Cuyahoga County Office of Emergency Management

Shelter-in-place and Evacuation Training for 100+ Occupancy Facility Managers

June - 2012

Welcome to the training course for 100+ Occupancy Facility Managers.

This group includes managers of office buildings, shopping centers, large stores, theaters, stadiums, and residential 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 managers of 100+ occupancy facilities that are categorized in the Ohio Building Code as Assembly, Business, Mercantile or Residential, and whose populations have special needs with respect to Shelter-in-Place (SIP) and Evacuation.

The training describes how facility managers can recognize and prepare for emergencies at their facilities and gives specific information about preparation for SIP and evacuation orders, what to do when such orders are received, who gives these orders, and under what authority.

Training Objectives

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

- Understand how to prepare for emergencies at home and in the workplace and how to make an emergency plan
- Identify emergencies common to Cuyahoga County and what to do if you are the first person to discover one

- Understand how emergency responders use the National Incident Management System (NIMS) to work together during emergencies
- Explain the importance of maintaining an emergency plan to protect employees and visitors to these facilities, including people with special needs
- Understand why some emergencies lead to evacuation and others to SIP, who is authorized to order these actions and where that authority comes from
- Understand the actions to take to evacuate or SIP and where to obtain instructions when an order is given
- Understand why during some emergencies people with special needs or facilities with large populations will not be evacuated along with everyone else
- Know how to calmly and clearly explain to employees, visitors and the general public the actions they need to take to safely evacuate or SIP
- Understand the risks involved with SIP or evacuation

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. A communications campaign will also be run to inform the general public.

Property Managers for 100+ occupancy 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
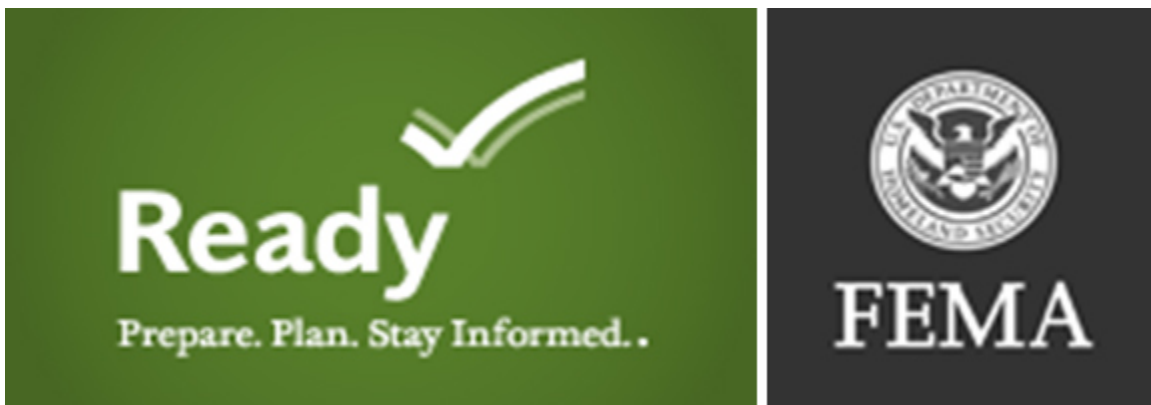
KEY POINT

✓ *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, loss of life is imminent.*

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 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/
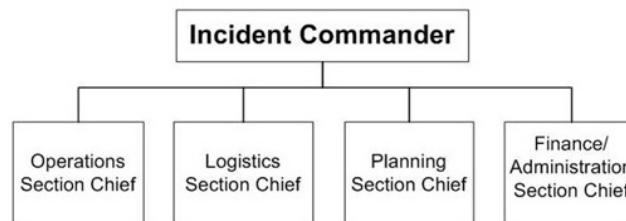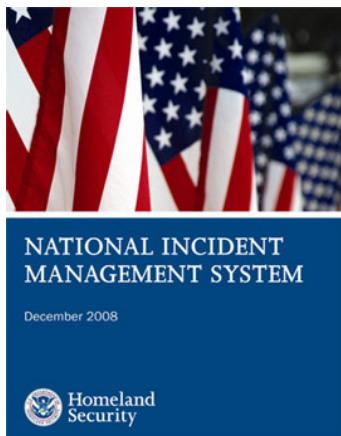
There are three general types of populations that must be protected at 100+ facilities, and all have unique needs and abilities. They are:

"Transient" populations. This group includes visitors to facilities such as arenas, stadiums and shopping malls. Building owners and managers have no way to train these individuals, and their transient nature means that there is also no way to account for them in the event of an emergency. Emergency planning must focus on training employees at these facilities to properly direct the visitors during an emergency.

"Captive" populations. This group includes employees of large businesses. They are considered captive because the building owner or manager has control over many of their

actions, can train them in emergency procedures, and can compel them to practice these procedures.

"Residential" populations. People that live in 100+ residential occupancies such as apartment buildings share some of the characteristics of the other two groups, but also have some major differences.

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

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.

1. **Flash Flood Warning:** A flash flood warning is issued when flooding is occurring or imminent.
2. **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.

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.

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 should 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.

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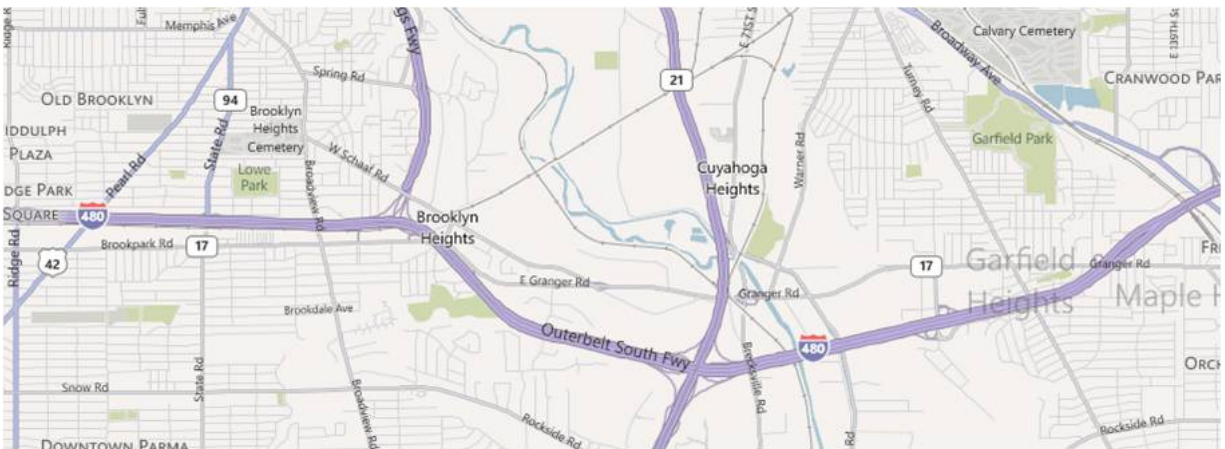
As a precaution, approximately 5,000 people were evacuated from an area approximately one square mile in size, including parts of Cleveland, Brookpark and Brooklyn. Evacuees were asked to go to local schools, and were not allowed to go back home until the next day.

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.

AP / Paul Sancya

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 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

√ *People in 100+ occupancies have a high potential for time-limited acute health crises.*

Sport venue managers and spectators perceive terrorism as a foreseeable threat, and it is reasonable to believe that other related 100+ occupancies such as shopping malls, stores, downtown businesses and restaurants could become terrorist targets for the same reasons.

There is also a high potential for other types of time-limited acute health crises at these facilities. Severe weather events are extremely likely in Cuyahoga County, and the presence of hazardous materials inside our facilities and on our roadways is very common.

✓ *Employers are required to have an emergency action plan (EAP) that includes procedures for emergency evacuation.*

Emergency Action Plan (EAP)

One component of this EAP must include "procedures for emergency evacuation, including type of evacuation and exit route assignments." This plan should include the following components:

- Who is empowered to dial 911
- Who else must be notified when 911 has been dialed
- The exact location of the emergency within the facility
- A designated person to meet responders
- A designated location to meet the responders
- Clearly defined roles for all personnel who are assigned duties in the event of an emergency
- Intra-facility communications, including notification to other staff in the facility so that all appropriate personnel know what is happening and what must be done to support the response.

KEY POINT

✓ *Property managers should 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

✓ *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).

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 WKYC TV 3, WEWS TV 5, WJW TV 8, WOIO TV 19, WVIZ TV 25 and WUAB TV 43 have EAS.
- Some communities have mass notification or local emergency radio systems.

Cuyahoga Emergency Communications System (CECOMS)

In addition to being notified directly by the fire or police Incident Commander, elected and appointed officials will 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.

KEY POINT

✓ *Understand the basics of crisis communication and the process for crafting appropriate messages for staff, occupants and family and friends of those occupants before a crisis occurs.*

The importance of planning messages before an event requiring SIP or evacuation cannot be overstated. The facility manager must not only convey accurate information but also speak calmly and clearly.

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

Communicating SIP and Evacuation Information

Messages aren't just things you say – they are things you say with a purpose in mind. They are meant to persuade. In a crisis, these messages should have the following components:

- Expressions of empathy/shared emotions.
- Clarification of facts.
- Acknowledgement of the unknown.
- A call for action or directions to resources/more information.
- Expressions of commitment.
- Explanation of the process to get more answers.
- Explanation of when more information will be forthcoming.
- Acknowledgement of risks and recommendations on how to minimize them.

Delivering Messages During a Crisis

When delivering messages during a crisis, facility managers should keep the following things in mind:

- Admit what you don't know. Emphasize that there is a process to find out more and describe in simple terms what that process is.
- Be willing to address valid "what if" questions, but don't over-speculate.
- Say what you wish – for example, "I wish I had more information to share…"
- Give people things to do. Ask more of people to encourage them to rise to the occasion.
- Let people know what to expect and give them guidance on how to prepare.
- Be a role model. Show people how they should react.
- Understand that people tend to believe assumptions, rumors, and incorrect or conflicting information, particularly in times of crisis.
- Show empathy and compassion.

KEY POINT

✓ *Understand the roles that employees must play to safely assist transient populations during an evacuation.*
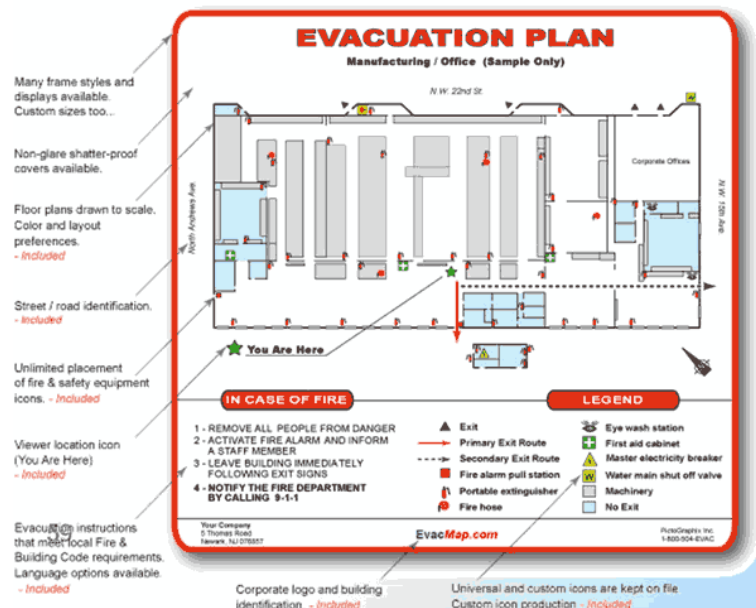
Property managers of facilities with transient populations must:

- Develop a plan that includes clearly marked exits
- Have a system of communicating the need for evacuation to all employees and visitors
- Insure that their employees are properly uniformed and credentialed
- Insure that their employees are properly trained
- Insure that their employees have practiced the plan

KEY POINT

✓ *Employees (captive populations) must be taught evacuation and shelter-in-place procedures and practice them regularly.*

Evacuation plans must be taught to employees and then practiced with them so that they respond appropriately when evacuation becomes necessary.

KEY POINT

✓ *Understand the information that occupants of residential facilities must have in order to safely evacuate their apartments or rooms without outside guidance.*

Property managers of residential facilities such as apartment buildings should inform occupants how to take appropriate measures to protect themselves without direction from supervisors or managers. Information should include:

- How to recognize hazards
- How to notify others
- Where building evacuation routes are (these evacuation routes should be posted in conspicuous places)
- Techniques for safe evacuation
- A means for disabled and elderly individuals to evacuate
- Where designated safe areas are
- The possibility of a floor warden program
- In order to gain buy-in and motivate people to participate

KEY POINT

✓ *Train employees (captive populations) to SIP.*

Managers of 100+ facilities with captive populations have the advantage of knowing approximately how many people they will be required to shelter. In addition, they have the ability to train these people in the specific techniques for sheltering-in-place at their facility.

Preparation for a shelter-in-place order should include the following:

- Designate an appropriate room. It should be an interior room with few (or preferably no) windows, an adjoining bathroom, and storage for SIP supplies. It should be large enough to accommodate the required number of people.
- Measure all doors, windows, vents and skylights, then pre-cut plastic sheeting to fit with an overlap of 6 inches all the way around.
- Write an SIP component into the Emergency Action Plan.
- Gather supplies, tools, and communications equipment, similar to home but adequate for institutional needs.
- Train all employees in their roles in the event of a SIP order.

KEY POINT

✓ *Train employees to shelter transient populations in place.*

Managers of 100+ facilities with transient populations must plan to shelter a number of people equal to the capacity of their facility. Training for employees and staff at these facilities must focus on directing visitors to areas of shelter.

Employees must be trained in the following areas to effectively direct the shelter-in-place of transient populations:

- The location and capacity of all areas of refuge inside the facility, which must be identified before any incident happens
- Proper operation of escalators and elevators to insure that guests with special needs are cared for
- Roles and responsibilities for all staff members
- Communications to other staff--how to use radios, etc., with whom they are to communicate, and what information they must convey
- Communications to visitors--what message they need to communicate to visitors and how that message should be delivered

KEY POINT

✓ *Train residents how to SIP in their own apartments or rooms*

Managers of facilities with residential populations should train their residents how to properly SIP within their own residences.

When ordered to shelter-in-place:

- Gather all residents and pets into the pre-selected room
- Close and lock all windows and doors. Seal the opening at the bottom of the door with towels if possible
- Turn off heating, ventilating and air conditioning systems (HVAC)
- Turn off vent fans and any other device that moves air. An exception to this might be an air purifier incorporating high-efficiency particulate air (HEPA) filters
- Seal windows, doors, and vents with pre-cut plastic and duct tape. Tape all edges down all the way around
- Account for everyone
- Contact family or friends to notify them of the location. After this, do not use the telephone so that resources will be available for use by emergency responders
- Monitor radio, TV and internet (if possible) for updates
- Remain sheltered in place until told that it is safe or ordered to evacuate

KEY POINT

✓ *Understand special needs as it relates to evacuation and SIP*

Some facilities house large populations or people with special needs. The term "special needs" is fairly general. To help understand the needs of this population, "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.*

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.

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.

Why an Incident Commander might choose to SIP populations with special needs or large populations rather than evacuate them:

Managers of 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 students 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.

KEY POINT

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

All protective actions involve some degree of risk. In order to be considered appropriate, the protective action must carry less risk than the risk from the hazard.

Risks resulting from evacuation include:

- In areas of high population density, a large-scale evacuation could cause congestion and gridlock on the roads, rendering the evacuation ineffective
- If not completed, evacuation could cause the evacuees to be exposed to the hazard
- Risks arise as a result of the mode of transportation chosen by the evacuees
- Weather conditions could change; evacuation may become ineffective
- Evacuations involving the elderly or people with special needs could cause these populations to become emotionally agitated, might result in their injury

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.
- 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.

Risks Associated with both Evacuation and Shelter-in-place 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.
- 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.
- 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.

Conclusion

Managers of 100+ facilities should:

- Make and practice home emergency plans
- Have an emergency operation plan for the facility that includes provisions for special needs residents, employees, or visitors
- Train employees on evacuation and shelter-in-place
- Be aware of potential hazards in the facility's immediate vicinity
- Have a plan for alerting occupants of an emergency affecting the facility
- Prepare a crisis communications plan to be put into action
- Have a continuity of operations plan to help recover from business disruptions

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 at http://emergency-planning.elearningclevelandstate.com/feedback2/use/onlineCourseSurvey4/form1.html . 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 link below leads to 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=MOF