

   b. For information concerning public information operations in the field and the establishment of a Joint Information Center (JIC) under the National Incident Management System (NIMS), refer to the Public Affairs Annex of the State EOP.

3. Logistical support, such as food, water, lighting, fuel, etc., is available to the State EOC through backup power, supplies stored and local vendors. Providing logistical supplies to the field forces is the responsibility of each individual agency. Backup power to the field can be supplied through several State agencies.

4. Direction and Control in the State of Ohio is implemented through the Incident Command System (ICS). The ICS is a system consisting of procedures for controlling personnel, facilities, equipment, and communications and is a part of the National Incident Management System (NIMS) which is divided into six (6) major components.

   a. Command and Management
   b. Preparedness
   c. Resource Management
   d. Communications and Information
   e. Supporting Technologies
   f. Ongoing Management and Maintenance

5. The on-scene Incident Command System (ICS) is part of the Command and Management component of NIMS. ICS is the same basic system that has been used for years at the local level.

   a. The ICS is usually setup onsite, at the Incident Command Post. The State EOC is plugged into the system as a support role, providing State resources (personnel and equipment), as well as technical expertise. During very large incidents, such as Valdez-type oil spills, the Unified Command System (UCS) can be implemented. The UCS is an expanded version of the ICS that accommodates multiple commanders that act in a unified effort to mitigate the situation.

   b. Both the ICS and UCS are designed to begin to develop from the time the incident occurs until the requirement for management and operations no longer

exists. The "Incident Commander" is a title, which can apply equally to an engine company captain, chief of a department, State On-Scene-Coordinator (OSC), or Federal OSC, depending upon the situation. The structure of the ICS/UCS can be established and expanded depending on the changing conditions of the incident. It is staffed and operated by qualified personnel from any emergency services agency and may involve personnel from a variety of agencies.

c. The ICS/UCS can be utilized for any type or size of emergency, ranging from a minor incident involving a single fire unit, to a major emergency involving several agencies. The ICS/UCS allows agencies to communicate using common terminology and operating procedures. The systems also allow for the timely combining of resources during an emergency.

III. Hazard-Specific Considerations

A. General

1. On-going incident assessment is based on the monitoring and sampling results of hazardous materials, or chemical, biological or radiological contamination. The field information is applied to dose/concentration projections to determine response actions and protective action recommendations. These actions and recommendations are based on the potential health effects of the involved hazardous materials, radionuclide or biological incident. The OEPA On-Scene-Coordinators (OSCs) may provide field monitoring/sampling information on chemicals through the incident command system to the Incident Commander. ODH personnel provide monitoring/sampling information on biological and radiological contamination.

2. As part of the State's incident assessment function, monitoring and sampling personnel, hazardous materials response teams, and the State EOC Assessment Team perform several functions, including:

   a. hazardous materials response
   b. monitoring and sampling
   c. sample analysis evaluation
   d. dose/concentration exposure and rate projections
   e. environmental assessment
   f. accident assessment
   g. biological assessment and/or response

B. Monitoring, Sampling, and Assessment

1. The State's role in monitoring, sampling, and assessment is to gather and furnish to the facility, local, state, or Federal responders information for response assessment and disposal. The field monitoring data serves to help define toxic

chemical movement and concentrations, validate model dose/exposure projections, and verify the basis for protective action recommendations.

2. The information derived from the field monitoring operations is forwarded through the State EOC Assessment Group, along with protective action recommendations and projected exposures, which will also be forwarded to the affected jurisdictions' EOCs to provide direction and assistance in augmenting a local protective response decision. For information on the EOC Assessment Group, please see the Direction and Control section of this annex.

3. Local responders, OEPA, ODH, and OSHP discern and evaluate potential hazards and provide an accident assessment. This information determines the response taken by the hazardous materials response teams. When sampling is called for, hazardous materials sampling instruments are available for water, air, soil, and vegetation. Environmental sampling is incident specific and is accomplished as per respective agency SOPs. Field analysis of water, air, and hazardous substances is limited. Laboratories (OEPA, ODH, SFM, and ODA) as well as private laboratories under contract can provide analytical information to the EOC Assessment Team. Area control of the incident scene and chain of command is based on the local Incident Commander. All state responders work within the ICS per agency SOPs. First aid and lifesaving are performed by local responders during a hazardous materials incident.

    a. For information on the capabilities of each state agency, please see the Primary Agencies and Support Agencies sections of this annex.

4. ChemTrec

    a. It should be noted that the best reference in any hazmat incident is the facility representative or process chemist/engineer. Whenever possible, the above person(s) will be contacted for advice in dealing with a particular chemical or product.

    b. A number of references may be utilized by the OSCs and response teams to aid in hazmat identification. ChemTrec provides immediate advice to callers on coping with chemicals involved in a transportation emergency. Then ChemTrec notifies shippers of the chemicals involved so they can take appropriate follow-up actions.

    c. ChemTrec operates 24-hours a day, seven days a week. Although ChemTrec is financed and operated entirely by the American Chemical Society (formerly the Chemical Manufacturers Association), it has been officially recognized by the USDOT as the central emergency information service for dealing with incidents concerning the transportation of hazardous materials. ChemTrec notifies the DHS/USCG's National Response Center (NRC) of significant incidents. In turn, the USCG notifies the ChemTrec of situations where ChemTrec may be able to assist. ChemTrec communicators are highly

skilled at locating unknown shippers on the basis of tank car number, container shape, etc. When a shipper cannot be located ChemTrec will secure help for the local responders from another manufacturer or agency. ChemTrec, through its Hazard Information Transmission (HIT) Program, can transmit a hard copy of chemical specific response information.

d. ChemTrec Notification Procedure: An individual needing technical assistance in determining how to handle a spill, leak, fire, or explosion problem, can call ChemTrec toll free: 1-800-424-9300. Limited information will be available for biological agents.

5. Meteorological Data

a. Meteorological information during an incident may be obtained from the NOAA weather wire located in the State EOC. Weather data is updated continuously.

b. The Radio Amateur Civil Emergency Service (RACES) weather spotters may be employed in hazmat releases to provide updated weather information. These spotters have been trained by the National Weather Service to estimate cloud speed and wind direction. Many of the spotters utilize portable weather stations to obtain current weather data.

c. Meteorological data may also be obtained through NAWAS, the FAA, and from ODOT's contracted weather service.

d. Several local hazmat teams may also provide weather information from their portable weather stations.

e. Provisions have been made for inclement weather hazards assessment in agency SOPs and in the computer models used for dose/concentration projections.

f. Ohio EMA has a satellite video capability to receive the Weather Channel. An agreement with the Weather Channel allows for the airing of information over the Weather Channel and in turn over cable TV stations carrying that channel.

6. Food and Water Evaluation and Control

a. Food control on the State level is accomplished by ODA and ODH with coordination from the ARC. If field samples are found to exceed the Compliance Guidelines as set by the FDA, control actions may be issued to prevent contaminated food from entering the market. The ODA works in coordination with the ODH and local health departments defining protective actions, which must be implemented to provide uncontaminated food within the affected area. For the evaluation of livestock and poultry

the ODA may engage the services of local Veterinarians to check health/casualties. Follow-up collections are performed by ODA to evaluate contamination of livestock, foodstuffs, and crops. Most food and water control monitoring is done after an incident is over to identify recovery actions. ODA also monitors milk and milk products for contamination in the event of an incident.

ODA, local health departments, and ODH monitor food supplies in mass care shelters prior to and during an incident to ensure their safety.

b. Water control on the State level is performed by ODH, ODNR, and OEPA with coordination from local level response personnel. Water control includes private well water sources, public waterways, and ground water. The Bureau of Environmental Health (ODH) is responsible for certifying the effectiveness of local health departments' private water programs and may provide personnel for consultation with local health departments to assist in abatement of water related public health hazards. The same ODH personnel also consult with OEPA regarding results of non-radiological contamination and pollutants following an incident.

The divisions of OEPA that would be most directly involved in water control are the Division of Water Pollution Control, Division of Public Drinking Water, Division of Water Quality Monitoring and Assessment, and the Division of Groundwater. In regard to water control the OEPA conducts water sampling, monitoring, and testing to provide qualitative measures of water contamination levels. Through evaluation of field data, technical assistance concerning the protection of public water sources from the effects of chemical contamination is available from these divisions.

Interpretation of field data in conjunction with an affected area's geologic and hydro geologic characteristics would be utilized to determine susceptibility of surface/groundwater to pollution, extent of pollution, and appropriate courses of action. For effects on groundwater, interpretations are generally based on data and information obtained from ODNR's Divisions of Water and/or Geologic Survey, and may include the use of groundwater models by the Division of Groundwater.

The Division of Water may also provide technical assistance and information regarding the development or procurement of emergency water supplies along with data on areas of groundwater availability and relative vulnerability of aquifers to pollution on a statewide basis.

C. Warning Systems and Emergency Public Notification

1. Warning Systems

a. The initial warning of the public of an impending or actual hazardous materials emergency is the responsibility of local government.

b. Warning systems (locations and areas of coverage); alternate systems (local EAS, fire department sirens or bells, vehicle mounted public address systems, door-to-door operations); and the means of monitoring such alert systems are listed in local EOPs and SOPs.

c. Warning special populations such as schools, nursing homes, hospitals, industries, institutions, remote areas, places of public assembly, hearing-impaired; and the time required to notify these populations is also found in local EOPs and SOPs.

d. Warning the hearing-impaired and non-English speaking populations is difficult. Several methods may be used:

- Using special foreign language broadcasts in conjunction with standard pre-scripted text over the EAS.
- Using pre-scripted text appealing to local officials and area residents to assist in the notification of the hearing impaired.

e. The State of Ohio has the ability to disseminate warnings to the public and may serve as an alternate or additional system to county systems. The State of Ohio warning network is comprised of the NAWAS, NOAA Weather Radio, LEADS, and the EAS. All are designed to operate on a 24-hour basis. If necessary, telephone and State radio systems will be used to backup the above systems. Warnings are disseminated in a timely manner and repeated as necessary to protect the public. For detailed information on State warning systems consult the *Ohio Emergency Operations Plan*.

f. NAWAS is a dedicated nationwide party line telephone warning system operated on a 24-hour basis that provides simultaneous warning to 24 warning points throughout the state. Warnings are disseminated to Ohio's 88 counties via the Sheriff's offices.

g. NOAA Weather Wire System is a satellite station receiving the NOAA signal in the State EOC. Continuously updated, this information is used to update the State EOC staff of current and future meteorological conditions during an emergency.

h. LEADS is a data communications system providing two-way teletype between the primary State warning point, OSHP, and county sheriff offices. The State EOC is equipped with a LEADS station.

i. The Ohio Public Health Communications System is an alerting system used to disseminate health related alerts and information to local health departments and other subscribers.

2. Emergency Public Information

a. The EAS is a system that provides reliable, timely warning to the public. The EAS operates on both the state and local levels. Using non-governmental communications facilities on a voluntary basis, the EAS consists of broadcasts systems licensed by the FCC.

b. The State can activate the EAS statewide or on an area-by-area basis through its originating station WNCI (WLVQ alternate). EAS messages cover whatever information is pertinent to the emergency and public safety. Samples of pre-scripted messages for evacuation and sheltering-in-place for use in a hazardous materials incident are contained in this section.

c. EAS was unveiled by the FCC on November 10, 1994. The EAS is compatible with both new and established communications technologies, including satellite, broadcast and cable to make the disaster warning system more effective.

d. Major features of the alert system include a digital architecture that will allow broadcast, cable, satellite, and other services to send and receive information, multiple source monitoring for emergency alerts and a shortened alerting tone. The new tone is to broadcast for a minimum of eight seconds. The system also features automated and remote control operations and the ability to issue alerts in languages other than English.

3. Public Information, Education and Community Relations

a. Public Information is subject to rapid change during the threat or actual occurrence of a hazardous materials incident. The news media provides extensive coverage of events during hazardous materials incidents; therefore, all news media and other resources for disseminating public information should be prepared for maximum utilization prior to an incident, at both the local and State level.

b. The public should not be subjected to rumors, hearsay, and half-truths during an incident that may cause panic, fear, and confusion. The news media can be a valuable resource for disseminating accurate information and alleviating this problem.

c. Refer to the *Ohio Emergency Operations Plan,* Public Affairs Support Annex, for complete information on the State of Ohio's public information policies, procedures and the establishment of a Joint Information Center (JIC) under NIMS/ICS.

d. Disseminating information to the public is primarily the responsibility of local government. A hazardous materials incident can be costly, in terms of lives and property. An educational program to teach the public ways in which to protect themselves in such an event should be implemented at the local level. Information on the available public education programs that exist in the area is contained in the county hazardous materials plan together with information on available emergency public information guidance materials, such as, pamphlets, magazines, etc. The smooth operation and acceptance of EPI in times of an emergency is enhanced by on-going public information programs. Safety and awareness campaigns designed to inform the public of potential hazards will ensure they take proper actions in the event of an emergency.

e. Affected state agencies are encouraged to use existing federal sources of emergency public information as part of preparation of the public before an event. Resources that can help many agencies are available at FirstGov.gov (Protect Yourself web site) and at Ready.gov (http://www.ready.gov).

D. Resource Management

1 Each agency manages, operates, and maintains its own personnel and equipment. Each agency, with legislative authority, can activate and put its personnel and equipment into response operations at its own discretion; when the Governor declares an emergency and when the EOC is activated, the Ohio EMA is the State coordinating agency for personnel and equipment.

2. An overall list of all the available State personnel would be too lengthy to include in this plan. Refer to the matrix in figure 3 for a listing of "generalized" categories of State personnel available to perform duties during hazmat incidents.

State Agency Resource Personnel **Figure 3**	**Firefighters**	**Hazmat Responders**	**Monitoring & Sampling**	**Mass Care Workers**	**Damage Assessment Teams**	**Law Enforcement Personnel**	**EOC Representatives**	**Assessment Room Representatives**	**County EOC Liaisons**
Department of Health		X	X	X	X		X	X	X
Environmental Protection Agency		X	X		X		X	X	X
State Fire Marshal							X	X	
Emergency Management Agency			X		X		X	X	X
Adjutant General's Department			52nd	X		X	X		X
Department of Agriculture			X	X	X		X		
Department of Commerce OSHA			X		X		X		
Department of Transportation					X		X		X
Public Utilities Commission of Ohio					X		X		
State Highway Patrol					X	X	X		X

3. Equipment

   a. Each State agency has equipment which is, as are State personnel, available for use on a 24-hour protracted basis. Each State agency inventories, keeps records, and maintains its own equipment. Each agency generally operates its own equipment during a hazmat incident, however, some agencies may loan equipment to other agencies during an incident.

   b. Equipment records are updated periodically in accordance with the respective agency's SOPs. Maintenance of equipment and vehicles is performed as per agency SOPs.

   c. The matrix in figure 4 illustrates the "generalized" types of equipment available from the State and the agencies that own the equipment.

   d. Equipment is also available from Federal agencies and private organizations upon request from the State.

e. Many State agencies also maintain lists of, and agreement with, private industry and contractors. These private industries and contractors can supply personnel with expertise in hazmat operations and additional or specialized equipment and vehicles that may not be in the State's inventory. These lists are kept on file in respective agency offices.

f. Organizations such as CHEMTREC®, the Ohio Chemistry Technology Council, the American Chemical Council (formerly the Chemical Manufacturers Association), the Great Lakes Spills Cooperative, and the Petroleum Council can also, through their member industries and agencies, call-in additional experts and equipment. Refer to ChemTrec's web site at http://www.chemtrec.org/ for a list of emergency response Chemnet® responders.

4. Facilities

a. The Ohio EPA has compiled and maintains *The Directory of Commercial Hazardous Waste Management Facilities* for use in the storage, treatment, and disposal of hazardous materials. The OEPA also maintains a document that lists licensed and unlicensed solid waste landfills and incinerators in Ohio by county. These documents are on file in the OEPA district offices and are also available on the Ohio EPA web site. The ODNR maintains information on the location of storage facilities (injection wells).

b. The OEPA keeps a list of contractors, for the convenience of the emergency response unit, that may be called for the cleanup and disposal of hazardous wastes. This list is available from the Ohio EPA Duty Officer at 1-800-282-9378.

c. The ODH maintains a list of medical facilities in the State, but for specific information on which medical facilities have the capabilities to treat hazmat exposures and have agreements to accept victims of such exposures refer to the LEPC plan for that respective county. If necessary, several state agencies could provide facilities to be used as emergency medical facilities.

d. ODH maintains a list of radioactive waste brokerage and disposal services and facilities, and has the state's radiological analysis laboratory that can be used during emergencies.

e. Several State agencies have in-house or contracted laboratories for chemical analysis; they are the OEPA, ODH, SFM, BWC, ODA, ODNR, and the OSHA Bureau. The following is a breakdown of the types of labs each agency has.

i. BWC--Contracted and In-house
ii. ODA--In-house

iii. OEPA--Contracted and In-house
iv. ODH--In-house
v. ODNR--In-house (limited capabilities)
vi. SFM--In-house
vii. OSHA Bureau--Contracted

f. State agencies can also supply, when necessary, facilities for shelters in the care of mass evacuees. The following are some examples of available facilities.

i. Adjutant Gen. Dept.--National Guard Facilities
ii. ODE--School Buildings
iii. ODA--Fairground facilities
iv. ODNR--State Park Facilities and Civilian Conservation Camps
v. and Gyms

g. The ARC has agreements on file with many facilities to be used as reception and care facilities or shelters during emergencies. Refer to respective LEPC hazmat plans and local EOPs for the shelters available to individual counties.

State Agency Resource Equipment **Figure 4**	**Personal Protective Equipment**	**Fire Fighting Equipment**	**First Aid/Mass Care Equipment**	**HazMat Vehicles**	**Sampling/Monitoring Devices**	**Sample Analysis Equipment**	**Heavy Equipment**	**Evacuation Vehicles**	**Vehicles**	**Communications Equipment**	**Area Control Equipment**	**Containment Equipment**	**Decontamination Equipment**	**Rescue Equipment**
Department of Health	X			X	X	X				X	X	X	X	
Environmental Protection Agency	X			X	X	X				X		X		
State Fire Marshal		X								X				
Emergency Management Agency	X			X	X					X				
Adjutant General's Department			X		X	X	X	X	X	X				
Department of Agriculture	X				X	X				X				
Department of Transportation							X		X	X	X	X		
Public Utilities Commission of Ohio	X									X				
State Highway Patrol	X		X						X	X	X			

5. Hazardous Materials Specific Capabilities

   a. The OEPA has 14 On-Scene Coordinators (OSCs) divided among its five District Offices. The OSCs operate on a rotating on call basis, and work out of their homes after regular business hours. Refer to figure 6 below. Equipment is available on each HazMat vehicle and additional resources are available from Ohio EPA's Field Facility, USEPA, and the Regional Response Team (RRT).

   b. The ODOT has garages, with large amounts of heavy equipment available, in every county of the State. Sand, which can act as an absorbent in a hazardous materials incident is also available. A complete list of ODOT equipment is on file at ODOT Headquarters, District Headquarters, and garages.

c. The OSHP in many cases is the first agency on-scene. Most OSHP vehicles are not equipped with personal protective equipment or hazardous materials response equipment. The OSHP has 10 districts with 60 posts throughout Ohio. Each post does maintain some radiation detection meters. A complete list of hazmat related equipment may be obtained from the OSHP Headquarters and posts. Refer to the *State of Ohio Emergency Operations Plan* for OSHP post locations.

d. The PUCO can provide personnel such as truck and rail inspectors/investigators, and hazmat specialists. PUCO can also supply numerous vehicles with radio capabilities to hazmat incidents.

e. The Ohio Department of Health, through the Bureau of Radiation Protection (BRP), has an Incident Response Plan for all types of radiological incidents, and maintains a 24-hour emergency response capability. All BRP technical staff members are trained in basic response procedures. Selected staff members are trained in advanced response procedures, which include mixed-hazard operations (nuclear/radiological/chemical/biological). The BRP maintains a dedicated incident response vehicle containing a variety of personal protective equipment (up through level B), plus instrumentation and equipment for the localization, identification, quantification, isolation and recovery of radioactive sources and contaminants. The Ohio Department of Health's Radiological Laboratory provides radiological assessment support for sampling the environment, if needed. The Bureau of Radiation Protection maintains a number of dose assessment software packages, and is capable of performing dose assessments in accident situations. The BRP will respond to any incident when requested by local first response, incident command, or local government. The BRP may also dispatch monitoring teams to identify plume paths and deposition footprints to confirm a release of radioactive material. The BRP also has an incident response team (Radiological Emergency Response Team [RERT]) which will make recommendations to incident command for effective control of radiation and radioactive materials at the scene.

f. Ohio EMA does not generally respond in emergencies involving hazmat; however, Ohio EMA will dispatch radiological emergency response teams in support of ODH during radiological incidents. Ohio EMA is tasked to support the state's response agencies for incident management with agency resources at its disposal. Ohio EPA is the primary on-site agency for chemical incidents, ODH is the primary on-site agency for radiological and biological incidents, and the SFM is the primary on-site agency for incidents involving fire or explosions. Ohio EMA is the primary agency for off-site emergency management and can call upon FEMA for assistance. FEMA provides coordination support during ESF activations, as well as recovery and mitigation assistance. Refer to the *State of Ohio Emergency*

Operations Plan for complete information on the resources and capabilities of Ohio EMA.

g. The USCG is a Federal OSC and co-chairs the Region V RRT. The USCG can supply personnel and equipment for incidents within its boundaries involving port or vessel related losses. The 9th USCG District operates on Lake Erie. There are 2 Marine Safety Offices (MSO) on the lake: one in Cleveland and one in Toledo. These MSOs respond to hazardous materials incidents on the lake and on land (to the USEPA boundary line). Generally, the USCG territory includes Lake Erie and its tributaries up to 10 miles inland. The exact MSO boundaries are listed in the MSO *Oil and Hazardous Substances Pollution Area Contingency Plan*, on file at the MSOs. The MSOs may call upon the 3 USCG Atlantic Strike Teams for additional resources. All available resources are listed in the above plan.

   The USCG also responds to hazmat incidents on in-land navigable waterways and the Ohio River. The USCG district that operates on in-land waterways within Ohio's boarders is the 2nd District. The 9th and 2nd Districts have agreements with the OEPA covering the response to hazmat incidents on all Ohio waterways. Refer to figure 8 for the locations and boundaries of the USCG Districts and MSOs in Ohio.

h. Ohio law also allows for the use of outside assistance in hazmat incidents. This is Ohio Revised Code (ORC) 2305.23.2 or the Good Samaritan Law. This 1986 law gives civil liability immunity to all persons who give aid or advice in the prevention, cleanup, and disposal of hazardous materials. To be immune from civil liability under the law in matters of hazardous materials incidents *all* statutory requirements *must* be satisfied. This law is on file in the Ohio EMA offices.

i. Resources belonging to cities and counties will most likely arrive on-scene first and must be mentioned here. LEPC hazmat and local emergency operations plans list county and local resources and will be referred to for such information. Local and county plans are kept on file at the Ohio EMA offices and respective LEPC/EMA offices. Ohio EMA contacts local jurisdictions via local EMAs 24-hour telephone numbers to inquire about available resources. LEPCs are responsible for writing and maintaining District Hazmat Plans. A list of all 24-hour county contacts and LEPCs is on file at the Ohio EMA and OEPA offices.

Ohio EPA Emergency Response Districts

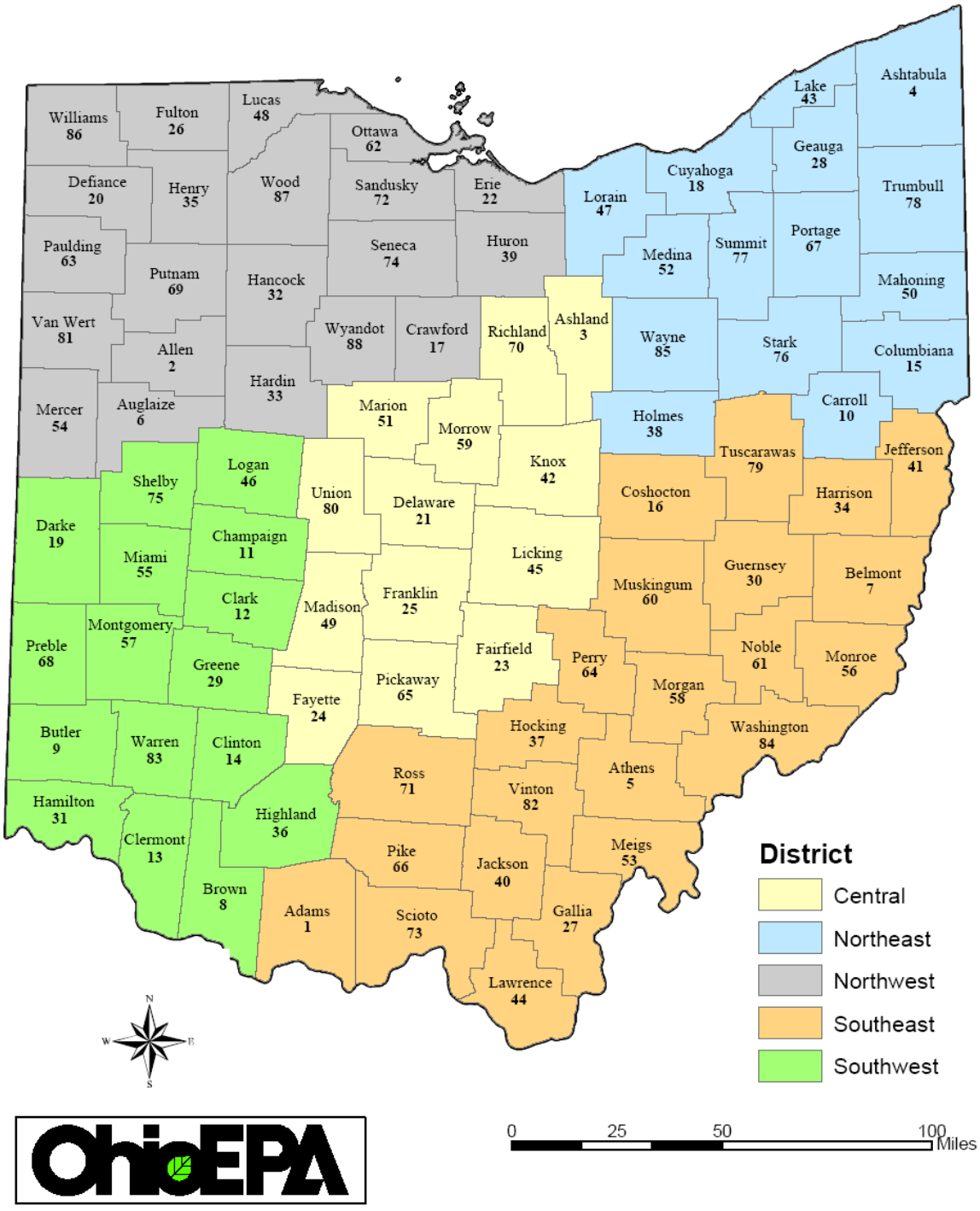

Figure 6: Ohio EPA Emergency Response Districts

Figure 7: Ohio Department of Transportation Districts

6. Response Personnel Safety

   a. Protecting the emergency response worker is a primary consideration. If the worker who enters an incident site is not properly protected, he/she may become an additional casualty. The incident cannot be brought under control if all the response personnel have become casualties themselves.

   b. For radiological incidents, the Ohio Department of Health has set exposure limits in rule for radiation workers and the general population as authorized by ORC 3748.04. For chemical incidents, Threshold Limit Values (TLV) and exposure limits have been established for the industry worker. These TLVs have been set by several agencies. The *Threshold Limit Values and Biological Exposure Indices* is produced by the American Conference of Governmental Industrial Hygienists (ACGIH). The National Institute for Occupational Safety and Health (NIOSH) and the Occupational Safety and Health Administration (OSHA) are other agencies that set such safety guidelines. Exposure limits are established for predominantly airborne toxics that pose the greatest threat to the worker through inhalation. These limits are based on Time-Weighted Averages (TWA) for exposures during

an 8-hour day/40-hour week (10-hour day/40-hour week for NIOSH TWAs). Levels are also based on Short-Term Exposure Limits (STEL) which are tolerance exposure limits for short periods. STELs are based on actual exposure limit studies, and because the limits are typically 15-minute TWA exposures, the STELs carry more weight than TWAs. NIOSH and OSHA maintain lists of TWAs. The ACGIH maintains lists of both TWAs and STELs. NIOSH, OSHA, and the ACGIH are all available in the form of pocket guides.

c. Another listed limit that is important to the emergency worker is the Immediately Dangerous to Life and Health (IDLH) limit value. IDLHs are listed in several documents (unfortunately there is not an established IDLH for every chemical): NIOSH pocket guide, USEPA chemical profiles, MSDSs available from industry, and the CAMEO database.

d. Although the above limits are established for industry workers, they can be used as exposure guidelines for emergency responders. State agencies base emergency worker protective actions and permissible activities on the above limits in order to prevent overexposure and injury.

e. Emergency Response Planning Guides (ERPG) are three tiered guides that estimate how the general public would react to chemical exposure. For example, at ERPG1 most people would detect the chemical and may have temporary mild effects. On the other hand, at ERPG3 it is estimated that the effects would be severe, although not life threatening. However, because there is no safety factor built in and ERPGs do not take into account hypersensitive individuals, the ERPG should serve as a planning tool and not a standard to protect the public.

f. Not every chemical or hazardous substance has an established TWA, STEL, IDLH, or ERPG. In cases where no established limit exists, the State EOC Assessment Team will consult with the manufacturer and any other reference needed to set limits for specific operations. The ODH has agreements with the Central Ohio Poison Control Center for consultation in establishing standards for emergency worker exposure.

g. Response to incidents, methods of protection, and actions taken are dependent on the material involved and incident variables. Knowing the permissible exposure limits and where to find such limits enable the State to set safe emergency worker guidelines and establish safety precautions in the form of agency SOPs.

h. Agencies that may respond to hazmat incidents have SOPs to instruct their workers in the conduct of such response. These SOPs are kept on file at respective agency offices, and should be consulted for agency specific worker protection and guidelines. These SOPs should follow these generic principles:

i. **Entering and Leaving the Scene**: Once the material(s) involved has been identified, agency SOPs will be consulted for instructions on entering and exiting the scene. Safety procedures must be adhered to when entering or leaving the site in order to protect responders and prevent the spread of contamination.

ii. **Accounting for Personnel:** Personnel entering or exiting the scene must be accounted for so that no one is left at the scene. When a worker enters the scene (hot zone), the time of entry should be noted and the time in the area should be tracked. If the worker loses contact with the control party, or if the worker does not exit within a specified period of time, a rescue team should be sent in to search for the missing worker. This rescue operation obviously puts the rescuers at risk as well as the mission worker. If the worker has exited unnoticed, the risk to the rescue team is unwarranted. So it is very important that workers are accounted for as they leave the scene. Upon exit of the scene (hot zone), workers should be medically monitored for indications of toxic exposure. If symptoms of poisoning are detected, the worker should be transported to a hospital for further evaluation and treatment.

iii. **Decontamination:** Upon exiting a "hot" area, the worker, clothing, and equipment must be monitored for contamination. If contamination is detected, decontamination procedures must be enacted. The purpose of decontamination is to ensure that any potentially harmful residue or contaminant is confined to the hazard area. Decontamination techniques vary for different substances. Biologic incidents should be dealt with on a case by case basis and the decon team should consult with local health officials to determine the best course of action for decontamination. In some cases, decon may not be needed. Medical personnel should make that decision. Samples should be taken for lab analysis.

The Incident Commander (IC) is responsible for assigning a decontamination officer at all operations sites. (NOTE: Though the IC is responsible for decontamination at the site, it is strongly recommended that the ODH Bureau of Radiation Protection be consulted first on any decontamination efforts for radiological incidents.) The decontamination officer determines the type and amount of decontamination required and assigns a decontamination team. An entry/exit control point will be established between cold and warm/hot zones for the purpose of monitoring and decontaminating personnel entering or leaving the site. The decon team should be equipped to the same level of protection as entry teams (1 level of protection below is also acceptable).

iv. **Safety and Health Equipment:** Care must be taken to choose equipment that protects the emergency worker. Although the emphasis

on equipment usually focuses on protection from toxic vapors, impaired vision, restricted movement, and excessive heat can also cause worker injury.

The Exclusion (Hot) zone is the immediate danger area surrounding the site where contamination does or could exist. All response personnel entering the exclusion zone must wear prescribed levels of protective equipment. The prescribed levels will be determined by the hazardous material involved. Agency SOPs, response guides, and hazmat reference materials will aid in determining the appropriate level of protection.

The Warm zone is the area surrounding the hot zone which presents no hazard to properly protected personnel. The Cold zone is the support area surrounding the warm zone which presents no hazard to personnel and equipment.

There are four levels of protective clothing: D, C, B, A. Level A provides the highest level of protection. State agencies, local Hazmat Teams and Fire Departments that respond to the scene will have Standard Operating Procedures (SOPs) in place to address these operational issues. Please refer to them for more detailed information.

7. Personal Protection of Citizens: The protection of the citizens in and around the area affected by a hazardous materials incident is a primary concern of first responders and government officials. There are several ways of protecting the endangered citizens: indoor sheltering, evacuation, and relocation which are discussed below.

   a. Indoor Sheltering

      i. There are many times when the best way to protect the citizens in the area of a hazardous materials incident is to simply take shelter until the danger passes. In some cases an incident will produce a toxic cloud or plume (visible or not visible) that will travel towards nearby populations. At times the wind speed will cause the cloud or plume to move quite rapidly which would have the plume arriving at the nearby populations long before they would be able to get out of its path. In these cases taking shelter is better than being caught outdoors in the path of the toxic plume.

      ii. Sheltering means to go indoors (home, office building, school etc. depending upon where an individual is located); shut off all outside air sources (doors, windows, fans, air conditioners or furnaces, dryer vents, etc.); and tune to a radio or television station and listen and follow any additional instructions. Instructions given will be dependent and based on hazard specific incidents.

      iii. An emergency management system and decision making criteria for determining when indoor sheltering is appropriate is available, through

the ALOHA computer program and/or other applicable plume models, at the local and State government levels.

iv. The decision to enact sheltering as opposed to an alternate means of protection rests with the local elected officials and the on-scene responders. This decision will be based upon the specific material that has been released or spilled, its properties, toxicity, the time of arrival of the plume, if present, and the time required for the endangered populations to evacuate the area.

v. The State of Ohio response agencies, dependent upon the magnitude of the incident, will have personnel in their agency, in the field, and/or in the local and/or State EOCs. The response agency field forces will compile information concerning the material and incident and discuss the situation with their agency representatives located in their agency offices. Based upon a consensus of opinion, the field forces of the State will advise and make recommendations concerning the handling of the incident and protecting the public (shelter, evacuate, etc.). If the State EOC is activated the process is basically the same; the State field forces will collect incident information and relay it to the State EOC agency representative in the assessment room. The assessment room members will discuss the available information and will make protective action recommendations. The State will make a recommendation as to the handling of the situation and protection of the endangered citizens to the county EOC. Refer to the Direction and Control section and the On-going Incident Assessment section for further details. The county officials and on-scene commander have the final say as to what actions will be taken. (This scenario is for situations where time is available; if the situation is extremely fast acting, the local forces will have to make all decisions themselves).

vi. Once the decision to take "shelter" has been made, the endangered populations must be so warned. The means of warning will be according to any and all available methods - sirens, radio, TV, public address systems on emergency vehicles, or door-to-door notifications. The specific methods to be used will be addressed in local emergency operations and hazardous materials plans. Initial warnings will be the responsibility of the local jurisdiction. If time permits or the situation allows, the State can assist in warning the public. The methods of warning the State will use are addressed in the Warning System and Emergency Public Notification section of this plan.

vii. The on-scene field forces (local and State) will continue to assess the situation and monitor the air, water, and soil to determine the concentration levels to determine if the situation is worsening or dissipating. If the State EOC is activated, the State field forces will continue to send in all available information collected to the assessment room group who will, through computer modeling and discussions, make recommendations as to the concentration levels and whether or not they feel the plume is still present and where or whether the plume has left the area. These recommendations may be forwarded to the local EOC and on-scene commander for their final decisions.

viii. Once the decision has been made that the plume has cleared the area, the affected populations must again be notified so that they may return to

normal activities (leave their house or wherever they have taken shelter). This will be accomplished in the same manner as used to warn them to take shelter.

ix. Public education on the value of indoor protection and expedient means to reduce ventilation in such times is the local jurisdiction's responsibility and information on this subject is listed in local emergency operations and hazardous materials plans. Some counties produce brochures that teach the public what specific siren soundings mean, what sheltering means, what evacuation entails, and how to protect oneself during such times. Many industries also publish and distribute such literature.

x. Although the all-clear is given for the sheltered public to emerge, there may be restrictions placed upon their actions as to the drinking of water or eating of food, or operating in areas that may have been contaminated. If such restrictions are necessary, they will be announced at the same time the all-clear notification is given, along with instructions on what to do. The State agencies will make protective action recommendations in the areas of contaminated water, food, soil, and animals. This will be discussed further at the end of this section and in the On-going Incident Assessment and the Containment and Cleanup sections of this plan.

b. Evacuation

i. Evacuation involves moving people away from the hazardous materials incident site and the surrounding endangered area. Evacuations are appropriate measures if the incident appears to be of a long-term nature and if it can be accomplished prior to the toxic plume's arrival at the population center; it depends upon the time required to evacuate the area compared to the time of the cloud's arrival.

ii. The Chief Executive Officer, County Commissioners or Mayor of the affected county or city must consult with the on-scene commander and if time allows, should consult with the State as to the nature of the situation and weigh their advice and recommendations prior to ordering an evacuation.

iii. Counties, through their Local Emergency Planning Committees, are required to write a hazardous materials plan that depicts the location of the hazardous materials facilities (containing Extremely Hazardous Substances (EHSs)) and likely transportation corridors where an incident might occur. In addition to depicting these sites on a map, emergency planning zones that would be in danger of an incident are drawn on the map around the proposed incident site.

iv. A general evacuation involves the movement of the entire population of an area i.e., everyone within an entire zone. A selective evacuation involves the movement of the people in a specific area i.e., all the people in the northwest sector of a zone.

v. At times, the local officials may call for a precautionary evacuation; one in which the situation is unstable enough to warrant an evacuation in case the situation escalates. This precautionary evacuation will also

allow for a little extra time to accomplish the evacuation before the situation worsens.

vi. Evacuations are the responsibility of the local jurisdiction and complete evacuation procedures are on file in the local EMA offices in the local emergency operations and hazardous materials plans and local agency SOPs. Some State agencies may assist the locals in performing their duties during an evacuation.

vii. Refer to local EOPs, local Red Cross agreements, and ARC agreements for complete listings of all available shelters.

viii. Medical support operations are a local responsibility and are listed in county plans. ODH can supply a list of medical facilities in the area if necessary and the ARC may provide nurses to administer first aid care to evacuees in shelters.

ix. Refer to the EOP and the Primary and Support Agency sections of this Annex for all state agency roles and responsibilities related to evacuation.

c. Other Protection Strategies

i. Relocation is long-term evacuation. Some hazardous materials incidents contaminate the soil, water, food, homes, etc. in the area for long periods of time. In such cases, the affected people must relocate to other areas (homes, hotels, friends, etc.) until the area is decontaminated or the area becomes safe due to time delay.

There are State and federal agencies that become involved in these long-term relocation operations. The ARC and Dept. of Jobs and Family Services can assist in temporary housing and food. If possible, the ODE can offer schools for housing with the ARC and local agencies running the shelters. The Ohio EMA can act as liaison between local officials and State and federal agencies to coordinate assistance. OBES can assist in job placement for relocatees; Dept. of Aging can assist in temporary housing for the elderly; the Dept. of Insurance can assist in advising relocatees on insurance matters; MH and MRDD can assist in caring for the handicapped; and BWC can assist workers who may have been injured during the incident. If a declaration of disaster is declared, the federal agency counterparts can also assist i.e., FEMA can relocate families and provide housing. If the declaration is received, small business loans and lump sum payments may be available. Refer to the EOP concerning the abilities of the State agencies in long-term situations.

ii. Water supply, soil, food, and animal protection are all areas that must be addressed prior to making the decisions to allow people to stop sheltering, or return from evacuation or relocation activities. Soil; surface, ground and drinking water; food; and animals in the food chain may be contaminated during an incident and the threat of their contamination must be identified and the public must be warned and be given instructions on their use.

iii. There are state and federal agencies that set acceptable level standards for air and the use and consumption of food, water, and animals that may have become contaminated in or during a hazardous materials incident.

The Ohio Department of Health has set exposure limits in rule for radiation workers and the general population as authorized by ORC 3748.04.

USEPA has set safe drinking water standards, which OEPA has adopted. OEPA, ODNR, and USEPA, if involved, would all sample and monitor drinking and ground water for contamination and would, in conjunction with ODH, put out a health advisory warning of contamination, if necessary. The warning would give restrictions on the waters use i.e., not at all or for showers only, etc. If it is not contaminated, that information would also be released. OEPA keeps a list of available laboratories that can perform chemical analysis of water. OEPA and, when activated, the USEPA may monitor or facilitate the monitoring of the air for chemical contamination. ODH will monitor for radiological contamination. Refer to the Containment and Cleanup section of this annex.

ODA will issue health advisories for all food products and food ingredients, including but not limited to Grade A and B milk, meat and poultry, fruits and vegetables, and processed foods, for safety in human consumption.

Additional information is available to ODH through their agreement with the Central Ohio Poison Center (800) 682-7625. Federal assistance is also available from the ATSDR (Agency for Toxic Substances and Disease Registry).

ODNR will sample and analyze fish and wildlife and ODA will sample and analyze food and food ingredients that may become part of the human food consumption chain.

If the samples are for the purpose of analyzing for radioactive material, then the samples would go to the ODH Radiological Laboratory.

USDA and ODA set safety standards for meat, poultry, animals, and stored feed based on the "Compliance Policy Guidelines for Chemicals and Pesticides" and the "Action Levels for Poisonous or Deleterious Substances in Human Food and Animal Feed". These guidelines and levels are listed in the Code of Federal Regulations (CFR) i.e... tolerance levels for pesticides are listed in the 40 CFR Part 180, Section 180.101. USDA and FDA also refer to the USEPA standards. All levels of safety are listed in the CFR that pertains to each involved agency. Refer to the agency SOP for the appropriate regulations.

iv. Hazardous materials may be hazardous to water treatment plants. The OEPA will assist in monitoring the water contamination levels and advise plant operators on how to divert or treat the contaminated waters entering the plant that may damage equipment. If the water can't be treated, advice will be given as to alternate water supply systems, use restrictions and/or treatment methods.

The same damage can be done to sewage treatment facilities. If the facility must shut down, bypass, partially treat or divert untreated or partially treated sewage, the situation could lead to other health problems. OEPA will be involved in this area as will ODH.

v. All warnings, instructions, and/or restrictions in the use or consumption of food and water will be relayed to the public through the EAS and the media in health advisories.

8. Containment and Cleanup

a. The first on scene responders will have to deal with the initial containment of the material. It is the spiller or releaser's legal responsibility for the minimization of risk to the public and environment and for the cleanup of the incident to include restoration of the area, when necessary. Many companies are required to provide plans showing their abilities to respond and cleanup spills they may cause. Laws such as CERCLA, RCRA, SARA, CAA, and OSHA require such plans as Spill Prevention Control and Countermeasures (SPCC) plans and facility response plans.

b. Please refer to Attachment # 5 for more information on containment and cleanup strategies.

9. Documentation & Investigative Follow-Up

a. **Documentation** is the collecting, abstracting and recording of information for future reference. One method of documentation during and after an incident involving hazardous materials is to have a person or persons, or a team from each involved agency, record all of the pertinent actions that were taken from the time of notification of the incident to the close-out of incident operations.

i. Such a log could include, but is not limited to:

- When was the incident discovered,
- Who reported the incident,
- Who received the notification call,
- What other agencies were notified,
- What other assistance was requested,
- The particulars of the spill (amount spilled, where, damages, etc.).

ii. Further information or documentation will be needed from each involved agency. Such information may include:

- the number of personnel initially assigned to the incident,
- chronology of actions taken,
- calls made to other agencies and received from other agencies,
- protective recommendations made to response personnel, and the public.
- response actions taken i.e., stabilization, sampling, cleanup, advisory duties,
- additional personnel called in,
- equipment used and numbers used,

- additional equipment used (inner-agency); requested from other State agencies; from federal agencies; borrowed from private contractors through mutual aid agreements, costs involved,
- duties performed in conjunction with other operations i.e., evacuation,
- containment operations,
- cleanup operations-personnel used, methods of operation,
- damage assessment
- hourly wages of each person who worked and their time worked,
- wear and tear on vehicles and equipment, damages to property and equipment, fuel used, equipment to replace,
- any other information the individual agency feels is important to its record keeping.

iii. Methods of documentation, whether they are individual logs, team logs, field reports or specific formal reports, are specific to each responding agency as are the formats of such documents. To include copies of all such documents in this plan would not be feasible because of the number of State Agencies and their own required report or reports. For a detailed list and copy of each agencies' documentation forms, refer to the individual agency's standard operating procedures.

b. **Investigative Follow-Up:** Another form of documentation is the investigative follow-up. This is performed after the incident has been brought under control. State and federal agencies send individual or team investigators to the scene of the incident to determine, if possible, the circumstances prior to and the actual cause of the incident. Some incidents require no investigation as the causes are apparent, but in some instances the causes are not readily apparent. The State agencies that might respond to after-the-fact investigations are the OEPA, SFM, ODA, ODH, ODNR, Ohio EMA (for purposes of a response evaluation and critique), PUCO, OSHP, and DOT. There are federal agencies that become involved in investigations also; the FAA for incidents involving air transportation, the National Transportation Safety Board for all modes of transportation accidents, the Department of Defense concerning military incidents, the USEPA, USCG, USDOT, the Federal Railroad Administration, the Chemical Safety Board, and the Bureau of Explosives.

i. Each of these State and federal agencies has their own set of investigation reports. Refer to the individual agency SOPs for the format and actual forms used for this purpose.

c. **Critiques and Restitution:** At the end of an incident, resulting in activation of the EOC, the responding agencies will be asked to critique and report on the overall emergency operations. Critiques help to determine if the response actions were appropriate and effective, if there were deficiencies in the actions taken or if the plan that details agency response to such incidents is accurate or needs to be updated. A critique can also establish whether follow-up training of responders is necessary and whether additional training programs need to be developed. These same critiques that are performed at the end of actual incidents should also be performed at the end of planned exercises. Critiques for an incident not activating the EOC will be called at the discretion of the lead agency.)

i. After the critique, documented reports and investigative follow-up reports are to be consolidated into a final incident report of

recommendations. This final report will be distributed to all participating agencies, as appropriate, and kept on file for future reference. A copy will also be sent to the Governor, if appropriate**.**

d. Two of the main reasons for documentation and investigative follow-up are for legal actions against the responsible party and recovery of costs associated with personnel (wages, overtime, bills related to injury); equipment (damages, replacement, rental costs, fuel, etc.); cleanup (contractor fees, equipment used for cleanup, wages, etc.); disposal (costs associated with how and where the spilled substance and contaminated surfaces are disposed of or contained), and restoration of the affected area (restoring the area to its original state prior to the incident).

e. Several State Agencies are able to fine or file charges against the responsible party, or recover costs for response activities. According to federal law, the responsible party is the spiller/releaser of the hazardous material. If the spiller refuses to make restitution for all costs related to the stabilization and cleanup of the incident, the State Agencies, with full documentation, can seek restitution through the legal system. Penalties may also be collected through litigation as a result of a referral by an agency to the Attorney General's Office.

10. Training

a. All State agency personnel who deal with hazardous materials incidents during any phase of the operation (mitigation, preparedness, response, or recovery) will receive initial and/or advanced training in order to meet the requirements of OSHA 1910.120.

b. Training is available and will be drawn from any and all sources; within individual agencies, other State Agencies, federal agencies, private industry, academic institutions, and volunteer organizations. All such sources will be utilized for a complete list of training they offer when setting up a comprehensive training program.

c. To access individual state agencies' web sites to view the training each offers, see the State of Ohio's web site at: www.ohio.gov. To access federal agencies' web sites to view the training offered, please go to www.firstgov.gov for an alphabetical index of all federal agencies' web sites.

IV. Responsibilities

A. Primary Agencies

1. General

a. These agencies have a legal responsibility to be the initial responding State agencies in times of a hazardous materials incident according to each agency's enabling legislation, as found in the Ohio Revised Code.

These three primary 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, State EOC, or any other place they may be needed.

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. Office of the Governor

   a. While not classified as a Primary Agency for Hazardous Materials response, the Governor, working through the appropriate state agencies under his oversight, is responsible for the State of Ohio's Hazardous Materials Emergency Response. The National Response Plan (NRP) states, "As a State's chief executive, the Governor is responsible for the public safety and welfare of the people of that State or territory. The Governor:

      i. Is responsible for coordinating State resources to address the full spectrum of actions to prevent, prepare for, respond to, and recover from incidents in an all- hazards context to include terrorism, natural disasters, accidents, and other contingencies;
      ii. Under certain emergency conditions, typically has police powers to make, amend, and rescind orders and regulations;
      iii. Provides leadership and plays a key role in communicating to the public and in helping people, businesses, and organizations cope with the consequences of any type of declared emergency within State jurisdiction;
      iv. Encourages participation in mutual aid and implements authorities for the State to enter into mutual aid agreements with other States, tribes, and territories to facilitate resource sharing;
      v. Is the Commander-in-Chief of State Military Forces (National Guard when in State Active Duty or Title 32 Status and the authorized State Militias); and
      vi. Requests Federal assistance when it becomes clear that State or tribal capabilities will be insufficient or have been exceeded or exhausted." (NRP Section III-A-1)

3. Ohio Environmental Protection Agency (OEPA)

   a. EPA's primary response function in a hazardous materials incident is to work to abate water, land and air pollution, protect human health and ensure the safety of public waters and drinking water supplies, and to provide technical assistance on the management and disposal of solid, infectious, and hazardous wastes. This is accomplished by conducting investigations, which include monitoring and damage assessment. Chapter 3704, 3734, 3745, and 6111 of the ORC provide the legal authority for the EPA's actions.

b. Organization: The divisions of Ohio EPA that would be most directly involved in a hazardous materials incident would be the Division of Emergency and Remedial Response (DERR), Division of Public Drinking and Groundwater, and the Division of Surface Water. OEPA has a main office for policy coordination and five district offices for achieving OEPA objectives. The chain of command for the Emergency Response Office is as follows:

i. Emergency Response Section Manager,
ii. Emergency Response Unit Supervisor,
iii. District Office Supervisor,
iv. District Office Lead Worker (Lead OSC), and
v. On-Scene Coordinator (OSC)

c. OEPA preparedness functions include:

i. Participating in emergency preparedness drills and exercises with other state agencies
ii. Evaluating facility Spill Prevention Control and Countermeasures (40 CFR 112) and
iii. Co-chair of the SERC

d. EOC Response: OEPA personnel report to the State EOC to coordinate field activities and provide specific information as needed. The DERR will consult with the Ohio EMA regarding activation of the EOC when Ohio EPA staff are the lead State responders. Depending on the classification of an incident, the State EOC may be activated and a team of personnel will report to the EOC. Members of this team may include the following:

i. Emergency Response Section Manager
ii. Spill Response Unit Supervisor
iii. OEPA Duty Officers
iv. Radiological Unit Health Physicist
v. Public Drinking Water Facility Engineer
vi. other Agency Representatives as the situation dictates

e. Their EOC response involves:

i. acting as the primary State agency for coordinating on-site activities of State agencies relating to hazardous materials incidents,
ii. supporting other State agencies, when not employed in the primary role, 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. providing analysis through contracted and in-house laboratories,
vi. for chemical waste, acting as the primary 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, potable water facilities in anticipation of and during an incident.

f. Field Response: The OEPA 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 Emergency and Remedial Response (DERR) provides notification to other state agencies, as necessary. District OSCs are notified of reported spills by the Emergency Response Duty Officer.

The DERR central office coordinates the overall response of the Ohio EPA to hazardous materials incidents. There are 14 OSCs within the OEPA's 24-hour DERR section. Each OSC, upon arriving at a hazmat incident, is tasked with assessing the extent of pollution and evaluating any containment and cleanup being initiated by the responsible entity. The OSC also assists the local hazmat team in determining pertinent facts about an incident, such as the nature, amount and location of material spilled, and resources and facilities, which may be affected.

There are 14 four-wheel drive utility hazmat trucks, each equipped to conduct monitoring and sampling for air, water, soil, and vegetation. The OSCs have at their disposal monitoring equipment such as combustible gas indicators, Draeger tubes, explosimeters, and organic vapor analyzers. Sampling and monitoring can be contracted out if necessary. Emergency Response Vehicles may also be equipped with a laptop computer containing the CAMEO modeling program and additional resources are available through the OEPA Duty Officers.

After the emergency phase of the incident the OSC is responsible for completing a written "spill history" report, including sampling, results, pictures, and supporting documentation, where it is applicable.

For incidents affecting the Ohio River, OSCs work in conjunction with the Ohio River Sanitation Commission (ORSANCO) in evaluating spill impact. ORSANCO provides downstream concentration projections via automated chromatographs.

The OEPA has both in-house and contracted laboratories available to perform field sample analysis for chemicals. A medical service is under contract to provide biological monitoring of personnel.

An Ohio EPA On-Scene Coordinator may report to the county EOC to coordinate field activities and information. OEPA personnel respond to the site, complete monitoring and sampling in conjunction with site field

monitoring teams, and perform damage assessment. Their response involves:

i. acting as the primary State agency for coordinating chemical incident response activities, supported by SFM, ODH, PUCO, Ohio EMA, and others as necessary,
ii. assuming the primary State role, while retaining close coordination with the Incident Commander, when the environmental hazards are greater than the potential for other hazards, contact will be maintained with other responding state agencies,
iii. monitoring or facilitating monitoring contamination and pollution during an incident,
iv. advising on acceptable cleanup levels for specific hazardous materials based on potential health effects and environmental regulation,
v. provide guidance for the disposal of hazardous materials and other contaminated materials, including recommending disposal procedures and available disposal sites,
vi. In addition to On-Scene Coordinators, the Ohio EPA may also dispatch field responders to:

- provide advice and staff to local water treatment facilities to protect their water supplies,
- provide damage assessment teams to the Ohio EOC, as needed,
- assist all other State agencies in emergency operations, particularly the ODNR and ODA in soil and water conservation projects.

g. Restoration: OEPA'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. The USCG, USEPA and RRT may provide personnel who can work from home, the office, the incident site or the State EOC. Any member agency of the RRT can be assigned to the site or the State EOC. Information exchange and coordination between the State EOC and the USCG, USEPA and RRT is accomplished through the OEPA's liaison in the State EOC and the OEPA OSC. 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).

4. Department of Commerce - State Fire Marshal

a. The SFM's primary response function in a hazardous materials incident is to assist in communications at the off-site incident command post. Title 37 of the ORC provides the legal authority for the SFM's actions.

b. Once notified by Ohio EMA that a release has occurred, SFM personnel report to the State EOC to provide information and coordination through

the State Wide Mutual Aid Plan. The following personnel may go to the State EOC during an incident.

i. Department of Commerce
ii. State Fire Marshal
iii. Chief Deputy State Fire Marshal
iv. Superintendent and/or Instructor Staff of the Fire Academy

c. Other provisions include radio communications (Major Incident Response Vehicle – MIRV), and a portable weather station to assist in on-site weather assessment. Basic sampling and monitoring is conducted with combustible gas indicators.

d. Organization: The SFM is the division of the Department of Commerce, which would be most directly involved in an incident. The chain of command for the SFM is as follows:

i. State Fire Marshal,
ii. Chief Deputy State Fire Marshal
iii. Superintendent of Ohio Fire Academy

e. SFM preparedness functions include:

i. Participating in emergency preparedness drills and exercises with other State agencies, and
ii. Training and providing refresher courses on hazardous materials response to personnel through the Ohio Fire Academy (OFA)

f. EOC Response: SFM personnel report to the State EOC to coordinate field activities and
provide specific information as needed. Their response includes:

i. Providing information on the availability of firefighting equipment on an area-specific basis,
ii. Providing specific information related to fire fighting response and hazardous materials, and
iii. Contacting SFM PIO and prepare PIO to participate in activities.

g. Field Response: SFM personnel respond to the off-site incident command post (as early as CAS 1) if requested by the Incident Commander and provide communications and on-site weather monitoring with the SFM Major Incident Response Vehicle (MIRV). Their response involves:

i. Acting as the lead State agency for preventing and mitigating the effects of hazardous materials incidents which involve fire, explosion, or when the potential for fire or explosion is greater than the immediate environmental impact.
ii. Supporting other State agencies if the incident is not fire related,
iii. Assisting local organizations in the establishment of an off-site incident command post for emergency personnel,
iv. Providing communications links between the field and other response organizations to aid in coordinating response units, arranging for mutual aid from other local FD's if necessary,

v. Serving in an advisory capacity to give accident descriptions and identify potential hazards at the scene.

h. Restoration: The SFM takes an investigative role in restoration activities in response to a hazardous materials incident. SFM personnel investigate the cause, origin, and circumstances of fires and explosions as part of the recovery process. A report is generated and maintained on file at the SFM main office.

5. Ohio Department of Health (ODH)

a. The primary response function of the Ohio Department of Health (ODH) in a hazardous materials incident is (1) to prevent or limit significant exposures to radiological material from a nuclear or radiological event, (2) to prevent or limit significant exposures to biological agents and disease, (3) to prevent or limit significant exposures to toxic chemicals, (4) to provide health services to the public, local responders, and emergency workers, and (5) to promote healthful, sanitary, and safe living conditions for all citizens. This role is accomplished by surveillance, monitoring, education and other specific health services in an emergency. Title 37 of the ORC provides the legal authority for ODH actions. ODH is the lead agency for both radiological and biological incidents. The Human Infectious Disease Annex should be consulted during biological incidents for handling, monitoring, treatment, investigation and decontamination procedures, in addition to ESF #10 and this Annex.

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b. Organization: The Bureaus of ODH that are directly involved in a given incident are the Bureau of Radiation Protection (BRP), Bureau of Environmental Health (BEH), Bureau of Infectious Disease Control (BIDC), and the Bureau of Public Health Preparedness (BPHP). All four of these bureaus are under the Division of Prevention

c. The chain of command for the ODH depends on the type of incident. ODH will always employ some form of ICS/UCS structure of NIMS, and the assigned Incident or Unified Commander at ODH will vary depending on the event, agent, and scope of the problem. The routine chain of command, and the bureau taking charge of Assessment and On-site technical assistance for ODH at the State EOC follows

i. Director
ii. Assistant Director(s)
iii. Chief, Division of Prevention
iv. Bureau Chief (as appropriate to the hazard)

- Chief, Bureau of Radiation Protection (Primary: nuclear and radiological material)
- Chief, Bureau of Environmental Health (support: chemical and private water systems)
- Chief, Bureau of Infectious Disease Control (Primary: biological and infectious agents)
- Chief, Bureau of Public Health Preparedness (Support – all events)
- Chief, Bureau of Public Health Laboratories (Support- all events for laboratory analysis and assessment)

d. ODH preparedness functions include:

i. Training: To effectively respond to emergencies involving hazardous materials and to protect the environment, health, welfare, and property of Ohio's citizens, ODH, as a primary response agency, conducts training of local and state response personnel in its particular area of concern as follows: ODH - Health Effects of Ionizing Radiation Exposure; Monitoring, Decontamination, and Treatment of Exposed Individuals for Health Professional Personnel; and training of first receivers (principally hospital ER staff) in treatment of radiation related casualties. ODH also assists in health physics related training for state agencies as needed to enhance preparedness level.

ii. Hospital training coordination: To effectively respond to emergencies involving hazardous materials and to protect the environment, health, welfare, and property of Ohio's citizens, each primary response agency conducts training of local and state response personnel in its particular area of concern as follows: DEPARTMENT OF HEALTH - Health Effects of Ionizing Radiation Exposure; Monitoring, Decontamination, and Treatment of Exposed Individuals for Health Professional Personnel. Conducts health physics training for state agencies as needed to enhance preparedness level.

iii. Participating in emergency preparedness drills and exercises with other State agencies, and

iv. Providing public information, advisories and literature for emergency recovery,

v. Maintaining a statewide radiological emergency response capability; to include equipping, training and outfitting the ODH BRP Radiological Emergency Response Team (RERT)

vi. Maintaining an inventory of hospitals and health care facilities available for use during an incident,

vii. Prescribing methods for protection from the effects of biological contamination and consulting with Poison Centers through an agreement with the Centers for Disease Control and Prevention (CDC), Agency for Toxic Substances and Disease Registry (ATSDR) to establish emergency exposure limits

viii. Coordinating with local health departments to ensure the inspection of all facilities used for feeding and housing individuals following an incident in order to ensure sanitation standards are met and maintained, and

ix. Coordinating a plan with ODA to utilize veterinary facilities, equipment, and supplies for humans in the event of a hazardous materials incident.

e. EOC Response: ODH personnel report to the State EOC to lead the State Assessment team ,to coordinate field activities and provide specific technical information as needed. Their response includes:

i. providing representatives to the State EOC Assessment Room to lead the State Assessment Group, perform dose projections or other assessment of the hazard, review protection action guidelines, develop and issue protective recommendations,

ii. providing advice to local health departments during hazardous materials incidents,

iii. developing recommendations for mass prophylaxis and make appropriate recommendations to local officials or public health organizations,
iv. making physicians available to answer medically related questions,
v. coordinating and directing sampling and radiological monitoring activity of ODH representatives, local responders, local or State field monitoring teams,
vi. notifying ODJFS when ODH is aware that a nursing home has suffered an emergency as defined in ORC § 5111.35, to facilitate the placement of nursing home patients in the incident area
vii. making ODH laboratory facilities available to the Ohio EMA and other State agencies following an incident, and
viii. coordinating with the local health departments for the implementation of programs for emergency health and medical services.

f. Field Response: In most events, an ODH Field Coordinator may report to the incident scene or county EOC to coordinate field activities and information. ODH personnel respond to the field and work with local health department personnel and the county 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. The response for ODH is more particularly described below. The ODH response involves:

i. dispatching ODH representatives to assist local officials, the incident commander, or private owner of larger, affected facilities, either as individual qualified representative, a team, or the ODH BRP Radiological Emergency Response Team (RERT), depending on the magnitude and scope of the event;
ii. establishing liaison with incident command, local officials, or material or property owner at the scene of nuclear or radiological incidents, as deemed necessary by the extent of the incident;
iii. identifying, and preventing or minimizing unnecessary or excessive radiation exposure by response, monitoring and recommendations by representatives or the response teams from the Bureau of Radiation Protection;
iv. providing an assessment of the incident and protective recommendations to local officials or incident command, if the Assessment of the State EOC is not operational; liaison for this assessment and recommendations will then be made directly to ODH incident command or management at the central office;
v. monitoring radiation release for nuclear or radiological events, depending on magnitude, which may include plume modeling and filed monitoring to identify radiation release and protective actions;
vi. providing health advice based on monitoring results following a nuclear or radiological incident,
vii. identifying and administering any health assistance programs which may be available for immediate aid to individuals during an incident,
viii. ensuring the maintenance and restoration of public health and sanitation standards in an incident area;
ix. investigating exposures and potential health problems from hazardous materials exposures,
x. ensuring the safety of private water supply sources in an incident area by oversight of LHDs;

xi. procuring emergency medical supplies and equipment during an incident, in coordination with other State, county, and volunteer agencies,
xii. providing damage assessment teams to the Ohio EMA as needed;
xiii. coordinating with county health departments to ensure the capability of safe food handling at mass feeding centers established for an incident;
xiv. providing guidance concerning collection of samples from a suspected biological incident;
xv. providing guidance concerning collection of samples for nuclear or radiological incidents;
xvi. maintaining the proper chain of custody for samples/evidence that is sent to the ODH lab for analysis
xvii. ensuring that the Ohio Protocol for Handling Biologic Incidents is followed
xviii. assisting local health departments in establishment of an ICS and or UCS system for the incident

g. Restoration and Recovery: The role of ODH in restoration activities in response to a radiological materials incident involves monitoring for post-incident contamination as part of the determination of safe-re-entry levels. Activities in response to a hazardous materials incident are related to analysis of monitoring data and chronic exposure assessments. ODH should be consulted for techniques for Spill Containment and Cleanup for any incident involving a biologic agent and radiological materials. Furthermore, ODH will disseminate pertinent recovery/reentry information to the public for their safety and protection for any type of incident. ODH will establish and communicate remediation levels for the most prompt and effective recovery while ensuring public health and safety. ODH will lead reentry, return and recovery activities, including coordinating activities of other state agencies for sampling food, water, environment, and wildlife, as appropriate. Finally, ODH will make appropriate relocation or return recommendations based on the extent and levels of fixed or permanent contamination, applying the appropriate Protective Action Guidelines to these recommendations

B. Support Agencies

1. General

a. The State of Ohio Support Agencies are the second line of responders. These agencies also provide personnel, advice, and equipment in response to hazardous materials incidents; however, not in a primary agency emergency response role. The support agencies are also capable of sustained continuous twenty-four operations in all the same locations as the primary agencies, if necessary. These agencies respond to supply additional support to the county and State agencies already involved.

b. Notification of these agencies and their personnel is conducted in the same manner as for primary agencies. The remaining state agencies may provide additional support based on their generic functions, which are applicable in any major disaster, and based on the needs of the particular hazardous materials incident. See the EOP for further information on the functions of additional

agencies. The major Support agencies, specifically for hazardous materials incidents, are the Ohio EMA, the Adj. Gen. Dept. (Ohio National Guard), ODA, ODC (OSHA Bureau), PUCO, SHP, and ODOT.

Specific information as to these agencies' roles and responsibilities in a hazardous material incident are outlined in the following pages.

2. Ohio Emergency Management Agency

a. In the event of a hazardous materials incident, Ohio EMA supports the activities of all Lead State agencies for on-site management of the hazardous materials and coordinates the off-site activities of all State agencies for emergency management. This involves planning, organizing, and maintaining emergency preparedness adequate to meet the needs of the State in an effort to save lives and protect property in the event of a hazardous materials incident. Ohio EMA provides communications, and information support and coordination during an emergency response. An additional mission of Ohio EMA is to coordinate all efforts for the restoration of public services and for the expedition of recovery following an incident. ORC Sections 5502.21 - 5502.99 and Chapters 3750, and 4163 (radiological shipment notification) provide the legal authority for Ohio EMA.

b. Organization: The Ohio EMA is a division of the Ohio Department of Public Safety. Because of the nature of the Ohio EMA mission, all sections may become involved in responding to a hazardous materials incident. The incident chain of command for Ohio EMA is as follows:

i. Executive Director,
ii. Director of the Operations Division
iii. Director of the Technical Support Division
iv. Director of the Mitigation and Recovery Division

c. Ohio EMA's preparedness functions include:

i. Training: To effectively respond to emergencies involving hazardous materials and to protect the environment, health, welfare, and property of Ohio's citizens, each primary response agency conducts training of local and state response personnel in its particular area of concern as follows: OEMA - Radiological Awareness, Radiological Monitoring and Decontamination for Emergency Response Personnel. Conduct training for all state agencies on EOC operations.
ii. Participating in emergency preparedness drills and exercises with other State agencies, and County EMAs and LEPCs;
iii. Assisting in planning for the use of State agency resources during training programs and actual incidents;
iv. Preparing and maintaining, in cooperation with federal and State agencies, emergency preparedness plans, as well as the review of LEPC plans;
v .Establishing and maintaining an EOC to assist the Governor in coordinating and directing emergency management activities,
vi .Supervising and coordinating the emergency planning activities of State agencies, County EMAs and LEPCs;
vii. Co-chairing the SERC with the Ohio EPA; and
viii.Chairing the SERC's Planning and Exercise Subcommittee;
ix .Radiological transportation preparedness issues reference Attachment #7;

x. Calibration and distribution of radiological detection equipment.

d. EOC Response: After being notified by the Duty Officer via the emergency call-down list, Ohio EMA personnel report to the State EOC and perform primary actions for coordination during an incident. Their response involves:

i. Assuming the lead State role for emergency management by coordinating the off-site emergency management activities of other State agencies,
ii. Being responsible for alerting and mobilizing all State agencies during an incident,
iii. Activating and operating the State EOC,
iv. Providing a representative to the Assessment Room to perform dose assessment and concentration exposure determinations,
v. Being responsible for the coordination of all emergency communications during an incident,
vi. Coordinating all emergency operations with contiguous States,
vii. Being responsible for State public information programs during an incident, and
viii. Determining when the emergency no longer exists and informing the Governor (accomplished by the Exec. Dir. of the Ohio EMA),
ix. State's liaison with the Federal Emergency Management Agency.

e. Field Response: Ohio EMA might deploy Field Liaisons, Radiation Monitoring Teams (at the request and in support of ODH), the Communications Van Team, and/or the State PIO.

The Field Liaison may report to the county EOC to coordinate field activities and information. The Radiation Monitoring Teams report to the Command Post or Staging Area, and the Communications Van Team is placed strategically as required by the specific situation. The PIO reports to the JPIC near the affected site to coordinate incident information with the State EOC.

f. Refer to the *State of Ohio Emergency Operations Plan* for information on Ohio EMA's response and communications capabilities.

g. Restoration: Ohio EMA acts as a clearinghouse for federal disaster relief funds as part of the State restoration activities in response to a hazardous materials incident.

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

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.

b. ONG acts pursuant to Chapters 5911 - 5923 of the Ohio Revised Code.

c. Support Agency provides Weapons of Mass Destruction support to civil authorities through the 52nd Civil Support Team at a CBRNE incident site by identifying CBRNE agents/substances, assessing current and projected consequences, advising on response measures and assisting with appropriate requests for state support, if terrorism is suspected as the cause of the incident.

4. Ohio Department of Agriculture (ODA)

a. ODA's primary response function in a hazardous materials incident is to assist in developing a statewide program for protection against radiological, biological and chemical damage to livestock, foodstuffs, and crops. This involves coordinating food control and assessing damage, as necessary. Title 9 of the ORC provides the legal authority for the ODA's actions.

b. Organization: The divisions of ODA that would be most directly involved in an incident would be: Animal Industry, Consumer Analytical Laboratory, Dairy, Enforcement, Food Safety, Livestock, Meat Inspection and Plant Industry. The chain of command for ODA is as follows:

   i. Director or Assistant Director,
   ii. Deputy Director(s),
   iii. Division Chiefs

c. EOC Response: ODA personnel report to the State EOC to coordinate field activities and provide specific information as needed. Their response includes:

   i. Assisting Ohio EMA in the contact of county agricultural societies to arrange for the use of county fairgrounds, as needed,
   ii. Assisting in obtaining additional food products from commercial sources whenever required,
   iii. 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),
   iv. Supporting State and county emergency agencies in the acquisition and distribution of retail food and mass feeding supplies,
   v. Obtaining additional assistance from the USDA through State and county emergency organizations (i.e. Nutrition Center in Chicago),
   vi. Coordinating with Federal counterparts in affected areas to estimate crop and livestock damage,
   vii. Coordinating with Federal counterparts to estimate food product supply and demand during an incident, and
   viii. 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: ODA personnel respond to the field with 6 divisions (5 teams with representatives from: Animal Industry, Dairy, Food Safety, Livestock, Meat Inspection, and Plant Industry). ODA provides control and assessment for damage to livestock, foodstuffs, and crops and addresses issues related to the licensing, storing, handling, and application of pesticides. Their response involves:

   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, and
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 - Bureau of Occupational Safety and Health (OSHA)

a. OSHA Bureau's primary 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. This protection involves providing Industrial Hygienists for sampling and monitoring. The Bureau's Industrial Hygienists are not trained or equipped to provide these services in uncontrolled environments (i.e., outside of the industrial or workplace setting). Title 41 of the ORC provides the legal authority for the OSHA Bureau to perform the above actions.

b. Organization: OSHA Bureau has a main office in Columbus for coordination. Most of the department's Industrial Hygienists work out of local offices throughout the state. The chain of command for OSHA Bureau is as follows:

i. Chief of the OSHA Bureau

c. EOC Response: OSHA Bureau personnel report to the State EOC to coordinate field activities and provide specific information as needed. Their response includes:

i. Providing hazardous materials information from hardcopy and computer databases, and
ii. Providing backup sample analysis capability through a laboratory contract, if necessary.

d. Field Response: OSHA Bureau personnel respond to the field to conduct monitoring, if necessary. Their response includes:

i. Performing basic sample analysis.

e. Restoration: The OSHA Bureau 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 primary function of the Public Utilities Commission of Ohio (PUCO) is to provide technical assistance and information regarding the vehicles, packaging and

practices used to transport hazardous materials by highway and rail. In addition, the PUCO can provide detailed information on companies (phone numbers, addresses, contact personnel) that transport hazardous materials in the state of Ohio by highway and rail. Immediately following a hazardous materials incident, PUCO Transportation Department staff will begin activities consistent with the agency's regulatory responsibilities.

b. The 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 the PUCO to supervise and regulate the safety, service and transport of hazardous materials by private motor carriers and for-hire motor carriers in Ohio.

c. The 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.

d. 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.

e. Organization: The PUCO is composed of a chairman and four commissioners appointed by the governor. The staff of the PUCO is divided among the Office of Administration, the Chief of Staff Offices, the Service Monitoring and Enforcement Department,, the Legal Department, the Office of Public Affairs, the Utilities Department and the Transportation Department. The PUCO Transportation Department is most directly involved in the response to hazardous materials incidents. The Consumer Services Department can provide outage information if service by a regulated utility is affected by a hazardous materials incident. The PUCO offices are located at 180 East Broad Street, Columbus, Ohio, and additional field staff is stationed throughout the state. The chain of command for the PUCO Transportation Department with regard to hazardous materials incidents is detailed below:

   i. Department Director
   ii. Deputy Director
   iii. Chief, Enforcement Division

f. EOC Response: After notification by the Ohio Emergency Management Agency (EMA), PUCO staff report to the state emergency operations center (EOC) to provide technical and regulatory information and coordinate agency field staff as needed. Examples of this include:

   i. Function 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.)
   ii. Maintain communications with other state agencies to dispatch/transfer supplies and materials needed for handling a hazmat incident
   iii. Provide information on applicable hazardous materials transport requirements

g. Field Response: PUCO Transportation Department field staff can respond to the site of a highway or railroad hazardous materials transportation incident to assist the primary or lead state agency. Staff can provide 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. 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. As needed, PUCO communications resources can also be made available to the primary or lead state agency.

h. Restoration: During restoration activities, the 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

a. The OSHP's primary 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. Chapter 5503 of the Ohio Revised Code provides the legal authority for the OSHP's actions.

b. Organization: The OSHP is a division of Ohio Department of Public Safety and would be directly involved in an incident in particular, the Office of Field Operations and the Office of Licensing and Commercial Standards. The OSHP has a General Headquarters for coordination and 10 District Headquarters for achieving OSHP objectives within their respective geographical limits. The chain of command for the OSHP is as follows:

i. Superintendent,
ii. Assistant Superintendent, Operations,
iii. Assistant Superintendent, Administration
iv. Appointed Staff.

c. The OSHP's preparedness functions include:

i. Roadside inspection of hazardous materials motor carriers for compliance with state and federal safety regulations

d. EOC Response: OSHP personnel report to the State EOC to coordinate field activities and provide specific information as needed. Their response includes:

i. Contacting Ohio EMA and the appropriate primary lead agency in a timely fashion when a hazardous materials incident occurs (or contacting the Governor's designee for coordination until Ohio EMA is notified),
ii. Staffing the OSHP communications network in the State EOC, as needed, and
iii. Coordinating information from the field for use in the EOC, particularly with ODOT on evacuation routing.

e. Field Response: 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. 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. The OSHP personnel work with the incident commander to respond to the incident. Their response involves:

i. Providing traffic control, enforcement, traffic crash investigation, criminal investigation and related tasks on state highways and state owned or leased property,
ii. Assisting in area control, evacuation, and emergency rescue as needed in coordination with local law enforcement agencies,
iii. Providing helicopters/fixed wing aircraft for reconnaissance,
iv. Relaying equipment to the incident scene via helicopters and fixed wing aircraft,
v. Providing meteorological data from NOAA (accomplished by the main office and all district offices),
vi. Providing protection for the Governor and other visiting dignitaries, as needed,
vii. Providing communications and situation information, and
viii. Assisting in the voluntary evacuation of people and property, as required.

f. In addition to the above, the OSHP can provide to Sheriff Departments, Police Departments, and Emergency Management Agencies, the Ohio State Highway Patrol Emergency Command Vehicle. 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.

g. 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 responsible party.

8. Ohio Department of Transportation (ODOT)

a. ODOT's primary response function in a hazardous materials incident is to provide support in the form of information, equipment, and area control related to highways, bridges, and aviation and mass transportation facilities. Titles 45, 49, and 53 of the ORC provide the legal authority for the ODOT's actions.

b. Organization: The ODOT Assistant Director of Highway Management oversees ODOT’s emergency management activities. The Division of Highway Operations will coordinate with the twelve (12) district offices to achieve ODOT’s objectives within their respective geographical limits. The chain of command for ODOT's Division of Operations is as follows:

i. Assistant Director of Highway Management
ii. Deputy Director for Highway Operations
iii. Administrative Officer of Maintenance Administration
iv. Emergency Coordinator

c. EOC Response: After being notified by the Ohio EMA, ODOT personnel report to the State EOC to coordinate field activities and provide specific information as needed. Their response includes:

i. Assist with construction and engineering services on rural State highways in an incident area including the procurement of equipment and materials from private contractors,
ii. Being notified when a spill occurs on a State route which may affect traffic and when a cleanup may block a road, and
iii. Providing information to the Ohio EMA indicating impassable State roads or restricted areas.

d. Field Response includes:

i. Coordinating the ODOT communications network in the field, as needed,
ii. ODOT personnel respond to the off-site incident command post and provide traffic assistance and information,
iii. Coordinating with local entities to determine and designate both available and prohibited routes of travel in the incident area,
iv. Providing aerial transportation for radiological monitoring teams and field samples to lab sites if not available from the National Guard,
v. Assisting in rescues, and other conditions requiring ODOT resources including the use of ODOT garages in affected districts,
vi. Providing engineering damage assessment teams to the Ohio EMA, as needed,
vii. Establishing maximum and minimum vehicular speed limits on State and rural highways in keeping with conditions in the incident area,(done administratively when requested by local authorities),
viii. Providing vehicles and heavy equipment to assist as appropriate,
ix. Assisting the Ohio EOC in providing area reconnaissance during an incident situation,
x. Assisting in maintaining access to state corridors for firefighting equipment and personnel,
xi. Providing road condition data as needed
xii. Providing requested technical resources for the inspection, repair, alteration, condemnation and destruction of damaged transportation facilities following an incident, and diking or diverting materials,
xiii. Assisting county governments in obtaining Federal assistance for the restoration of damaged public facilities and property.

e. Restoration: ODOT has a specific role in restoration activities in that ODOT will estimate the cost and restore any state highways or rest areas, along those highways, damaged by hazardous materials. A report is generated and kept on file at the main office.

C. Federal Agencies

1. U.S. EPA

a. The US Environmental Protection Agency (USEPA), Region V, provides assistance in two areas: 1. Technical Assistance and 2. On Scene Coordination including emergency response in the form of air and water quality monitoring, soil monitoring,

site assessment, and drum over-packing. The USEPA will respond to most emergencies if requested by the State or a Federal agency. The USEPA works closely with the OEPA to inform them when they are involved in a response in Ohio. USEPA personnel also co-chair the RRT.

b. The USEPA On-Scene-Coordinators (OSCs) are located in: Chicago, Detroit, Cleveland, and Cincinnati. These OSCs are members of the Technical Assistance Team and can respond to the site. The USEPA also has a series of cleanup projects around the state and if necessary, the people at these projects can be pulled away and sent to an incident site for assistance.

c. The USEPA has resources to clean up sites when the spiller cannot be identified, or cannot or will not pay. The cleanup is not performed by the USEPA, but rather a contractor that the USEPA hires. Usually activated by the Ohio EPA, the USEPA would fit into the Unified Command Structure during an incident.

2. DHS/FEMA

a. The Department of Homeland Security's Federal Emergency Management Agency (FEMA) provides technical advice to State and Local EMA's. FEMA also provides documents for training and plan development, and supplies funds (through SARA) for training of state and local personnel. FEMA provides coordination support during federal ESF activations, as well as recovery and mitigation assistance during disasters.

3. USDOT

a. The US Department of Transportation (USDOT) has a limited role during hazmat incidents. The USDOT 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.

b. As pre-incident activity, the USDOT does establish and provide safety guidance standards for labeling and placarding hazardous materials and the containers/vehicles that carry hazardous substances. The agency also provides, in conjunction with Canada and Mexico, guidance to assist first responders with hazmat incidents: the *2004 Emergency Response Guide (ERG).*

4. DHS/USCG

a. The Department of Homeland Security's US Coast Guard (USCG) embodies, generally, the same roles as the USEPA, except that the USCG responds to incidents on navigable waterways. The USCG does have OSCs for response and assessment. USCG also co-chairs the RRT.

b. Generally the USCG is capable of handling the response for most spills, especially petroleum products; however, the USCG may ask the assistance of the USEPA for chemical releases.

Though the USEPA normally responds to land-based releases, it may respond to some releases on inland waterways. The USCG also responds to land-based spills. Generally, the source of the spill and the physical location of the release determines whether the USEPA or the USCG has the federal lead--USCG will have the lead in all releases originating from vessels.

5. HHS/ATSDR

   a. The Health and Human Services/Agency for Toxic Substances & Disease Registry (HHS/ATSDR) work together to assess health effects from releases, RCRA, and CERCLA sites. The HHS is a cabinet level agency, and the ATSDR the sub-branch active agency. The ATSDR was formed to implement health-related sections of several environmental laws. The ATSDR further compiles toxicological databases, disseminates information on toxic chemicals (even during emergencies), and assists in medical education. It derives its authority from 3 laws: CERCLA, RCRA, and SARA.

6. DOL/OSHA

   a. The Department of Labor/Occupational Safety & Health Agency (DOL/OSHA) work together to set and enforce standards for worker safety, safety practices, and exposure levels. The DOL is a cabinet level agency, and OSHA is one of its active divisions. OSHA has set standards for the minimum training of workers and responders that deal with hazardous materials.

7. DOD

   a. The Department of Defense (DOD) is the OSC at exclusive federal military installations. The DOD can take charge of response and cleanup operations of incidents at military installations or incidents involving sensitive military inventories.

8. DOE

   a. The US Department of Energy (DOE) is the OSC at all DOE-owned facilities. The DOE facilities in Ohio are the Fernald Environmental Management Project, the Portsmouth Gaseous Diffusion Plant, and the Mound Laboratories. Detailed information on these sites is contained in the DOE Annex to this plan (attached).

   b. The DOE, upon request, can provide Radiological Assistance Program Teams (RAP) to assist in radiological emergencies anywhere they may occur. Argonne Laboratories, in Chicago, provides the RAP for the Ohio area.

   c. DOE manages the Nuclear Emergency Search TEAM (NEST). The role of NEST is to provide technical support in a malevolent nuclear threat or other criminal act involving radioactive material. Technical support includes: search teams, bomb identification, diagnostic teams, disabling teams, public information, technical assistance and accident assessment teams.

9. RRT

   a. The Regional Response Team (RRT) is composed of all the above federal agencies as well as a representative from each of the Region V States (the OEPA is the State of Ohio representative on the RRT).The RRT is co-chaired by USEPA and USCG. The RRT meets several times a year to discuss planning, preparedness, and emergency response. Except for very large incidents, the RRT's involvement in hazmat releases is one of critiquing all aspects of the release. During very large releases and releases that cross State or International boundaries, the RRT can provide a state OSC with assistance in the form of technical advice, equipment, personnel, funds, and the coordination of all the previously mentioned.

10. NRT

   a. The National Response Team (NRT) is composed of 16 federal agencies (all the above and the Dept. of Agriculture, Dept. of State, Dept. of Justice, Dept. of the Treasury, General Services Administration, National Oceanic and Atmospheric Administration, Dept. of the Interior, and the Nuclear Regulatory Commission). The NRT has major responsibilities in the environmental, transportation, emergency management, worker safety, and public health areas.

   b. The NRT is the national organization responsible for the coordination of federal planning, preparedness, and response efforts related to oil and hazardous substances releases. Under SARA, the NRT is responsible for publishing guidance documents for the preparation and implementation of hazardous substance emergency plans (the NRT-1 guidance).

D. Other Support Organizations

1. GLC

   a. The Great Lakes Commission (GLC) was established in 1955 by Interstate Compact with New York, Michigan, Illinois, Indiana, Minnesota, Ohio, Wisconsin, and two Canadian Provinces. A commission Task Force was formed in 1988. The purpose of the Task Force is to assess the state of preparedness and develop recommendations to strengthen responsibilities of those Great Lakes States and Provinces. The State of Ohio delegation includes the Directors of the OEPA and ODNR, as well as a state senator and representative from the state legislature.

2. ORSANCO

   a. The Ohio River Valley Water Sanitation Commission (ORSANCO) is an interstate water pollution control commission formed in 1948 by Interstate Compact between Illinois, Indiana, Kentucky, New York, Ohio, Pennsylvania, Virginia, and West Virginia. The commission consists of 3 representatives from each signatory state and 3 representatives of the federal government. ORSANCO operates 3 key programs: monitor the conditions of the water and aquatic life of the Ohio River and its major tributaries (Water Quality Monitoring); regulate wastewater discharge to the Ohio River (Pollution Control Standards for Wastewater Discharge), and; investigate particular water pollution problems and develop

effective remedial action programs (Special Investigations of Water Pollution Problems). Further, ORSANCO serves as an interstate communications center and coordinates emergency stream monitoring in the event of a spill that may adversely affect interstate waters. Ohio state government is represented on the commission by the Ohio EPA.

V. Legal Authority

A. Authorizing Legislation and Regulations

1. Federal

   a. Superfund Amendments & Reauthorization Act of 1986.
   b. National Oil & Hazardous Materials Contingency Plan, 40 CFR part 300.
   c. Title 49 CFR, parts 100 through 199.
   d. Comprehensive Environmental Response Compensation Liability Act of 1980.
   e. Occupational Safety & Health Administration Standards.
   f. Clean Water/Federal Water Pollution Control Act, PL95-2F1.
   g. Hazardous Materials Transportation Uniform Safety Act, PL101-615.
   h. Federal Hazardous Substances Act, PL97-414.
   i. Solid Waste Disposal Act.
   j. Oil Pollution Act 1990.
   k. Clean Air Act 1990.
   l. Resource Conservation and Recovery Act

2. State

   a. ORC 3750 (Hazardous Materials Emergency Planning).
   b. ORC 5502.38(Effects of SARA on EMA).
   c. ORC 3745.13 (Cost Recovery).
   d. ORC 3737.80 (Incident Command).
   e. ORC 4921 and ORC 4923 (Regulation of Motor Transportation Companies and Private Motor Carriers)
   f. ORC 2305.23.2 (Good Samaritan Law)
   g. ORC 3748, Radiation Control Program
   h. OAC 3750 (SERC Rules).

3. Regional -- N/A

4. Local

   a. Local Laws and ordinances pertaining to hazardous material response and planning are far too numerous too address in this plan. Refer to individual County Emergency Operations Plans, Hazardous Materials Plans and Annexes, for a listing of the hazardous materials laws and ordinances that pertain to each particular county.

5. Mandated Agency Responsibilities

   a. Refer to the Primary Agencies Section of this annex for a discussion of mandated hazardous materials related responsibilities. Further, refer to the *Ohio Emergency Operations Plan (EOP)* for general mandated responsibilities.

6. Letters of Agreement

   a. The large number of letters of agreement between and among the State of Ohio, State Agencies, Federal Agencies, Local Agencies and Private Industry precludes their inclusion in this plan. Letters of Agreement, MOU's, and Mutual Aid Agreements are kept on file by the individual State Agencies.

   b. See Attachment #4 for the Hazardous Materials Interagency Letter of Agreement.

7. For further information about State Agencies' general Authorities and References consult the *Ohio Emergency Operations Plan (EOP).*

VI. Acronyms, Terms and Definitions, References

A. Abbreviations and Acronyms

AAR/BOE	-Association of American Railroads/Bureau of Explosives
Adj. Gen.	-Adjutant General
ARC	-American Red Cross
ARCHIE	-Automate Resource for Chemical Hazard Identification Evaluation
ASCS	-Agricultural Stabilization & Conservation Service
ATSDR	-Agency for Toxic Substances & Disease Registry
Atty. Gen	-Attorney General
BP	-Boiling Point
BUSTR	-Bureau of Underground Storage Tank Regulation
CAA	-Clean Air Act
CAER	-Community Awareness & Emergency Response
CAMEO	-Computer Aided Management of Emergency Operations
CAS or CS	-Crisis Action System, Chemical Abstract System
CBRNE	-Chemical, Biological, Radiological, Nuclear, Explosive (High Yield)
CDC	-Centers for Disease Control
CEPP	-Chemical Emergency Preparedness Program
CERCLA Act	-Comprehensive Environmental Response Compensation Liability
CFR	-Code of Federal Regulations
Chemnet	-Chemical Network
Chemtrec	-Chemical Transportation Emergency Center
Chlorep	-Chlorine Emergency Plan
CHRIS	-Chemical Hazards Response Information System (USCG)
CWA	-Clean Water Act
DO	-Decontamination Officer
DOD	-Department of Defense, Department of Development
DOJ	-Department of Justice
DOL	-Department of Labor
DOE	-Department of Energy
EAS	-Emergency Alert System
EHS	-Extremely Hazardous Substances
EMA	-Emergency Management Agency
EMI	-Emergency Management Institute
EOC	-Emergency Operations Center
EOP	-Emergency Operations plan
EPA	-Environmental Protection Agency
EPI	-Emergency Public Information
ER	-Emergency Response
ERPG	-Emergency Response Planning Guidelines
ERT	-Emergency Response Team
ESF	-Emergency Support Function
FAA,	-Federal Aviation Administration

FEMA	-Federal Emergency Management Agency
FERC	-Federal Energy & Regulatory Commission
FHWA	-Federal Highway Administration
FIFRA	-Federal Insecticide, Fungicide, & Rodenticide Act
FEMP	-Fernald Environmental Management Project
FR	-Federal Register
FWPCA	-Federal Water Pollution Control Act
GLC	-Great Lakes Commission
Green Book	-*Technical Guidance for Hazard Analysis*, USEPA
HS	-Dept of Human Services
HHS	-U.S. Dept. of Health & Human Services
HIT	-Hazard Information Transmission
HM or Hazmat	-Hazardous Material(s)
HM-EEM	-*Hazardous Material--Exercise Evaluation Methodology*
HMTA	-Hazardous Materials Transportation Act
HSA	-Hazardous Substances Act
HWFB	-Hazardous Waste Facilities Board
HUD	-Housing & Urban Development
IC	-Industrial Commission of Ohio, Incident Commander
ICAO	-International Civil Aviation organization
ICS	-Incident Command System
IDLH	-Immediately Dangerous to Life or Health
IEMS	-Integrated Emergency Management System
IWDW	-Injection Waste Disposal Wells
JPIC	-Joint Public Information Center
LC	-Lethal Concentration
LD	-Lethal Dose
LEPC	-Local Emergency Planning Committee
LEPD	-Local Emergency Planning District
LFA	-Liquid Factor Ambient
LFB	-Liquid Factor Boiling
LOC	-Level of Concern
MA	-Mutual Aid
MH	-Department of Mental Health
MOU	-Memorandum of Understanding
MOUND	-Mound Laboratories
MP	-Melting Point
MRDD	-Dept. of Mental Retardation & Developmental Disabilities
MSDS	-Material Safety Data Sheet
MW	-Molecular Weight
NAWAS	-National Warning System
NCP	-National Contingency Plan
NCRIC	-National Chemical Response & Information Center
NDP	-National Defense Plan
NETC	-National Emergency Training Center
NFA	-National Fire Academy
NIMS	- National Incident Management System

NIOSH	-National Institute for Occupational Safety & Health
NOAA	-National Oceanographic & Atmospheric Administration
NRC	-National Response Center (staffed by the USCG)
NRC	-Nuclear Regulatory Commission
NRP	-National Response Plan
NRT	-National Response Team
NRT-1	*-Hazardous Materials Emergency Planning Guide*
NRT-2	*-Developing a Hazardous Materials Exercise Program*
NSF	-National Strike Force
OAC	-Ohio Administrative Code
OARDC	-Ohio Agricultural Research & Development Center
OCES	-Ohio Cooperative Extension Service
ODAS	-Ohio Department of Administrative Services
ODA	-Ohio Department of Agriculture
ODE	-Ohio Department of Education
ODH	-Ohio Department of Health
ODNR	-Ohio Department of Natural Resources
ODPS	-Ohio Department of Public Safety
ODOT	-Ohio Department of Transportation
ODRC	-Ohio Department of Rehabilitation and Corrections
ODYS	-Ohio Department of Youth Services
Ohio EMA	-Ohio Emergency Management Agency
OEPA	-Ohio Environmental Protection Agency
OHS	-Ohio Historical Society
ONG	-Ohio National Guard
ORC	-Ohio Revised Code
ORM	-Other Regulated Materials
ORSANCO	-Ohio River Valley Sanitation Commission
OSC	-On-Scene Coordinator
OSHA	-Occupational Safety & Health Administration
OSHP	-Ohio State Highway Patrol
OSU	-Ohio State University
OWDA	-Ohio Water Development Authority
PAG	-Protective Action Guidelines
PEL	-Permissible Exposure Level
PI	-Public Information
PIO	-Public Information Officer
PORTS	-Portsmouth Gaseous Diffusion Plant
PRP	-Potentially Responsible Party
PUCO	-Public Utilities Commission of Ohio
QR	-Rate of Release
QS	-Maximum Quantity that may be Released
RAD	-Radiation (Protection)
RC&D	-Resource Conservation & Development
RCRA	-Resource Conservation & Recovery Act
RPC	-Regional Planning Commission
RQ	-Reportable Quantity

RRT	-Regional Response Team
RSC	-Rehabilitation Services Commission of Ohio
RTECS	-Registry of Toxic Effects of Chemical Substances
SARA	-Superfund Amendments & Reauthorization Act
SCAA	-Spill Control Association of America
SCBA	-Self-Contained Breathing Apparatus
SERC	-State Emergency Response Commission
SFM	-State Fire Marshal
SOP	-Standard Operating Procedure
SPCC	-Spill Prevention Control & Countermeasures
SPEGL	-Short-term Public Exposure Guidance Levels
STEL	-Short-term Exposure Limit
STIL	-Short-term Inhalation Limit
SWCD	-Soil & Water Conservation District
WDA	-Solid Waste Disposal Act
Title III	-Emergency Planning & Community Right-to-Know Act
TLV	-Threshold Limit Value
TWA	-Time-weighted Average
TPQ	-Threshold Planning Quantity
TSCA	-Toxic Substances Control Act
UCS	-Unified Command System
UIC	-Underground Injection Control
USCG	-United States Coast Guard
USDA	-United States Department Agriculture
USDI	-United States Department of Interior
USDW	-Underground Sources of Drinking Water
USEPA	-United States Environmental Protection Agency
USFS	-United States Forestry Service
USFWS	-United States Fish & Wildlife Service
USGS	-United States Geological Survey

B. Definitions

Accident Site

The location of an unexpected occurrence, failure, or loss, (either at a facility or along a transportation route) resulting in a release of hazardous materials. An incident site.

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.

Airborne Releases

Release of any chemical into the air.

ARCHIE

The Automated Resource for Chemical Hazards Identification Evaluation is a modeling program developed by FEMA. In addition to modeling toxic plume dispersion, the model can estimate explosive effects.

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 Emergency Preparedness Program

A program developed by the USEPA to address accidental releases of acutely toxic substances.

Chemnet

A mutual aid network of chemical shippers and contractors. Chemnet has more than 50 participating companies with emergency teams, 23 subscribers (who receive services during an incident from a participant and then reimburse response and cleanup costs), and several emergency response contractors.

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. CHEMTREC can be reached 24-hours a day by calling 1-800-424-9300.

Chlorine Emergency Plan (CHLOREP)

Operated by the Chlorine Institute. A 24-hour mutual aid program. Response is activated by a CHEMTREC call to the designated CHLOREP contact, who notifies the appropriate team leader, based on CHLOREP'S geographical sector assignments for teams. The team leader in turn calls the emergency caller on scene

and determines what advice and assistance are needed. A team may be dispatched to the scene.

Chemical Hazards Response Information System (CHRIS)

A system developed by the USCG. Manuals that contain chemical information. Federal OSCs use CHRIS to find answers to specific questions during a chemical response. Can be used for planning.

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

Federal Law enabling air quality standards to be set and monitored. Also requires facilities with certain chemicals to develop risk management plans (RMP).

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

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.

CAMEO

The Computer Aided Management of Emergency Operations program was developed by NOAA and the USEPA. This program is able to use information in the SARA Title III reporting format to associate information about inventory with respective facilities stored in an operator-created database. The program can model several release scenarios for planning purposes, and is associated with a mapping program, MARPLOT, that allows the operator to plot facilities, special populations, and other significant icons, against a background of roadways, rivers, and census information.

CERCLA

A federal law entitled the Comprehensive Environmental Response Compensation Liability Act and 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 EPA 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 cleanup the site or pay the Federal government for the cost of cleanup.

Contingency Plan

A document to identify and catalog the elements required to respond to an emergency, to define responsibilities and specific tasks, and to serve as a response guide.

Cost Recovery

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

Cradle-to-Grave

The handling and tracking of hazardous substances from production to disposal.

Critical Facilities

Facilities essential to emergency response; such as, fire stations, police stations, hospitals, and communications centers.

Disaster

Any imminent threat or actual occurrence of widespread or severe damage to or loss of property, personal hardship or injury, or loss of life that results from any natural phenomenon or act of man.

Emergency

According to ORC 5502.21, any period during which the congress of the United States or a chief executive has declared or proclaimed that an emergency exists.

Emergency Alert System (EAS)

A system designed to warn the public more quickly and reliably than the former Emergency Broadcast System (EBS) and is expected 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 Management

The coordination of agencies for the preparedness, response, recovery, and mitigation of the prolonged aftereffects of a hazardous materials release. These aftereffects include public health and safety, the restoration of essential services, providing emergency assistance, and the alleviation of damage, loss, hardship or suffering caused by the incident.

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. Generally, the facility is centrally located, and has appropriate support and communications available for a totally coordinated effort.

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)

Act 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. Also known as SARA Title III.

Emergency Public Information

Information released to the public by official sources (usually in the JPIC) concerning the emergency and how it can affect public health and the environment. Safety precautions to be exercised by the public are also released.

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 EPA on the basis of toxicity, and listed under Title III of SARA. The list is revised occasionally.

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.

Hazard

According to ORC 5502.21, any actual or imminent threat to the survival or overall health, safety, or welfare of the civilian population that is caused by any natural, man-made, or technological event. “Hazard” includes, without limitation, an attack, disaster, and emergency.

Hazards Analysis

The process of identifying potential sources of a hazardous materials release; determining the vulnerability of an area to a hazardous materials release, and; comparing hazards to determine risks to a community.

Hazardous Chemical

Any chemical which is a physical hazard or a health hazard.

Hazards Identification

According to 5502.21, an identification, historical analysis, inventory, or spatial distribution of risks that could affect a specific geographical area and that would cause a threat to the survival, health, safety, or welfare of the civilian population, the property of that population, or the environment.

Hazardous Material

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 TSCA 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.

Hazard Information Transmission (HIT)

A program that provides digital transmission of the CHEMTREC emergency chemical report to the first responder. The report advises the responder of the hazards of the material, the level of protection required, mitigating actions, and first aid for victims. HIT is a free public service provided by the Chemical Manufacturers Association.

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.

Immediately Dangerous to Life or Health (IDLH)

A concentration that represents a maximum level from which one could escape within 30 minutes without any escape-impairing symptoms or any irreversible health effects.

Integrated Emergency Management System (IEMS)

A system developed by FEMA in recognition of the benefits realized in planning for all hazards on a generic functional basis as opposed to developing independent structures and resources to deal with each type of hazard.

Joint Public Information Center (JPIC)

A single facility from which multi-organizational emergency public information is coordinated and disseminated.

Level of Concern

The concentration of a substance at which certain protective actions may be triggered, or upon which decisions are made.

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 Agreement (MAA)/Memorandum of Understanding (MOU)

A formal or informal understanding between jurisdictions or agencies that describes methods and types of assistance available between two or more entities during emergencies.

National Oil and Hazardous Substance Pollution Contingency Plan

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 CWA.

National Fire Academy (NFA)

A component of FEMA's NETC in Emittsburg, MD. It provides fire prevention and control training for fire and allied services. Courses are offered in technical, management, and prevention subject areas.

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. Provides facilities for the NRT to use when a national response action is required. 1-800-424-8802.

National Response Team (NRT)

A team consisting of 16 federal agencies: DOD, DOI, DOT/RSPA, DOT/USCG, USDA, EPA, FEMA, DOS, DOJ, HHS, NRC, DOL, GSA, Treasury, 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 dated March 1987 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.

National Response Team-2 (NRT-2)

The hazardous materials exercise guidance written by the NRT. This guide instructs LEPCs on how to develop an effective hazmat exercise program.

National Strike Force

A force made up of 3 strike teams. The USCG counterpart to the EPA's Emergency Response Team.

Oil & Hazardous Materials Technical Assistance Data System (OHMTADS)

A computerized data base containing chemical, biological, and toxicological information about hazardous substances.

On-Scene Coordinator (OSC)

The predesignated agent of the EPA to provide 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.

Plume

Effluent cloud resulting from a continuous release.

Potentially Responsible Party (PRP)

Individual(s) or company(s) potentially responsible for, or contributing to, the contamination problems at a hazmat site. Whenever possible, the law requires PRPs to cleanup contaminated sites.

Resource Conservation and Recovery Act (RCRA)-

A framework for the proper management and disposal of all wastes. RCRA directs EPA 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 EPA.

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 hazmat 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.

Radius of the Vulnerable Zone

The maximum distance from the point of release of a hazardous substance at which the airborne concentration could reach the level of concern (LOC) under specific weather conditions.

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 the NRC, the SERC, the LEPC Emergency Coordinator.

Risk

A measure of the probability that damage to life, property, and/or the environment will occur if a hazard manifests itself; this measure includes the severity of anticipated consequence to people.

Risk Analysis

Assessment of the probable damage that may be caused to the community by a hazardous substance release.

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).

Short-Term Inhalation Limit (STIL)

Maximum permissible average inhalation exposures limits for specified (short term) time periods.

Spill Prevention Control and Countermeasures (SPCC) Plan

Plan covering the release of hazardous substances as defined under authority of the CWA.

Stability Classes

Pasquill stability classes are meteorological categories of atmospheric conditions. Class A represents unstable conditions with strong sunlight, clear skies, and high levels of turbulence in the atmosphere. Class F represent stable conditions with light winds, clear night skies, and little or no turbulence.

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 Planning Quantity (TPQ)

A quantity designated for each chemical of the EHS list that triggers notification by facilities to the SERC that the facility is subject to emergency planning under SARA.

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.

Transport Mode

Method of transportation: highway; rail; water; pipelines, or; air.

Vapor Dispersion

The movement of vapor clouds or plumes in air due to wind, gravity spreading, and mixing.

Vulnerability Analysis

Assessment of elements in the community that are subject to damage should a hazardous materials release occur. The process includes gathering information on

the extent of the vulnerable zone, conditions that influence the zone, size and type of the population in the zone, private and public property that might be affected, and the environment possibly affected.

Vulnerable Zone

An area covered by a concentration of chemical at or above the level of concern.

C. Technical Library

1. Many general planning references are on file in the Ohio EMA offices. Some of these documents are:

   a. The National Response Team's *NRT-1 Hazardous Materials Emergency Planning Guide*
   b. The National Response Teams *Technical Guidance for Hazard Analysis* (Green Book).
   c. Ohio EMA's *Planning and Exercise Guidance*.

2. Hazard Specific Planning Reference Guides are on file in individual State agency offices i.e., the planning guide *Criteria for Preparation and Evaluation of Radiological Emergency Response Plan and Nuclear Power Plants NUREG-0654 FEMA-Rep-1*, produced by the NRC and FEMA is on file in the Ohio EMA offices.

3. It is also helpful to use existing hazardous materials plans as references, such as the *National Contingency Plan*, the *Regional Response Plan*, the USCG's *Oil and Hazardous Substances Pollution, Contingency Plan*, and other hazardous materials plans.

4. SOP's are also very good planning references and are on file in each individual agency's offices.

5. There are a multitude of specific references for hazardous materials available from government agencies, industry, and consultants/writers. The specific references that are predominantly available and used by State agencies are:

   a. *The NIOSH Pocket Guide to Chemical Hazards*,
   b. *The OSHA Chemical Hazard Standards for Emergency Workers*,
   c. The USDOT *Emergency Response Guidebook for Response to Hazardous Materials*,
   d. The USCG's *CHRIS Manuals*,
   e. The Bureau of Explosives *Emergency Handling of Hazardous Materials Guide*,
   f. The USEPA's Chemical Profiles,
   g. The American Conference of Governmental Industrial Hygienists' *Threshold Limit Values and Biological Exposures Indices Guide*,
   h. Material Safety Data Sheets, and
   i. The Code of Federal Regulations.

6. There are many specific references also available from the industry and private writers such as:

   a. The American Society of Testing and Materials manual on *Toxic and Hazardous Industrial Chemicals Safety*
   b. L. Bretheriks' *Handbook of Reactive Chemical Hazards*

c. Gessner G. Hawley's *Condensed Chemical Dictionary*

7. State agencies also have specific references such as; the Bureau of National Affairs Right-to-Know Guide, interpretive manuals, toxicological reports, SOPs, etc. on file in their individual offices.

8. Each State agency that is capable of sampling and monitoring also have set guidelines which they follow i.e., the Action Levels for Poisonous and Deleterious Substances in Human Food and Animal Feed.

9. There are several agencies that have access to hazardous materials/chemical databases. The agencies that can access these databases are: The Ohio EMA, OEPA, Industrial Compliance, and the Bureau of Workers' Compensation. These agencies can access national level governmental and private chemical databases.

10. Information pertaining to specific hazardous materials industries (locations; chemicals stored, manufactured, or used; transportation routes; etc.) are listed in individual county hazardous materials plans.

D. Additional HazMat Identification Sources

1. Other sources for identification of hazardous materials include the USDOT's ***2000 Emergency Response Guidebook (ERG 2000)***. This book contains a substantial list of hazardous materials cross-referenced by ID number and name. The book provides generic response action and initial evacuation zone guides designed for transportation incidents.

2. ***The Chemical Hazards Response Information System (CHRIS)*** is designed to provide information needed for decision-making by the USCG personnel during emergencies that occur during the water transport of hazardous chemical. ***CHRIS*** also provides information used by the USCG in its effort to achieve better safety procedures and accident prevention program. ***CHRIS*** consists of four manuals, a Hazard Assessment Computer System (HACS), and technical support personnel located at USCG headquarters.

3. The National Fire Protection Association (NFPA)'s ***Recommended System for Identification of the Fire Hazards of Materials*** provides basic warning information to fire fighters in industrial plants and storage facilities. The system uses a diamond-shaped warning symbol.

4. The ***Oil and Hazardous Materials Technical Assistance Data System (OHM-TADS)*** has been developed by the USEPA to provide information on physical and chemical properties, hazards, pollution characteristics, and shipping information for over 1200 hazardous materials. ***OHM-TADS*** consist of a computerized database, which can be accessed from terminals at the 10 USEPA Regional Offices, USEPA Headquarters, and from USCG Marine Safety Offices (MSO).

5. The Bureau of Explosives book, ***Emergency Handling of Hazardous Materials in Surface Transportation***, presents detailed information on hazardous materials incidents and recommendations on hazards classes. Specific emergency response

information and environmental damage mitigation actions are included for each hazardous material regulated by the USDOT and listed in Title 49 of the Code of Federal Regulations.

6. ***Chemical Profiles***: the U.S. Environmental Protection Agency has developed a set of chemical profile reference documents for use in dealing with Section 302 of Title III of the Superfund Amendments and Reauthorization Act (SARA). These EPA profiles contain a summary of publicly available documented information for chemicals on the EPA list of extremely hazardous substances. Other chemicals may be added or deleted in the future. A profile is provided for each chemical on the list of extremely hazardous substances. Profiles are presented in ascending order of Chemical Abstract Service (CAS) registry numbers. This database can be found at the following web site: http://yosemite.epa.gov/oswer/ceppoehs.nsf/EHS_Profile?openform

7. ***The Merck Index*** is a comprehensive, interdisciplinary, encyclopedia of chemical, drugs, and biological substances. It describes approximately 10,000 chemicals in a structured format. It is extensively indexed for ease of use and is designed to serve a variety of purposes including information on physical/chemical properties of chemicals and their toxicity.

8. ***Dangerous Properties of Industrial Materials***, edited by N. Irving Sax, provides a single source of concise information on the hazards of nearly 13,000 common industrial and laboratory materials. Descriptive information and technical data are given in the three sections (General Information, Hazard Analysis, Countermeasures) of the book.

9. The above is not an exhaustive list of additional Hazardous Materials identification sources. **The OEPA Duty Officer Room and Library, or the Division of Industrial Safety and Hygiene may be contacted for other resources.**

Ohio EMERGENCY OPERATIONS PLAN
Tab A to the Hazardous Materials Incident Annex

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 the Hazardous Materials Incident Annex

Sample Emergency Messages to the Public for Sheltering-in-Place and Evacuation

SAMPLE EAS MESSAGE - SHELTERING

SHELTERING REQUIRED

This is an important emergency bulletin for the vicinity of the _____ at _____, Ohio. An emergency has occurred at the _____. Presently, all efforts are being made to correct the problem; however, small releases of chemical materials (are expected to/did) occur.

A recommendation to take shelter, which means to go indoors and reduce outdoor air intake, has been issued for the following area(s):

TOWNSHIPS	**BOUNDARIES**
_____	_____
_____	_____

If you are located within these identified boundaries, you may be directed to:

(1) Go indoors.

(2) Close all windows and doors and remain indoors.

(3) Turn off all air conditioners, fans, or other ventilation systems which draw air in from the outside.

(4) Visitors or others in the area without shelter should go into a store, library, fire or police station, or other public building.

If you have heard this message and are not in need of assistance, please help speed this verification by signifying that you have been alerted. To do this, you should tie a white cloth or towel to you doorknob, mailbox, or other object visible from the road.

If you need assistance, do not use the white cloth. Police, fire, or Emergency Squad personnel will check all buildings not displaying a white towel and ask what assistance you require.

These instructions will be repeated within the next few minutes. Please do not tie up the telephone lines unless you have a real emergency. State and local officials are assessing the situation. There is little or no danger of contamination or exposure at this time, provided you remain indoors and follow these simple instructions. For further information, please tune to (radio or TV) station _____ .

Recommended Broadcast Interval
Starting Time _____ am/pm
Rebroadcast every_____ minutes
Duration_____ hours

Supplemental Information to be Broadcast on Normal Media Channels

(REPEAT INSTRUCTIONS 1 - 4 ON SHELTERING)

(5) If you were outside in contaminated air, upon reentry to your home, outer garments should be removed and stored until they can be monitored by trained personnel. As an added measure wash or shower off parts of your body that were exposed.

(6) Wash any home grown or locally grown fruits and vegetables which might be contaminated.

(7) If possible, shelter grazing animals and put them on stored feed.

SAMPLE EAS MESSAGE - EVACUATION

LOCAL EVACUATION NECESSARY

This is an important emergency bulletin for the vicinity of the _____ at _____, Ohio. An emergency has occurred at the _____. Presently, all efforts are being made to correct the problem; however, there is a possibility that some chemical materials (may have been/are being/ will be) released into the environment. A recommendation to evacuate has been issued for the following areas:

TOWNSHIPS	**BOUNDARIES**
_____	_____
_____	_____

Those who need transportation will be furnished bus service at the following established pickup points: _____.

School children from _____ school are being transported to _____. Parents should pick up their children at _____.

Presently, a door-to-door verification will be conducted by local police and fire personnel. If you have heard this message and are not in need of assistance, please help speed this verification by signifying that you have been alerted. To do this, you should tie a white cloth or towel to your doorknob, mailbox, or other object visible from the road.

If you need assistance, do not use the white cloth. Police, fire, or Emergency Squad personnel will check all buildings not displaying a white cloth and ask what assistance you require. In addition, close all windows and doors and remain indoors. Turn off all air conditioners, fans, or other ventilation systems, which draw air from the outside.

These instructions will be repeated within the next few minutes. Please do not tie up the telephone lines unless you have a real emergency.

Recommended Broadcast Interval

Starting Time _____ am pm

Rebroadcast every ____ minutes

Duration _____ hours

Ohio EMERGENCY OPERATIONS PLAN
Tab C to the Hazardous Materials Incident Annex

Interagency Letter of Agreement

A FORMAL INTERAGENCY LETTER OF AGREEMENT TO PARTICIPATE IN A COORDINATED RESPONSE TO HAZARDOUS MATERIALS EMERGENCIES IN OHIO

This plan, as developed for the administrative and operating agencies of Ohio State Government, represents a combined effort on the part of federal, state, and local governments to establish a program of hazardous materials response preparedness on behalf of the citizens of the State of Ohio.

A continuing effort will be made by all responsible agencies to facilitate the cooperative use of the maximum in time and resources needed to respond in such an emergency.

The undersigned officials, representing their various individual agencies and departments, agree to fulfill such obligations or responsibilities as their portion of this plan for response to hazardous materials emergencies may assign or delegate to them.

FOR THE ADJUTANT GENERAL'S DEPARTMENT:

_____ Director DATE:_____
NAME: Maj. Gen. Gregory L. Wayt TITLE

FOR THE OHIO DEPARTMENT OF AGRICULTURE:

_____ Director DATE:_____
NAME: Fred L. Dailey TITLE

FOR THE OHIO ENVIRONMENTAL PROTECTION AGENCY:

_____ Director DATE:_____
NAME: Joe Koncelik TITLE

FOR THE OHIO DEPARTMENT OF COMMERCE:

_____ Director DATE:_____
NAME: Doug White TITLE

FOR THE OHIO DEPARTMENT OF PUBLIC SAFETY:

_____ Director DATE:_____
NAME: Kenneth Morckel TITLE

FOR THE OHIO DEPARTMENT OF HEALTH:

_____ Director DATE:_____
NAME: J. Nick Baird M.D TITLE

FOR THE OHIO DEPARTMENT OF TRANSPORTATION:

_____ Director DATE:_____
NAME: Gordon Proctor TITLE

FOR THE PUBLIC UTILITIES COMMISSION OF OHIO:

_____ Chairman DATE:_____
NAME: Alan R. Schriber TITLE

Sample Public Information Brochure

Sample Public Information Brochure

WHAT TO DO IN CASE OF A CHEMICAL SPILL?

Truck accidents involving toxic chemical:

If you see an accident involving a truck with diamond shaped placards, do not approach the vehicle but go to the nearest phone and contact fire, police, or the highway patrol. If you were able to see the color and/or number on the placard, report this information as well.

If you see unusual smoke or a strange cloud up ahead, close your windows and turn off ventilation. Listen to the radio for emergency information about whether to proceed or turn around.

Protecting yourself at home during a spill.

If you are notified of a chemical spill in your community, but are not told to evacuate, turn on the radio or TV, and stay off the phone. Phone systems can be easily disabled by too many phone calls at one time.

To reduce potential harm while in your home:

* close all doors and windows,

* turn off air conditioners, clothes dryers, and ventilation fans,

* close the damper on fireplaces,

* know ahead of time how to turn off pilot lights on water heaters and gas stoves. Pilot lights can ignite flammable gases.

Evacuation

If you are asked to evacuate, be sure to take:

* all prescriptions and other medical supplies needed on a daily basis,

* the name of your physician and pharmacy,

* identification showing your current street address and your driver's license,

* bottles, formula, diapers, and a toy for small children,

* one change of clothes for each family member.

Additional Information can be found at the Department of Homeland Security's Ready.Gov web site at: www.ready.gov and at the Center for Disease Control's web site at: www.bt.cdc.gov/

Ohio EMERGENCY OPERATIONS PLAN
Tab E to the Hazardous Materials Incident Annex

CONTAINMENT AND CLEANUP
Techniques and Resources

Techniques For Spill Containment and Cleanup

Containment, in relation to a spill or release of hazardous materials, is the holding back, restraining, or preventing the spread of the spill or released material.

Cleanup, in relation to a spill or release of hazardous materials, is the act of physically eliminating or removing the residue or the actual spilled material. Part of the Cleanup process is, if necessary, restoration of the contaminated area.

Restoration, in reference to a spill or release of hazardous materials, is the reinstatement of the damaged area to its original state or acceptable level of contamination, based upon risk factors, where appropriate.

Containment of a spilled hazardous material is incident specific. Containment methodology is dependent upon many variables. Is the spill on the roadway? Is the roadway constructed of asphalt or soil? Is the roadway next to a berm, ditch, or drain? Does the ditch drain into or possibly lead to a drinking water or sewer system? Is the roadway located in the open country or city? Are there sparse or heavily populated areas in the vicinity? Are there special institutions nearby such as hospitals, nursing homes, or schools? Is the spill on a roadway that traverses or crosses a major waterway that has drinking water intakes along it? Is the spill in or near an agricultural area where crops or animals in the food chain could be affected? Are there endangered areas - forests or endangered species in close proximity?

Other factors affecting the decisions concerning the appropriate containment measures to be taken are: The amount of material released or spilled (large or small), the material itself (type), the reactivity of the material, and the meteorological conditions.

These topics and questions must all be taken into consideration when forces respond and try to determine the most advantageous containment methods to use, thus making containment an incident-specific operation. The responder must not strictly consider containment of the spilled material, but also the runoff water from the firefighting operations that may also be contaminated.

Some general stabilization and containment methods that are used are:

Diking--the placement of a barrier to contain the material in a confined space. Dikes can take on many forms i.e., laying down plastic sheeting to collect the material; spreading sand, earth, etc. on the ground to contain the flow of material; building earthen dams to contain the runoff; digging containment trenches or ditches to contain the material; or using booms to contain the material on the surface of the water.

Absorbents/adsorbents--agents that are capable of absorbing or collecting spilled or condensed materials. Examples are straw, foams, paper fibers, peat moss, sawdust, sand, earth, and perlite.

Chemical agents (elements, compounds, or mixtures)--that can disperse, dissolve, emulsify, neutralize, precipitate, congeal, entrap, fix, gel, or oxidize, the released or spilled material.

Surface collecting agents--that causes a film to form on the surface for controlled thickness layer and ease of removal.

Biological agents--such as microbiological agents, cultures, enzymes, or nutrients for biodegradation of the material.

Sinking agents--that cause the material to break down and eventually sink in water.

Burning agents--which accelerate the materials burning for improved controllability.

Some of the above agents require approval before being used. Approval will be coordinated by the OEPA On-Scene Coordinator and/or the ODH Bureau of Radiation Protection (in the event of a radiological incident).

There are many methods of stabilization and containment available and the ones listed above are very generalized and few. Containment methods are incident specific and to attempt to list specific measures and methods of operation in this plan would be unrealistic. Refer to the standard operating procedures of the responding fire departments, hazardous materials teams, and the responding State Agencies.

The first on scene responders will have to deal with the initial containment of the material. It is the spiller or releaser's legal responsibility for the minimization of risk to the public and environment and for the cleanup of the incident to include restoration of the area, when necessary. Many companies are required to provide plans showing their abilities to respond and cleanup spills they may cause. Laws such as CERCLA, RCRA, SARA, CAA, and OSHA require such plans as Spill Prevention Control and Countermeasures (SPCC) plans and facility response plans. To get licenses to operate, many companies must provide such plans to State Agencies such as OEPA, ODH, ODNR, and the Industrial Commission.

Cleanup operations are as incident specific as the containment operations just discussed. If it is an airborne release, there may be no cleanup involved. If it is not an airborne release but a spill, the speed and method of cleanup will vary. If the spilled material is in the water, the cleanup should be immediate; if it is on a deserted roadway, the cleanup operation may not carry the same immediacy. Cleanup operations are dependent upon all the same questions as asked in the containment section.

After containment operations are completed and the incident has been neutralized, the cleanup operation begins.

Since it is the spiller’s obligation to cleanup the scene, the State Agencies usually do not get involved in the actual "hands-on" cleanup operation.

The State of Ohio agencies that deal with cleanup operations are the Ohio EPA, ODH and the SFM. The OEPA On-Scene Coordinator provides technical guidance to the local Fire Chief, hazmat teams, and the responsible party on incident and site assessment; actions that need to be taken; methods of operation; what equipment is needed and where to get it, if not already available; where and how to get a cleanup contractor, if needed. In the case of radiological incidents, the ODH Bureau of Radiation Protection will perform the above duties. Advice on how locals can seek restitution from the responsible party can also be given. ODH and SFM representatives will also render advice on the appropriate methods of containment and cleanup.

The responsible party will clean up the spill itself, if capable, or will hire a contractor to do it. If the responsible party cannot perform the cleanup itself and they do not know who to hire to do it, the OEPA can supply a list of approved cleanup contractors with names, phone numbers, equipment, and personnel available.

Some of the methods used for cleanup operations are:

Vent and allow to burn--this is done when it is most prudent to just let the material burn itself out. Sometimes the container is vented to allow more air in to accelerate the burning process. If all burns away without leaving a residue, the container is just hauled away. If a residue or pool forms below the burning area, the material must be contained and then removed.

After the material has been contained and chemical elements, compounds or mixtures have been added to stabilize the material (as stated in the previous section); the material can be removed by using:

Sorbent materials--(to soak up the material) and then pick up and dispose of the material soaked sorbents, or

Mechanical devices--such as skimmers, hoses, pumps, and suction devices. Some suction devices are hoses (laid in the material) that are connected to pumps that suck the material up and flush it through other hoses and into packing drums, which can be disposed of in approved disposal facilities. Some suction devices are large suction pumps connected to trucks. The material is pumped directly into the truck and driven off for disposal.

Just as cleanup operations are incident specific, the standard operating procedures of the OEPA and the cleanup contractors should be referenced for full details.

During some cleanup operations, the disposal step is eliminated-the material is just contained without neutralization, recovered, and removed (to the owner).

In the case of chemical spills, if the spiller is not capable of cleaning up the problem, is not willing to clean up the problem, is not financially able to take care of the problem or can not be located to clean up the problem, the OEPA can use the Comprehensive Emergency Response Compensation Liability Act (Superfund) moneys to hire a contractor to perform the cleanup and disposal operations. The OEPA can then legally seek restitution from the responsible party, when found. The OEPA On-Scene Coordinator still oversees all operations. Part of the overseeing is the approval of storage or disposal sites to be used. The OEPA has an approved list of storage and disposal sites according to CERCLA and RCRA.

If the situation is beyond local and State agency capabilities, the federal EPA and USCG can use the same Superfund moneys for cleanup operations.

Re-entry

Re-entry is the allowing of the public to return to the recently endangered area to continue their normal daily activities.

The State Agencies (OEPA, ODH, ODA and ODNR) will provide technical advice and personnel to assist in determining whether or not a health or environmental hazard continues to exist after the situation has been stabilized.

The OEPA, ODH, ODA and/or ODNR will determine whether or not the public can re-enter the area based upon the acceptable residual levels of the released material in the air, water, vegetation, and soil. Private cleanup contractors and federal agencies have the equipment and expertise to assist in this determination.

Re-entry operations are incident-specific and geared to the locale. Refer to the OEPA and ODH standard operating procedures for specific residual concentration levels.

Once safe levels have been attained, the local agencies with State agency advice will make the determination on removing protective actions and allowing people to re-enter the area.

State Agencies will assist the local forces in deciding on the proper re-entry options to adopt. For example; if the toxic vapor came in contact with the ground, with crops standing in fields, with drinking water supplies, or with areas where people congregate (such as parks, entertainment areas, playgrounds), the State Agencies will test these areas and make recommendations as to what types of activities could be conducted upon re-entry, and in what magnitude. The OEPA, ODH, ODA, and ODNR would be involved in this determination.

Testing of public drinking water would be done by OEPA and ODNR to ascertain the water's safety for consumption by humans and animals. Recommendations would be made to local health departments, officials, and the public. For example, water may be unsafe to drink unless boiled first or it may be usable only for washing.

The ODA can test for contamination of the field crops and the OEPA can test the soil in which they grow. Recommendations may be that crops are unsafe to eat or that if boiled and canned they would be suitable for consumption. The ODA has legal rights to quarantine or issue orders to destroy foodstuffs.

The ODA and ODH may evaluate the crops and livestock that may have been exposed to the toxic cloud.

These and many other recommendations can and would be made by appropriate State Agencies for re-entry options. Refer to the Public Protection of Citizens Section. For details on assessment operations, refer to the Ongoing Incident Assessment Section of this annex. **For details on actual operations, refer to the individual agency standard operating procedures.**

The public would be informed of the right to re-enter the area in the same ways they were warned to leave: sirens, emergency broadcast systems; radio, television, if in shelters, through the shelter managers, and in remote areas, door-to-door, if necessary.

The State Agencies can assist with re-entry operations (similar to those used for exiting and evacuation operations) such as warning, traffic control, transportation assistance, etc.

Restoration

Restoration of the damaged area is a long-term, slow-paced operation. The spiller is responsible for this operation also.

Restoration could range from very minor (strictly cleaning up the debris) to extremely extensive (replacing contaminated soil, replanting trees and flora, replacing fish and wildlife populations). State Agencies, dependent upon the degree of restoration, could be involved and assist in the operations. For example, ODNR could be involved in the replanting of trees and flora in forests and parks, and the restocking of fish and wildlife areas.

Post-accident surveying and continued sampling and monitoring of the air, water, and soil would be based on the recommendations of the OEPA, ODH, ODA and/or ODNR. Continued sampling and air and water monitoring could be done for precautionary reasons. These operations would be implemented based on agency standard operating procedures.

State Agencies do not usually do hands-on decontamination, if they need to decontaminate their personnel and equipment, they rely on the local fire and hazmat forces or the cleanup contractor (NOTE: Though the IC is responsible for decontamination at the site, it is strongly recommended that the ODH Bureau of Radiation Protection be consulted first on any decontamination efforts for radiological incidents).

Methods of decontaminating personnel, property, and equipment are based on individual local and State agency SOPs. The inspection, inventory, replacement and return of equipment to field operation is the responsibility of each individual State agency.

Resources for Cleanup and Disposal

The first line of defense is the local responder and local resources for response and cleanup are listed in individual local response force SOPs, the county emergency operations plans, local hazardous materials plans, and local EMA resource manuals.

Local response forces may not be fully stocked with the necessary equipment for cleanup operations and may rely on outside sources such as mutual aid (local) forces, including private agencies they may have mutual aid contracts with, and State and federal agency sources.

The State agencies can assist the local forces by supplying personnel and equipment that are available or by requesting federal assistance.

State cleanup resources are listed in each agency's SOPs or resource manuals thus allowing for an updated and accurate record of equipment available. These lists will show types of equipment available, the location of the equipment, quantities of each type of equipment, the availability of the equipment, and how one can gain access to such equipment. The equipment of each State agency is not listed in this plan; however, there are charts in Section II(I) that depict what types of resources are available from the State Agencies. These charts list such items as communication equipment, cleanup equipment, transportation equipment, personal protective equipment, etc.

In addition to local, State, and federal agencies, there are additional organizations that may have resources available during a hazardous material incident i.e., industry, associations, and private contractors. These sources can offer a wide range of equipment that includes response, personal protective, communication, transportation, containment, cleanup, and long-term site control equipment. Some of these sources also have the means of disposing of hazardous and contaminated materials.

The ODH Bureau of Radiation Protection is the state agency charged with overseeing cleanup and disposal operations for radiological incidents (call 614-644-2727). For chemical incidents, the OEPA is the State agency charged with overseeing cleanup and disposal. However, Ohio EPA does not normally conduct the cleanup; rather, it requires the responsible party to do so itself or through a contractor. On rare occasion, Ohio EPA may contract for immediate cleanup and seek reimbursement when a responsible party is identified through its investigation. Ohio EPA maintains a list of contractors which have identified themselves to the agency as available for such environmental work.

Chemtrec is a private agency that can also call into operation any of the private chemical industries that are within the vicinity of the incident that can supply needed assistance in the form of advice, personnel, and equipment. Chemtrec can contact specialized industry teams for assistance also i.e., the Chlorep industries to deal with Chlorine spills. Chemtrec can be accessed and, through them, their industry teams by calling: 1-800-424-9300.

The Ohio Manufacturers Association, Ohio Chemistry Technology Council, and Ohio Petroleum Council can also get in touch with any of their member industries to provide assistance when needed.

In addition to cleanup contractors and their available resources, a list of approved disposal contractors and disposal sites is a necessary resource. The EPA has a list of approved landfills, disposal sites, and contractors. A list of these sites is kept on file at the OEPA offices.

Technical Support Resources

There are several State agencies that have their own or contract with outside laboratories for sample analysis for environmental and public health protection. These agencies have in-house laboratories; ODA, OEPA, and ODH; three agencies also contract with outside laboratories -the Industrial Commission, OEPA, and Industrial Compliance. The OEPA also keeps a list of laboratories that deal with water analysis. Refer to the Resources and On-going Incident Assessment sections of this plan for further details.

Private consultant firms can be contracted on an individual agency basis; however this is not a customary practice for technical guidance. Private consultants are occasionally contracted to assist in planning.

Individual agencies have the ability to use the available resources (equipment, laboratories (if available), technical materials and personnel) of their federal counterparts, other State or federal agencies, or enter into agreements for technical support i.e., the ODH has an agreement with the Central Ohio Poison Control Center. The ODH also has close ties with the Center for Disease Control and the Agency for Toxic Substances Disease Registry.

Additional technical support is available through private industry. OEPA has a list of available contractors for cleanup and disposal, which can supply technical support and/or advice. Associations such as the OMA, OCC, and CMA have a large membership and can contact a member facility for advice or information concerning particular materials. Chemtrec is also a large source of technical information (advice and/or training). Chemtrec also has the ability to notify special teams around the country for technical support such as a Chlorep team.

Colleges and universities such as the Ohio State University have chemistry labs that may be used; however, these institutions would have to be contacted by the State agency needing their assistance (agreements may need to be contracted).

Many colleges and universities offer courses in planning, chemistry of hazardous materials and emergency response measures; Findley College, OSU, BGSU, Akron U., and Cleveland State are a few. Some institutions offer associate degrees in hazardous materials/response.

Local chemical plants are a great source of technical support as they may have their own laboratories or response teams that may be used in a hazardous materials incident. Agreements would need to be made at the local level; refer to county hazardous materials plans for such information.

Ohio EMERGENCY OPERATIONS PLAN
Tab F to the Hazardous Materials Incident Annex

INSTRUCTIONS ON ANNEX USE, TESTING & UPDATE

PURPOSE

The annex is designed to function as the hazardous materials incident annex component of ESF 10 of the ***Ohio Emergency Operations Plan***. General guidance for the State in dealing with all hazards is contained in this main EOP, and the EOP is referred to for general information on the State.

This annex and ESF #10 have been written following the guidelines of the National Response Team as stated in NRT-1, Hazardous Materials Emergency Planning Guide. NRT-1 has been adopted as the hazardous materials planning standard of care for Ohio by Ohio's State Emergency Response Commission (SERC).

This hazmat annex identifies State Agencies that have some type of response or support function during a hazmat incident. The plan further identifies what response and support capabilities the State Agencies have, and when those assets will be used. **For detailed information on specific agency functions consult that agency's SOPs.**

This plan is written to coordinate the State's efforts in protecting the health, safety, and property of the public. The plan supplements existing State and Federal hazmat plans, and can be used in times of response to hazmat incidents of any magnitude or location.

All LEPCs are required to develop a chemical emergency response and preparedness plan for their level of government. **For detailed information on local level response and support during hazmat incidents, please consult individual LEPC plans.**

PLAN DISTRIBUTION

ESF #10 and its Hazardous Materials Incident Annex is only a viable document if it is in the hands of those who need to use it, or benefit from its contents. A copy of ESF #10 and its annex is provided to each EMA/LEPC in the state. The public has access to this annex through their respective EMA/LEPC.

Testing & Updating the Annex

Testing the Annex

Tests and exercises are activities which can be used to promote an awareness of potential hazards and allow emergency response personnel to become more proficient in the performance of their duties.

Tests are designed to measure and evaluate the actual readiness capabilities of the procedures, personnel, facilities, and equipment of the agencies against the capabilities listed in the emergency response plan. Tests also evaluate the ability of the government's emergency management organization during the decision making process. All of these areas are fully tested during periodic exercises.

An **exercise** is an activity designed to simulate natural, man-made, or hazardous materials-related disasters. Exercises provide the agencies the opportunity to evaluate their emergency operations and train their emergency personnel.

Exercises should be based on actual or potential threats as identified in the jurisdiction's Hazard Analysis. Exercises must be conducted at least annually: the State must conduct a Full-scale exercise at least once every four years.

One of the most important aspects of any exercise is getting the right people to participate. Major exercises should involve the chief executives, department heads and their key staff, and representatives from the private sector, such as the Red Cross, Salvation Army, information media, hospitals, churches, industry and volunteer groups.

Exercises must be conducted based on the currently existing resources.

Exercises have multiple purposes:

- To evaluate the plan.
- To improve and update the plan.
- To determine the status of critical equipment as listed in the plan and standard operating procedures.
- To identify resource requirements.
- To train emergency management and response staff on the plan and its procedures.
- To educate the general public and private organizations on the essential public information components of the plan.
- To determine the effectiveness of mutual aid agreements and memorandum of understandings.
- To determine the adequacy of laws that support the plan.
- To determine the support of elected officials.
- To evaluate the ability of the responders and management to implement the plan.

There are several types of exercises that can be used to test the plan, such as:

Drills or Functional exercises

This type of exercise limits the participation of players and tests or evaluates the capabilities of an individual area, i.e., law enforcement. Drills or functional exercises should be conducted on a regular basis to practice specific procedures.

Tabletop Exercises

This exercise is as it sounds; where officials and responders sit around a table to elicit constructive discussion by participants to resolve a given situation. This exercise has no time constraints and physical response to the emergency is simulated.

Emergency Operations Simulation Exercises

This is a direction and control activity designed to test and evaluate the centralized emergency operations capability and the timely response of one or more units of government. It takes place in an Emergency Operations Center (EOC), and simulates the use of outside activity and resources.

Full-scale Exercises

A full-scale exercise evaluates all Emergency Management and Response Systems. Mobilization of personnel and resources and movement and response of emergency workers and equipment to demonstrate coordination and capabilities as actual and real.

Actual Incidents

Actual incidents are the ultimate test of the plan, personnel, procedures, and capabilities.

Each agency listed in the plan should conduct drills and functional exercises on a routine basis to test operational procedures, personnel, and equipment. The emergency response and management participants should conduct tabletop and EOC exercises on a periodic basis to maintain familiarity with the plan. Drills, functional, and tabletops are excellent methods of training new personnel. Multi-jurisdictional exercises are much more involved but, as emergencies can affect more than one jurisdiction, they are necessary.

The Ohio Revised Code, section 3750.02, requires the State of Ohio to develop this plan. The State Emergency Response Commission and the State agencies that are represented in it shall jointly exercise (test) this plan, at least annually, in conjunction with the exercise of a Local Emergency Response Plan by a Local Emergency Planning Committee. Since the Ohio Emergency Management Agency chairs the Planning and Exercise Sub-Committee of the State Emergency Response Commission, it will be the agency in charge of the required yearly exercises.

Evaluations

Evaluations are conducted in accordance with SERC Rules and the ***Hazardous Materials Planning and Exercise Guidance*** distributed by the Ohio EMA, Chair of the SERC Planning and Exercise Subcommittee. Objectives are chosen from the 13 objectives contained in Ohio's ***Hazardous Materials Exercise Evaluation Manual*** (HM-EEM). The HM-EEM defines objectives that are common to most hazardous materials exercises and provides the criteria by which the performance of those objectives is evaluated. The State endeavors to have evaluators from appropriate Federal government agencies evaluate its performance during exercises.

Evaluators must have an expertise in the area they are evaluating, a working knowledge of the area of the State Hazmat Plan to be evaluated, and a complete understanding of the objective(s) he/she will evaluate.

Evaluators must complete the HM-EEM forms and write their comments or observations before leaving the exercise area. They must leave all evaluation materials with the designated facilitator so that a timely critique can be developed.

Evaluators shall conduct post-exercise debriefing of players immediately following the termination of the exercise. Player's questions, comments, and suggestions will be addressed and included in the evaluator's critique, if appropriate.

After a plan is exercised and tested, a critique of the exercise actions must be conducted by the participants and exercise evaluators to evaluate performances and identify any deficiencies in the plan. The critique should be held immediately after the exercise so that actions are fresh in everyone's mind. All evaluators and participants should be given the opportunity to voice their opinions as to the plan and actions of all participants of the exercise. According to the ORC 3750.02, The State Emergency Response Commission (SERC) shall, after any such exercise, review the State plan and make such revisions in it as the SERC considers necessary or appropriate. (The Regional Response Team may review the plan if so requested). All comments should be recorded and put into a written critique (report) and submitted to all participants.

The Ohio Emergency Management Agency is responsible for incorporating all corrections, as identified in the critique, to the plan and submitting them to all plan holders. (Corrections should be sent to the OEMA Hazmat Planner).

Assurance that emergency forces are fully trained and ready is built upon a repetitive cycle of planning and exercising.

Updating the Annex

As stated previously, the Ohio Emergency Management Agency (Ohio EMA) is responsible for updating ***ESF # 10 and the Hazardous Materials Incident Annex.*** Any changes as identified in exercise or actual incident critiques will be incorporated into the plan revision by the Ohio EMA. In addition, the Ohio EMA will also incorporate any changes received from other agencies in regards to their individual sections of the plan.

The plan will be updated at least annually after the conduct of the state-level SERC exercise or more often as changes may require. Revisions/updates will be dated with the most current date and revision number.

Supporting Plans and SOPS

Individual State agencies develop SOPs to detail procedures for carrying out specific assignments listed in their agency plans. These SOPs secondarily support the listed plans.