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SAFETY COMPLIANCE FOR OSHA REGULATIONS

*A Cottingham & Butler Program*

## Emergency Action Plan





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# LEARNING OBJECTIVES

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- Understand why we need Emergency Action Plans
- Understand OSHA requirements for escape/exit routes
- Understand OSHA requirements of Emergency Action Plans
- Understand fire extinguisher regulations and training requirements

# HISTORY

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- There are approximately 99,500 fires annually that cost businesses over \$2.6 billion
- These fires kill more than 60 people (which is down from 200 in 1995) and injure more than 1,200 people each year (which is down from 5,000 in 1995)
- 45% of businesses never reopen after a fire due to the high cost of recovery and repairs

# WHY DO WE NEED EMERGENCY ACTION PLANS?

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- To prepare ourselves to prevent fatalities and injuries
- To reduce damage to buildings and contents
- To accelerate the resumption of normal operations
- Provide confidence to workers that a plan is in place and that it can be executed
- Need to understand Emergency Action Plan is unique to each facility

# THE NEED

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## THE NEED

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# THE NEED

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## WHAT TO PLAN FOR...

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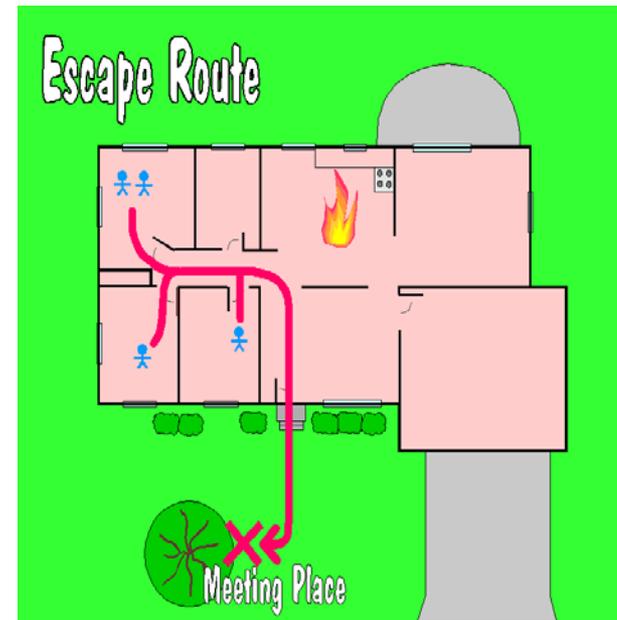
- Fire/Explosion
- Tornado/Severe Weather
- Earthquakes
- Chemical spills
- Workplace Violence/Threats
- Utility Failure
- Medical Emergency

# ESCAPE ROUTE

A continuous and unobstructed way of exit travel from any point in a building or structure to a public way (a street, yard, court or other open space leading to the street)

Three parts to an escape route:

- The way of exit access
- The exit
- The way of exit discharge



# ESCAPE ROUTE

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# ESCAPE ROUTES GENERAL REQUIREMENTS

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- Fire alarms are required if a fire could start without providing adequate warning to occupants
- Enough exits for quick escape
- Emergency lighting
- Escape routes:
  - Minimum width = 28 inches
  - Minimum ceiling height = 7-½ feet



# LOCKING EXITS

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Must not install any lock or fastening that impedes or prevents escape from the inside of any building.

## **White Snake Concert 2003** Station Nightclub, RI

- 100 Killed
- 230 Injured
- 132 Escapes



# ACCESS TO EXITS

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- Exits must be readily accessible at all times
- A door must be a side-hinged and swing in the direction of exit travel if room is occupied by more than 50 people or contains high-hazard contents
- Exits signs must be illuminated or have illumination on them at all times, and must be at least 6" tall letters and a minimum of  $\frac{3}{4}$ " thickness of letters.



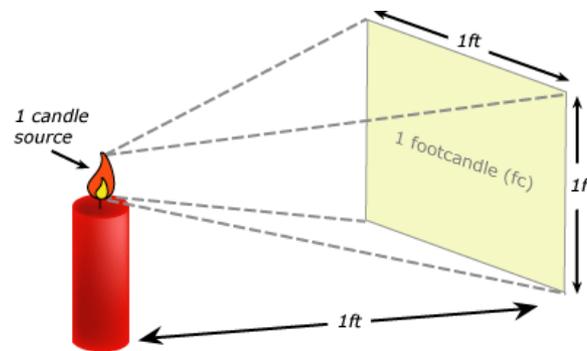
# MAINTAINING ESCAPE ROUTES

Escape routes from all parts of the building must be continuously maintained free of all obstructions in case of emergency



# EXIT MARKING

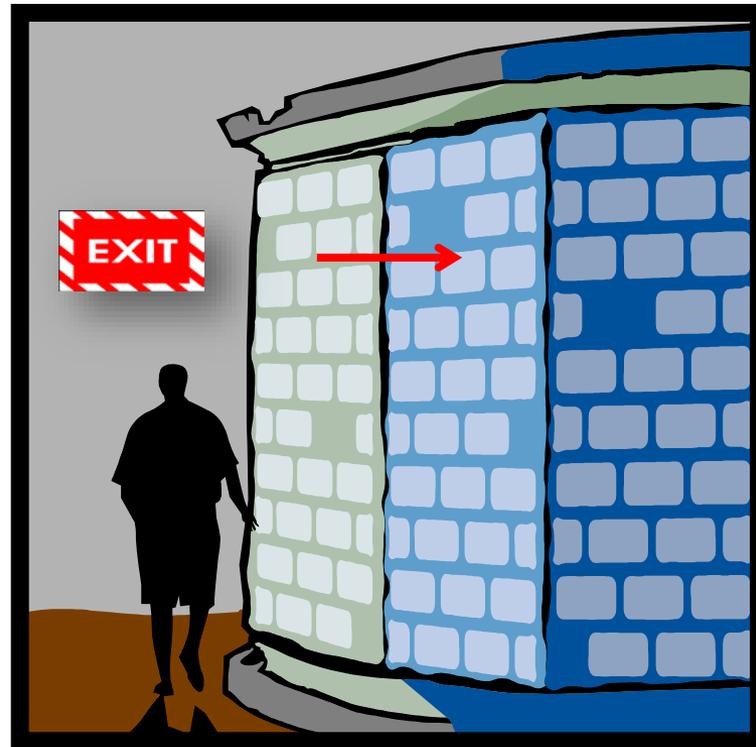
- Must have minimum foot-candles of illumination
  - Surface value of 5 ft candles
- Signs must be located and configured so as to be readily visible.



# EXIT MARKING

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A sign reading “Exit” with an arrow indicating the directions must be placed in every location where the direction of travel to the nearest exit is not immediately apparent





## EXIT MARKING

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If a door, passage, or stairway is not an exit or a way of exit access but may be mistaken for one, it must be identified by a sign reading “Not an Exit,” “Storeroom,” “To Basement,” etc.





# EMERGENCY ACTION PLAN

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- Describes actions that must be taken to ensure employee safety in emergencies
- Includes floor plans or maps which show emergency escape routes
- Tells employees what actions to take in emergency situations
- Covers emergencies the employer may reasonably expect, such as fires, explosions, toxic chemical releases, hurricanes, tornadoes, violence, and floods



# EMERGENCY ESCAPE PROCEDURES AND ESCAPE ROUTES

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- Discuss emergency escape routes - maps (posted)
- Fire detection systems
- Fixed extinguishing system hazards

# ALARM SYSTEMS

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- When there is an alarm, evacuate or perform your assigned emergency actions
- Know the different types of alarm signals
- Under 10 Employees: You may use a verbal signal





# EVACUATION

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- Supervisors check rooms and enclosed spaces where employees could be trapped
- Supervisors account for all employees





## EMPLOYEE RESPONSIBILITIES

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- If they spot a fire, the first thing to do is turn on the alarm. Period.
- Don't stop to decide if the fire is so small you can put it out yourself.
- Don't think it's someone else's job to report it.
- **Turn on the alarm.**

# EMPLOYEE RESPONSIBILITIES

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- Recognize the sound of the emergency alarm
- Know your responsibilities for shutting down operations or systems
- Know where to find first-aid supplies and fire extinguishers
- Alert other people around you to evacuate
- Follow your assigned evacuation route and meet at your assigned assembly point
  - Don't wander around - we have to be able to find you to make sure you're safe

# SEVERE WEATHER

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- Alarm signal
- Shelter areas
  - Stay away from doors, windows, and outer walls
  - Go to the center of the building or into an interior windowless bathroom or closet



# CRITICAL PLAN OPERATIONS

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- Designate workers to shutdown critical systems
  - Gas
  - Electrical
  - Plant equipment
- Monitor plant power supplies



# DISASTER RECOVERY

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## Modified EAP

- Evacuation
- Employee alarms
- Head count



# RESCUE AND MEDICAL DUTIES

- Designated personnel will perform rescue duties
- Designated personnel will perform medical and first-aid duties



# EARTHQUAKES

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- If you're indoors, move away from windows, machinery, or shelves that could fall over. Get under strong furniture or to an inside corner of the building.
- If you're outside, move into an open area away from tall buildings, power poles, trees, or anything that could fall on you.

# ACTIVE SHOOTER POSSIBILITY

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- Active Shooter executes a random or systematic indiscriminant shooting spree
- The objective is mass murder rather than other criminal intent

# TYPES OF ACTIVE SHOOTERS

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- Angry customer
- Patient's family member
- Mentally unstable individual
- Disgruntled employee
- Domestic violence spillover
- Not concerned with dying
- Will move freely until stopped by police, suicide, or us

# TYPES OF ACTIVE SHOOTERS- HUNTERS VS. HOWLERS

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## Hunters

- Make overt threats
- Draw attention
- Frighten intentionally

## Howlers

- Develops a plan
- Acquires necessary tools
- Works in stealth
- Attacks without apparent warning

# ACTIVE SHOOTER RESPONSE

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- 911 called
- Plan for survival
  - Hide-Run-Fight
- Police arrive
  - Comply, obey, and remember everyone is suspect
- Police will bypass victims, be calm
- Only evacuate when ordered by officers
- Never enter site to help

# EMERGENCY DRILLS

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- Shall be held with sufficient frequency to familiarize occupants with the drill procedure and to establish conduct of the drill as a matter of routine.
- Drills must be planned by leadership
- To be held at expected and unexpected times and under varying conditions.
- Shall be Initiated by the fire alarm system when present
- Drill participants shall assemble in designated areas
- Orderly evacuation should be priority vs. speed
- Occupants should be accounted for
- A record shall be kept
- Conduct a debrief of drill activities



# FIRE PREVENTION PLAN

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The plan must include:

- A list of the major fire hazards and handling, storage, and control procedures
- Names or job titles of persons responsible for maintenance of equipment and systems to prevent or control ignitions or fires
- Names or job titles of persons responsible for control of fuel source hazards
- Training for all employees who have responsibilities in the plan

# MAINTAINING PORTABLE FIRE EXTINGUISHERS

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- Must maintain in a fully charged and operable condition
- Must keep in their designated places at all times except during use
- Must conduct an annual maintenance check
- Must record the annual maintenance date and retain this record for one year after the last entry or the life of the shell, whichever is less



# PORTABLE FIRE EXTINGUISHER TRAINING AND EDUCATION

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Where portable fire extinguishers are provided for employee use in the workplace, employees must be provided with an educational program on the use and location of the extinguishers





# PORTABLE FIRE EXTINGUISHERS

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If portable fire extinguishers are provided for employee use, the employer must mount, locate and identify them so workers can access them without subjecting themselves to possible injury





# EXTINGUISHER CLASSIFICATION

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Letter classification given an extinguisher to designate the class or classes of fire on which it will be effective

Class A – ordinary combustibles (wood, cloth, paper)

Class B – flammable liquids, gases, greases

Class C – energized electrical equipment

Class D – combustible metals





# FIRE EXTINGUISHER TYPES

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- Extinguishing agent eliminates one of the vital elements of the fire
- Many types of extinguishers available
- Know location of extinguishers



# APPROPRIATE USE OF EXTINGUISHERS

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- Alarm has been sounded
- Building has been evacuated
- Fire is small and confined





# SAFE USE OF EXTINGUISHERS

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- You can fight the fire with your back toward an escape route
- The extinguisher matches the fire type
- The extinguisher works effectively



# APPROPRIATE USE OF EXTINGUISHERS

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- You are properly trained in the use of the extinguisher
- You are confident you can put the fire out



# INAPPROPRIATE USE OF EXTINGUISHERS

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- The fire is large and has grown beyond its original confined space
- Your escape path is threatened
- You are not sure if you have the correct type of fire extinguisher



# PERSONAL HAZARDS

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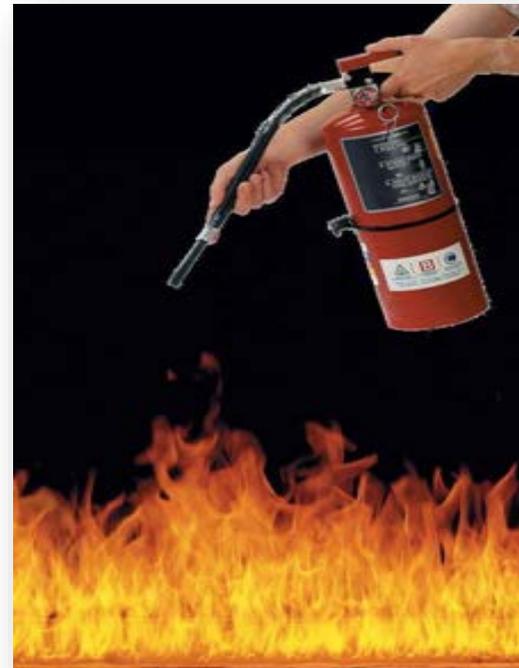
- Smoke and noxious fumes
- Smoke and fumes cause unconsciousness
- Death may result



# PASS METHOD OF FIGHTING FIRES

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- Hold the extinguisher upright
  - Pull the pin
  - Aim at the base of the fire
  - Squeeze the handle
  - Sweep the base of the fire
- Do not aim high at the flames





# FIRE PREVENTION

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- Good housekeeping
- Accumulation of clutter
- Stored chemicals



# FLAMMABLE LIQUID HANDLING AND STORAGE

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- Ignitable vapors
- Heavier than air
- Accumulate
- Travel
- Find open flame





## FLAME (OR IGNITION SOURCES)

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- Cigarettes
- Hand tools
- Cutting torch
- Operating motor



# SUMMARY

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- There must be enough exits in the proper arrangement for quick escape
- Escape routes must be marked, lighted, free of obstructions, and locks must not be used to impede or prevent escape
- An emergency action plan and a fire prevention plan must be in place
- Fire extinguisher classes and numerical ratings help a user understand its capabilities
- Fire extinguishers must be inspected, maintained and employees must be trained in how to use them

# Questions?

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