

**COLUMBUS DEPARTMENT OF FIRE  
AND EMERGENCY MEDICAL SERVICES  
OPERATING GUIDELINES  
VOLUME II**

**SUBJECT:** Incident Safety Officer  
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**1.0 PURPOSE**

- 1.1 To provide Department personnel with the skills, knowledge and abilities needed to function safely and effectively as the Incident Safety Officer at emergency operations.

**2.0 OBJECTIVES**

- 2.1 To define the responsibilities of the Incident Safety Officer.  
2.2 To minimize the health and safety risk to responders.  
2.3 To provide support to Command and contribute to the overall management of the incident.  
2.4 To ensure an Incident Safety Officer(s) is assigned at all structure fires, multiple alarm fires, medical incidents and special operations.

**3.0 SCOPE**

- 3.1 This guideline applies to all personnel of the Department of Fire and Emergency Medical Services.

**4.0 DEFINITIONS**

- 4.1 **Assistant Incident Safety Officer:** An individual(s) assigned and authorized by Command to assist the Incident Safety Officer.  
4.2 **Backdraft:** Unburned smoke that is heated in the absence of oxygen and when oxygen is introduced produces an explosive force.  
4.3 **Cold Zone:** The area designated by Command for the Command Post and other support agencies such as the news media and technical support.  
4.4 **Collapse Zone:** The area around and from a building where the building will land when it falls. As an absolute minimum this distance must be at least 1 ½ times the height of the building.  
4.5 **Flashover:** An event that occurs when all the contents of a compartment reach their respective ignition temperatures in a very short period of time, usually seconds.  
4.6 **Incident Commander (I.C.):** The individual in overall command of an incident scene.  
4.7 **Incident Safety Officer:** An individual appointed to respond or assigned at an incident scene by the Incident Commander to perform the duties and responsibilities specified in this guideline.  
4.8 **Hot Zone:** An area designated by Command, which surrounds the emergency for a distance in which personnel are in immediate danger.  
4.9 **Mitigate:** The act of eliminating a hazard or making a hazard less severe or less likely to cause harm.  
4.10 **Rescue Operations:** Activities the Department of Fire and Emergency Medical Services responds to that require specific and advanced training and specialized tools/equipment.

Rescue Operations include water rescue, hazardous materials, confined space rescue, high-angle rescue and trench rescue.

- 4.11 **Risk:** A measure of the probability and severity of adverse effects that result from exposure to a hazard.
- 4.12 **Rollover:** When heated gases accumulate at the upper level of a room reach their ignition point and begin to spread across the ceiling level.
- 4.13 **Safety Zone:** Areas considered to be safe from the direct hazards of an incident.
- 4.14 **Warm Zone:** An area designated by Command that immediately surrounds the emergency for a distance in which personnel are potentially in immediate danger.

## **5.0 AUTHORITY**

- 5.1 The Incident Safety Officer shall have the authority to:
  - A. Alter, suspend or terminate activities that are judged to be unsafe or pose a serious threat to the safety and well being of civilians and/or Department of Fire and Emergency Medical Services personnel.
  - B. The Incident Safety Officer shall immediately inform Command of actions taken to eliminate such hazards.

## **6.0 RESPONSIBILITIES**

- 6.1 It is the responsibility of the Incident Safety Officer at every incident to protect the safety of citizens and Department of Fire and Emergency Medical Services personnel.

- 6.2 **Incident Scene Safety:** The Incident Safety Officer shall:

- A. Ensure proper safety practices are followed per city/department Rules-Regulations, and Operating Guidelines.
- B. Ensure an incident scene rehabilitation division is established during emergency operations.
- C. Report the status of conditions, hazards, and risks to Command.
- D. Ensure the department personnel accountability system is being utilized properly.
- E. Ensure Command is provided with a risk assessment of incident scene operations.
- F. Ensure established safety zones (collapse zones, hot zones, and other designated hazard areas) are communicated to all personnel present on the scene.
- G. Evaluate motor vehicle scene traffic hazards and apparatus placement and take actions to mitigate hazards.
- H. Monitor radio transmissions.
- I. Communicate to Command the need for Assistant Incident Safety Officers.
- J. Ensure all personnel wear appropriate full personal protective equipment.
- K. The Incident Safety Officer shall maintain scene control and security.

- 6.3 **Fire Suppression:** The Incident Safety Officer shall:

- A. Ensure rapid intervention team(s) meeting the criteria of the Columbus Department of Fire and Emergency Medical Services Rapid Intervention Team Guideline is followed.
- B. Advise Command of hazards, collapse potential, and any fire extension in the structure.

- C. Evaluate visible smoke and fire conditions and advise Command and company officers on the potential for flashover, backdraft, or other fire events that could pose a threat to operating teams.
- D. Monitor the accessibility of entry and egress of structures and the effect it has on the safety of personnel conducting interior operations.
- E. Inform Command when an acceptable level of carbon monoxide has been achieved (below 50 ppm). Command may then allow personnel inside the affected atmosphere to remove their breathing apparatus and don appropriate respiratory protection (**MANDATORY**).
- F. The Incident Safety Officer shall monitor salvage and overhaul operations to ensure safety practices are followed.

6.4 **Emergency Medical Service Operations:** The Incident Safety Officer shall:

- A. Ensure compliance with the department's infectious disease control guideline.
- B. Ensure incident scene rehabilitation is established as needed during Medical operations; especially mass casualty incidents.

6.5 **Hazardous Materials Operations:** The Incident Safety Officer shall:

- A. Meet the requirements of NFPA 472 (Standard for Professional Competence of Responders to Hazardous Materials Incidents).
- B. The Incident Safety Officer shall designate personnel to utilize air-monitoring devices to determine the perimeters of zones based on the level of contaminants and their hazard. All personnel will be made aware of perimeter boundaries through the use of the appropriate barricade tape or other visible markers.
- C. The Incident Safety Officer will designate personnel to constantly monitor the atmosphere throughout the duration of the emergency. These personnel will immediately advise the Incident Safety Officer of any changes, which might present an accelerated hazard potential to site personnel. The Incident Safety Officer will inform Command of the need to alter, suspend or upgrade the required protective equipment.
- D. The Incident Safety Officer will ensure the decontamination sector has been established before the entry team proceeds into Hot Zone. The Incident Safety Officer will ensure, prior to entry, that the entry-team leader has reviewed emergency procedures with all entry team members, (hand signals, SCBA malfunction, PPE failure) as well as operations to be performed (leak control, valve shut-down, patching, plugging and decontamination procedures).
- E. The Incident Safety Officer will ensure that all support personnel in the Warm Zone are wearing the correct level of PPE.
- F. After the chemical emergency has been mitigated the atmosphere will be monitored until an acceptable air quality has been achieved.

6.6 **Technical Rescue Operations:** The Incident Safety Officer shall:

- A. Meet the applicable requirements specified in NFPA 1006, (Standard for Rescue Technician Professional Qualifications).

## **7.0 AREAS OF KNOWLEDGE**

- 7.1 The Incident Safety Officer shall have a working knowledge of the hazards inherent at the following type incidents:

A. **Structure Fire:**

1. Building construction.
2. Fire behavior.
3. Flame spread.
4. Electrical hazards.
5. Gas hazards (liquid, compressed, natural).
6. Building collapse.
7. Backdraft.

B. **Emergency Medical:**

1. Infection control procedures.
2. Scene security.
3. Use of SCBA.

C. **Rescue Operations:**

1. Safety lines (water rescue, confined space).
2. Shoring at trench rescues.
3. Lifelines at high angle rescue operations.
4. Chemical identification at Haz-Mat incident.
5. Personal Protective Equipment selections at Haz-Mat incidents.
6. Use of technical experts.