

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

SUBJECT: Rapid Intervention Team
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1.0 PURPOSE

- 1.1 To establish guidelines for operations in and around Immediately Dangerous to Life and Health (IDLH) or potential IDLH atmospheres that are in accordance with NFPA 1500 and OSHA 29 CFR 1910.120 and 1910.134.

2.0 OBJECTIVES

- 2.1 To provide a guideline that will be used whenever an emergency scene requires personnel to enter an IDLH atmosphere or potential IDLH atmosphere.
- 2.2 To provide for the rescue of personnel becoming endangered while operating at emergency incidents.

3.0 SCOPE

- 3.1 This guideline applies to all Columbus Fire and Emergency Medical Services personnel.

4.0 DEFINITIONS

- 4.1 **Buddy System:** A minimum of two Firefighters/Firemedics responding to an emergency, performing a search, extrication, rescue, or fire attack requiring direct visual, voice, or tethered contact with each other for safety.
- 4.2 **Defensive Fire Operation:** An exterior fire attack employed when the known fire flow is insufficient for a given fire or it is obvious that the building will be lost regardless of available water flow. Defensive positions should be taken when initial or repeated interior attacks have failed and/or signs of structural instability are witnessed.
- 4.3 **Division:** The partition of an incident into geographical areas of operation. Divisions are established when the number of resources exceeds the manageable span of control of the Operations Chief.
- 4.4 **Entry Control Point:** A specific point of entry where the Entry Control Officer records information required in the Personnel Accountability Guideline.
- 4.5 **Group:** Established to divide the incident management structure into functional areas of operation. Groups are composed of resources assembled to perform a special function not necessarily within a single geographic division.
- 4.6 **Immediately Dangerous to Life and Health (IDLH):** Is an atmospheric condition which:
- A. Poses an immediate threat to life and health.
 - B. Could cause irreversible or delayed adverse health effects from prolonged exposure.
 - C. Atmospheres with a concentration of oxygen by volume of less than 19.5% will be considered as IDLH.
 - D. AN ATMOSPHERE WILL BE CONSIDERED IDLH UNTIL PROVEN OTHERWISE.**
- 4.7 **Mayday:** A universal signal for someone in distress (example- Mayday, Mayday, this is E6A Lt. Jones. I am low on air and cannot find my way out. My approximate location is the first floor, interior, Division 3.)

- 4.8 **Offensive Fire Operation:** An operation used when structural and fire conditions are safe enough to allow fire personnel to enter the immediate fire area to make a direct interior attack on the fire. The needed fire flow must be available to initiate an offensive attack.
- 4.9 **On Air Time:** Term used to define the amount of time an individual is actively depleting air in a self contained breathing apparatus (SCBA). The Phoenix, Arizona Fire Department conducted testing that conservatively determined that, for each minute of time on air, 175 psi is depleted from a cylinder. CFEMS will use the Phoenix, Arizona numbers as a baseline:
- A. 2216-psi cylinder will last approximately 12 minutes.
 - B. 3000-psi cylinder will last approximately 17 minutes.
 - C. 4500-psi cylinder will last approximately 25 minutes.
- 4.10 **Personnel Accountability Report (PAR):** On site accounting of personnel. The Department Guideline on Personnel Accountability must be followed.
- 4.11 **Rapid Intervention Team (RIT 1):** Three or more personnel in full personal protective equipment with donned SCBA on stand-by for immediate entry in the event they are needed. RIT 1 will be used as a search team to find the downed or trapped firefighter. The “buddy system” shall be used whenever an entry into any IDLH area is made; **this team will consist of a minimum of three personnel!**
- 4.12 **Rapid Intervention Team (RIT 2):** A team composed of four or more firefighters utilized as an extraction team for the removal of a downed or trapped firefighter; **this team will consist of a minimum of four personnel!**
- 4.13 **Rescue Division Officer:** Officer assigned to coordinate RIT operations.
- 4.14 **Tag Line:** A rope utilized by RIT members to maintain physical contact. One end of the rope is tied to a fixed object outside of the IDLH in the Rescue Group. The other end is stretched to the downed firefighter and secured to a fixed location at that point.
- 4.15 **Tethered:** A method of maintaining physical contact with team members through the use of a rope.
- 4.16 **RIT Pack:** A bag containing rope, five prussics and ten carabineers to be used by the RIT 1.
- 4.17 **RIT Air Pack:** An extra air cylinder used to provide air for the downed or trapped firefighter.

5.0 RESPONSIBILITIES

- 5.1 The Incident Commander shall be responsible for implementing this guideline at all working fires (with the exceptions listed in this guideline) when there is a possibility personnel will be operating in or around an IDLH atmosphere or potential IDLH atmosphere.
- 5.2 All personnel must have a working knowledge of this guideline and the ability to implement it should it become necessary.
- 5.3 Rescue Division Officer duties include but are not limited to:
- A. Assemble a RIT at an entry point to the structure.
 - B. Designate a team leader for each RIT. The team leader will be equipped with a portable radio and will notify Command in the event of an emergency. While operating in an IDLH or a potential IDLH atmosphere, team members must remain in direct visual, voice, or tethered contact with one another at all times.
 - C. Ensure all personnel are in full protective gear with SCBA donned; pass device activated and operating properly before entering an IDLH or potential IDLH area.
 - D. Notify Command of the names of each RIT member via radio transmission.
 - E. Initiate search and rescue procedures if needed.
 - F. Maintain/monitor communications from Command, Safety Officer, and personnel inside the structure.
 - G. Monitor by radio, the activities of the RIT.
 - H. Activate proper level of personnel accountability (according to Columbus Fire and Emergency Medical Services guidelines).
 - I. Monitor on-air time for personnel operating inside the IDLH area.
 - J. Remain at the entry point on the outside of the structure.

- K. Notify Command when the RIT has been initiated, then assemble another RIT to replace the initial team, and call a medical unit to the point of entry to provide medical assistance for the rescued firefighter.
- L. Recommend additional RIT assignments to Command.

6.0 RAPID INTERVENTION TEAM ONE AND TWO

- 6.1 Prior to personnel entering an IDLH area, a RIT 1 must be assembled outside the IDLH. RIT 1 responsibilities are:
 - A. Provide assistance to interior personnel in the event of an emergency.
 - B. Function as a search team.
 - C. **A RIT DOES NOT CONDUCT THE PRIMARY OR SECONDARY SEARCHES FOR OCCUPANTS.**
- 6.2 RIT 1 will have the following equipment with them in their assembly area:
 - A. A charged hose line in place (if required).
 - B. A RIT Pack.
 - C. A RIT Air Pack.
 - D. Infrared Imaging Device(s)
 - E. Portable Radio
 - F. Any equipment needed (to include building diagram) to initiate a possible rescue of personnel.
- 6.3 **For safety, RIT 1 members will maintain visual, voice or tethered contact with each other.**
- 6.4 During operations where IDLH atmospheres do not require the use of hose lines, entry can be made when three (RIT 1) personnel are on the scene.
- 6.5 **The only exception of an entry team entering into an IDLH atmosphere without an established initial RIT is when there is a need to perform an immediate rescue of suspected or known occupants at a structure fire.**
- 6.6 **RIT 1 will be established as soon as possible, typically upon arrival of the second arriving engine company.**
- 6.7 **RIT 1 will not be given any additional duties. Their sole responsibility is to provide emergency assistance for personnel operating in the area that is IDLH.**
- 6.8 Once Command establishes RIT 1, the RIT team leader must:
 - A. Announce the names of the members that will be performing RIT 1 duties. Example: “Jones, Helms and Russell are assigned as RIT 1 members.”
 - B. When a company is assigned the duties of RIT 1, the Company Officer must inform Fire Dispatch, For example, “Fire Dispatch from Engine 8, Engine 8 is assuming Rapid Intervention 1 duties.”
 - C. This radio transmission must be directed to Command and Fire Dispatch. Fire Dispatch shall rebroadcast this vital information.
- 6.6 Once RIT 1 has been implemented, RIT 1 team members shall operate by using the “Buddy System.”
- 6.7 RIT 1 will be maintained until Command determines they are no longer needed. Typically, this will be when there is no longer an IDLH atmosphere and the Incident Safety Officer has declared the incident “All Clear.”
- 6.8 Upon a report of a lost, trapped, or missing firefighter(s) Command shall:
 - A. Dispatch RIT 1 (maintaining tethered contact with use of a tag line) to the last reported location of the lost, trapped, missing, and/or injured firefighter(s).
 - B. Dispatch a medical unit to the point of entry.

- C. Command shall immediately assemble RIT 2 (4 personnel) and initiate a Level Three PAR of all companies that are working at the incident.
- 6.9 Once RIT 1 has reached the downed or trapped firefighter RIT 1 leader will immediately radio the Entry Control Officer to dispatch RIT 2. RIT 2 will follow the tag line to the RIT 1 location.
- 6.10 Once the downed firefighter is ready to be removed, RIT 1 will follow the tag line out of the IDLH until they meet RIT 2
- 6.11 Once RIT 2 reaches the downed or trapped firefighter, they will relieve RIT 1.
- 6.12 RIT 1 will follow the tag line out of the IDLH and direct rescue operations.
- 6.12 RIT 2 will rescue the downed firefighter by following the tag line out of the IDLH.

7.0 PROCEDURE

- 7.1 This guideline shall be implemented at all working structural fires beyond the incipient stage. At other incidents where Columbus Fire and Emergency Medical Services personnel are subject to hazards that would be Immediately Dangerous to Life and/or Health (IDLH) provisions will be made to rescue downed personnel.
- 7.2 **Upon declaration of a working fire, the responding Battalion Chief shall request an additional engine company.** The assigned unit will respond via radio (Unit ID responding). The unit will stage on-scene in a location to maximize their options and await instructions from Command. **A minimum of one company will be required.**
- 7.3 Command may assign more than one company as a RIT if necessary. Operations of a large or more complex nature may call for multiple RIT units to standby at different entry points. After dispatch of a company, Command has the following options for use:
 - A. Assign the company to RIT 1 or 2 duties and designate their location as the Rescue Group.
 - B. Cancel the company en-route. Reasons for possible cancellation are:
 - 1. The fire is declared under control.
 - 2. PAR's have been attained from all crews.
 - 3. An IDLH atmosphere no longer exists.
 - 4. Assign other duties, (only after determining RIT duties are not needed) such as heat relief for working crews, overhaul duties, etc.
- 7.4 While en-route potential RIT's should monitor the appropriate radio channel. Upon assignment of RIT 1 or 2 responsibilities, the RIT company officer shall obtain a detailed briefing from Command.
- 7.5 In some cases, the RIT may need to conduct a recon in order to maintain an awareness of working companies and conditions. The team must be able to react immediately to sudden emergency events at the incident site. In all cases, the RIT must have the ability to deploy rapidly.
- 7.6 Firefighters working in the IDLH atmosphere should not wait until they become low on air before declaring a Mayday.
 - A. According to a study conducted by the Phoenix, Arizona Fire Department, it took RIT members just over (7) minutes to reach a downed firefighter once the Mayday was initiated.
 - B. A RULE OF THUMB FOR DECIDING WHEN TO USE A MAYDAY CALL IS "IF YOU THINK YOU ARE IN TROUBLE YOU PROBABLY ARE."**
- 7.7 In some situations, protective hose lines may need to be pre-deployed. RIT companies should assess the need for other access points to provide for egress, rescue, and ventilation. Forcible entry may be necessary. When companies are operating on floors above ground, the RIT should consider pre-positioning ground ladders to allow for emergency egress and rescue.
- 7.8 If RIT crew units are needed to respond to a sudden emergency, in which the Division Officer is incapacitated (physically or emotionally), the RIT 2 Leader will assume Division responsibilities for the area in which the emergency exists. The RIT 2 must coordinate their activities with the involved RIT 1 in order to maximize the rescue operation.

8.0 AFTER ACTION REVIEW

- 8.0 If a RIT is initiated to perform a rescue operation for a downed firefighter THE deputy Chief of Operations shall be notified immediately and an after action review of the circumstances of the rescue will be conducted by the Deputy Chief of Operations who will submit his/her findings to the Department Chief.