

Cuyahoga County Office of Emergency Management

Shelter-in-place and Evacuation Training for Incident Commanders

June - 2012

Welcome to the training course for Incident Commanders.

The purpose of this course is to train you to safely evacuate and shelter-in-place in an emergency and to help others to do so.

Course Expectations

Throughout the course, you'll come across brief learning checks. At the conclusion, there is a ten-question quiz. In order to obtain a certificate, you'll need to create a user ID and password, register, and pass the quiz with a 70% score. (You can take the quiz more than once, if needed.)

This course should take approximately 2 hours to complete.

Course Overview

This class was developed for Incident Commanders (ICs) of emergencies that involve evacuation and/or Shelter-in-Place (SIP). The training objectives were adapted from competencies set forth by the Cuyahoga County Office of Emergency Management (CCOEM) and the Local Emergency Planning Committee (LEPC).

ICs have unique responsibilities, because elected officials and citizens look to them for decision-making, guidance and oversight during emergencies.

ICs are familiar with the information presented to most of the other target groups in Cuyahoga County, but it is briefly reviewed at the outset of this class.

Training Objectives

By the end of this class, you should be able to:

- Know how to prepare for emergencies at home and at work
- Understand how to shelter-in-place (SIP) or evacuate and the risks involved
- Know who is authorized to issue a SIP or evacuation order
- Understand the National Incident Management System (NIMS) and how it is used to make evacuation and/or SIP decisions

- Understand and be able to implement local and county alert and warning protocols and communication and traffic control protocols for SIP and evacuation
- Know how to explain a SIP or evacuation order to managers and the general public
- Understand where to obtain information about facilities with hazardous materials and how it can be used for pre-incident planning
- Know how to make decisions about reporting releases using a decision tree
- Describe analytical tools that ICs can use to determine the advantages and disadvantages of SIP or evacuation
- Understand how, when and who to SIP or evacuate
- Understand time limitations for successful SIP or evacuation implementation
- Describe the monitoring needed for effective SIP or evacuation decisions

Introduction

The Cuyahoga County Office of Emergency Management has developed evacuation and shelter-in-place training for everyone in Cuyahoga County so that as a county, we are more prepared for common local emergencies.



Incident Commanders have unique responsibilities, because elected officials and citizens look to them for decision-making, guidance and oversight during emergencies.

Communication Campaign

A communications campaign will inform the general public. It will include a video broadcast on television. The video can be found online at the following URL: http://emergency-preparedness.elearningclevelandstate.com/emergency_readiness_ad.wmv. It directs people to <http://ready.cuyahogacounty.us>.

KEY POINT

- ✓ *Basic emergency preparedness at home includes identifying potential hazards and risks, then preparing for these hazards and risks by making an emergency plan and gathering disaster response supplies and tools.*

Emergency Checklist

The family emergency plan should include the following components:

- Escape routes from the home
- Family communication information including an out-of-state contact and a neighborhood meeting place
- Contact numbers for physicians, pharmacies, etc. (Copies of prescriptions for medications)
- Utility shut-off and safety information
- Insurance and vital records
- Special needs
- Caring for animals
- Safety skills such as First Aid and CPR

The family disaster kit should include:

- Provisions for 72 hours for each person
- Kits for at home, at work and in the car
- At least one gallon of water per person per day for 3-4 days
- Non-perishable food
- Portable, battery-powered radio and extra batteries.
- Multi-function crank flashlights/radios that do not require batteries or charging
- Flashlight and extra batteries
- First aid kit and manual
- Sanitation and hygiene items (moist towelettes and toilet paper)
- Matches in a waterproof container
- Multiple cans of sterno
- Whistle
- Extra clothing
- Kitchen accessories and cooking utensils, including a hand can opener
- Cash in small bills and coins
- Special needs items, such as prescription medications, eye glasses, contact lens solutions, and hearing aid batteries
- Items for infants, such as formula, diapers, bottles, and pacifiers
- Plastic trash bags to collect soiled items, dirty clothing, general trash. Large bags can also be used as additional insulation in cold weather, and as “ponchos” in wet weather.

- Other items to meet your unique family needs, including pet food and care items



People in Cuyahoga County may not have heat during an emergency. The temperature and weather may be inclement so emergency supplies should include:

- Jacket or coat
- Long pants
- Long sleeved shirt
- Sturdy shoes and warm socks; boots
- Hat, mittens and scarf
- Sleeping bag or warm blanket

Maintaining your disaster supply kit:

- Keep canned foods in a dry place where the temperature is cool.
- Store boxed food in tightly closed plastic or metal containers to protect from pests and extend its shelf life.
- Throw out any canned good that becomes swollen, dented or corroded.
- Use foods before they go bad, and replace them with fresh supplies.
- Place new items at the back of the storage area and older ones in the front.
- Change stored food and water supplies every six months. Be sure to write the date you store it on all containers.
- Re-think your needs every year and update your kit as your family needs change.

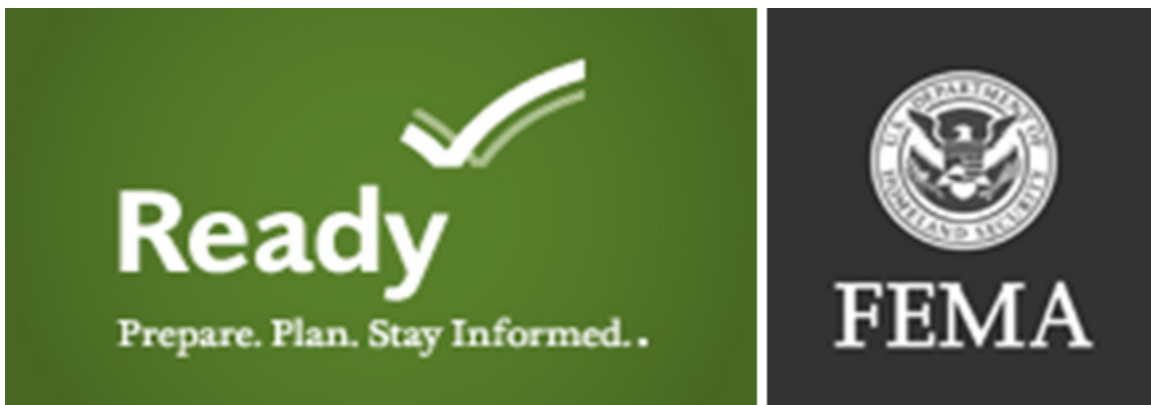
- Keep items in airtight plastic bags and put your entire disaster supplies kit in one or two easy-to-carry containers, such as an unused trashcan, camping backpack, duffel bag, or pull-along bag.
- Never let your vehicle gasoline tank go below one-half tank.

KEY POINT

✓ *A good reference for home emergency preparedness is the FEMA document, “Are You Ready?”*

Online information at <http://www.ready.gov> is another valuable reference that is updated regularly.

Workplace emergency preparedness is similar to home preparedness



NIMS Activation Levels

The NIMS activation level is the organizational structure required to coordinate the response. There are five activation levels, from *least to most severe*.

- **TYPE 5** can be handled by the Incident Commander (IC) with one or two resources
- **TYPE 4** incidents require more resources, such as mutual aid, but usually is resolved within one workshift
- **TYPE 3** requires an expanded IC Structure, a written Action Plan and multiple work periods
- **TYPE 2** local capacity is exceeded, has full IC Staffing but less than 500 people
- **TYPE 1** is the most complex and requires national resources

Most incidents in Cuyahoga County are type 5 or 4

Community Preparation Through Outreach

ICs can help residents of their communities prepare through public speaking, making information available online, and sharing information via community newsletters. For example, the City of Brecksville's home page has a direct link to a [comprehensive emergency preparedness manual online](#).

Other examples of fairly comprehensive web sites for home emergency preparedness include [Cleveland Heights](#) and [Shaker Heights](#), but these sites are harder to find because they are several links away from the cities' home pages. The City of Beachwood has brief information on sheltering in place, followed by a link to more information via the [American Red Cross fact sheet on SIP](#).



KEY POINT

✓ *A time-limited acute health crisis is defined as any short term (i.e. hours) incident that is an immediate threat to life and in which if no action is taken, loss of life is imminent.*



Time-limited acute health crises

Such incidents could include either accidental or intentional releases of toxic chemicals, biological agents or radioactive materials.

Examples of time-limited acute health crises in Cuyahoga County that may result in an order to evacuate or shelter-in-place are tornadoes, winter storms, floods, hazardous material releases, terrorism, radiological events, earthquakes, mudslides/landslides, and seiches (sudden fluctuation in Lake Erie's water level).



KEY POINT

- ✓ ***Evacuation*** is the organized, phased, and supervised withdrawal, dispersal, or removal of civilians from dangerous or potentially dangerous areas, and their reception and care in safe areas.
- ✓ ***Shelter-in-Place (SIP)*** is a process for taking immediate shelter in a location readily accessible to the affected individual.

KEY POINT

✓ *Awareness of emergencies occurs through:*

- Our senses (e.g. sight, smell and hearing)
- Sirens, the Emergency Alert System (EAS)
- The media and Public Information Officers (PIOs)
- Special alarms at facilities with hazardous materials

Why do people ignore alarms?

- Task persistence
- Denial and avoiding anxiety
- Social roles
- Risk perception
- Mental model
- Blinders

Incident Commanders cannot necessarily do anything about these natural tendencies, but they need to recognize and take them into consideration when making decisions regarding evacuation and SIP orders and communicating the importance of the evacuation and/or SIP order.



The First Person to Discover a Dangerous Situation

The person who initially discovers any type of dangerous situation must immediately take steps to insure their own safety and that of others around them. This usually involves moving themselves and others away from the hazard and/or to an area of refuge or shelter.

At the same time if possible, they must communicate the hazard to those who are nearby and then to the appropriate authorities. This should include dialing 911 as soon as possible to notify emergency responders. This is also true in the workplace.

ICs can also educate dispatchers and other call takers how to inform the general public on what action(s) to take if they are the first person to report the dangerous situation. They can also be certain that dispatchers and other call takers are collecting the critical information ICs need, including the nature of the danger, whether the danger is ongoing, whether people affected have been told to evacuate the immediate area, whether there are any injuries or victims, and whether the caller can describe conditions at the scene, even if they have left it.

KEY POINT

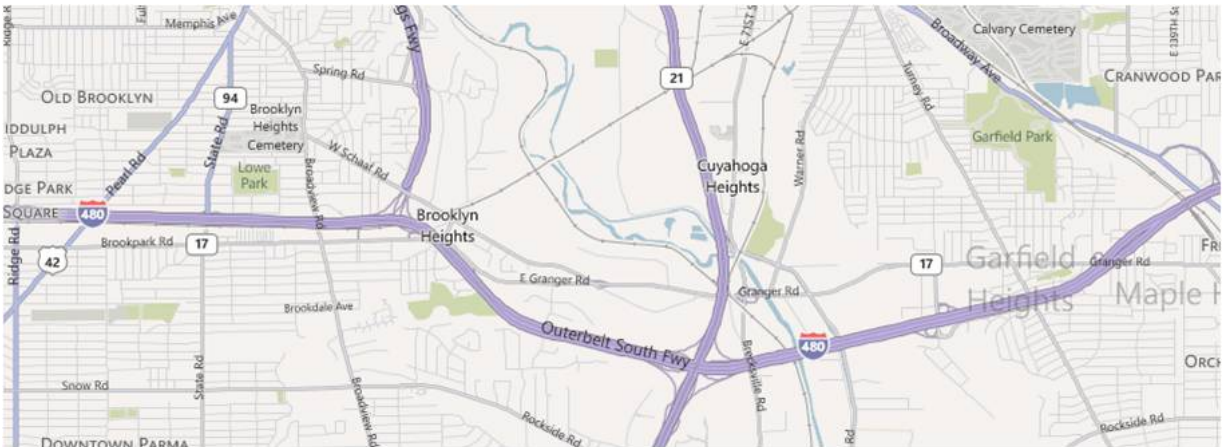
✓ *Know where to obtain instructions about an evacuation or SIP order.*

- Radio stations with Emergency Alert Systems (EAS) are WTAM 1100 AM and WCPN 90.3 FM.
- TV stations include WKYC TV 3, WEWS TV 5, WJW TV 8, WOIO TV 19, WVIZ TV 25 and WUAB TV 43.
- Some communities have mass notification or local emergency radio systems.



An example of a local emergency requiring evacuation

On March 25, 1991 a truck carrying a mixed load of different types of hazardous materials on Interstate 480 in Cleveland, Ohio suddenly caught fire. The driver immediately pulled over, disconnected the trailer from the tractor, and moved the tractor a safe distance away. The Cleveland Fire Department was notified and responded. They cordoned off the interstate, notified the hazmat team, and waited.



As a precaution, approximately 5,000 people were evacuated from an area approximately one square mile in size, including parts of Cleveland, Brookpark and Brooklyn. Evacuees were asked to go to local schools, and were not allowed to go back home until the next day.

Thousands of people's lives were disrupted that day, but no one was injured. This time-limited acute health crisis was effectively mitigated in part by the use of evacuation.



An example of a local time-limited acute health emergency

In 2009, an industrial facility had a nitric acid leak inside their facility. The facility manager notified the police and fire departments, the LEPC and Ohio SERC.

The police saw an orange plume over the facility and the fire department responded. The source of the cloud was a tank truck unloading product into a storage tank. The fire department and facility personnel secured and evacuated the area.

Hazmat was contacted, a command structure was set up and EPA was notified. The rail lines were shut down. No personnel were injured.



KEY POINT

✓ *Emergencies common to Cuyahoga County are tornadoes, winter storms, floods, hazardous material releases, terrorism, radiological events, earthquakes, mudslides/landslides, and seiches (sudden fluctuations in Lake Erie's water level).*



The following is more specific information about these disasters.

TORNADOES:

A tornado appears as a rotating, funnel-shaped cloud that extends from storm clouds to the ground, but rain or clouds can hide them. Tornadoes may be hard to see until they pick up dust or debris.

The sky is often a dark, greenish color before and during a tornado. Tornadoes often sound like a freight train and include hailstones.

A tornado **watch** means that tornadoes are possible. People should remain alert, watch the sky and stay tuned to NOAA Weather Radio, commercial radio or television for information. A tornado **warning** means that a tornado has been sighted or indicated by weather radar. People should take shelter immediately.

SEVERE WEATHER:

The Cuyahoga County Emergency Communications System (CECOMS) is staffed 24 hours a day and provides monitoring, notification, and warning to emergency response agencies and municipalities.

The National Weather Service (NWS) office provides the official weather forecast data, including winter storms, floods, tornadoes, thunderstorms, hailstorms, and any other weather related events.



FLOODING:

The NWS issues flood advisories. A flash flood occurs within 6 hours of excessive rainfall and poses a threat to life and/or property.

1. **Flash Flood Watch:** A flash flood watch typically occurs 6 to 24 hours in advance of expected flooding.



2. **Flash Flood Warning:** A flash flood warning is issued when flooding is occurring or imminent.
3. **Flood Warning:** A flood warning is declared when general flooding is occurring, imminent or likely.



HAZARDOUS MATERIALS RELEASES:

Sometimes a plume of a gaseous chemical can be seen, however not all chemicals are visible. The only indicator might be a strange odor. People may have difficulty breathing or experience irritation of the eyes, skin, nose or respiratory tract. They may have headaches, blurred vision,

or changes of skin color, dizziness, clumsiness or lack of coordination, or gastrointestinal effects like cramps or diarrhea.



RADIOLOGICAL DISPERSION DEVICE (DIRTY BOMB)

Only first responders will be able to distinguish a conventional explosion from an explosion that disperses radioactive materials. Notification will then be made by EAS, media announcements, and direct contact with responders.

NUCLEAR/RADIOLOGICAL:

There are four emergency classification levels at nuclear plants. People who live near nuclear power plants should be aware of these levels, but only need to take action if told to do so.



Four emergency classification levels at nuclear plants:

1. **Unusual Event** - A small problem has occurred. No radiation leak is expected. Federal, State and County officials will be told right away. You will not have to do anything.
2. **Alert** – This is also a minor problem. You should not have to do anything.



3. **Site Area Emergency** – This is a more serious problem. Small amounts of radiation could leak from the plant. If you hear sirens, listen to a radio or TV station that broadcasts EAS messages. Federal, State, and County officials will help if you need to act.
4. **General Emergency** – This is the most serious problem. Radiation could be released outside the plant. When you hear the sirens, listen to the EAS radio or TV stations for instructions.



EARTHQUAKE:

Northeastern Ohio is the second most active earthquake area in the State. At least 20 earthquakes occurred here since 1836.

However, based on geology, Cuyahoga County has a low risk for damage due to an earthquake. Ohio has twenty-two seismographic monitoring stations (OhioSeis). Cuyahoga County has one station located at the Cleveland Museum of Natural History.



KEY POINT

- ✓ *Understand county, regional, state and federal protocols for emergency response*

County protocol for emergency response:

- Ohio Revised Code (ORC) 5502.26 requires every county to have an emergency management agency.
- The Cuyahoga County Office of Emergency Management (OEM) is responsible for coordinating emergency response.
- Each municipality should have its own Emergency Operations Plan (EOP) developed according to the FEMA guidelines.

Federal Protocols for Emergency Response

Federal protocols for emergency response are located in the Robert T. Stafford Disaster Relief and Emergency Assistance Act, NIMS, and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), which was amended by Superfund Amendments and Reauthorization Act (SARA) of 1986.

- The Governor of Ohio has the authority to ask the President to declare an emergency within the State. The President would then determine whether or not the emergency requires federal assistance.
- When the President issues an emergency, there will be a minimum of three national response teams. Each team will coordinate with state and local officials. The National

Response Framework is located within NIMS and provides the structure and mechanisms for incident management.

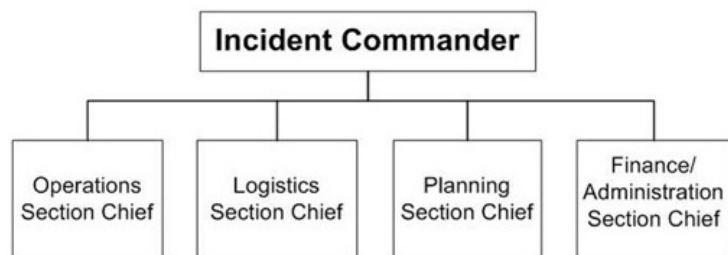
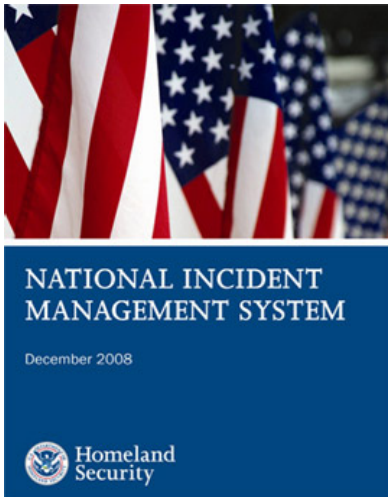
- CERCLA is a federal statute that deals with hazardous substances and any releases involving hazardous substances.

KEY POINT

✓ *The National Incident Management System or NIMS is used to coordinate emergency response locally and throughout the U.S.*

NIMS is a simple framework and easy to implement.

Anyone can take the training for free on the web at <http://training.fema.gov/>.



KEY POINT

✓ *Understand who has the authority to issue an evacuation or SIP order.*

The fire chief has the authority at the scene of a fire or other emergency involving the protection of life or property (ORC 1301:7-7-01 section 104.11) and in emergencies related to hazardous materials (ORC 3737.80).



Declaration of an emergency by CCEMA manager

According to the Cuyahoga County Emergency Operations Plan (2010), when the CCEMA Manager deems that a declaration is necessary, the following sequence of events shall occur:

- The Emergency Management Manager shall notify the Department of Justice Affairs Director and describe the nature of the event and potential need to declare a Local State of Emergency.
- The Justice Affairs Director shall advise the Deputy County Administrator of these recommendations and forward them to the County Administrator.
- The County Administrator or his designee shall advise the Chairman of the Board of County Commissioners (BOCC) and request signature of a prepared State of Local Emergency Declaration.
- Upon execution of the Local State of Emergency Declaration, all municipalities in Cuyahoga County will be notified.
- Conference calls will be scheduled with impacted communities and EOC staff.
- The Public Information Officer will prepare and release appropriate announcements advising the public of the nature of the emergency.

KEY POINT

✓ *Understand the "8 Cs" of crisis communication.*

The Cuyahoga County Crisis Communications Plan states that good crisis communication must have the following general characteristics, commonly called the "8 Cs."

- Concise
- Confirmable
- Credible
- Consistent
- Current
- Clear
- Compassionate
- Candid



KEY POINT

✓ *Know how to communicate an evacuation or SIP order to building managers or the general public.*

ICs are accustomed to communicating their decisions to property managers on a one-to-one basis when the emergency affects only one building or a small number of occupancies. However, ICs must also know how to communicate with large numbers of managers and to the general public when their decisions will affect many people, as in the case of a large-scale evacuation. This can be done in a number of ways:

1. If the IC wants to communicate with the residents and businesses in a small section of the city (12 blocks, for example), he/she can communicate with local law enforcement via radio or through his/her own dispatch and request that they notify people door-to-door.
2. If the IC wants to communicate with all or a portion of the Central Business District (CBD), one way to do so is to contact CECOMS through Cleveland Fire Dispatch.
3. If the IC wants to communicate with a larger area, he/she should activate the Cuyahoga County Emergency Alert System by contacting CECOMS at 216-771-1363.
4. Incident Commanders should also be aware that Cleveland State University, Cuyahoga Community College, and Case Western Reserve University all have a notification system in place that can be used to communicate with these campus communities. ICs can access these systems by contacting CECOMS.
5. Some municipalities have a municipal siren warning system or other mass notification system or local emergency community radio system. The IC should be aware if their city has such notification systems, and if so, how to activate them.
6. Any combination of these methods can be used to reach the greatest number of people in the shortest time, and ICs should consider using more than one method of notification. CCEMA will assist ICs with notification, so the first notification the IC makes may be to the CCEMA through CECOMS.

KEY POINT

✓ *ICs must know how to establish effective collaboration and communication with elected officials regarding evacuation and SIP orders.*

A 2010 survey of Cuyahoga County mayors and city managers indicated that some believe that they can issue an evacuation or SIP order. Fire chiefs and police chiefs were asked a similar question during a focus group, with fire chiefs believing that they had the authority and responsibility.

These responses reveal a need for a clear understanding of decision making authority among safety directors, elected officials and ICs and suggest that there could be conflict during a major incident. This conflict should be avoided by clearly defining authority before an incident, through local legislation if necessary.

KEY POINT

✓ *Know how to access additional resources in an emergency.*

Emergency Support Functions: The CCOEM EOP is NIMS compliant and has a list of fifteen Emergency Support Functions (ESF) are listed. CCOEM has identified roles, responsibilities, resources and support agencies for each ESF.

ICs should be aware of this plan, especially ESF #7 (Logistics Management and Resource Support). Response from these support entities can be initiated by contacting CCOEM via CECOMS.



County Emergency Resource System: The CCOEM maintains a database of resources such as supplies and equipment that can be accessed by public officials for use in mitigating an emergency within the county.

Any local community can request resources from the County Emergency Resource System (CERS) by calling CECOMS and making a request (this is usually only done when a jurisdiction has exhausted their respective resources).

Emergency Mutual Aid Compact (OEMC): OEMC is a congressionally ratified organization that provides form and structure to interstate mutual aid. Through OEMC, a disaster-affected State can request assistance from other member States quickly and efficiently, resolving two

key issues up front: liability and reimbursement (CCEOP definitions). Access to OEMC is through CECOMS and will be coordinated by CCOEM.

Intrastate Mutual Aid Compact (IMAC): IMAC complements existing mutual aid agreements in the event of a disaster that results in a formal declaration of emergency by a participating political subdivision.

The program provides for mutual assistance among the participating political subdivisions in response to and recovery from any disaster that results in a formal declaration of emergency by a participating jurisdiction (CCEOP definitions).

Access to IMAC is through CECOMS and will be coordinated by CCOEM.



ODPS Ohio Emergency Management Agency **Ohio Intrastate Mutual Aid Compact (IMAC)**

KEY POINT

✓ ***Know how to overcome communications interoperability problems at a multi-jurisdictional incident.***

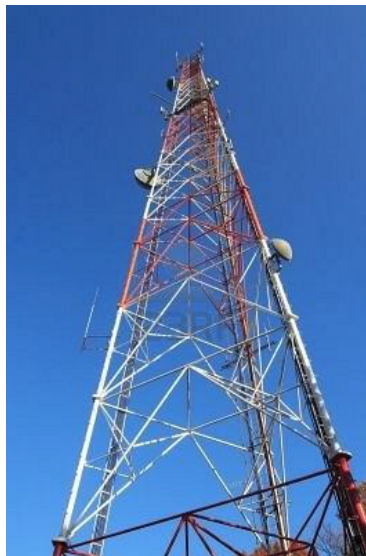
In an IC focus group, police and fire commanders expressed concern over interoperability of communications, specifically radios. Currently, police and fire departments in Cuyahoga County do not have one radio system that is interoperable, but are working on this goal.



Multi-Agency Radio Communications System (MARCS)

All police and fire departments in Cuyahoga County have access to Multi-Agency Radio Communications System (MARCS) radios, which is a statewide digital radio system that allows subscribers in all parts of Ohio to communicate. Police and fire commanders in Cuyahoga County should bring their MARCS radios and their jurisdiction's radio to the command post at a major inter-jurisdictional incident.

Decisions made by the unified command can then be passed along to the troops on the ground via MARCS radio or jurisdictional radio, whichever is appropriate. Fire and police commanders should continue to work and train together to work out communication issues.



KEY POINT

✓ *Know the components of pre-planning*

ICs can help prevent hazardous materials releases and prepare for responses to releases by pre-planning with facilities within their jurisdictions.

- When conducting a pre-planning visit, ICs should meet the facility manager and/or facility emergency manager/planner. ICs should get to know these people so that a relationship is already in place before a release occurs.
- ICs should become familiar with the facility's emergency operations plan.
- They should find out what chemicals are used and stored at the facility, where they are stored, and precautions that have been taken to ensure safety of those chemicals.
- The IC should request a copy of the facility's risk management plan (RMP) in order to develop a more complete picture of potential release responses.



- ICs should also look for hazards, unsafe practices, and poor housekeeping in these facilities.
- The IC should also pay careful attention to the area surrounding the facility noting who may need protection during a release.
- ICs could offer or arrange for training for the residents in any neighborhoods surrounding EHS facilities.
- When conducting pre-planning visits, ICs should work with the facility manager to set up a plan that allows the IC to access specific information on site in the event of a release. This plan should be available 24 hours a day, even if the facility is closed for business. One way to accomplish this is to train security guards to gather and communicate as much of this type of information as possible.

The fire department IC will need all of the information that a facility manager would include in an initial release report, along with information about life safety.



According to the Ohio EPA, the IC needs to know:

Life Safety information:

- Are all employees and visitors accounted for? If not, what is the last known location of the missing?
- Is anyone contaminated?



Release information:

- Name and phone number of the person to contact for further information.
- Location and source(s) of the release or discharge.
- Chemical name and identity of any substance(s) involved in the release or discharge.
- Is the substance extremely hazardous?
- Estimate of the quantity (gallons or pounds) discharged into the environment.
- Time and duration of the release or discharge.
- The environmental medium or media into which the substance was released or discharged.
- Potential health effects associated with the release or discharge of the substance.
- Precautions taken, including evacuation, remediation, or other proposed response actions.

KEY POINT

✓ *Understand why and Incident Commander might choose to SIP populations with special needs or large populations rather than evacuate them.*

Incident Commanders recognize that responders are ill-equipped to provide these special accommodations, and that attempting to evacuate them would be time and resource intensive.

Incident Commanders thus might decide to shelter them in place rather than evacuate them and risk exposing them to the hazard.



KEY POINT

✓ ***Know how to obtain information about facilities that store and use hazardous materials.***

ICs can prepare for releases by obtaining facility information in advance. Facilities that use and store hazardous materials are required to report this information annually to the State Emergency Response Commission (SERC), the Local Emergency Planning Committee (LEPC), and their local fire department.

There is a considerable amount of information available from the LEPC, including maps of vulnerability zones and release scenarios. ICs can access this data through CAMEO Facilities, one of the three programs that comprise the CAMEO suite. Using this data in conjunction with facility pre-planning visits will give the IC access to a wealth of information about hazardous materials in local facilities.



KEY POINT

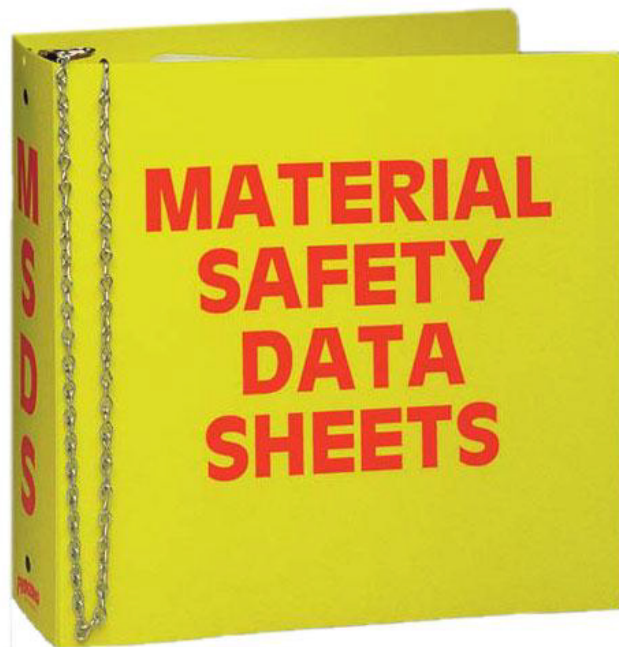
✓ *Know how to obtain information after a release occurs.*

If the facility has complied with reporting requirements, and the IC has pre-planned adequately, much of the necessary information will be available if a release occurs. This means that controlling the release and protecting the public will be more rapid and effective. However, incident-specific information must still be gathered as part of a response to a hazardous materials release.

One way to access information en route is via mobile data terminal (MDT). Fire department response vehicles that are equipped with MDTs enable firefighters to view hazards associated with a particular address while en route to that address.

Once on scene, ICs need real-time data about life safety issues and specific chemical release information as detailed above. As soon as they arrive on the scene, ICs might also request copies of material safety data sheets (MSDS) for the released chemicals and facility emergency response plans. If the chemical that has been released is listed in the Clean Air Act, facilities should also have maps that are similar to those contained in the Cuyahoga County LEPC SARA plan that show the pre-planned vulnerability zone.

The zone describes how far a toxic cloud could travel off site in the event of a major chemical accident. Having access to this data could help an IC decide whether to evacuate an area and how large an area would need to be evacuated. ICs should request all available data as soon as they arrive on scene at any reported release.



KEY POINT

✓ *Understand through an example why pre-planning and effective communication is so important.*

In August 2008, a runaway chemical reaction at a pesticide production plant in Institute, West Virginia caused an explosion and fire that killed two workers and injured many other people, including five firefighters.

Initial 911 calls from the plant to the local emergency dispatch center requesting help lacked vital information about the hazard.



An example of why pre-planning and effective communication is so important

The caller requested an ambulance but told dispatchers that he was not allowed to give specific information. For the first six hours, firefighters did not know that the plant fire involved burning pesticides and that 80 feet from the involved structure was a tank containing more than 13,000 pounds of highly toxic methyl isocyanate (MIC), the same poison that killed thousands in Bhopal, India on December 2, 1984.

Due to the lack of communication, firefighters were injured, and the potential release of the MIC could have killed or injured many more. It is important to note that in this incident, the facility refused to provide critical information to emergency responders due to a mistaken belief about chemical security.

Pre-planning contacts with facility managers should clarify that the facility must not withhold hazard information and stress that facilities may be prosecuted for withholding information from emergency responders.

KEY POINT

✓ *Know the substances that are subject to release reporting.*

Managers of facilities that use and store hazardous materials must know how to properly report a release of these materials. Incident Commanders must know how to report releases because they may be the first to arrive on the scene after a third party report, in which case they may arrive before any notifications have been made. In this case, ICs should begin the proper notifications.

An excellent reference that should be available to all ICs and managers of facilities that store and use hazardous materials is the Facility Reporting Compliance Manual (FRCM). This document is also an excellent preparation resource for instructors of this target group. It is available online at <http://www.epa.state.oh.us/portals/27/serc/SERCFacilityBook2010.pdf>

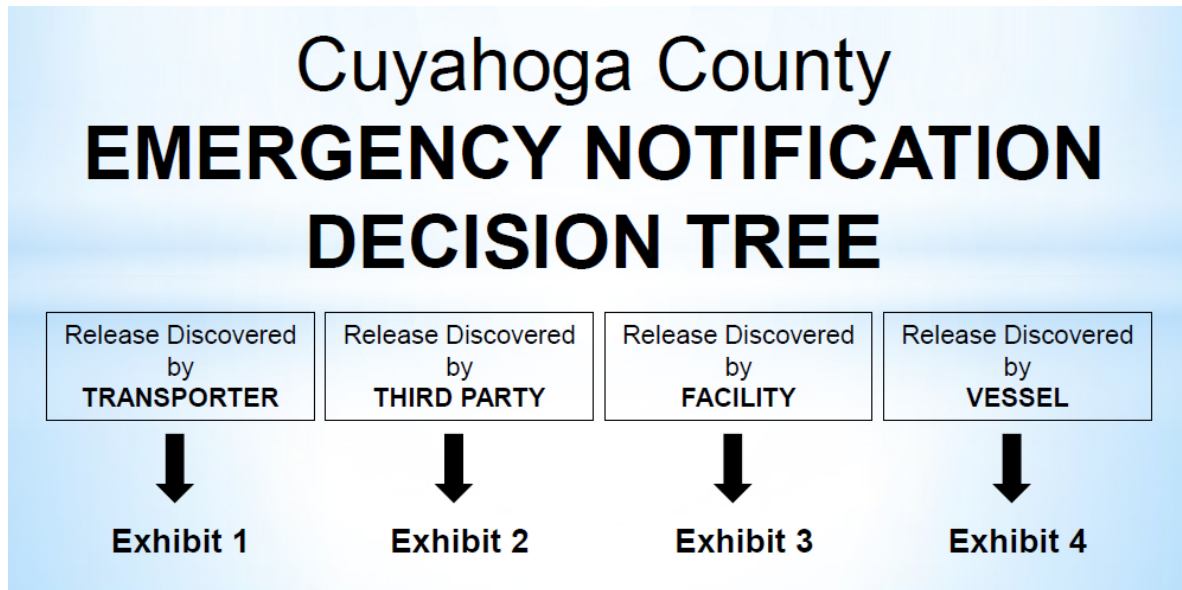


From the FRCM: An owner or operator is required to report a release or discharge under 3750.06 of the Ohio Revised Code anytime there is a release of a regulated chemical which exceeds its assigned Reportable Quantity (RQ) and leaves the facility property line. The regulated substances subject to the release reporting requirements are referenced below:

1. Extremely Hazardous Substances 40 CFR; Part 355; Appendix A and B,
2. CERCLA Hazardous Substances 40 CFR Part 302; Table 302.4, and
3. Oil (definition includes without limitation to, gasoline, petroleum, fuel oil, sludge, oil refuse, and oil mixed with wastes other than dredged spoil).
 - a. The Reportable Quantity (RQ) for the discharge of oil including crude oil into or upon navigable waters is an amount which causes a visible film or sheen upon the surface of the water;
 - b. The RQ for the release of oil into the environment, excluding navigable waters, is an amount of 25 gallons or more; and
 - c. The RQ for the release of crude oil from an oil and gas extraction storage facility into the environment, excluding navigable waters, is 210 gallons.

KEY POINT

✓ *Know how to make decisions regarding reporting releases via a decision-tree analysis.*



The Cuyahoga County SARA Plan Decision Trees

The Cuyahoga County SARA Plan provides four decision trees to aid managers in making proper notifications in the event of a release of a hazardous material. The burden of notification may fall upon different individuals, depending upon the type of incident or the person discovering the release.

These decision trees, located in the SARA plan on pages B-8, B-11, B-14 and B-17 ([found online at the LEPC web site](#)), demonstrate how reporting requirements can be met for four different scenarios:

1. Release discovered by a transporter such as a truck driver
2. Release discovered by a third party
3. Release discovered by a facility employee or manager
4. Release discovered by someone on a vessel such as a ship or barge

KEY POINT

✓ *Understand how facility managers report both immediate and follow up actions to a release*

These notifications should be made in the order given and within 30 minutes of discovering the release if possible.

- Notify the local fire department by dialing 911. The manager should do this within 30 minutes of becoming aware of the release.
- Notify the LEPC/SARA Information Coordinator within 30 minutes by calling CECOMS.
- Notify the NEORS if applicable. From Chapter 9, section 1.0920 of the Sewer Use Code: *“In the event of any accidental release to the system of any unacceptable discharge or of any substances or materials considered by the District to be toxic or deleterious as provided in this chapter, it shall be the responsibility of the user to notify the District immediately, and in no case later than one (1) hour following such a discharge, at telephone number 216-641-6000 (216-641-3200 off hours) so that remedial action can be taken.”*
- Notify the Ohio EPA, State Emergency Response Commission at 1-800-282-9378. If release is a CERCLA substance, notify the National Response Center at 1-800-424-8802.

The City of Cleveland’s fire dispatch center has a protocol so that ICs do not need to make specific notifications. They can simply make one radio transmission to the dispatch center and they will make all of the appropriate notifications. This system allows the IC to concentrate on directing operations on the scene.

However, not all communities have this type of system. An alternative method is to prepare field operational guidelines (FOG) and a template for an incident action plan.

These FOGs can be adapted to almost all types of incidents.

KEY POINT

✓ ***Understand what information facility managers must report for a release.***

- Name and phone number of the person to contact for further information.
- Location and source(s) of the release or discharge.
- Chemical name or identity of any substance(s) involved in the release or discharge.
- Is the substance extremely hazardous?
- Estimate of the quantity (gallons or pounds) discharged into the environment.
- Time and duration of the release or discharge.
- The environmental medium or media into which the substance was released or discharged.
- Potential health effects associated with the release or discharge of the substance.
- Precautions taken, including evacuation, remediation, or other proposed response actions.

KEY POINT

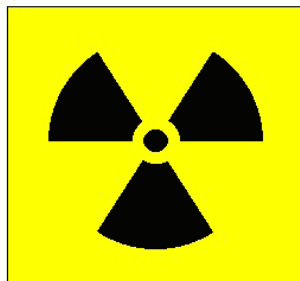
✓ *Know what report facility managers must submit within 30 days after a release*

Know that within 30 days after a release, facility managers or representatives of the company that caused the release must submit a follow-up report to the Ohio EPA Emergency Response Section and the LEPC.



KEY POINT

✓ *Know how a facility manager is supposed to report a release of a radiological material*



Radiation Safety

How a facility manager is supposed to report a release of a radiological material

In the event of a release of any radioactive material, facility managers must call the Ohio Department of Health Bureau of Radiation Protection 24 hour line at 614-644-2727. Their emergency line is 614-722-7221.

These notifications are in addition to the notifications detailed above in the “How to report a release-immediate actions” section. Staff at the Bureau of Radiation Protection will report the information to the Nuclear Regulatory Commission if appropriate.



The Cuyahoga County Board of Health (CCBH) does not have the capability to respond to a radiological release but they would like to be notified of any releases in Cuyahoga County.

KEY POINT

✓ ***Know how a facility manager is supposed to report a release of a biological agent***

CCBH should be one of the first to be notified in the event of a release of a biological agent on their 24 hour disease reporting line at 216-857-1433. Note however that a facility manager may not even know of a biological release for 3-7 days because people may be asymptomatic. The facility manager and in turn, the IC should give as much information as possible about the release, specifically what material was released, the amount, the location, and if there were any confirmed or potential exposures.

Since the CCBH is the lead agency in the CCEOP ESF #8 (Public Health and Medical Services), they will respond to the scene of a release of a biological agent to coordinate response activities. CCBH staff are NIMS trained, prepared to operate within a Unified Command structure and to work with the Cleveland Fire Department hazardous materials specialists to identify and isolate the biological agent. They will also provide secondary support services such as coordination of mass dispensing of prophylaxis if appropriate, epidemiological surveillance and contact tracing. In addition, the CCBH can provide information for broadcast to the public.

ORC 3701.201 requires the reporting of events that may be caused by terrorism, epidemic or pandemic disease, or established or novel infectious agents or biological or chemical toxins posing a risk of human fatality or disability.

There are three classes of disease as defined by law, Class A, Class B, and Class C. Class A must be reported by telephone to the local health department.

Class A includes Anthrax, Botulism, Cholera, Diphtheria, Influenza A, Measles, Meningococcal, Plague, Rabies, Rubella, SARS, Smallpox, Tularemia, Viral hemorrhagic fever, and Yellow Fever. **Class B and Class C** requires a reporting by the end of the next business day. Class B requires the existence of a case, a suspected case, or a positive laboratory result. Class C is a less serious outbreak in the community, an institution, or related to healthcare.



KEY POINT

✓ *Understand the consequences of failure to comply with release reporting requirements.*

Compliance with release reporting is mandatory. The LEPC has the power to take enforcement action against facility managers, and has done so.

In accordance with ORC 3750.99, failure to comply with release reporting requirements can result in a felony conviction, a fine of \$10,000 to \$25,000 and 2-4 years in prison. Each day of violation is considered a separate offense.



KEY POINT

✓ *Know the types of evacuations defined in the Cuyahoga County evacuation and sheltering annex.*

There are three categories which to define the types of evacuation. They are:

- Minor
- Major
- Catastrophic

Minor Evacuation:

- Involves less than 1,000 persons for less than eight (8) hours.
- Usually ordered by police or fire in response to a fire, haz mat incident, a flash flood, or police incident.
- Affects a limited geographic area and a small to moderate number of people. Operations are concluded quickly, so sheltering is only needed during severe or inclement weather.

Major Evacuation:

- Involves more than 1,000 persons for more than eight (8) hours.
- Ordered due to a major disaster (or threat of disaster) such as a major hazardous material spill, or a flood.
- Will include significant emergency sheltering operations and may include a Declaration of a State of Emergency.



Catastrophic:

- An evacuation of most of or the entire county to points of safety outside the geographic area. Although CCOEM has not yet identified any scenario that might lead to a precautionary evacuation of the entire County, the plan includes a framework for a catastrophic evacuation.



KEY POINT

- ✓ *Know analytical tools available in Cuyahoga County for evacuation and SIP decision-making.*

Emergency Response Guidebook (ERG):

- Also called the "orange book" the ERG is updated every four years. The 2012 edition is the current one.
- It is intended for use by all first responders during the initial phase of a hazardous materials incident.
- It uses a step-by-step method to help first responders identify the hazardous materials involved and then directs them to one of 62 guides that give responders hazard and response information.
- It includes initial isolation and protective action distances.
- This book will probably be the IC's first reference in making evacuation/SIP decisions, but should not be the only reference used.

SARA plan

- Facilities that use and store extremely hazardous substances (EHS) are required to submit annual data to the LEPC.
- The LEPC does worse-case scenario planning, and this information is available to ICs upon request. These plans are immediately available to ICs if they are stored on a computer in a fire department vehicle.
- The plans include pre-planned vulnerability zones. If these plans are available, ICs could order an evacuation or SIP based that information.



OEM/Hazmat

- Uses Vulnerability Planning to estimate the geographic area potentially affected by a release of an EHS and to identify the population, critical facilities, and sensitive environmental areas that would be at risk.
- The zone is a circular area with the facility at the center. The radius of the Vulnerability Zone (VZ) depends upon the quantity and rate of release, meteorological conditions, surrounding topography, and toxicity of the substance. For planning purposes, the estimate of the VZ is based on worst-case assumptions regarding these variables.
- OEM/Hazmat uses the software package Computer-Aided Management of Emergency Response (CAMEO) to calculate the VZ. The population within the zone is determined and presented in the SARA Plan. The facility-specific information is used in calculating the VZs.



Computer-aided management of emergency operations (CAMEO):

- This suite of three computer programs is free and available to all responders.
- All hazmat teams in Cuyahoga County have CAMEO loaded on their computers in their vehicles.
- One of the programs, ALOHA (Areal Location of Hazardous Atmospheres), models plume migration. This program can help an IC predict the direction of travel of a plume, its time of arrival at a given point, and how many people will be affected.
- ICs can use this program for evacuation decision making.



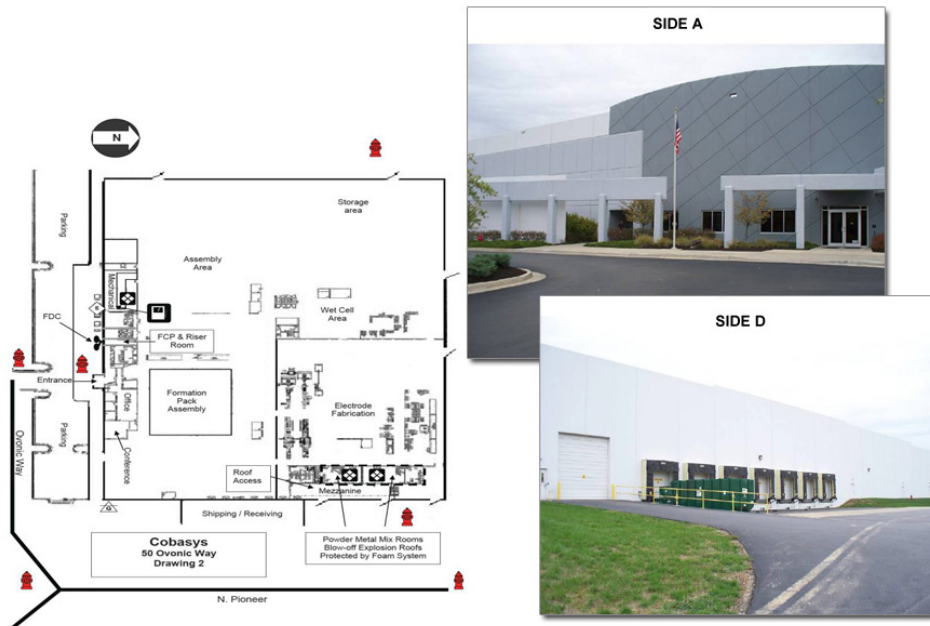
Other common software tools for evaluating hazardous materials incidents:

- WISER (Wireless Information System for Emergency Responders) provides substance identification, physical characteristics, human health information, and containment and suppression advice.
- PEAC-WMD is a fully integrated Hazmat and CBRNE decision support system.
- HotSpot can be used for evaluating incidents involving radioactive material and for safety analysis of facilities handling nuclear material.



Fire Department Pre-plans:

- Facilities that use and store EHS are required to communicate with the local department. ICs should also request their risk management plans and incorporate them into pre-plans.



KEY POINT

✓ *Know the steps to take when arriving on the scene of a hazmat release.*

The population protection decision revolves around two questions:

1. Will SIP be feasible and protect the at-risk population?
2. Will evacuation be feasible and protect the at-risk population?

Decisions may be straightforward or very complex and often must be made quickly, without all of the necessary information. The decision can be more like an educated guess. Decisions must be made in accordance with the unified command model and in consultation with hazmat professionals.

KEY POINT

✓ *Know Incident and Community-specific factors that affect evacuation and SIP decisions*

ICs must consider all these factors:

1. Public preparedness. If the public is trained they will be able to execute an order.
2. Chemical characteristics. The toxicity, reactivity and physical state of a hazardous material determines how dangerous it is to the population.
3. Time of release. A release that occurs in a residential neighborhood at midmorning on a weekday may threaten far fewer people than one that occurs at midnight when most people are in their homes sleeping.
4. Weather conditions. Rain can help “knock down” a plume while wind can disperse one.

5. Population density. A evacuation can lead to gridlock in densely populated areas.
6. Other considerations include: terrain; ingress/egress; routes of travel; topographical conditions; modes of transportation available; condition of people affected (ambulatory or non-ambulatory); and so on.

Appropriate resources should be requested as soon as an IC determines that a release has occurred, including the closest hazmat team. There are four teams in Cuyahoga County:

- Cleveland Fire Department Hazardous Materials team
- West Shore Hazmat team
- Chagrin/Southeast Hazmat team
- Southwest Emergency Response team



A command post is established once the IC arrives on the scene. Safety considerations such as wind direction, terrain and visibility to the incident are taken into consideration but as the incident changes, the command post may need to be relocated and ICs should plan for that.



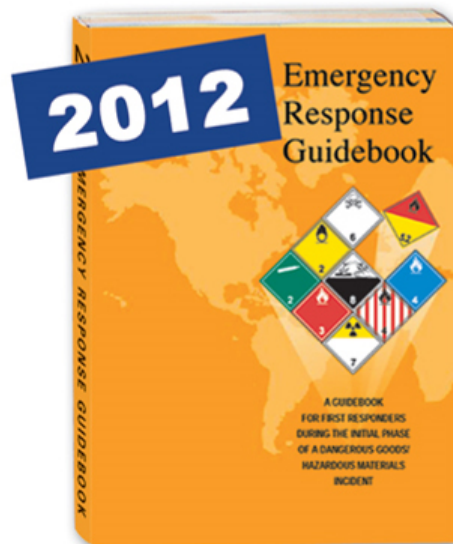
KEY POINT

✓ *Know the 6-step process for making decisions about evacuation and SIP in the event of a chemical release.*

Step 1: Determine the characteristics and identity of the released chemical.

- The physical state of a chemical, its density in relation to air, and its vapor density influence how fast the chemical will be released and the concentration once it escapes from its container. This is important because it influences whether people will have enough time to evacuate.
- Generally, gaseous hazardous materials are more dangerous than liquids or solids. Materials that have a vapor density of greater than 1 are heavier than air and will tend to hug the ground and will not dissipate as readily. Chemicals that have a high vapor pressure tend to volatilize quickly and produce a more concentrated plume than materials with a relatively low vapor pressure.
- As previously mentioned, the IC should conduct pre-planning visits to local facilities to become familiar with chemicals that are used and stored there.
- If the release is caused by a transportation incident, the IC should identify the substance through the placard and information provided on the bill of lading or shipping papers.
- After identifying the released substance, the IC should refer to the ERG for initial isolation and protective action distances. The ERG may be the IC's only resource early

in an incident and the only tool that is available to assist with evacuation and/or SIP decisions.



Step 2: Determine the characteristics of the release.

- If possible the IC should find out from facility personnel how much of the chemical was released and how quickly.
- If the release is still occurring, the IC should attempt to ascertain the rate and an estimate of how much chemical will be released before it can be stopped. These factors help determine the concentration of the plume.

The length of release also helps to determine whether SIP will be a good strategy.

Immediately Dangerous to Life and Health (IDLH) value

The National Institute for Occupational Safety and Health (NIOSH) uses Immediately Dangerous to Life and Health (IDLH) values as respirator selection criteria. The Occupational Safety and Health Administration (OSHA) defines an IDLH as an atmospheric concentration of any toxic, corrosive or asphyxiant substance that poses an immediate threat to life or that would cause irreversible or delayed adverse health effects or would interfere with an individual's ability to escape from a dangerous atmosphere. <http://www.cdc.gov/niosh/idlh/idlhintr.html>



Three Groups of Chemicals based on Toxic Load:

ICs should also be aware that chemicals can be divided up into 3 groups relative to their toxic load.

1. Peak chemicals - affect the body more when exposed to higher concentrations. This means that a lower concentration exposure is less harmful, so steps taken to reduce the concentration (like SIP) may be effective protective actions. Some examples of peak chemicals are chlorine, ammonia, hydrogen sulfide, nitrogen dioxide and hydrogen fluoride.
2. Cumulative chemicals - are more harmful when exposure is for extended periods of time at any concentration. Actions taken to reduce the concentration are not the protective action of choice for these chemicals; instead, the IC should attempt to eliminate exposure to these chemicals. SIP would not be the protective action to choose for these types of chemicals. If time and resources allow, evacuation would be a better choice. Methyl isocyanate, the chemical that was accidentally released in Bhopal, India in 1984, is an example of a cumulative chemical.
3. Immediate dosage chemicals - also called one-shot chemicals, these chemicals are harmful to the body with one exposure at any concentration. The IC should attempt to evacuate anyone who could potentially be exposed to these types of chemicals. Examples of immediate-dosage chemicals are VX and mustard gas (not common in the United States) and organophosphate pesticides (very common).



Step 3: Determine Potential Meteorological conditions at the site.

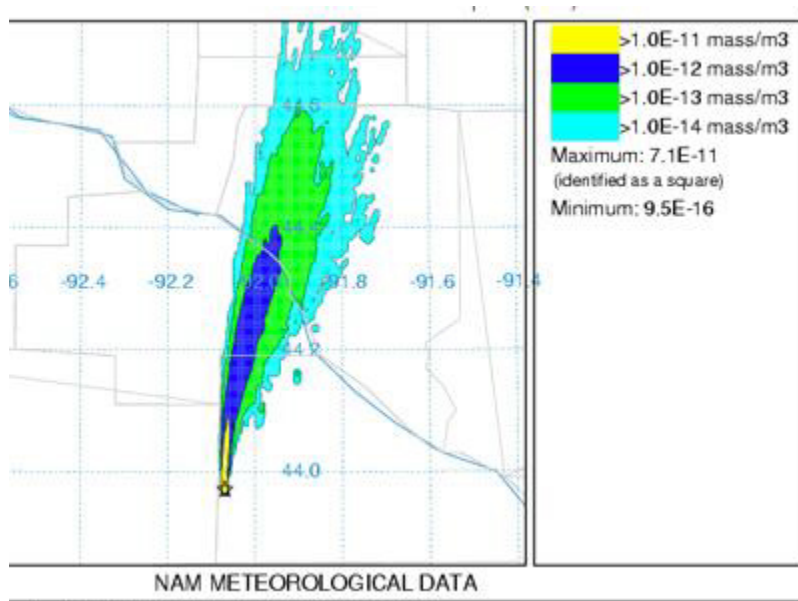
- Wind speed and direction determine which areas will be affected by a chemical plume.
- Precipitation can help knock down a chemical plume.
- Temperature inversions can keep a chemical plume close to the ground.

The worst case scenario for a hazardous materials release would be a light (or no) wind condition combined with stable atmospheric conditions. This set of conditions would keep a chemical plume close to the ground with minimal dissipation.

Step 4: Collect data on structures surrounding the facility.

- This step should be completed before a release occurs.
- Knowledge of the age, construction type and general condition of structures in a jurisdiction is something that most ICs have built through years of experience and inspections.

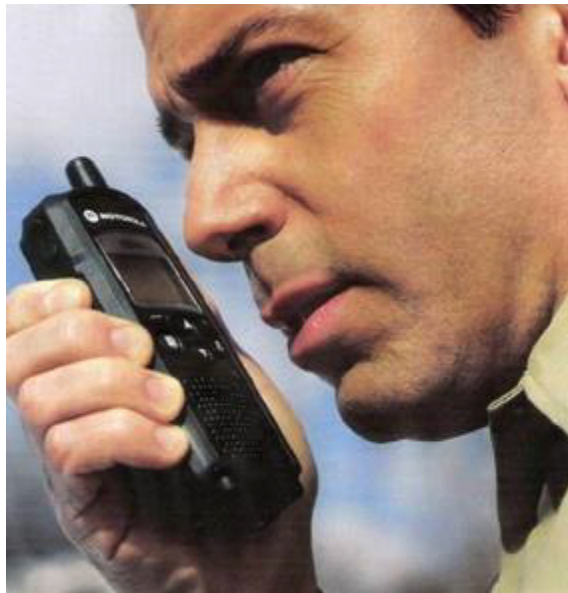
These factors are important because an IC must decide whether the buildings that will potentially be engulfed by a chemical plume are adequate shelters for the people inside. If the structures are old, poorly constructed, or poorly maintained, they may not provide adequate protection against a chemical plume.



Step 5: Estimating the time available before the area is contaminated.

- The two most important factors that affect the time available before an area becomes contaminated are the characteristics of the release and the weather conditions. An IC should have a computer modeling tool such as CAMEO available in order to determine

how long it will take for an area to be affected. This is why it is vital for ICs to contact the hazmat team early in any suspected chemical release.



Step 6: Estimating the time required for implementing protective actions.

- This is possibly the most difficult of the six steps because there are so many factors involved, and each factor takes an indeterminate amount of time.
- Adequate time must be allowed for all phases of the evacuation, including:
 - Reaching a decision to evacuate
 - Mobilizing community evacuation resources
 - Communicating appropriate protective action instructions to the public
 - Individual mobilization of resources to leave the area at risk
 - Completing the physical evacuation of people occupying the affected area

KEY POINT

✓ *Understand the special considerations for facilities with special needs and/or large populations.*

- Large buildings generally have lower air exchange rates than residential structures and therefore provide better protection for purposes of SIP
- Evacuating buildings that house people with special needs is a time and labor intensive process that will most likely overwhelm the available resources
- Schools have special needs because they cannot simply send their students home. A procedure must be in place for contacting parents and then releasing custody of the students to the parents. This is a time-consuming process and will add to the traffic congestion around the incident area.

- Similarly, evacuating a large population such as an apartment building or an arena or stadium will significantly increase traffic congestion and will slow the overall evacuation. For these reasons, ICs may consider SIP for these large and/or special needs populations even though they are evacuating the surrounding community.
- Institutional facilities such as hospitals and nursing homes must have their own emergency action plans that include provisions for evacuation and SIP.



KEY POINT

✓ ***Know when to lift an evacuation or SIP order and the factors to consider in returning a community to normal after an emergency event.***

Factors to consider:

The reason why the evacuation or SIP event occurred in the first place. The IC must ensure, through the use of the Unified Command structure, that the chemical, radiological or biological substance is contained, if not completely removed from the affected area.

Concentrations of toxic substances may rise over time, and for those in SIP, ICs need to take this information into consideration. Once the event is mitigated the IC should confer with others in the Unified Command to de-escalate the response.

Depending on the type and severity of the emergency, agencies/organizations that should be consulted include the local, county and state law enforcement, the mayor's office, the public works department, the water/sewer department, the local utility companies, and the CCOEM.

If an evacuation order is being lifted, law enforcement will assist in the systematic and orderly flow of people back to their homes. Having the utility companies checking the various utilities will ensure that a secondary issue, such as a pilot light out that needs re-ignition in a water heater, does not become a secondary event.



Major emergencies are stressful experiences, not only for victims, but also for responders and ICs. The IC must take into consideration that many people associated with such episodes will exhibit or experience some degree of psychological trauma.

When emergencies occur, the immediate response is to protect self and family. An immediate inventory phase then follows in which people anxiously attempt to account for their homes and loved ones. Highly altruistic behavior is often seen, and victims and unaffected volunteers work to assist those in need. Once the emergency needs have been brought under control, those who are unhurt begin an energetic process of securing possessions, if their homes have been damaged or destroyed, and cleaning up the mess.

Psychological reactions in the early recovery phase focus very strongly on returning to some sense of normal routine.

Contributing factors that may be considered when making these actions include:

1. providing crisis counseling for the affected individuals and businesses
2. providing critical incident stress management (CISM) for responders
3. reviewing the documented information taken from the onset of the community emergency event (this is necessary, especially if the community is seeking reimbursement funds from the causing factor(s) of the event in the first place)
4. developing a community-wide recovery action plan with short- and long-term activities. The municipality's EOP should be used as a guideline for returning the community back to normal operations.

Cuyahoga County Critical Incident Stress Management

"Serving those who serve others"

Risks Involved in Evacuation and Shelter-in-Place

All protective actions involve some degree of risk to the protected populations. In order to be considered appropriate, the protective action must carry less risk than the risk from the hazard. Because ICs are often in a position of making an evacuation or SIP decision, they must carefully consider these risks.



KEY POINT

✓ *Understand the risks to all populations during an evacuation or SIP or an incident requiring both.*

Risks resulting from evacuation include:

- The evacuees may be exposed to the hazard.
- The mode of transportation could put people at risk chosen by the evacuees (e.g, running out of fuel, mechanical malfunction, car crash).
- In areas of high population density, a large-scale evacuation could cause congestion and gridlock on the roads, rendering the evacuation ineffective.
- Weather conditions could change, causing an evacuation to become dangerous

Considerations:

In a large-scale evacuation, all resources available will be needed to evacuate the general public. This large volume of people requiring transportation will overwhelm buses and other

means of transportation. These forms of transportation will not be able for special needs populations.

Recognizing this, Incident Commanders may elect to shelter special needs populations in place while evacuating the surrounding population.



Risks resulting from shelter-in-place include:

- SIP reduces exposure but does not eliminate it. Over time, small amounts of an airborne contaminant can enter a structure, resulting in the exposure of occupants to the hazard. Once inside the structure, these contaminants are trapped. If the source of the hazard is abated, the concentration of the contaminant outside the structure will then be reduced or eliminated. The concentration of the contaminant inside the structure can then be higher than the concentration outside.
- If buildings are old and/or poorly-maintained, SIP can be less effective due to leakage of air and contaminants into the building at windows, doors and other breaches. As a result, the building does not offer appropriate protection from the hazard.

Risks resulting from evacuation include:

- If not completed quickly enough, evacuation could cause the evacuees to be exposed to the hazard. For example, if evacuees do not move from their homes fast enough, they could be overcome by an approaching chemical plume.
- Risks arise as a result of the mode of transportation chosen by the evacuees. For example, if they choose to evacuate by automobile, they could run out of fuel,

experience a mechanical malfunction, or be involved in a motor vehicle crash (MVC). Any of these could effectively stop the evacuation for the affected people, and possibly cause traffic delays that could slow or stop the evacuation for others.

- In areas of high population density, a large-scale evacuation could cause congestion and gridlock on the roads, rendering the evacuation ineffective.
- Weather conditions could change, causing an evacuation to become ineffective or endangering evacuees.



- Evacuations involving the elderly or people with special needs could cause these populations to become emotionally agitated, might result in their injury if they fall while evacuating, or could expose them to conditions that they are ill-prepared to handle.



Risks associated with both evacuation and SIP include:

- If the public is not educated and prepared to evacuate or SIP, either protective action can cause problems. The public might not know where to evacuate to, causing them to move into the hazard instead of out of it. Similarly, populations who are unprepared to SIP may not take appropriate steps, causing them to be needlessly exposed to a hazard that they could have been protected from.
- If the media is not properly informed by emergency responders and/or public officials, they could give incomplete, inaccurate, or false information, resulting in an inappropriate response from the public. “An informed media that can correctly relay information to the public is critical in an emergency.”
- If family and relatives are not properly informed of loved ones and friends needing to evacuate or SIP, unnecessary stress, constant worrying and concern may arise, which can lead to frustration and individuals not being cooperative during the emergency situation. This added dimension, along with providing prescribed medication for the elderly and infirmed, must be taken into consideration by the IC and be appropriately addressed within the unified command incident action plan.
- Finally, if a facility (e.g., a hospital) is asked to shelter in place, but the surrounding residential community is ordered to evacuate, family members and others may be confused and upset. Public officials and ICs should be prepared to explain why both evacuation and SIP may both be used for the same incident.



Conclusion

Incident Commanders Should:

- Help your community prepare for an emergency. Make information available online and through public speaking opportunities, news releases, community newsletters, CERT teams, and so on.
- Encourage first responders to prepare their own homes and families for an emergency so that the responders can be focused on their jobs. Have plans in place to deal with first responders' reluctance and worries.
- Work with the municipality's mayor or other head official to designate authority for evacuation or SIP decisions. Plan, plan, plan. Work with any EHS facilities in your area to pre-plan.
- Be aware of and communicate with institutional facilities about their emergency plans.

- Plan and test the municipality's notification systems, and be on the lookout for new technologies which would improve community notification capabilities, especially for transient, hearing impaired, and non-English-speaking populations.
- Plan for special needs individuals/populations in the community.
- Know who the public information officer is and pre-plan crisis communications. Have a decision making process in place for evacuation/SIP decisions and standard operating procedures for various types of emergencies.
- Be familiar with spill (release) requirements and procedures and where to find information.
- Develop a procedures manual identifying resources to be accessed in an emergency.
- Test plans through tabletops, scenarios, or other exercises to identify weaknesses and needs.
- Have a decision making process in place for evacuation/SIP decisions and standard operating procedures for various types of emergencies.
- Be familiar with spill (release) requirements and procedures and where to find information.
- Develop a procedures manual identifying resources to be accessed in an emergency.
- Test plans through tabletops, scenarios, or other exercises to identify weaknesses and needs.

Congratulations!

You've finished the evacuation and shelter-in-place training course. You have just a few more steps in order to obtain your certificate of successful completion.

1. Please take the [evaluation for the online training course](#). You will need to close the new window when you are done and/or click back to this browser window to follow the next steps.
2. You'll need to register (or log in if you have already).
3. Next, you'll take a ten-question quiz. You can take it more than one time, if needed. Once you receive a 70% or higher score, a printable certificate will appear. You can either save it as a .pdf or print it for your records.

The next screen is a login screen. If you've never registered before, you'll do that first by clicking on the "register" link. You will create a user name and password and provide basic information such as your name and email address. If you have registered before, simply log in with your user name and password.

Thank you for taking the online course!

Take the final test online at
<http://pro.elearningclevelandstate.com/RCC/login.php?ModuleID=IC>