Cuyahoga County Office of Emergency Management

Shelter-in-place and Evacuation Training for Managers of Extremely Hazardous Substance (EHS) Facilities.

June - 2012

Welcome to the training course for Managers of Extremely Hazardous Substance (EHS) Facilities.

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 training has been developed for Property Managers whose responsibilities include reporting emergency releases of hazardous materials under Chapter 3750 of the Ohio Revised Code or whose facilities are categorized by the Ohio Building Code as High Hazard, Factory, Storage, Utility or Miscellaneous.

This describes how managers can recognize and prepare for emergencies at their facilities and gives specific information about compliance reporting for chemical inventory and release reporting.

Training Objectives

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

- Know how to prepare for emergencies at home and at work
- Identify time-limited acute health crises common to Cuyahoga County
- Understand the National Incident Management System (NIMS)
- Know the emergencies common to Cuyahoga County
- Understand what actions to take when asked to shelter-in-place (SIP) or evacuate
- Understand the risks involved with SIP or evacuation
- Know who is authorized to issue a SIP or evacuation order

- Understand why people with special needs or large groups may not be evacuated
- Identify all reportable substances at your facility
- Understand how to report releases of hazardous materials
- Understand the use of a decision-tree analysis when reporting releases
- Understand the need for developing and maintaining an emergency plan

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.

Managers of EHS facilities have a variety of specific needs and responsibilities that will be addressed in this training module.

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

KEY POINT

✓ **A time-limited acute health crisis is defined as any short term (i.e. hours) incident that will cause loss of life if no action is taken.**

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.**

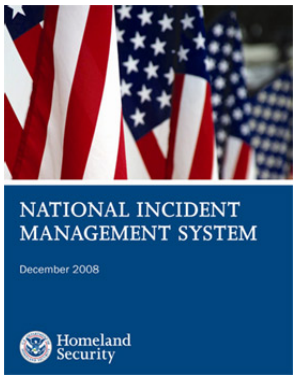
✓ **Shelter-in-Place (SIP) is a process for taking immediate shelter in a location readily accessible to the affected individual.**

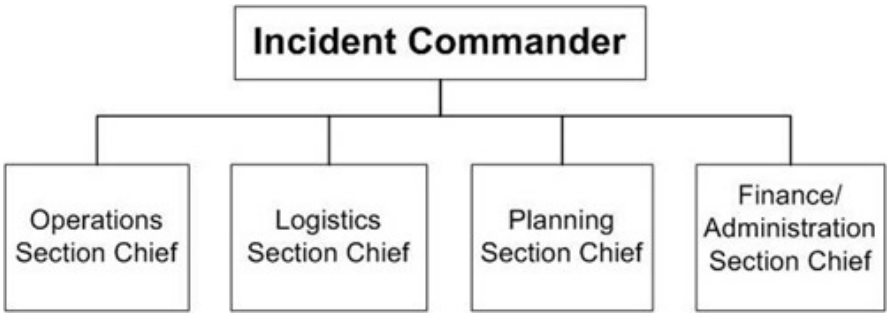
KEY POINT

✓ **The National Incident Management System (NIMS) is used to coordinate emergency response 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/.





Incident Commanders

Responders assess the problem and the appropriate responder takes command. The Fire Chief would most likely be the Incident Commander (IC) for a hazardous material spill while the Police Chief would take command following a shooting.

KEY POINT

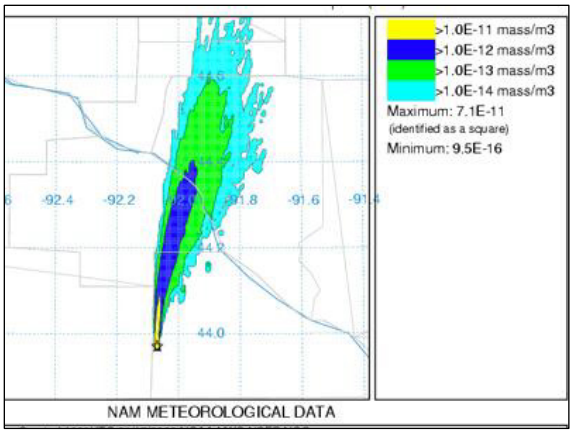
✓ **Awareness of emergencies occurs through:**

- 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

Time-limited Acute Health Crisis

The first step in responding appropriately to a time-limited acute health crisis is recognizing that one is occurring. For example, one might see a plume, smell an unknown odor, or hear an alarming noise like an explosion.

The media will be used extensively by all municipalities in Cuyahoga County to communicate information about time-limited acute health crises.



The person who initially discovers any type of time-limited acute health crisis must immediately take steps to insure their own safety and the safety of employees, visitors and the general public.

This usually involves moving themselves and others away from the hazard and/or to an area of refuge or shelter. Concurrently, this should include dialing 911 as soon as possible to notify emergency responders. If possible, they should also communicate the hazard to those who are nearby and then to the appropriate personnel within the facility, thereby initiating the activation of the facility's emergency action plan.

Interviews with key contacts in Cuyahoga County underscored the fact that employees must be trained and empowered to make facility-specific emergency decisions. It is especially important that EHS facility managers train their employees on actions to take when a time-limited acute health crisis is discovered.

Given the extremely hazardous nature of substances used and stored at these facilities, quick appropriate actions by the first person to discover the crisis could easily mean the difference between life and death. Facility managers must train their employees how to contain and/or control releases. Such training should be as facility-specific as possible.

Notification systems for these facilities must be easily accessed so that any employee, any place in the facility, can activate the alarm.

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).**

KEY POINT

✓ **Know what to do if you are the first person to discover a dangerous situation:**

- Remove yourself and others from the danger to an area of safety or shelter
- Call 911 as soon as possible and give as much information as you can about the danger

Allow employees to dial 911 first

EHS facility managers should also train and empower their employees to dial 911 when appropriate. Requiring employees to contact supervisors before dialing 911 to report an emergency ultimately delays the arrival of emergency responders. It is also important to have a

building-specific plan in place for incidents where emergency responders are called to the facility.

Workplace emergency plans should include:

1. Who may call 911
2. Who else must be notified when 911 has been dialed
3. How to describe the exact nature and location of the emergency within the facility
4. A designated person to meet responders
5. A designated location to meet the responders
6. Clearly define roles for all employees with duties during an emergency
7. Intra-facility communications
8. Evacuation plans
9. Provisions for people with special needs

An example of a local time-limited acute health emergency

In 2009, an industrial factory had a nitric acid leak inside their facility. The facility manager notified the police and fire departments, the Cuyahoga County Local Emergency Planning Committee (LEPC) and Ohio State Emergency Response Commission (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 the Environmental Protection Agency (EPA) was notified. The rail lines were shut down. No personnel were injured.

Facility managers should have a plan.

One of a facility manager's most important tasks is to have a plan to prevent and respond to emergencies. Planning will pay dividends in the prevention of accidents but also in the response to any type of emergency.

Planning can save employees' lives and the lives of residents living nearby. It can also help a company avoid prosecution in the event of a release.

KEY POINT

✓ **Know how to identify reportable substances.**

Know what Chemicals must be Reported

An Extremely Hazardous Substance (EHS) is one of 359 specifically listed in the Ohio EPA's State Emergency Response Commission (SERC) Facility Compliance Manual. The list contains the name of the chemical, the Chemical Abstracts Service (CAS) number, and the Threshold Quantity (TQ), Reportable Quantity (RQ), and Total Planning Quantity (TPQ).

If a chemical does not appear on this list it is not an EHS chemical. There are NO trade names on this list, only specific chemical names. The specific chemical names may appear in the list of active ingredients on the label of a trade-named product/material, or are stated on the Material Safety Data Sheet.

Hazardous Chemicals

Hazardous Chemicals cannot be found on any single list. The term “Hazardous Chemical” refers to any chemical, element, chemical compound(s), or mixture(s) of elements and/or compounds with “hazardous” characteristics. Rather than developing a complete list of Hazardous Chemicals, the law defines five hazardous characteristics. These are:

1. **Acute**
2. **Chronic**
3. **Fire**
4. **Reactive**
5. **Sudden Release of Pressure**

If a chemical exhibits one or more of these characteristics it is considered to be a Hazardous Chemical under this program.

Similarly, if a formulation of several chemicals exhibits one or more of these characteristics, the formulation is a hazardous chemical. If you have any chemicals covered by the OSHA Hazard Communications Standard, those chemicals are also regulated under ORC Sections 3750.07 and 3750.08 and SARA Title III.

Health and Physical Hazard

“Health hazard” means a chemical for which there is statistically significant evidence, based on at least one study conducted in accordance with established scientific principles, that acute or chronic health effects may occur in exposed employees. The term “health hazard” includes chemicals which are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, sensitizers, hepatotoxins, nephrotoxins, neurotoxins, agents which act on the

hematopoietiac system, and agents which damage the lungs, skin, eyes or mucous membranes.

“Physical hazard” means a chemical for which there is scientifically valid evidence that it is a combustible liquid, a compressed gas, explosive, flammable, or organic peroxide, an oxidizer, pyrophoric, unstable (reactive) or water reactive.

General Instructions:

OSHA classifies hazardous chemicals into 10 chemical hazards and 13 health hazards. For chemical inventory reporting purposes under SARA, Title III section 311 and 312, U.S. EPA proposes to consolidate the 23 OSHA hazard categories into five hazard reporting categories.

Hazardous Chemical

“Hazardous Chemical” is defined in Section 1910.1200(c) of Title 29 of the Code of Federal Regulations. It does not include the following:

1. Any food, food additive, color additive, drug, or cosmetic regulated by the Food and Drug Administration.
2. Any substance present as a solid in any manufactured item to the extent exposure to the substance does not occur under normal conditions of use.
3. Any substance to the extent it is used for personal, family or household purposes, or is present in the same form and concentration as a product packaged for distribution and used by the general public.
4. Any substance to the extent it is used in a research laboratory or a hospital or other medical facility under the direct supervision of a technically qualified individual.
5. Any substance to the extent it is used in routine agricultural operations or is a fertilizer held for sale by a retailer to the ultimate customer.

Note: Exemptions do not apply to “extremely hazardous substance(s)” notification under 3750.03 (ORC) and/or release reporting under 3750.06 (ORC).

Five Hazardous Characteristics:

(1) Acute (Immediate) Health Hazard: Includes corrosive, highly toxic, irritant, sensitizer, toxic, and other hazardous chemicals that cause an adverse effect to a target organ and manifests itself within a short period of time following a one-time, high exposure to the substance.

"Corrosive" means a chemical that causes visible destruction of, or irreversible alterations in, living tissue by chemical action at the site of contact.

"Highly toxic" means a chemical falling within any of the following categories:

- A chemical that has a median lethal dose (LD50) of 50 milligrams or less
- A chemical that has a median lethal dose (LD50) of 200 milligrams or less
- A chemical that has a median lethal concentration (LC50) in air of 200 parts per million by volume or less

"Irritant" means a chemical which causes a reversible inflammation at the site of contact.

"Sensitizer" means a chemical that causes exposed people or animals to develop an allergic reaction after repeated exposure to the chemicals.

"Toxic" means a chemical falling within any of the following categories:

- A chemical that has a median lethal dose (LD50) of more than 50 milligrams per kilogram but not more than 500 milligrams
- A chemical that has a median lethal dose (LD50) of more than 200 milligrams
- A chemical that has a median lethal concentration (LC50) in air of more than 200 parts per million but not more than 2,000 parts per million by volume of gas or vapor

(2) Chronic (Delayed) Health Hazard: Includes carcinogens and other hazardous chemicals which cause an adverse effect to the target organ (as defined under 1910.1200 of Title 29 of the Code of Federal Regulations (CFR)) and manifests itself after a long period of time following or during repeated contacts with the substance.

"Carcinogen." A chemical is considered to be a carcinogen if:

- it has been evaluated and found to be a carcinogen or potential carcinogen; or
- it is listed as a carcinogen or potential carcinogen;
- it is regulated by the Occupational Safety and Health Administration (OSHA) as a carcinogen. A chemical is considered to affect a target organ if it produces signs or symptoms of an effect on an organ of the body. Such signs or symptoms include, but are not limited to, the following effects which are listed as examples.

1. Chemicals which produce liver damage (hepatotoxin)
2. Chemicals which produce kidney damage (nephrotoxin)
3. Chemicals which affect the nervous system (neurotoxin)
4. Agents which act on the blood (hematopoietic agent)
5. Agents which damage the lung (pulmonary agent)
6. Chemicals which affect reproductive capabilities (reproductive toxins)
7. Chemicals which affect skin (cutaneous hazards)
8. Chemicals which affect the eye (eye hazard)

(3) Fire Hazard. Includes combustibles, flammables, oxidizers, and pyrophorics as defined under 1910.1200 of Title 29 of the Code of Federal Regulations (CFR):

"Combustible liquid" means any liquid having a flash point at or above 1000F (37.80C), but below 2000F (93.30C).

"Flammable" means a chemical that falls into one of the following categories:

- "Aerosol, flammable" means an aerosol that yields a flame projection exceeding 18 inches or a flashback (a flame extending back to the valve).
- "Gas, flammable" means a gas that forms a flammable mixture with air.
- "Liquid, flammable" means any liquid having a flash point below 1000F (37.80C).
- "Solid, flammable" means a solid that is liable to cause fire through friction, absorption of moisture, spontaneous chemical change, retained heat, or which when ignited burns vigorously and persistently.
- "Oxidizer" means a chemical that initiates or promotes combustion in other materials thereby causing a fire.
- "Pyrophoric" means a chemical that will ignite spontaneously in air at a temperature of 1300F (54.40C) or below.

(4) Reactive Hazard. Includes organic peroxides, unstable reactives, and water reactives as defined under 1910.1200 of Title 29 of the Code of Federal Regulations (CFR).

"Organic Peroxide" means an organic compound that contains the bivalent -O-O- structure and which may be considered to be a structural derivative of hydrogen peroxide.

"Unstable (reactive)" means a chemical which will vigorously polymerize, decompose, condense, or will self-react due to shock, pressure, or temperature.

"Water-reactive" means a chemical that reacts with water to release a flammable gas or a health hazard.

(5) Explosive Hazard. means a chemical that causes a sudden, almost instantaneous release of pressure, gas, and heat when subjected to sudden shock, pressure, or high temperature.

This link will take the user to the Ohio Environmental Protection Agency web site: http://www.epa.state.oh.us/dapc/serc/invforms.aspx. There are links on this page that will take the user to a copy of the FRCM and to forms that are needed for reporting.

Instructions can be accessed at http://www.epa.gov/oem/docs/chem/t1-instr.pdf.

EPA Tier Two Instructions can be accessed at http://www.epa.gov/oem/docs/chem/t2-instr.pdf

Immediately Dangerous to Life and Health (IDLH):

Facility managers should also know that the National Institute for Occupational Safety and Health (NIOSH) uses "Immediately Dangerous to Life and Health" (IDLH) values for respirator selection.

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.

KEY POINT

✓ **Know the importance of training as a component of emergency preparedness.**

Emergency Preparedness: Findings from CSB Accident Investigations

Perhaps the best way to illustrate the importance of training as one component of preparedness is a 20-minute video produced by the U.S. Chemical Safety and Hazard Investigation Board (CSB).

The video, entitled "Emergency Preparedness: Findings from CSB Accident Investigations (6/10/2009)," uses footage and computer animation to describe the causes, results, and lessons learned from actual chemical disasters. This video is an excellent resource and is especially relevant for managers of facilities that use and store hazardous materials.

The video can be accessed by visiting the online link at http://www.csb.gov/videoroom/detail.aspx?vid=29&F=0&CID=1&pg=1&F_All=y.

The video includes an incident from Apex, North Carolina where a fire at a hazardous waste handling facility resulted in a shelter-in-place order and an evacuation of 17,000 residents. Also on the video is a description of an incident in Institute, West Virginia, where responders to a fire at a pesticide manufacturing facility were hampered by a lack of information due to lack of planning on the part of the managers of the facility.

The U.S. Chemical Safety and Hazard Investigation Board (CSB) video demonstrates that emergencies at facilities that use and store hazardous chemicals result from recurring difficulties in three areas:

1. Training
2. Communications
3. Community Planning

The video then outlines responsibilities for first responders, communities and companies: First responders should:

- Have proper hazmat training and equipment
- Conduct drills and exercises for chemical releases
- Communicate with companies in their communities that deal with chemicals
- Know key facility contacts in an emergency

Communities should:

- Support and maintain an active Local Emergency Planning Committee (LEPC)
- Be prepared to evacuate or shelter-in-place if necessary
- Establish multiple communication systems to notify residents of a chemical emergency

Companies should:

- Communicate frequently and openly with residents, businesses, and emergency management officials about chemical hazards
- Train employees to respond properly to chemical emergencies and to evacuate when appropriate

KEY POINT

✓ **Know how to plan for an appropriate response to a chemical release.**

Planning for a Chemical Release

No facility manager wants to have a release of chemicals, but for the protection of employees and the surrounding community, plans must be made to respond appropriately should a release occur.

In Cuyahoga County, the first responder to a chemical release will almost always be a local fire department. Upon arrival, the fire department Incident Commander (IC) will size up the situation and, if a chemical release has occurred, will immediately call for the appropriate hazardous materials response team.

There are four hazmat teams in Cuyahoga County:

1. Cleveland Fire Department Hazardous Materials team
2. West Shore Hazmat team
3. Chagrin/Southeast Hazmat team
4. Southwest Emergency Response team

In order to expedite the dispatch of the appropriate hazmat team, facility managers should plan for a method to communicate vital information to the fire department IC. This plan should be applicable 24 hours a day, even if the facility is closed for business.

One way to accomplish this might be to train security guards to gather and communicate as much of this type of information as possible.

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

The IC needs to know:

Life safety information:

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

Release information:

1. Name and phone number of the person to contact for further information.
2. Location and source(s) of the release or discharge.
3. Chemical name or identity of any substance(s) involved in the release or discharge.
4. Is the substance extremely hazardous?
5. Estimate of the quantity (gallons or pounds) discharged into the environment.
6. Time and duration of the release or discharge.
7. The environmental medium or media into which the substance was released or discharged
8. Potential health effects associated with the release or discharge of the substance.
9. Precautions taken, including evacuation, remediation, or other proposed response actions (OEPA, 2009).
10. Any additional information that facility managers can provide ICs, including but not limited to, whether the substances:
    - are stored at ambient temperature and pressure and if not the specific conditions
    - are solid, liquid or gas at ambient temperature
    - specific gravity
    - vapor density
    - possible reactions between chemicals, if multiple chemicals are involved
    - any other information that may be helpful in controlling the release

Pre-planning:

Managers of facilities that use and store hazardous materials should work closely with their local fire department to establish a pre-plan that describes how this vital information can be shared in the event of an emergency.

They should also share their risk management plans with Incident Commanders to assist the IC in pre-planning.

Facility managers should know that Incident Commanders are given these same recommendations in their training.

Emergency Operations Plan:

The Cuyahoga County Office of Emergency Management Manager is responsible for the coordination of emergency management activity. Every municipality should have its own Emergency Operations Plan (EOP), which will vary from jurisdiction to jurisdiction.

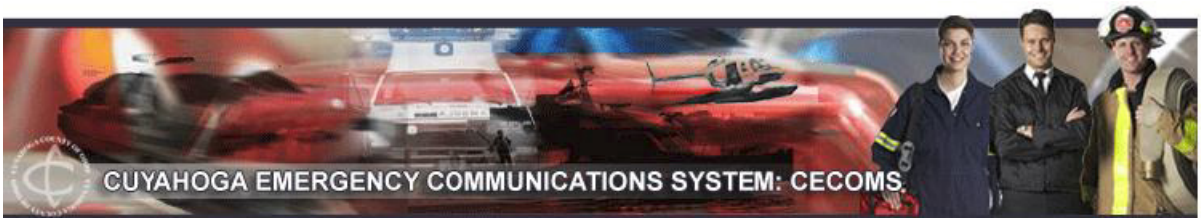
Each jurisdiction's EOP should follow the guidelines set forth by the Federal Emergency Management Agency (FEMA) in the Comprehensive Preparedness Guide (CPG) 101: Developing and Maintaining State, Territorial, Tribal and Local Government Emergency Plans.

Most emergency situations are handled locally; however, when there is a major incident, help may be needed from other jurisdictions, the state and federal government.

CECOMS

When an incident can no longer be managed within the local communities and/or mutual aid resources, the Cuyahoga Emergency Communications System (CECOMS) 24-hour communications center and Emergency Management Manager and/or on-call staff are notified. The County Emergency Operations Center (EOC) may be activated to assist the local community with resources and coordination of the response and recovery effort.

A state of local emergency may be requested by the CCOEM Manager when an emergency event has occurred, is anticipated to generate major damage in Cuyahoga County, and threatens the health and safety of county residents; or is anticipated to go beyond normal response capabilities.



KEY POINT

✓**Understand who has the authority to issue an evacuation or shelter-in-place (SIP) order.**

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

The Fire Chief has the Authority

The Fire Chief has the authority to issue an evacuation or SIP order at the scene of a fire or other emergency involving the protection of life or property.

The Fire Chief is also authorized to remove or prevent people from going into a scene of an emergency (this includes ordering the immediate evacuation of any occupied building deemed unsafe).

ORC 3737.80

Additionally, Ohio Revised Code (ORC) 3737.80 designates the fire chief or designee as the person responsible for primary coordination of the on-scene activities during any emergency relating to hazardous materials.

This section clearly gives the fire chief the authority to issue an evacuation or SIP order to protect the public at any emergency involving the protection of life or property. This would include all time-limited acute health crises, with the exception of law enforcement actions.

KEY POINT

✓ **Know where to obtain instructions about an evacuation or shelter-in-place (SIP) order.**

- Radio stations with Emergency Alert Systems (EAS) are WTAM 1100 AM and WCPN 90.3 FM.
- TV stations 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.

Where an SIP or evacuation order will come from

In addition to being notified directly by the fire or police Incident Commander, property managers may be notified through the Cuyahoga County Emergency Communication System (CECOMS).

This central coordination point for emergency communications is staffed 24-hours per day and provides monitoring, warning and notification to emergency response agencies and municipalities throughout the county. It maintains dial-in phone lines to the two radio stations noted above. During an emergency, the Incident Commander will contact CECOMS and request activation of the EAS.

FRCM

Managers of facilities that use and store hazardous materials must know how to properly report a release of these materials. An excellent reference that all facility managers should acquire is the Federal Reporting Compliance Manual (FRCM) introduced in the Preparedness section. It is available online at http://www.epa.state.oh.us/portals/27/serc/SERCFacilityBook2010.pdf.

SERC

Ohio State Emergency Response Commission
Lazarus Government Center
50 West Town Street, Suite 700
P.O. Box 1049
Columbus, Ohio 43216-1049

Emergency Planning and Community Right-to-Know

(Ohio Revised Code Chapter 3750)

Facility Reporting Compliance Manual

KEY POINT

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

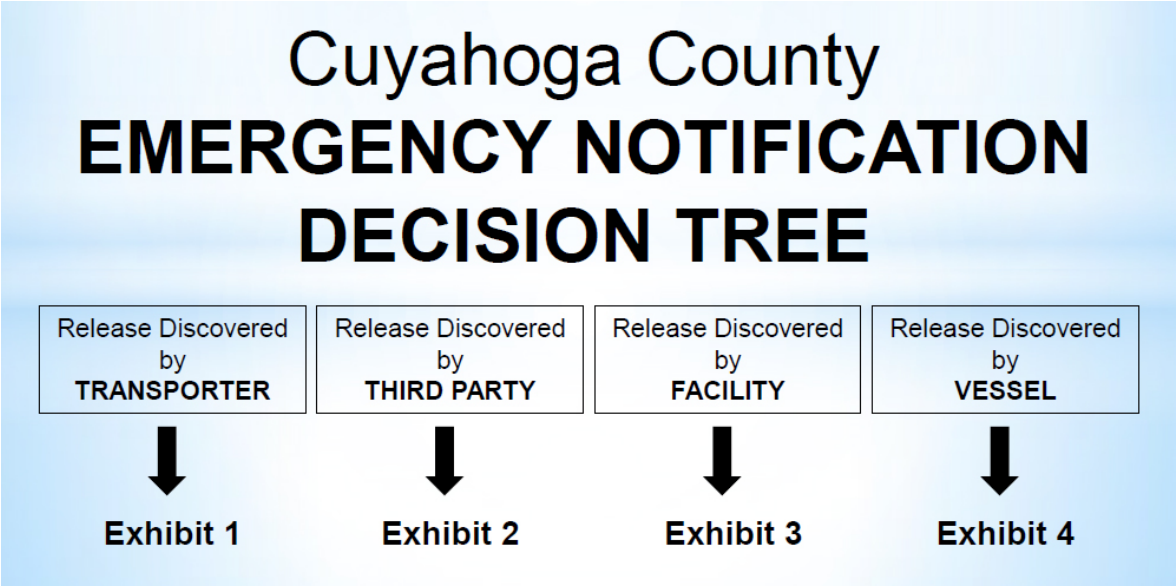
From the Federal Reporting Compliance Manual (FRCM): An owner or operator is required to report a release or discharge under 3750.06 of the Ohio Revised Code (ORC) anytime there is a release of a regulated chemical which exceeds its assigned Reportable Quantity (RQ) and leaves the facility property line.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

1. Extremely Hazardous Substances, Title 40, Code of Federal Regulations (40 CFR); Part 355; Appendix A and B,
2. The Comprehensive Environmental Response, Compensation, and Liability Act (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).
    - 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;
    - The RQ for the release of oil into the environment, excluding navigable waters, is an amount of 25 gallons or more; and

- 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.**



Cuyahoga County Superfund Amendments and Reauthorization Act (SARA) plan

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 on different individuals, depending upon the type of incident or the person discovering the release. These decision trees, 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

Facility managers are required to make all notifications described by law

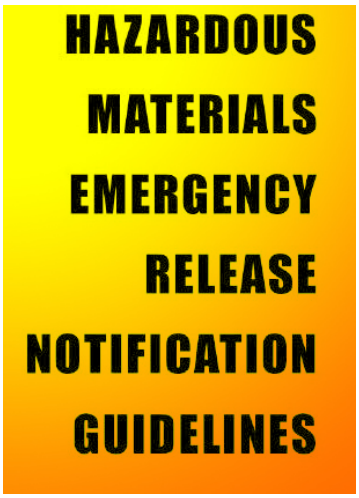
- Know how to report a release – both immediate and follow up actions.
- Notify the local jurisdiction fire department by dialing 911. The manager should do this within 30 minutes of becoming aware of the release.

- Notify the Local Emergency Planning Committee/Superfund Amendments and Reauthorization Act (SARA) Information Coordinator. This can be done by calling the Cuyahoga Emergency Communications System (CECOMS) Center. The 24-hour number for this is 216-771-1365.
- Notify the Northeast Ohio Regional Sewer District (NEORSD) if applicable. They may be reached by calling 216-641-6000 (216-641-3200 off hours) so that remedial action can be taken.
- Notify the Ohio Environmental Protection Agency, State Emergency Response Commission at 1-800-282-9378.
- If the release is a Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) substance, notify the National Response Center at 1-800-424-8802.

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

KEY POINT

✓**Know the information that needs to be reported.**



Reporting Information:

1. Name and phone number of the person to contact for further information.
2. Location and source(s) of the release or discharge.
3. Chemical name or identity of any substance(s) involved in the release or discharge.
4. Is the substance extremely hazardous?
5. Estimate of the quantity (gallons or pounds) discharged into the environment.
6. Time and duration of the release or discharge.
7. The environmental medium or media into which the substance was released or discharged.
8. Potential health effects associated with the release or discharge of the substance.

9. Precautions taken, including evacuation, remediation, or other response actions.

Lessons Learned

Several lessons can be learned from the August 28, 2008 methomyl pesticide explosion at the Bayer CropScience plant in Institute, West Virginia. Operators there refused to tell emergency responders the nature of the blast or the chemical that had been released.

Two employees were killed, and six volunteer firefighters were injured. Extremely Hazardous Substances (EHS) operators should be aware that falsely labeling information as 'sensitive' and failing to provide first responders with accurate information can be deadly to employees, first responders and residents living nearby. The Chemical Safety Board is continuing its investigation of this disaster.

KEY POINT

✓ **Know how to report a release of radiological material.**

U.S.NRC response

The United States Nuclear Regulatory Commission (NRC) establishes how they respond to an emergency. In response to an event at a NRC-licensed facility or an event involving NRC-licensed material the NRC will activate its incident response program at its Headquarters Operations Center and at the Regional Incident Response Centers for Region I in King of Prussia, PA.

According to the NRC, the State's emergency response should be coordinated at two levels: (a) by an emergency response organization that is responsible for conducting technical assessments of the accident, and (b) by decision makers. NRC: State and local Response Actions, http://www.nrc.gov.

OH Regulations for Radiological Release Reporting

The State requirements and contact information for reporting a release of radioactive material are located in the Ohio Department of Health regulations (Ohio Administrative Code (OAC) 3701:1-40-14). There are several factors that will require an emergency plan for responding to a release of radioactive material. The main factors to take into consideration when determining whether an emergency plan is necessary are:

1. If the radioactive material is physically separated
2. If the radioactive material is not subject to release because of how it is stored
3. The solubility of the radioactive material
4. If the facility itself is designed or engineered to promote a lower release probability

Emergency Plans for Radioactive Release

When it is deemed that an emergency plan is necessary because of the radioactive material that is located within a facility, the plan needs to include an extensive list of information.

The information should include a brief description of the licensee's facility and the area near the site, identification of each type of possible radioactive material, a classification system for identifying an accident as an alert or emergency, the means of detecting each type of accident, the means and equipment needed to mitigate the consequences of the accident, and a brief description of the responsibilities of the licensee's personnel should an accident occur.

The facility also needs to list in their emergency plan who they would need to contact in the event of an emergency, the recommended protective actions to offsite response organizations and to their own department, a brief description of the frequency, performance objectives, and plans for the training that the licensee will provide workers on how to respond to an emergency including any special instructions and orientation tours the licensee would offer to fire, police, medical and other emergency personnel.

This type of training should familiarize personnel with site-specific emergency procedures. The emergency plan also needs to have provisions for conducting quarterly communication checks with offsite response organizations and biennial onsite exercises to test response to simulated emergencies.

Where to Report Radioactive Release

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. This number is 614-644-2727. There is also an emergency line that can be reached by dialing 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.

In an interview with a key contact at the Cuyahoga County Board of Health (CCBH), it was learned that the CCBH does not have the capability to respond to a radiological release, and there is no staff member there that deals specifically with radiological releases. However, the CCBH would like to receive notification of any such event if it occurs in Cuyahoga County. Notifications should first be made to the Ohio Department of Health Bureau of Radiation Protection.

KEY POINT

✓ **Know how to report the release of a biological agent.**

CCBH should be notified

Release of a biological agent would have the potential for a negative impact on the public health. As such, the Cuyahoga County Board of Health (CCBH) should be one of the first notifications made in the event of a release of a biological agent.

The CCBH can be contacted on their 24 hour disease reporting line at 216-857-1433.

Facility managers 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.

CCBH in Cuyahoga County

Since the Cuyahoga County Board of Health (CCBH) is the lead agency in the Cuyahoga County Emergency Operations Plan, Emergency Support Function #8 (Public Health and Medical Services), they are prepared to respond to the scene of a release of a biological agent to coordinate response activities.

CCBH staff receives NIMS training and are prepared to operate within a Unified Command structure. They are prepared 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.

Three classes of disease

Ohio Revised Code 3701.201 requires the reporting of events that may be caused by terrorism, epidemic or pandemic disease, or established or 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

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

Compliance with release reporting is mandatory. The Local Emergency Planning Committee has the power to take enforcement action against facility managers and has done so. In accordance with Ohio Revised Code 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 how to prepare for an evacuation order.**

Planning Evacuation

One vital element of emergency planning for facilities that use and store hazardous materials is an evacuation component in the facility's emergency action plan. All businesses need evacuation plans, but clearly, such a plan is of critical importance for an EHS facility.

The Occupational Safety and Health Administration (OSHA) has an electronic e-tool that can assist facility managers with developing an evacuation plan. It can be accessed at: http://www.osha.gov/SLTC/etools/evacuation/index.html.

OSHA's Evacuation Planning Steps

The following steps follow OSHA's recommendations for developing an evacuation plan. Information from other sources is also included.

1. **Determine conditions under which an evacuation would be necessary.**
   Also determine conditions under which sheltering-in-place would be more applicable. This requires managers to think broadly to anticipate emergencies that may happen and how employees should react to these situations. Perhaps the business includes processes that, once begun, must proceed to their conclusion without interruption or they will result in fire or explosion. A total building evacuation in this case may be impractical or dangerous. Managers must decide which conditions warrant evacuation and which do not.
2. **Decide who is authorized to initiate the evacuation plan.**
   Managers must resist the temptation to vest this power in one or two people. Nearly everyone misses an occasional day of work due to illness, vacation or family obligation. If the boss is out of the building, others must have the authority to implement the evacuation plan. All employees should know who has the authority to implement the evacuation plan.
3. **Designate floor wardens or building monitors.**
   If the facility is large enough or has many employees, managers should designate floor wardens or building monitors who will receive extra training in the execution of the evacuation plan. In the event of plan activation, these personnel would assist others in carrying out the evacuation plan. If possible, designation of floor wardens should be on a

volunteer basis so that the selected individuals will be more likely to enthusiastically embrace the plan and the extra duties involved.

4. **Determine how the evacuation order will be communicated to employees.**
   This could be as simple as using the company's telephone system or pre-designated runners to convey messages by word of mouth. A public address system may also be used. Some fire alarm systems have the capability to be used as PA systems.
5. **Determine specific routes of evacuation.**
   These routes must be carefully chosen so that evacuating employees and/or visitors are not routed near hazardous materials. All employees should know all routes out of the facility.
6. **Determine specific procedures that must be completed before evacuation.**
   Hazardous chemicals should be secured. MSDS and other information vital to enabling the IC to control the release should be gathered and shared with first responders. These procedures should be posted conspicuously and exercised routinely.
7. **Decide on procedures to assist those who do not speak or understand English and those who require extra assistance due to a disability.**
   If the facility includes or could include individuals who do not speak English, enlist the aid of multi-lingual employees or add signage in other languages to assist them in the evacuation process.
8. **If applicable, designate individuals who must shut down or continue critical operations.**
   Certain chemical mixing or reaction processes may need to be continued or shut down in a specific order. Employees should be designated to complete these operations.
9. **Designate assembly areas for employees.**
   If the evacuation is limited to one building or a portion of a facility, assembly areas should be nearby buildings or other shelters where employees will be protected from weather and/or hazards. Designate assembly monitors to account for all employees and train them in procedures for accounting for all personnel and for reporting missing individuals.
10. **Make the evacuation plan as facility-specific as possible.**
    At each step in this process, managers should develop an evacuation plan that is as facility-specific as possible. This helps ensure that the plan is functional and logistically sound. In addition, pre-plan and pre-designate as many of the details as possible so that when the plan is put into action, these decisions are already made.
11. **Train employees on the plan.**
    All employees must know what they are expected to do in the event of an evacuation. They must also be given an opportunity to practice evacuation and receive feedback on their performance.

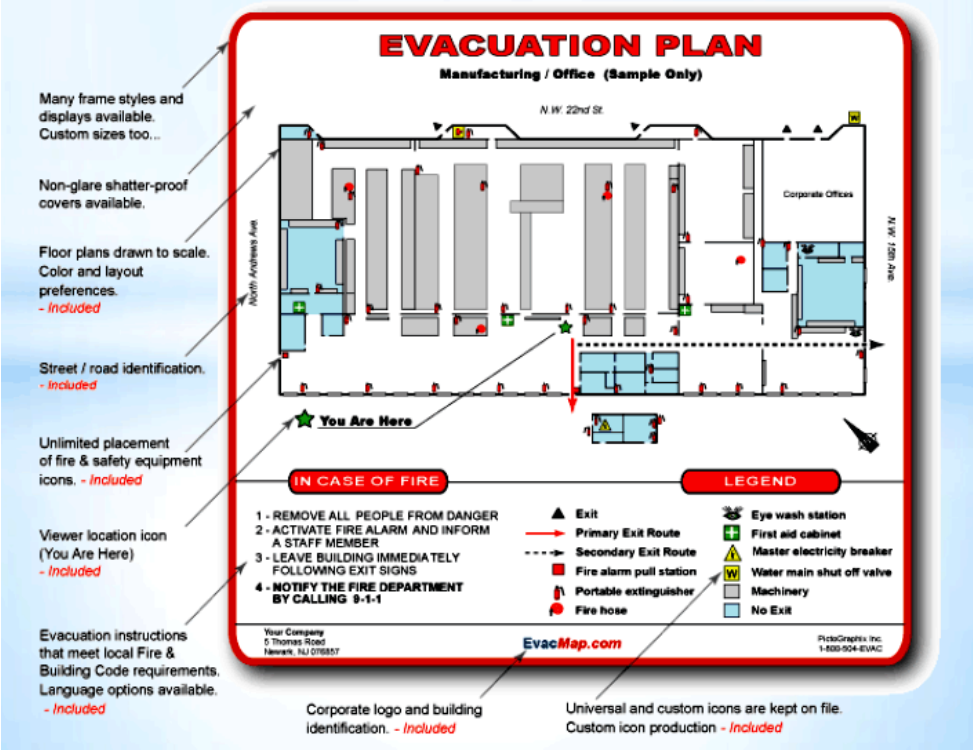
Further Recommendations for Planning

- Whenever possible EHS facility managers should preplan with other companies and facilities in their vicinity.

- Evacuation and SIP procedures should be included in the facility's risk management plan.
- When a release occurs, if possible, the facility manager or IC should consider notifying any neighboring EHS facilities that a potential evacuation/SIP event is occurring.

KEY POINT

✓ **Know what to do when ordered to evacuate.**



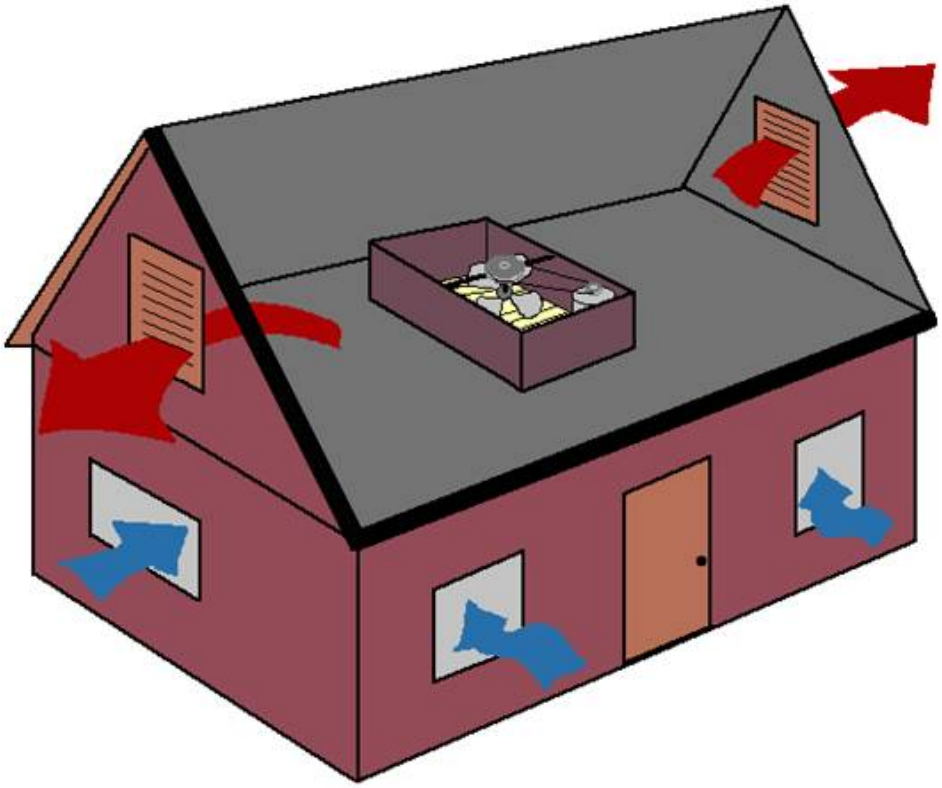
What to do when ordered to evacuate

- Notify all employees/visitors via the pre-selected notification system that an order to evacuate has been received and that they should put the evacuation component of the emergency action plan into action. Give them as much pertinent information as is available about the hazard: what it is, its location, where they are expected to evacuate to, and how to protect themselves as they evacuate.
- Floor wardens should gather their tools (vests, flashlights, radios) and remind all employees and visitors to gather their belongings. Interviews with key contacts in Cuyahoga County revealed that one of the biggest challenges during an evacuation or an emergency drill is that people tend to leave quickly and forget to take key items such as car keys, purses, coats, etc. They then have to go back for these items, delaying the evacuation.
- Any pre-designated shutdown or security operations should be completed.
- All personnel should then evacuate the facility using the closest most appropriate route. If appropriate, pre-designated personnel should secure the facility as they leave.
- Assist those with disabilities. Floor wardens can be assigned to complete this task.
- All personnel should meet at the designated assembly point for roll call. Pre-designated monitors should account for all people and report in as directed by the evacuation plan.

KEY POINT

✓ Understand how to Shelter-in-place.

- Choose an appropriate interior room, preferably with no windows, an adjoining bathroom, and storage for SIP supplies that is large enough for all the occupants.



Need for planning SIP

Interviews with key contacts in Cuyahoga County repeatedly revealed the need for companies to do more planning for SIP orders. Many companies have no plan in place for sheltering employees and visitors. Shelter-in-place planning need not be complex, and it is similar to basic emergency planning for the home.

EHS facilities are much more likely to evacuate than shelter-in-place if an incident occurs at the facility itself. However, there may be incidents external to the facility which may require SIP.

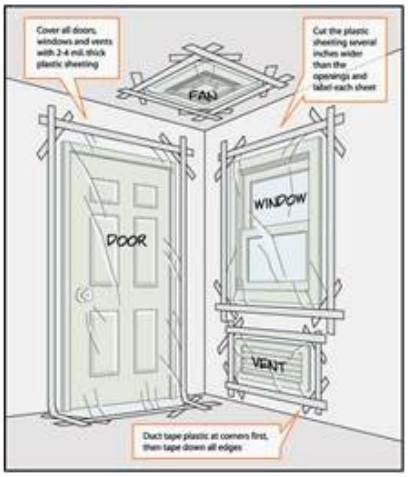
Ready

Prepare. Plan. Stay Informed..

FEMA

Preparation for a SIP order should include the following:

- **Update the emergency action plan.** Write an SIP component into the Emergency Action Plan. This component should give detailed information about what to do in the event of a SIP order.
- **Designate an appropriate room as the "safe room."** It should be an interior room with few (or no) windows, an adjoining bathroom, and storage for SIP supplies. It should be large enough to accommodate the required number of people and preferably have access to TV/CNN.
- **Pre-measure openings.** Measure all doors, windows, vents and skylights in the safe room, then pre-cut plastic sheeting to fit with an overlap of 6 inches all the way around.



- **Gather supplies.** The general recommendation in the emergency preparedness literature is that people should store enough food and water to last 72 hours. Those supplies will be more than adequate for a time-limited acute health crisis which is normally less than 24 hours.
  There should be a supply of blankets to keep people warm in the event of a loss of heat, and fans to keep people cool when sheltering in hot weather. In addition, companies should store items to address comfort needs for employees. Items such as towels and hygiene products might be considered for addition in the SIP supply kit.

- **Gather tools.** An SIP tool kit and general office supplies such as pens and notebooks could be added. In addition, the kit should include all of the pre-cut plastic sheeting along with several rolls of duct tape. Managers might consider adding a tool box with general use hand tools for emergency repairs if necessary.
- **Gather communications equipment.** If possible, the safe room should have a hard-wired telephone. In addition, plans should be made for other types of communication devices such as cell phones, 2-way radios, and a computer with internet access.
- **Conduct training.** Train all employees in their roles in the event of a SIP order. Give floor wardens extra training in leading SIP operations.

Planning for two groups

A key point for facility managers to remember when planning for SIP and evacuation orders is that they must plan for the needs of two separate groups that have different needs. The first group includes the company's employees, who can be trained on the company's emergency response procedures.

The second group includes customers and visitors to the facility. This group probably has no knowledge of the facility, and their transient nature means that they cannot be trained.

KEY POINT

✓**Know what to do when ordered to shelter-in-place.**

1. Notify employees and visitors that a SIP order has been received and that they should place the SIP component of the emergency plan into action. Give them as much information as is available about the hazard: what it is, its location, and when it is expected to arrive.
2. Many adults with children will want to leave and find them in the event of an emergency. This is human nature and facility managers should realize that they cannot control it.
3. Close and lock all windows and doors.
4. Turn off heating, ventilating and air conditioning systems (HVAC).
5. Turn off vent fans, fume hoods, and any other device that moves air.
6. Utilize call forwarding or an answering service to notify customers that your business is closed.
7. Notify all employees to report to the pre-selected safe room.
8. Close the door(s) and seal the opening(s) at the bottom with towels.
9. Seal windows, doors, and vents with pre-cut plastic and duct tape. Tape down the edges all the way around. Use multiple rolls of duct tape so that several people can work on this at the same time.
10. Account for everyone and document who is present and those unaccounted for.
11. Allow employees and customers to make short calls to family/friends to check in. Encourage those who are present to use their cell phones for this purpose, and keep the landline available for emergency use.
12. Monitor radio, TV and internet (if possible) for updates.
13. Remain sheltered-in-place until you receive notification that it is safe or that the Incident Commander has ordered an evacuation.

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.

Special Needs

Although most EHS facilities do not house large populations or people with special needs it is important that EHS facility managers are aware of these populations because they may need to be evacuated or sheltered-in-place due to a release.

The term “special needs” could be defined as “people who feel they cannot comfortably or safely access and use the standard resources offered in disaster preparedness, relief and recovery.” (People who cannot access resources are included, not just those who **feel** they cannot.) This definition would include people who are mentally and/or physically disabled, non-English speaking, culturally isolated, medically or chemically dependent, homeless, frail or elderly, and children.

KEY POINT

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

In a time-limited acute health crisis, an Incident Commander might choose to shelter these populations in place in their facilities for a number of reasons:

- The special needs of these populations require specific accommodations. Although they should know exactly how to provide for the special needs of their clients, and are in some cases required by law to do so, facilities that house these populations are sometimes not well-prepared to deliver the specific care that their clients would need in case of an evacuation.
  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 and thus might decide to shelter them in place rather than evacuate them and risk exposing them to the hazard.
- In a large-scale evacuation, all available resources will be needed to evacuate the general public. The large volume of people requiring transportation will overwhelm buses and other means of transportation. These means of transportation will not be able to respond to the equipment and labor intensive requirements of special needs populations. Recognizing this, Incident Commanders may elect to shelter special needs populations in place while evacuating the surrounding population.

- Facilities that house minors have a specific need because they are required to retain custody of the minors in their care until released in to the custody of their parents or legal guardians. Due to this special need, Incident Commanders may choose to shelter these young people in place rather than attempting to evacuate them.
- Office buildings and high-rise residential buildings generally have lower air exchange rates than single-story residential construction. This means that these large-population structures are better suited for sheltering in place. This fact, along with the knowledge that evacuation routes and resources will be overwhelmed by a large-scale evacuation, might cause Incident Commanders to order populations in these structures to SIP rather than evacuate.

An incident when SIP was used for special needs population.

In the late 1990s, there was a small chemical release from an industrial facility. This incident caused a brief release of unknown chemicals into the air, and the release appeared to be complete prior to the first responders and HazMat team arriving.

Upon arrival the IC assessed the situation and realized that a County developmental center which cared for approximately 125 mentally handicapped children and a staff of approximately 50 was located down-wind from the release. The level of handicap varied with ambulatory, ambulatory with assistance (walkers, etc.) and non-ambulatory (wheelchair bound) children. During the early stages of this incident, there was a recommendation to evacuate an unspecified area downwind.

An incident when SIP was used for special needs population.

The evacuation of this specific facility posed significant logistical issues. Buses needed to transport children were not on site, the process of loading them would be lengthy, and a location to accommodate the students would be needed. In addition, there was no present release occurring, but if there were, all of these functions would be performed downwind from the incident, thus potentially exposing handicapped children and the staff to the chemicals.

Therefore, it was determined that the most efficacious solution was to secure the HVAC equipment, close all windows and doors and shelter this facility in place. Even if there had been an ongoing release, this was the better choice because evacuation of this facility would have placed all involved individuals at much greater risk than sheltering in place.

KEY POINT

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

Minimizing Risk

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.

EHS facility managers should recognize that although they wish to protect their employees and the public from a chemical release, there are additional risks that must be taken into account. If a release occurs, in addition to providing ICs with the information required by law, facility managers should provide as much information as possible, including (as noted above) whether the substances are stored at ambient temperature and pressure and if not the specific conditions; are solid, liquid or gas; their specific gravity and vapor density; possible reactions between chemicals and any other information that may be helpful in controlling the release.

Potential risks due to evacuation:

- 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. In Louisiana, for example, when elderly citizens were evacuated from nursing homes, they were subjected to relatively high temperatures for long periods of time in cars and vans in stop-and-go traffic, resulting in problems with dehydration and hyperthermia.

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.

Potential risks of both evacuation and SIP:

- 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.

EHS Managers should:

- Have a home emergency preparedness plan in place.

- Work with the municipality's Fire Prevention Bureau in developing pre-incident planning tools and keeping them up to date.
- Have a solid process in place for evacuation and SIP, if needed.
- Develop a procedures manual identifying resources to be accessed in an emergency.
- Be familiar with spill (release) requirements and procedures and where to find information.
- Train facility staff on what to do if a release occurs.
- If a release occurs, provide prompt, complete information to the IC. File the release report as required.
- Test plans through tabletops, scenarios, or other exercises to identify weaknesses and needs.
- Have a solid business continuity plan in place in the event of an emergency in the manager's facility or elsewhere that would cause a disruption in business. Ideally, it should meet NFPA 1600, ISO 9001 and ISO 14001 standards of best practice.

Congratulations!

You've finished the evacuation and shelter-in-place training. 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 for the quiz (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=EHS