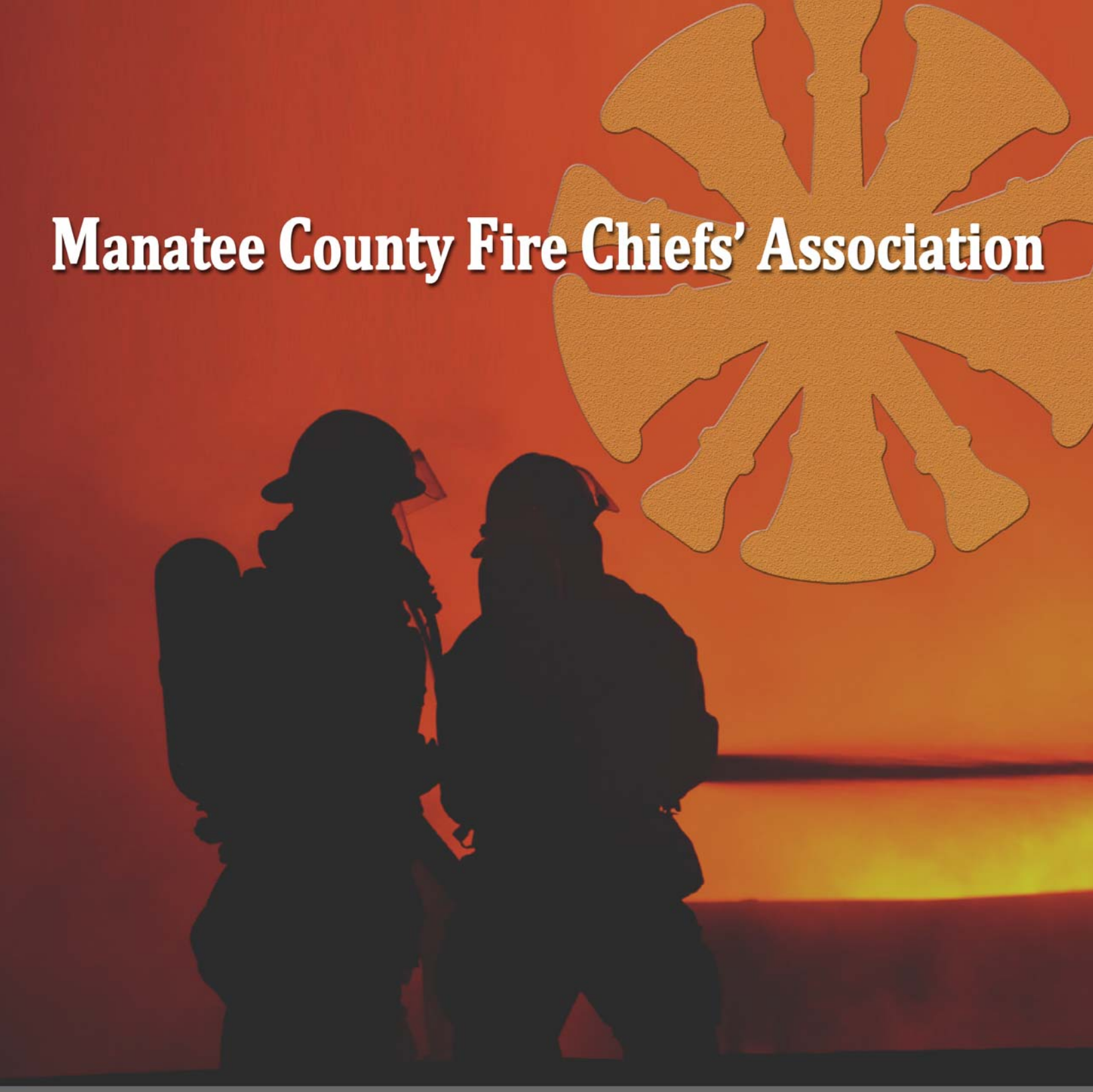
# Manatee County Fire Chiefs' Association



# Recommended Operating Guidelines

**Adopted:** 05/24/2018
**Version:** 8.0

# TABLE OF CONTENTS

# TABLE OF CONTENTS (Continued)

**PREAMBLE**

These Recommended Operating Guidelines were developed for the Manatee County Fire Chiefs' Association (MCFCA).

The intent of this manual is to provide the fire departments a method by which to function in a uniform fashion on emergency scenes. Each and every subject covered in this document has been carefully researched and debated prior to being approved for inclusion. However, no procedure, or set of procedures, can be expected to adequately address each and every emergency situation. With this in mind, these procedures must be viewed as **Recommended Operating Guidelines only**.

It is important to realize that this set of guidelines represents a blending of ideas, philosophies, techniques and traditions from area departments in an attempt to provide the residents of Manatee County and its municipalities with the most cost-effective and efficient fire and emergency response possible.

It is intended that these Recommended Operating Guidelines be used as a core document and that editing of the core document shall not be permitted. Addendums by individual fire departments or agencies may take place, as not to change the intent of the core document. It is recommended that the Operations Committee of the MCFCA review this document every 2 years. It is further recommended that this document be re-adopted every year at the time the MCFCA President takes office.

New subjects being recommended must first be presented to the President of the MCFCA, who will then evaluate the subject and, if appropriate, direct the Operations Committee to review and draft the new subject document. The new subject draft will then be presented to the MCFCA for approval.

These **Recommended Operating Guidelines** have been executed and approved and is effective and operative as to each of the parities as herein provided.

**East Manatee Fire Rescue** _____

Chief Lee Whitehurst Date

**Bradenton Fire Department** _____

Chief Chuck Edwards Date

**Cedar Hammock Fire District** _____

Chief Jeff Hoyle Date

**Duette Fire and Rescue District** _____

Chief Jim Leonard Date

**Florida Forest Service**

District Manager Duane Weis Date

**Longboat Key Fire Department**

Chief Paul Dezzi Date

**Manatee County Public Safety**

Director Bob Smith Date

**Myakka City Fire District**

Chief Dan Cacchiotti Date

**North River Fire District**

Chief Michael Rampino Date

**Parrish Fire Control District**

Chief Stacey Bailey Date

**Sarasota-Bradenton International Airport Fire Department**

Chief Bill Quinn Date

**Southern Manatee Fire District**

Chief Brian Gorski Date

**Trailer Estates Fire District**

Chief Tim Hillman Date

**West Manatee Fire District**

Chief Tom Sousa Date

# FIRE DEPARTMENT
# RECOMMENDED OPERATING GUIDELINES

## Revision History

**Version 8.0**
**Approved May 24, 2018**

- **Reorganization of Entire Document (see Table of Contents)**
- **MCROG 35 Evacuation Communications**
  - Removed – Specific to Grace Accountability System that is no longer in use
- **MCROG 103 Incident Safety**
  - Updated document to bring IRIC and RIC assignments into agreement with NFPA 1710 and ROG 106
- **MCROG 104 Critical Incident Safety**
  - Code Green changed to Code Blue
- **MCROG 106 Rapid Intervention Crew (RIC)**
  - Updated document to bring IRIC and RIC assignments into agreement with NFPA 1710
- **MCROG 109 Mutual Aid Response**
  - Removed Parrish Fire District Rehab Trailer from Section G, Rehab Task Force
- **MCROG-111 Incident Rehabilitation**
  - Updated protocols based on submissions from Captain Jeff Dirling (NRFD), EMS, and DOH
  - Added directive from MCFCA delegating authority to EMS for determining FF fitness for duty while in incident rehab
- **MCROG-112 Post Incident Decontamination**
  - New ROG
- **MCROG-201 Response, Apparatus Placement & Company Function**
  - Changed RIT references to RIC
- **MCROG-206 Fireground Operations at Structure Fires**
  - Changed RIT references to RIC
- **MCROG-207 Fireground Operations at Multi-Story Buildings**
  - Changed RIT references to RIC
- **MCROG-213 Fireground Operations Compressed Natural GasTrucks**
  - New ROG
- **MCROG-303 Bloodborne Pathogens Exposure Control Plan**
  - Removed all language related to protocols and procedures, per recommendations from Chief Saur (EMS)
  - Left definitions and added section to indicate each agency is responsible to develop their own policy

- **MCROG-401 Vehicle Accident & Extrication Rescue**
  - Changed name from Operations at Vehicle Accidents & Extrications
- **MCROG-403 Structural Collapse Rescue**
  - Changed name from Structural Collapse
- **MCROG-404 Trench and Excavation Rescue**
  - Changed name from Trench and Excavation Collapse Operational Guidelines
- **MCROG-405 Confined Space Rescue**
  - Changed name from Fireground Operations at Confined Space Incidents
- **MCROG-406 Lock Out-Tag Out**
  - Minor format change
- **MCROG-407 Hazardous Materials Response & Rescue**
  - Changed name from Hazardous Materials
- **MCROG-408 Water Rescue**
  - Minor format change
- **MCROG-409 Marine Emergency Response Team (MERT)**
  - Complete revision based on MERT agreement
  - Changed name from Marine Vessel Operations
- **MCROG-410 Carbon Monoxide Response**
  - Changed name from Carbon Monoxide Activation - Response
- **MCROG-504 Civil Disturbance Incidents**
  - Changed name from Civil Disturbance
- **MCROG-505 Response to Incidents Involving Crime Scenes & Violent Acts**
  - Changed name from Response to Crime Scenes Violent Acts
- **MCROG-506 Active Shooter Incidents**
  - Changed name from Fireground Operations at Active Shooter Incidents
  - Changed terminology to align with SAVE System
  - Removed redundant material
- **MCROG-507 Response to Terrorism Incidents**
  - Changed name from Response to Terrorism
  - Updated HazMat Team reference to Southern Manatee Fire Rescue District
- **MCROG-508 Electrical Emergency Incidents**
  - Changed name from Electrical Emergency Operations
- **MCROG-509 Animal and Insect Response**
  - Minor formatting and wording changes
- **MCROG-510 Aircraft Incidents**
  - Changed name from Fireground Operations at Aircraft Incidents

# NATIONAL INCIDENT MANAGEMENT SYSTEM

Whereas, the membership of the Manatee County Fire Chief's Association are individually required to adopt the National Incident Management System (NIMS), the Manatee County Fire Chief's Association collectively adopts the principles and procedures of the NIMS Incident Command System.

This standard establishes further guidelines and procedures that are within the NIMS framework for the management of field operations while ensuring the safety of personnel and the effective integration of responding companies. Therefore, certain definitions particular to Manatee County are defined as herein.

AHJ – Agency/Authority having jurisdiction.

Command (verb) – the act of a fire or EMS member taking charge of an incident.

Command (noun) – the fire or EMS person or group of people in charge of an incident. Synonymous with Incident Commander and Unified Command. Should be preceded by the name of the Incident such as "Desoto Mall Command".

Command Officer – the Fire Shift Commander, EMS Supervisor, or any Fire or EMS Chief Officer.

Crew – the personnel that staff a fire company or EMS medic unit.

Crew Boss - the person in charge of a crew.

EMS – Manatee County Department of Public Safety, Emergency Medical Services Division.

Fire – Any Manatee County Fire Rescue agency.

MCI – a multi-casualty incident with 5 – 10 or more patients. Can be a medical only incident or a fire, technical rescue, and/or hazardous materials incident(s) with multiple casualties.

A. Establishment

1. Command shall be established by the first arriving fire or EMS crew on any scene that requires the commitment of 3 or more fire and/or EMS crews, unless command has already been established by a prior arriving unit. "Command" is established by radio transmission from the Crew Boss whose identity is coupled with the words

   a. "…assuming command,"

   b. name of the incident

   c. and the location on the scene of "command."

   Once identified, the crew leader shall use the radio designation "command." Command is responsible for requesting additional assistance, assignment of on-scene and responding units, and decisions of strategy aimed at resolving the incident. The on-scene location of "command" shall be a position that allows observation of the incident while making "command" highly

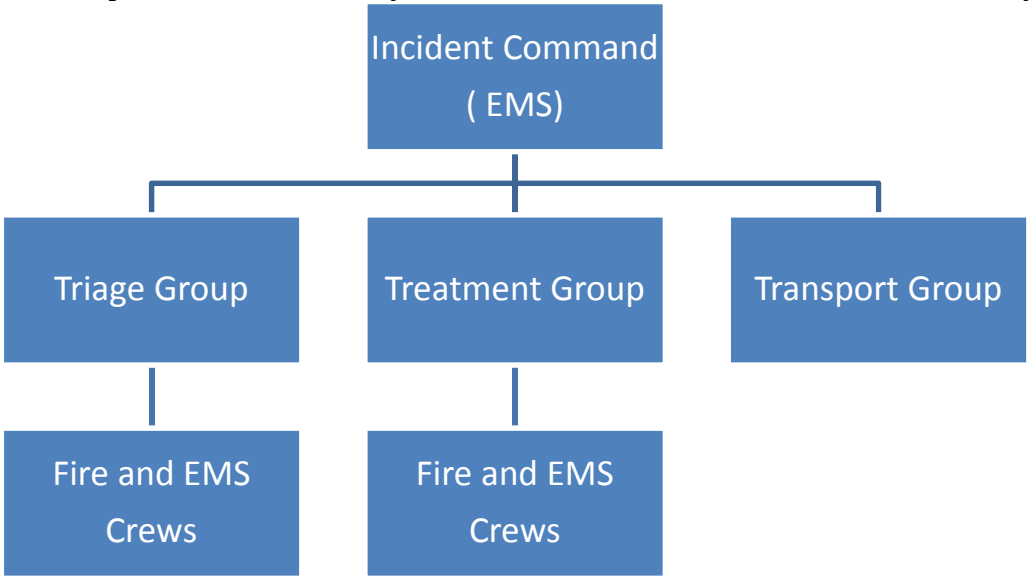
visible to other units. Units on-scene shall direct communication to "command" and "command" shall maintain on-scene communication with the dispatch center.

2. For incidents that require the first on-scene crew boss to commit to a function position, (e.g. fire attack, patient care, etc.), they shall then transmit the following: "Passing Command." This alerts the next due crew boss or command officer to establish "command." The passing of command shall be confirmed by both parties. Command may only be passed once at the crew boss level, with the exception of a deescalating incident. Any responding fire and/or EMS command officer may assume "command" from any fire and/or EMS crew boss upon arrival of any incident that requires the commitment of 3 or more fire and/or EMS crews.

3. The AHJ of the incident shall ultimately assume overall command.

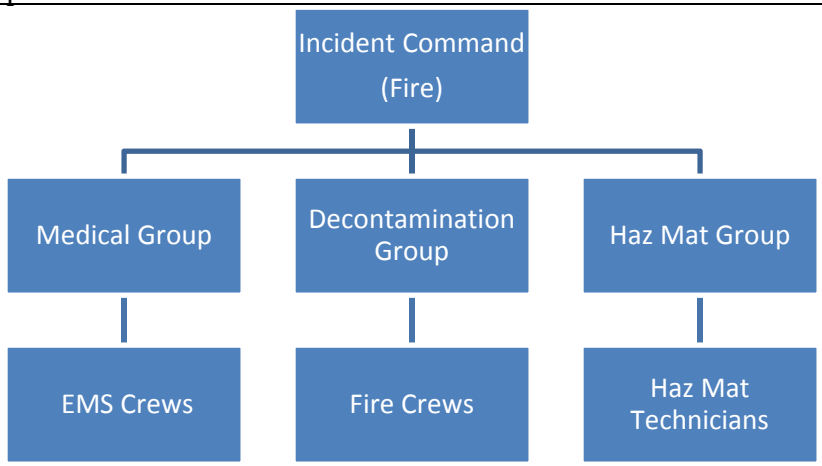
   a. For medical only incidents, EMS is ultimately the AHJ.

Example of a Multi-Casualty Incident Command Structure in Manatee County.

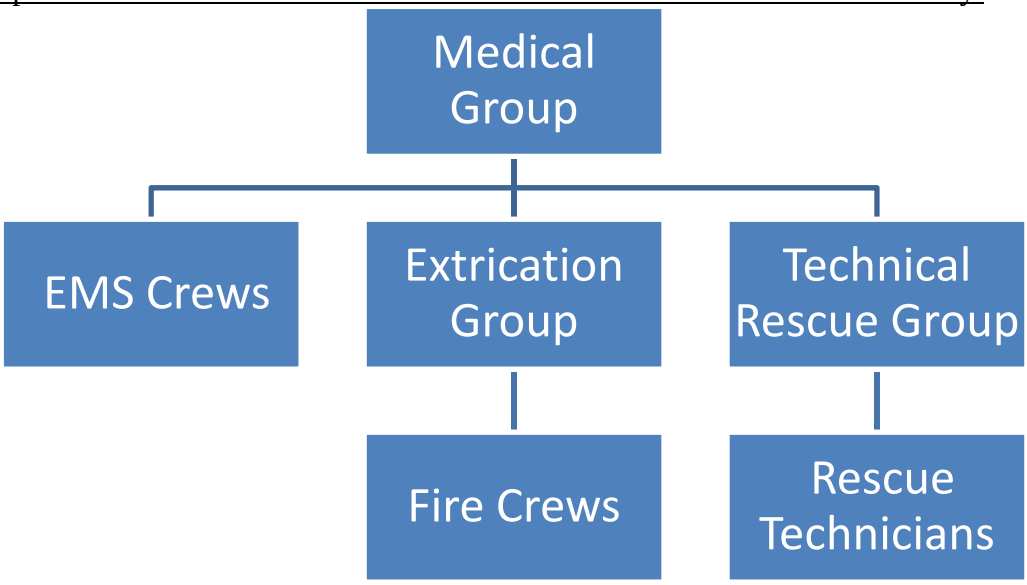


b. For hazardous materials incidents, technical rescues, and fires, the fire jurisdiction is the AHJ.

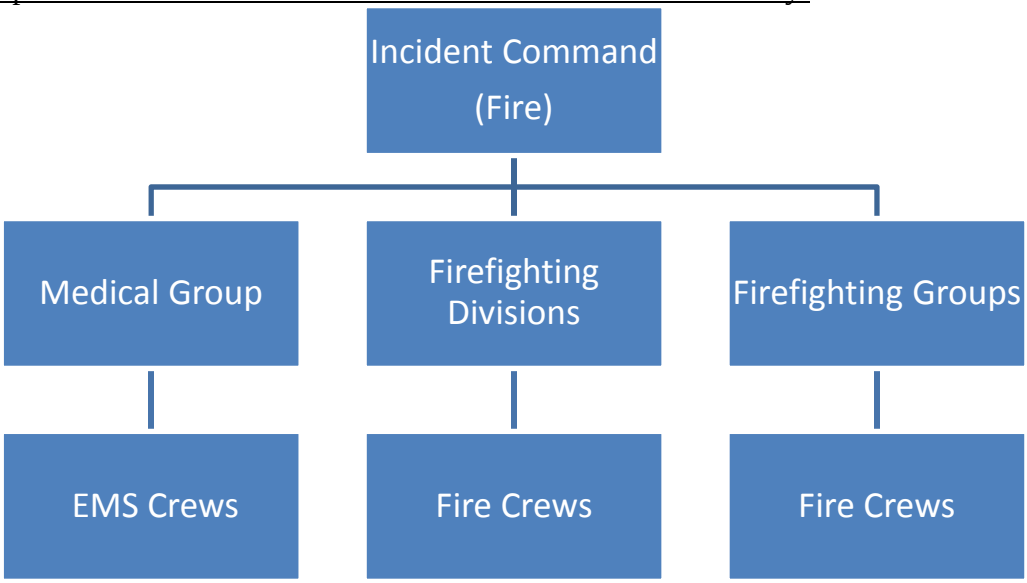
Example of a Hazardous Materials Incident Command Structure in Manatee County.




Example of a Technical Rescue Incident Command Structure in Manatee County.

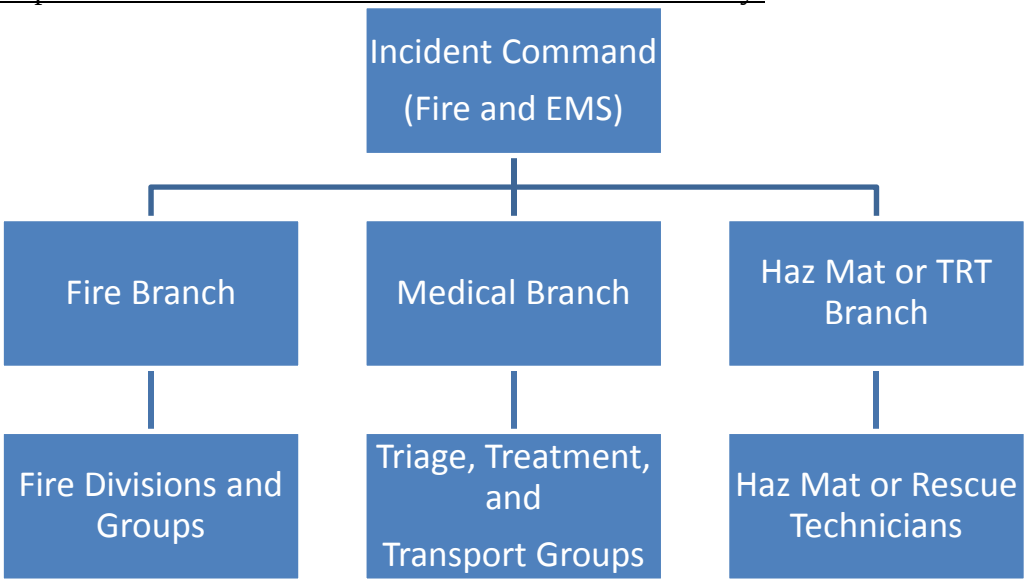


Example of a Fire Incident Command Structure in Manatee County.




c. When both (a) and (b) apply, then Unified Command shall be established.

Example of a Unified Command Structure in Manatee County.




B. Command Role

1. Initial "Command" shall usually maintain control of incident operations as well as all other Command and General staff functions. "Command" shall establish the necessity to call for additional units and/or agencies and expand the Incident Command organization.
"Command" shall identify the level of the incident, whether a working or multiple alarm fire,

multi-casualty incident, hazardous materials situation, or a disaster. Command shall establish and assign Incident Command functions as needed to meet the demands of the incident.

2. Command" shall determine whether fire attacks are to be offensive or defensive, and shall develop an appropriate plan using the strategic priorities of life safety, incident stabilization, and property conservation, and shall direct on-scene efforts accordingly.

3. "Command" shall communicate with on-scene crews, units, divisions/groups, and branches when established until or unless and Operations Section Chief is appointed. For multiple alarm fires, multi-casualty incidents, hazardous materials situations, or any other disasters, "command" shall establish a formal command post, utilizing a staff vehicle or other fixed facility. "Command shall then remain stationary. "Command" shall determine when the incident is resolved, releasing units, and downgrading operations.

C. Command Devices

Several items provided for "command" to improve or facilitate the functions of "command" are identified below, with their usage.

1. Green revolving or strobe lights: Used to identify the formal command post. These are carried by Command Officers or in staff vehicles.

2. Command vests: Reflective vests identify the wearer's function within the Incident Management System.

D. Transfer and Termination

1. "Command" may be transferred for a variety of reasons. It may be transferred downward to a person of lower rank only if the incident has been declared "under control." It is usually transferred upward to a senior ranking command officer based on the type, size, and severity of the incident. Subsequently arriving senior command officers of the agency having jurisdiction of the incident shall exercise one of the three (3) options:

   a. Act as an official observer, in which case no action shall be taken, within the framework of the Incident Management System.

   b. Report to "command" and place themselves under their direction for assignment.

   c. Assuming command and reassigning the previous Incident Commander.

2. The senior command officer assuming "command" shall notify the existing command officer of their intent to do so in a "face-to-face" meeting, unless this is impossible due to circumstances or

conditions. The officer being relieved shall brief the officer assuming command on the following:

a. General situation status.

b. Primary problem or fire location and the current conditions and probabilities.

c. Current effectiveness of the operations in place and a review of the tactical worksheet.

d. Established strategic objectives.

e. The assignment and deployment of operating companies.

f. The resources located in staging and/or rehabilitation.

g. Safety considerations.

h. Number of MARC's

3. All rules for the establishment of "command" shall apply to transfer. The new "command officer" shall advise dispatch of the change. Any changes in established strategic or tactical priorities shall be communicated to all divisions or groups operating at the incident. The most senior officer assuming command at any incident is responsible for signing the incident report. The response and arrival of higher-ranking officer should serve to strengthen the management of an incident, but not detract from a centralized "command." Arrival of senior officers in and of itself does not constitute a transfer or sharing of "command."

4. "Command" is terminated when the incident is operationally resolved and no further action is being taken.

5. Termination of "command" takes place when the current "command" officer notifies the communication center that "command is terminated" and all companies are advised of command termination.

E. Geographical Divisions

Incident sites, or the primary structure at structural incidents shall be identified by geographical areas to easily identify specific areas.

For structures (working clockwise)

1. Division A – the address front of the structure. If no address side is obvious, "command" shall designate Division A.

2. Division B – the exterior part of the structure directly to the left of Division A and opposite of Division D.
3. Division C – the exterior part of the structure directly to the left of Division B and opposite of Division A.
4. Division D – the exterior part of the structure directly to the left of Division C and opposite of Division B.

For exposures (working clockwise):

1. Exposure A – the exposure directly attached, next to, or across from Division A
2. Exposure B – the exposure directly attached, next to, or across from Division B
3. Exposure C – the exposure directly attached, next to, or across from Division C
4. Exposure D – the exposure directly attached, next to, or across from Division D

Other Areas:

1. Roof – the top most exterior of the structure
2. Interior – the inside of the primary fire structure

Multi-story - location shall be given by division and floor number (e.g. Division 2, Division 1).

F. Functional Groups

Groups may be assigned for functional tasks such as:

1. Rehabilitation (Rehab or R&R)
2. Fire Attack
3. Ventilation
4. Search
5. Water
6. Extrication
7. Medical

G. Assignments

"Command" should assign the appropriate divisions and groups, under the following circumstances:

1. When "command" foresees a situation which will eventually involve a number of crews beyond their span of control.
2. When "command" can no longer effectively manage the number of crews currently involved in the operation.
3. When crews are involved in complex interior operations.
4. When crews are operating from tactical positions over which "command" has little or no control.
5. When the situation demands close control of crews because of structural conditions, hazardous materials, heavy fire load, marginal offensive situations, etc.

H. Branch Directors and Division/Group Supervisors functional responsibilities

Each "Branch, Division, or Group" shall be responsible for the tactical deployment of the resources assigned to that "Branch, Division, or Group" and for communicating its needs and progress to "command" (or "operations" if established). Branch Directors and Division/Group Supervisors should follow the following protocols:

1. Use Branch, Division, or Group designation in all radio transmission, (e.g. roof division from…, ventilation group from…, evacuation group from…, interior from…) instead of normal radio identifier.
2. In the early stages of an incident, a crew boss may be required to operate as both an area or functional supervisor AND crew boss. In such cases, the assigned crew should be with the crew boss's assignment, if possible.
3. Crew bosses must remain mobile enough to stay with the crews that they are supervising.

I. General Guidelines for "Command" Application

1. Freelancing by any personnel or crews will not be tolerated. Offenders will be removed from the operation to ensure safe conditions for others.
2. "Command" alone will determine whether an offensive operation or a defensive operation will be utilized. All personnel shall adhere to the established strategies.
3. Orders from "command" take precedence over all others and shall be carried out without delay, unless immediate and extreme danger to public and/or personnel would result. "Command" will be advised of any delay and the reason for the delay.
4. All personnel at an incident have a responsibility and obligation to communicate changing conditions or hazardous situations, through their crew boss or Division/Group Supervisor, to "command."
5. Communication discipline at an incident must be maintained in order to achieve a safe and effective operation. **The chain-of-command shall be honored and all non-essential communications kept to a minimum.**

6. All other applicable ROG's should be followed to ensure standardized operations. Deviations must be reported to "command," along with the reason for deviation.
7. "Command" shall communicate to the Communication Center based on reports from the field the following bench marks on an incident:

    1. "Command" established. Name of incident and location of command given.

    2. Working fire or working incident. (Any incident requiring the commitment of three (3) or more companies to resolve)

    3. Level of MCI or Level of Haz Mat Incident.

    4. Type of firefighting strategy - offensive or defensive.

    5. Extrication in progress

    6. LZ established

    7. Water supply established. (Upon completion of an uninterrupted supply source)

    8. Exposures protected. (If applicable)

    9. Entry made into "Hot Zone"

    10. Helicopter on scene

    11. Water on fire. (Upon the first application)

    12. Primary search complete. (With either "all clear" or the number of victims found)

    13. Ventilation indicated. (When first ventilation progress is seen)

    14. Time check acknowledgment size-up. (Give a brief description of the current status of the incident when advised by dispatch of a 20 minute notification)

    15. Fire knocked down.

    16. Secondary search completed. (With either "all clear" or the number of victims found)

    17. Situation under control. (When the units on the scene can handle the situation and no further escalation is indicated and the majority of the hazard is abated)

    18. Patients extricated

19. Patients transported. (If applicable)

20. Helicopter departed to _____hospital

21. Fire out. (When "heavy" overhaul is completed)

22. "Command" is terminated.

J. Post Incident Analysis (PIA)

A PIA should be held, if possible, within six (6) days of any multiple-alarm incident. The incident commander shall schedule and preside over the PIA, which should (as much as possible) include all companies and/or managers. .

The objectives of the PIA are:

1. To review the course of events at the incident.

2. To identify key roles within the operation.

3. To evaluate the strategies and/or tactical plan for effectiveness.

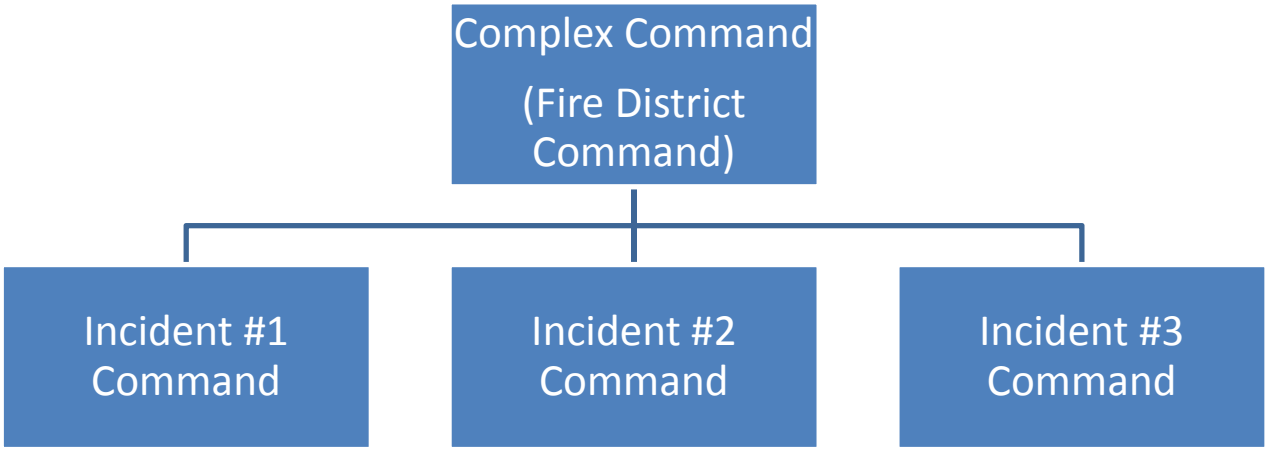
4. To identify lessons learned.

Dispatch tapes, tactical worksheets, slides, videos, and board diagrams may all or partially be used to aid the PIA. PIA's shall be conducted in a positive, learning environment.

K. Complex (District) Command

During high call volumes or county-wide disasters, each fire agency may establish a Complex Command to manage all incidents that arise in their District.

Example of a Complex (District) Command Structure in Manatee County.



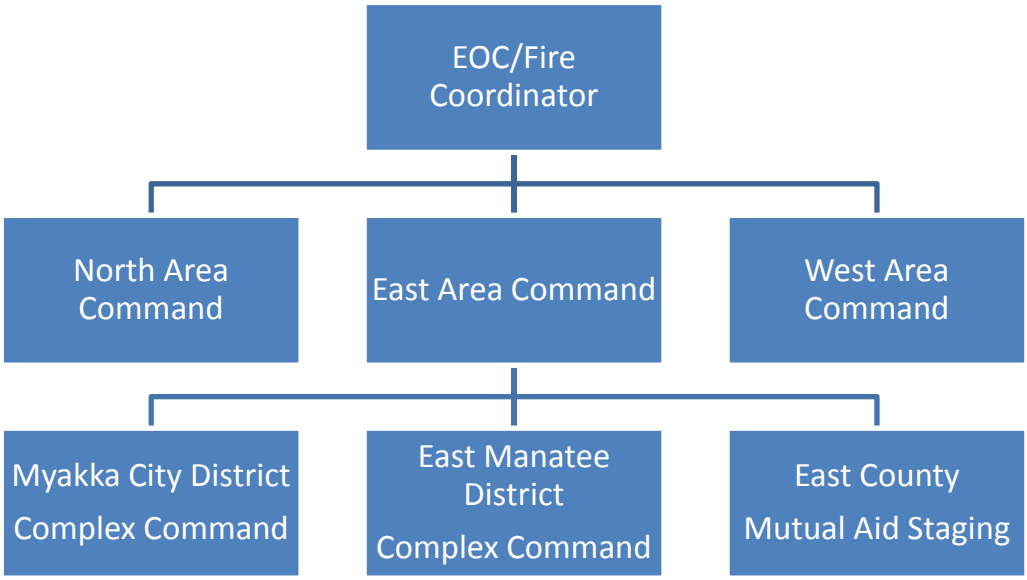

L. Area Commands

In order to manage critical resources county-wide, Area Commands may be established by the EOC between several agencies to coordinate regional logistical and resource staging areas as identified.

M. Multi-agency Coordination (MACS)

Incident, Unified, Complex, and Area Commands shall coordinate with the Fire Coordinator or the EOC for resource requests beyond local mutual aid.

Example of the coordinating relationship between the EOC, through Area Command and/or Complex Command to the different field Incident Commands.




N. An Incident Management Team(s) (IMT's) consisting of a Team Commander, Operations Chief, Logistics Chief, Planning Chief, Safety Officer, and/or a Public Information Officer may be established by the Manatee County Fire Chiefs' Association for response as request within Manatee County or to surrounding counties.

# SIZE-UP

**SCOPE:** This ROG establishes procedures for creating and delivering incident size-up's.

## A. Procedure

In order to initiate the evaluation of any incident, the first arriving company will transmit on the assigned radio channel a size-up as soon as possible after arrival. Size-up serves to advise other responding units of the expected situation, and advise command officers and communication center the nature of the incident. If, upon arrival, an accurate size-up cannot be given, or, if after several minutes on the scene, the situation changes significantly, an up-dated size-up will be given. Any special hazards noted on arrival (Haz-Mat, wires down, structural failure, gas leak, etc.) should be noted in the size-up. After the initial size-up, the first arriving company will use the Incident Command System ROG as a guide for further communications. The size-up parameters of various incident types that should be included in the radio transmissions are listed below.

## B. Radio Report

The initial radio report is to include the following information:

1. Unit designation of the first arriving unit on scene.
2. A brief description of the incident situation. (e.g. building size – small, medium, large, occupancy, HazMat release, multi-vehicle accident, etc.)
3. Obvious conditions (working fire, HazMat spill, multiple patients, etc.)
4. Brief description of action taken
5. A 360 degree size-up radio report
6. Declaration of strategy (this applies to structure fires; i.e.: offense or defense)
7. Any obvious safety concerns
8. Identification and location of Command
9. Request or release of resources as required

## C. Parameters

1. Medical Emergencies:

   - Size-up is not necessary unless multiple patients are involved.

2. Vehicle Fires:

   - Include the type and size of the vehicle, the portion of the vehicle involved, and any exposure problems.

3. Brush and Trash Fires:

   - Include the size of the fire and specific location, type of fuel, direction of spread, and exposures, if any.

4. Vehicle Accidents:

   - State the number of vehicles involved, the degree of damage (light, moderate, heavy), road blockage, and the number of patients.

5. Structure Fires:

   - Include the size and type of structure, smoke conditions (light, showing, or heavy), and fire conditions (small, room and contents, or fully involved). Detail any evacuation in progress and/or exposure potential. Also note initial action planned (quick attack, etc.).

6. Automatic (box) Alarms:

   - State the size and type of the structure involved and note smoke or fire conditions; include any observed evacuation or audible alarms or signals.

7. Heavy Rescue:

   - Describe the scene, the number of patients, and the degree of entrapment.

8. Aircraft:

   - State the size and type of aircraft, fire conditions, evacuation, etc.

9. Other:

   - Describe the situation:

# INCIDENT SAFETY

**SCOPE:** This ROG sets forth the minimum requirements for operations at emergency incidents as related to the safety and health of responding personnel.

## A. General Incident Safety Requirements

1. Emergency operations and other situations that present similar hazards, including training exercises, shall be conducted in a manner so as to recognize hazards and prevent accidents and injuries.
2. When inexperienced personnel are working at an incident, the IC shall ensure qualified and/or experienced personnel are in the supervisory positions.
3. When personnel are operating in hazardous areas, they shall work in teams of two (2) or more, all of whom are in communications with each other through visual, audible, physical, safety guide rope, electronic or other means of direct communication. They shall coordinate their activities and remain in close proximity to each other to provide assistance in case of emergency.
4. When fire personnel are operating in positions of performing functions that involve immediate risk of injury, an ALS crew (Manatee County EMS or other ALS mutual aid unit) shall be placed at a standby position with medical equipment and transport capability as soon as possible.
5. Drivers shall utilize at least one spotter (back-up personnel) at the rear of the apparatus anytime an emergency vehicle is backing up at an emergency scene.

## B. Rules of Engagement for Survival

1. Size-up your tactical area of operation.
2. Determine victim survival profile.
3. **DO NOT** risk your life for what is already lost.
4. Extend **LIMITED** risk to protect **SAVABLE** property.
5. Extend very **CALCULATED** risk to protect **SAVABLE** lives.
6. Be continually aware of your surroundings and fireground communications.
7. You are authorized to question an unsafe order, practice or condition.
8. You are authorized to abandon your position and retreat when conditions deteriorate.

## C. Incident Commander Requirements

1. The Incident Commander (IC) shall organize the incident and ensure that qualified personnel hold supervisory positions. Each member of the supervisory team shall ensure that safety requirements are satisfied.

2. The IC shall be responsible for the overall safety of all personnel and activities occurring at the scene.
3. At incidents or events involving Technical Rescue or HazMat operations, the IC shall recognize that a specialist or team may need to be called in order to mitigate the issue or hazard. The IC shall also ensure properly trained personnel are assigned to identify, evaluate, and mitigate the hazard(s) and the IC and/or designee (Safety Officer (SO)) shall be responsible to provide direction with respect to the safety of operations.
4. The IC shall ensure an adequate number of responding personnel to safely conduct incident operations. Operations shall be limited to those that can safely be performed by personnel available at the scene.

**D. Specific Incident Safety Requirements**

1. The IC shall assign personnel for Initial Rapid Intervention Crew (IRIC) or Rapid Intervention Crew (RIC) operations at emergency incidents when the need arises. The composition and structure of the IRIC or RIC shall be based upon the type of incident, and complexity of operations (see ROG 106 – Rapid Intervention Crew).
2. When personnel are operating in an area that places them in potential conflict with motor vehicle traffic:
   a. Apparatus should be positioned to protect personnel from oncoming traffic while directing exhaust emissions away from the incident area;
   b. Vehicle warning lights shall remain activated until leaving the scene;
   c. Reflective markers or cone shall be placed to direct traffic flow;
   d. Personnel shall wear helmets and garments with fluorescent retro-reactive materials;
   e. Personnel shall request traffic control assistance from law enforcement if needed.
3. De-energizing electrical hazards shall be limited to operating breakers or removing fuses. Electrical meters (residential and commercial) shall not be removed by fire department personnel.
4. Areas or zones identified as hazardous to either civilians or emergency response personnel should be conspicuously marked. Place 3-inch wide **yellow** FIRE LINE DO NOT CROSS tape with black letters across doorways, window or other highly visible areas as specified in the following manner:
   a. Restricted Civilian Access: A single length of tape at chest level (approximately 4-5 feet) allows firefighters to enter the area, but prohibits civilian entry.
   b. Limited Firefighter Access: Parallel dual lengths of tape indicate limited access or entry point. This can indicate an area of limited collapse potential or other limited personnel conditions. This is used when the hazard necessitates that only personnel essential to the operation enter the area. All other personnel must remain outside the marked area. A controlled access/entry point must be established as the only access route into the area inside the barrier tape. The

safety officers or his appointed designee must be stationed continuously at the access point. Some type of accountability system should be in operation there.

c. Prohibited Firefighter Access: Double lengths of barrier tape run in a crisscross fashion indicate an area where no personnel are permitted under any circumstance. This condition will be utilized in a collapse zone where building collapse is possible, likely or has already happened. All establishment of this zone shall be announced over the radio to all companies as an emergency transmission.

## E. Personal Protective Clothing Requirement

1. All personnel shall adhere to the following minimum requirements for the proper use of protective clothing and equipment (PPE). Required fire protective gear shall be worn:
   a. While responding to and during emergency situations until such time that the officer in charge or the safety officer approves the removal of gear.
   b. During training and drills where potential for hazardous conditions exists.
   c. When responding to dispatched fire calls.
   d. When engaged in suppression, extrication, overhaul, or any chemical related situations.
   e. When directed to wear PPE by a superior officer or officer in charge.
2. For situations not specifically identified in this ROG, the Company Officer shall determine the appropriate level of protection for his/her personnel.
3. Full bunker gear is defined in this guideline as **boots, pants, coat, gloves, and helmet.**
4. Any time SCBA is used, a Nomex hood shall also be worn.
5. Personnel shall take the necessary time to don protective clothing before engaging in activities regardless of the situation.
6. Except under extenuating circumstances, personnel shall be dressed in required clothing prior to scene arrival. Apparatus drivers (engine and truck) are exempt from these requirements as long as their assignments do not vary from routine apparatus duties.
7. Company Officers are not exempt from requirements.

| TYPE OF CALL | PROTECTIVE CLOTHING REQUIRED |
|---|---|
| Medical emergencies | Appropriate PPE according to your Infection Control Program |
| Smoke checks in area | Full bunker gear |
| Wires down, electrical arcing, overheated appliances, etc. | Full bunker gear |
| Vehicle accidents | Full bunker gear for those involved in hazardous activities. Patient care personnel, at the discretion of the officer in charge |
| Performing extrication/Heavy rescue | Full bunker gear or extrication gear |
| Grass or brush fires | Full bunker gear or brush gear. SCBA if needed. |
| Structure fires & automatic fire alarms | Full bunker gear and SCBA |
| Smoke checks in structure | Full bunker gear and SCBA |
| Hazardous liquid spills (suspected fuel spill) | Full bunker gear and SCBA until product is identified. Full bunker gear thereafter, if appropriate |
| Vehicle & dumpster or trash fires | Full bunker gear and SCBA |
| Gas leaks or investigate possible hazardous materials | Full bunker gear and SCBA |
| Overhaul and salvage | Boots, bunker coat & pants, gloves, and helmets. SCBA until atmosphere is confirmed safe and continually monitored with a minimum of a four-gas meter. |
| Landing Zone | See ROG 301 |
| Marine Vessel fires | Full bunker gear with SCBA |

**Command:** Incident Management personnel have no specific requirements as long as they are functioning in a command post. Incident commanders away from the command vehicle/post shall wear helmets and command vests. All officers in a hazard zone shall wear full bunker gear.

## F. Self-Contained Breathing Apparatus (SCBA)

1. SCBA shall be donned at the discretion of the officer in charge, whenever the dispatch information includes:
   a. Fire-related call
   b. Hazmat related call
   c. Any IDLH atmosphere
   d. Unknown hazardous atmosphere
2. Upon donning of the SCBA, the Personal Alert Safety System (PASS) device shall be activated to the "On" position.

# CRITICAL INCIDENT SAFETY

## SCOPE

This ROG outlines specific orders and procedures related to critical life-safety situations that may arise during the course of an emergency incident.

### Definitions

Member Accountability Roll Call (MARC): A roll call of all personnel known to be on the scene of an emergency incident. MARC is performed by the Incident Commander, or his/her designee, on a regular basis or after an Emergency Evacuation in order to account for the safety of all on-scene personnel.

Initial Rapid Intervention Crew (IRIC): A dedicated crew of at least two fully equipped firefighters who are on site and specifically assigned to initiate the immediate rescue of injured or trapped members (NFPA 1561.3.3.44, 1710.3.3.44.1).

A. Emergency Evacuation Orders

1. An Emergency Evacuation Order is designed to warn personnel of potentially dangerous or rapidly deteriorating situations, and to affect a quick withdrawal of personnel from the dangerous area. Examples of situations that may require an Emergency Evacuation Order include, but are not limited to, building collapse, cave-in, explosion, plume/cloud shift, BLEVE, and on-scene violence directed at responders.
2. Any command officer, sector officer, company officer, safety officer or fire rescue personnel who notices a life-threatening situation developing may initiate the retreat by use of the following radio transmission:

   **"EMERGENCY EVACUATION – ALL PERSONNEL EVACUATE"**

   The person initiating the evacuation will report to Command as soon as possible to detail the situation deemed to be life-threatening. The communications center upon hearing the emergency evacuation radio transmission will set off a 5-10 second long tone over the tactical channel and repeat the order.
3. Upon hearing the emergency evacuation transmission, on-scene personnel will sound three (3) – five second blasts on the apparatus air horn or hand-held horn. This signal shall be repeated every thirty (30) seconds until all personnel are accounted for.
4. Upon hearing the emergency evacuation transmission, alert tone and/or air horn signal, all personnel at the scene will, **without delay**, report to a safe area designated by Command or other designated safe area for immediate MARC. Command officers shall return to the command post. Immediately following an emergency evacuation order, the Incident Commander (IC) shall have

control over the tactical channel to confirm MARC. All units will refrain from radio traffic unless directed by the IC.

B. Firefighter Survival Procedure/Mayday

1. This procedure is designed to enable firefighters to call for help when they become trapped, lost, disoriented, injured, etc. during tactical operations.
2. Any firefighter finding him/her in need of rescue shall immediately activate the emergency button on their 800 MHz radio (if possible) and declare **"MAYDAY-MAYDAY-MAYDAY"**. In addition to the word **"MAYDAY-MAYDAY-MAYDAY"**, the firefighter shall then communicate their WWW situation:
   - **W**ho – Who is declaring the Mayday? (name, ID number, crew assignment)
   - **W**hat – What is the problem? (trapped by debris, fallen through floor, etc.)
   - **W**here – Where are you or where do you think you are?
3. The radio channel upon which the emergency button activation/declaration of Mayday is made shall immediately be reserved for use by only the firefighter(s) declaring the Mayday, the IC, IRIC and Rescue Group. If this radio channel is the current working tactical channel, the IC may at his/her discretion ask dispatch to switch all other units to a different tactical channel. If the IC does not switch all other units to a different channel, all on-scene and responding units shall **maintain radio silence** until a rescue has been completed.
4. When a MAYDAY is declared, the IC will immediately activate the RIC.
5. Any emergency button activation at the scene of an emergency incident shall be immediately addressed by dispatch through Command. If there is no answer from the person in possession of that radio, the activation shall be considered a silent declaration of Mayday and all procedures shall be immediately followed.
6. Immediately upon hearing a Mayday transmission from any firefighter or in cases when a PAR is taken and a unit does not answer, dispatch shall (after completion of the firefighter's transmission) transmit a long tone over the tactical channel and repeat the Mayday transmission, asking for acknowledgement from Command.

   **Example:** *"Firefighter Jones, ID 123, with Engine 1 crew advising Mayday – Firefighter Jones is separated from his crew and trapped by fallen debris on the 2nd floor of the "C" side of the structure. Command do you copy?"*
7. If a Mayday transmission is made on a channel other than the current tactical channel, dispatch shall acknowledge the Mayday transmission on the group on which it is made and immediately make the above referenced announcement on the working tactical channel, adding information regarding which channel the Mayday has been declared.

**Example:** *Tactical channel is TAC7. Mayday is declared on EMERG.*

*Dispatch transmission on EMERG: Long tone – "Firefighter Jones, we copy your Mayday; you are trapped by debris 2nd floor on the "C" side of the structure. Stay on this group while we relay your information to Command."*

*Dispatch transmission on TAC7: Long tone – "Command from ECC, Firefighter Jones, ID 123, with Engine 1 crew has declared a Mayday on EMERG. Firefighter Jones is separated from his crew and trapped by fallen debris on the 2nd floor of the "C" side of the structure. Command do you copy?"*

In this situation, the group upon which the Mayday is declared shall immediately be reserved for use by only the firefighter(s) declaring the Mayday, the IC, IRIC and Rescue Group. If any other units are utilizing the group for any other reason, dispatch shall immediately switch the traffic of such units to an alternate channel. Dispatch shall only transmit on this Mayday channel if addressed by Command.

8. In the event that all units not involved in the Mayday are switched to an alternate channel, a MARC shall be immediately conducted upon units have completed radio channel switch.
9. Upon communicating their situation via radio, the person/crew declaring Mayday shall activate PASS or other accountability device upon request of the IC. If background noise inhibits radio communications, the firefighter(s) may silence the device during radio transmissions. If voice communications are not possible due to radio damage, crew injury, etc., these secondary emergency devices shall be activated immediately. Confirmed activation of either device shall be treated in the same manner as a Mayday declaration made by radio.

C. Code Blue declaration

1. This procedure is designed to inform dispatch of an immediately life-threatening situation requiring response of law enforcement **when transmission of specific details over the radio would endanger the lives of the crew and/or civilians**.
2. The most common situation that would necessitate the declaration of Code Blue would be the presence of a violent person on scene threatening to harm (or in the process of harming) the crew or other civilian and the crew is unable to safely remove themselves from the situation.
3. In any dangerous situation, the crew's first action should be to remove themselves and others from the situation. If this is possible, the company officer, or ranking responder, is required to provide detailed information regarding the need for law enforcement response. This shall include the number and description (race, gender, clothing, age) of all suspects, location of suspects as related to the crew/civilians, presence of any weapons, means and direction of travel (if suspects are leaving the scene), number and type of injuries (if any).

4. If the crew is unable to exit the situation but can relay the information outlined in section 3 without agitating the suspect(s) or alerting them as to law enforcement response, they should do so.
5. If the crew is unable to exit the situation and cannot safely relay any information to dispatch, the crew should attempt to convince the suspect(s) that they are going to tell dispatch that everything is okay and cancel any further response. At that point, the company officer or other crew member shall advise dispatch that they are "Code Blue". Crew members should assess the situation on scene and take whatever further steps they feel necessary to prevent escalation of the incident (take radio off of "scan" mode, turn radio off, etc.).
6. Upon being advised that a crew is "Code Blue", dispatch shall acknowledge the transmission (Copy Engine 1 Code Blue) without asking for further details or information. The following actions shall be taken by dispatch as quickly as possible:
    a. Proper law enforcement AHJ shall be immediately notified of the need for emergency response to the scene. Dispatch shall include all known information and that fact that the crew is unable to relay further information.
    b. The crew's supervisor shall be notified via landline about the Code Blue declaration, including the original call type and location.
7. Dispatch shall slowly contact any other unit assigned to a call on the same channel, preferably via cell phone, and have them switch traffic to an alternative channel. If cell phone contact is not possible, dispatch shall ask the unit to switch to an alternate channel for "additional information" on their call. No mention of "Code Blue" or reference to the crew declaring Code Blue shall be made over the radio. The channel upon which the Code Blue was declared shall remain cleared of any extraneous traffic until the situation has been resolved.

D. Urgent calls

1. Occasionally, crews or individual personnel may come across an emergency event during the course of their normal daily duties. If such an event occurs, the crew or personnel shall notify dispatch on their normally assigned radio channel, adding the word "Urgent" to the end of their transmission. Once dispatch has answered, the crew shall advise the location and type of event, giving any further pertinent information relating to scene safety, and specifying need for further resources.

    **Example:** *"ECC, Engine 211 Urgent"*

    *Long tone, "Engine 211 Urgent, go ahead"*

    *"ECC, Engine 211 is on scene of a 2 vehicle accident at Cortez Road and 14th Street West. One vehicle is overturned and the other is a pest control truck leaking an unknown substance. Respond EMS, one additional engine and Battalion 2 to our location."*

Urgent calls on the radio are treated as a 9-1-1 call by dispatch and will be assigned top priority over other radio traffic. When an Urgent call is being transmitted by a unit, all other units on the channel will cease any radio traffic until the call has been handled.

2. The Urgent call procedure may also be used by a unit currently assigned to an emergency call under the following circumstances:

   a. The event is not large enough to warrant use of the ICS system, and therefore there is no IC on scene;

   b. The crew requires immediate dispatch of additional resources (fire, EMS or law enforcement) due to a rapidly deteriorating situation;

   c. The crew is safely able to relay such information (not a Code Blue situation).

   Such events can include a sudden fire/explosion on scene, active shooter on scene, sudden release of hazardous materials, sudden occurrence of a separate yet nearby event, etc. In such a situation, the Rules of Engagement for Survival (see MCROG-103) will apply.

# MARC ACCOUNTABILITY SYSTEM

## Scope and Purpose:

***(Also see ROG #107)***

The purpose of this Incident Accountability procedure is to provide a consistent and uniform system to account for fire service and emergency personnel and units assembled at working structure fires and other such incidents within Manatee County. The goal of the Incident Accountability Procedure is to account for the location and assignment of all personnel and units while operating at such incidents.

### A. Application

1. The Incident Accountability Procedure shall allow the incident commander to account for all firefighters at any given time, in a small geographic area, within the "**hazard zone**" of an incident. Use of the system will provide enhanced personnel safety for the individual firefighter, and will provide means to track and account for all personnel working in the hazard zone.

2. The hazard zone will be defined as any area that requires a SCBA, or in which a firefighter is at risk of becoming lost, trapped, or injured by the environment or structure. This would include, but may not be limited to entering a structure reported to be on fire or operating in close proximity to the structure during exterior operations.

3. The Incident Commander will always maintain accurate tracking and awareness of where resources are committed at an incident.

4. Command will always be responsible for including accountability as a major element in strategy and attack planning and must consider and react to any barriers to effective accountability.

5. Division officers will always maintain an accurate tracking and awareness of crew assigned to them. This will require the division officer to be in his/her assigned area and maintaining close supervision of crews assigned to them.

### B. Membership Accountability Roll Call (MARC) Procedure

1. Upon dispatch to a structure fire or hazardous incident, the communication center shall automatically begin a 10 minute clock. At each 10 minute mark, the communication center shall advise the Incident Commander that they are at a MARC.

2. Command will determine at each MARC the situation and risk, and determine whether to continue with the accountability system. Should the MARC be continued, the Incident

Commander may use the Level 1 or Level 2 accountability procedure to account for all personnel and their location.

3. After completion of each accountability procedure, the Incident Commander may report back to the communication center the results of the MARC, updated size-up and incident action report. (Example: Communications Center from command; all personnel are accounted for, fire in two back bedrooms knocked down, ventilation in progress, checking for extension")

4. Personnel Accountability Reports (PAR's) can be requested at any time but should completed at each MARC. The notification time for each MARC can be adjusted to any time span upon request. When the PAR check is done too often, it will interfere with the ability to pass critical information among various units of the command structure.

**C. Level 1 Accountability Procedure**

1. The Incident Commander must have a general account of all companies operating on the fire ground. The Personnel Accountability Report (PAR) should be requested by the IC at periodic intervals.

3. This information shall be received in the following methods:

   a) Primarily – Grace Accountability System or "dog tags".

   b) Visually – a face to face accounting of personnel as units arrive.

   c) Verbally – usually by radio. Written and visual accountability should also be confirmed verbally with each unit OIC.

3. The following information shall be received:

   a) Unit (company) ID number and number of personnel.

   b) Assignment and location of the company.

**D. Level 2 Accountability Procedure - (Greater Alarm Fires)**

1. Once a staging area manager is established by the Incident Commander, the top copy of the ICS 214 form is turned over to them to check in units as they arrive.

   a) Last name of unit OIC – Rank and first initial if necessary.

   b) Last name of unit driver operator – first initial if necessary.

c) Last names of other firefighters assigned to unit – first initials if necessary.

2. The bottom copy is retained at the Command Post and utilized by the Incident Commander.

3. Once assigned as a company, the group shall be maintained and shall not be separated so long as they are listed on the ICS 214 Form as a company. Any change in the membership of the company shall be reported through the chain of command to the Incident Commander so the change can be made on the ICS 214 Form.

## E. Accountability Chain of Command

1. Battalion commanders shall be responsible for the accountability of all personnel under their supervision. They shall maintain an accurate daily roster of personnel and unit assignments in the command vehicle. The roster shall be kept current through-out the duty cycle.

2. Company supervisors shall maintain accountability of those personnel assigned to them as a company during the course of the incident. Should a member be reassigned from them or to them, company supervisors shall confirm that it is approved through their assigned superior. Company supervisors shall also keep their assigned superior informed as to the location of their company on the fireground.

3. Should Division/Group supervisors be appointed, they shall be responsible for the accountability and location of the companies assigned to their area. Upon request from the Operations Chief or Incident Commander for a MARC, the Division/Group supervisors shall account for each company assigned to them and report back to the Operations Chief or Incident Commander.

## F. Procedure for Investigator MARC System

This guideline is to provide Fire Investigators a higher level of accountability while on the scene of a fire investigation. Most of our investigations occur at night and sometimes we are on scene for an extended period of time with no provisions of accountability to our departments or dispatch.

1. When on scene for an investigation the lead investigator shall advise the Communications Center that he/she is on scene for an investigation and will need an Investigator MARC. The MARC system will be initiated 30 minute increments or as otherwise requested by the lead investigator.

2. Advise the Communications Center you are on scene with the number of investigators and any other assistance if applicable, such as State Fire Marshal, MSO and the engine on standby if on scene with you.

3. The Communications Center will then place you in the system and will check your status by contacting you via radio or phone.

4. If contact is not made to the lead investigator the Communications Center will attempt to contact the engine company on scene, if applicable. If no contact is made to either the engine or the lead investigator the Communications Center will then contact the appropriate law enforcement agency along with the fire department, who will go to the scene to check on the status of the investigators.

# RAPID INTERVENTION CREW (RIC)

**PURPOSE:** The purpose of the Rapid Intervention Crews (RIC's) is to provide a resource, at an emergency incident, to immediately begin operations to effect the rescue of fellow firefighters, should the need arise. This standard establishes guidelines for the development and deployment of RIC's that initiate the rescue of firefighters who are lost, missing, trapped, or injured while working in a hazardous environment.

A. **Definitions:**

Initial Rapid Intervention Crew (IRIC): Two (2) members of the initial attack crew who are assigned for rapid deployment to rescue lost or trapped members (NFPA 1710 3.3.44.1)

*Note: Members of an IRIC may be assigned additional roles (e.g. incident command, pumper operations) so long as they are able to immediately perform assistance or rescue activities without jeopardizing the safety or health of any firefighter working at an incident*

Interior Structural Firefighting: the physical activity of fire suppression, rescue or both, inside of buildings or enclosed structures that are involved in a fire situation beyond the incipient stage.

Immediately Dangerous to Life or Health (IDLH): an atmosphere that poses an immediate threat to life, would cause irreversible adverse health effects, or would impair an individual's ability to escape from a dangerous atmosphere.

PPE: Personal Protective Clothing, including structural firefighting clothing and positive pressure SCBA. PPE for Rapid Intervention Crews shall be, at a minimum, equal to that of the entry team including any specialty PPE necessary for the operation.

Rapid Intervention Crew (RIC): A minimum of two (2) fully equipped responders who are on site and assigned **specifically** to initiate the immediate rescue of injured or trapped responders (NFPA 1561 3.3.45, 1710 3.3.44).

B. **Objective:**

Ensure the safety of responding personnel by establishing an IRIC (e.g. two-in and two-out) with the first due company on fire responses and other incidents where life-safety risks to responders are present. Personnel assigned to an IRIC shall be prepared to rapidly deploy rescue operations for trapped, lost, or injured responders.

When incidents escalate to a point of exceeding first alarm assignments or presenting significant risk to responders, a dedicated Rapid Intervention Crew (RIC) shall be established. The Incident Commander (IC) shall assemble a minimum of a two-person crew outside the structure that can perform a Firefighter rescue. This crew will be identified as "RIC".

Where firefighting involves entry from different locations or levels, the incident commander shall determine whether an additional RIC needs to be stationed at each point of entry. Furthermore, the

incident commander has the flexibility to determine whether more than two firefighters are assigned to each RIC.

Examples of special hazards include, but are not limited to:

Offensive Fire Operations
Hazardous Materials Incidents
Trench Rescue
Confined Space Rescue
Any other incident having significant risks

C. **Procedure:**

1. Operations/Staffing/Location

   a. Personnel assigned to the initial arriving company shall have the capability to implement an IRIC before proceeding with operations in an IDLH or other high-risk environment

      *Note: This requirement shall not preclude firefighters from performing emergency rescue activities before an IRIC (two-in/two-out) can be assembled. In the event a rescue is attempted without an IRIC, this shall be communicated over the radio to dispatch and other responding companies. As soon as practical, an IRIC or RIC shall be established by other responding companies on arrival.*

   b. An IRIC may have other assignments as long as those assignments do not detract from their being immediately available to perform rescue of injured or trapped responders.

   c. The RIC shall be staffed with a minimum of two (2) properly equipped firefighters. A larger number of personnel may be required specific to the incident, which shall be determined by the incident commander.

   d. Members assigned to a RIC shall be dedicated to an immediate response to rescue lost, trapped, or injured responders. Members shall not be given other assignments while part of a RIC.

   e. When assigned to a RIC, the team leader shall report to the incident commander, and will coordinate an assignment location with the incident commander after conducting a reconnaissance.

   f. IRIC and RIC members shall be fully bunkered out with S.C.B.A. and assigned equipment.

   g. RIC members shall exchange their helmet for an orange RIC helmet and/or SCBA bottle cover for identification purposes.

   h. An orange tarp shall be used to identify that the site is for the RIC.

   i. While operating in an IDLH area, team members must remain in direct visual, voice

or tethered contact with one another at all times. All members should have a radio.

j. The RIC shall be maintained until the IC determines that they are no longer needed. Typically, this will be when, in the best judgment of the officer in charge, there is no longer an IDLH atmosphere and the incident has been declared "under control".

k. The Incident Commander or Operations will activate the RIC when it is determined that a firefighter is lost, missing, trapped, injured or a MAYDAY is declared. The incident commander or Operations Chief will use the term “urgent” to announce pertinent radio information.

l. The Incident Commander shall announce the names of the members assigned to RIC duties. Example: "Jones and Helms are assuming rapid intervention.

m. No action may be taken to detract from the team’s primary rescue responsibilities.

n. Consideration will be given to assignment of separate radio group channels for the RIC depending on the situation and radio traffic.

o. The incident commander will initiate the Member Accountability Role Call (M.A.R C.) for all on-scene units.

o. Additional resources will be considered. This includes addition medic units, second alarm and heavy rescue units and rehab units.

p. As the incident escalates, the RIC should become a rapid intervention group.

q. Stay ahead of the situation. Plan for future operations, hose lines, extrication, lighting, ventilation, etc.

r. The Safety Officer, Operations Chief, and IC shall continually assess structural stability of the building or situation.

s. Anticipate media attention when radio traffic announces lost, mission, trapped or injured firefighter(s). Ensure a Public Information Officer is in place and has the facts.

t. When the RIC is deployed, a replacement group will be needed to be staffed and staged for immediate deployment.

2. Duties and Responsibilities

a. The RIC once assembled shall perform a size-up. The following shall be considered as part of the size-up.

Review the tactical plan and on-site fire/contingency plans

Building layout
Occupancy
Construction
Size and location of all windows and doors
Collapse potential

b. The RIC while in standby mode shall monitor radio traffic and track personnel entering and leaving the hazardous area.

c. Monitor progress of working company's on-scene and their locations.

d. Maintain contact with the team leader. No freelancing.

e. Recon the situation/building with the team leader or as directed by the RIC leader.

f. Stay alert. Look, listen, and try to envision what is going to happen.

g. Have assigned tools/equipment in a ready state. Be prepared to get involved.

h. Be mentally prepared. Fight the urge to get involved in firefighting or incident mitigation. You are the firefighter's safety net.

i. Know the plan. Understand the plan explained by the RIC leader. Know your part.

j. Stay focused on rescue.

k. Teams will be identified as RIC 1, RIC 2, RIC 3, etc.

3. Recommended Equipment

Primary

Emergency air exchange or SCBA/PASS for each RIC member
Departmental RIC kit
Spare SCBA & air cylinder
Appropriate saw
Search rope
Hand free lighting
Sledgehammer
Halligan
Flat Axe
Radio
Thermal Imaging Device
Target Exit Device

Secondary

Battering ram
Floodlights
K-12 saw

# RIC CHECKSHEET

## STAGING

Upon being assigned to a RIC by the IC, members shall exchange their helmet for an orange RIC helmet or SCBA cover marked RIC, for identification purposes.

## DUTIES / OBJECTIVES

- forecasting danger for the Safety Officer and/or Incident Commander
- monitoring radio traffic for distress calls
- sizing-up the structure/scene from a rescue/escape perspective
- providing additional escape routes for interior crews

Immediate duties are as follows:

- ❑ meet with other RIC member
- ❑ obtain at least one portable radio (one per member is optimum)
- ❑ monitor fireground radio traffic
- ❑ assemble appropriate RIC P.P.E & equipment
- ❑ perform a RIC size-up

Other duties may include:

- ❑ place ground ladders for emergency rescue/escape (buildings of 2 or more stories)
- ❑ obtain & review any written tactical plan, if available
- ❑ remove any devices that may impede firefighter's escape (burglar bars, exterior locks)

# COMMUNICATIONS

**SCOPE:** This ROG sets forth the operational plan for radio communications among all fire departments operating in Manatee County, Manatee County EMS and the Manatee County Emergency Communications Center.

A. Radio/Dispatch System

1. All fire districts in Manatee County (with the exception of City of Bradenton & Sarasota-Bradenton Airport), as well as all Manatee County EMS units, shall be dispatched to all requests for service by the Manatee County Emergency Communications Center (ECC). Communications regarding response to and operations at emergency calls shall be directed to ECC unless otherwise required or directed by Incident Management System guidelines as set forth in MCROG-101.
2. City of Bradenton Fire Department (BFD) shall utilize the following radio groups for dispatch and tactical communications: BFD-41, BFD-42, BFD-43, BFD-44. Dispatch control of these groups shall be the sole responsibility of City of Bradenton Police Dispatch center.
3. Dispatch control of all county-maintained 800 MHz and conventional radio groups is the sole responsibility of ECC. ECC is responsible for the dispatch of the following fire districts: West Manatee Fire Rescue (WMFR), Cedar Hammock Fire Rescue (CHFR), East Manatee Fire Rescue (EMFR), Southern Manatee Fire Rescue (SMFR), North River Fire Department (NRFD), Longboat Key Fire Rescue (LBKFR), Myakka City Fire Department (MCFD), Parrish Fire Control District (PFCD), Trailer Estates Fire District (TEFD), and Duette Fire Department (DUFD). ECC is also responsible for dispatch operations for Manatee County EMS and Manatee County Marine Rescue.
4. All groups have a primary use or assignment under normal circumstances. However, under emergency or extreme conditions, ECC has the authority to assign events and/or units to different channels based upon call volume, need and specific circumstances. Reassignment of primary use of radio groups shall be at the discretion of the ECC supervisor.
5. Manatee County Fire & EMS utilize an interoperable radio system. Toning goes out over a conventional VHF radio system (for those departments/stations that require it), which activates various alerting devices in the stations. VHF also serves as a backup communications system with the fire districts. Voice communications are conducted over a trunked 800 MHz radio system. The radio system works from nine different towers placed strategically throughout Manatee County.
    - Main simulcast system is a cluster of six radio towers that provide coverage throughout the west and south-central portions of the county (main tower downtown, Buffalo Creek water tower, Cortez Rd. water tower, PSC tower & Lorraine Rd. tower)
    - East county tower sits at SR 64 & CR 675.
    - Duette tower sits inside Duette Park.

- Myakka tower sits near MCFD1.

Each radio and/or talk group has a set priority within the system. When all of the available channels on the radio tower are being used, a radio attempting to gain access will receive a busy tone. If multiple radios try to access the system during this busy period, the radio with the highest priority acquires access before any other lower priority radio. Tactical talk groups within Public Safety have the highest priority level during normal operations. Non-essential talk groups (admin, talk-around, training, etc.) have a lesser priority in the system and are subject to larger busy periods.

Transmission pre-emption (bump-off) is only available through dispatch consoles; only a dispatch console can override an in-progress transmission. The only time a radio can override ECC consoles is when that radio has declared an emergency by activating its emergency button. Doing so bumps traffic from that radio to the highest priority in the system.

6. VHF repeater equipment is owned by MCFD (MYAKKA), NRFD (NORTH), WMFR (WEST) & EMFR (EAST). These channels will be used at times when operationally necessary or in the event the entire 800 system goes down.
7. ECC shall automatically assign a major incident (event requiring response of four [4] units or more) to a tactical group upon initial dispatch. Tactical groups may be assigned to departments other than those which normally use them when call load necessitates.

B. Radio groups under ECC control are assigned the following primary uses:

| GROUP/CHANNEL NAME | TYPE | PRIMARY USE/ASSIGNMENT |
|---|---|---|
| MC-FD-W | Conventional | Toning from Main site tower |
| MC-FD-E | Conventional | Toning from East site tower |
| DISPATCH | 800 MHz | Main toning channel; non-call related status changes |
| TAC2 | 800 MHz | South regional operations |
| TAC3 | 800 MHz | East regional operations |
| TAC4 | 800 MHz | West regional operations |
| TAC5 | 800 MHz | North regional operations |
| TAC6 | 800 MHz | Central regional operations |
| TAC7 | 800 MHz | South tactical group |
| TAC8 | 800 MHz | East tactical group |
| TAC9 | 800 MHz | West tactical group |
| TAC10 | 800 MHz | North tactical group |
| TAC11 | 800 MHz | Central tactical group |

| GROUP/CHANNEL NAME | TYPE | PRIMARY USE/ASSIGNMENT |
|---|---|---|
| TAC12 | 800 MHz | Open tactical group |
| TAC13 | 800 MHz | Open tactical group |
| TAC14 | 800 MHz | Open tactical group |
| EMERG | 800 MHz | Alternate emergency tac for Mayday |
| EMER*8 | 800 MHz | County-wide talk group |
| *911* | 800 MHz | County-wide talk group |
| RESCUE34 | 800 MHz | Marine Rescue main talk group |
| INTEROP2 | 800 MHz | Common communications group with Sarasota County Fire Department |
| INTEROP3 | 800 MHz | Common communications group for law/fire/EMS |
| INTEROP4 | 800 MHz | Common communications group for law/fire/EMS |
| INTEROP5 | 800 MHz | Common communications group for law/fire/EMS |
| BFD-41 | 800 MHz | BFD main dispatch |
| BFD-42 | 800 MHz | BFD tac |
| BFD-43 | 800 MHz | BFD tac |
| BFD-44 | 800 MHz | BFD tac |

C. Medical groups (available only to MCEMS, LBKFR & MCFD)

| GROUP/CHANNEL NAME | TYPE | PRIMARY USE/ASSIGNMENT |
|---|---|---|
| EMS | 800 MHz | EMS talk-around for units & supervisors |
| ECC ADMIN | 800 MHz | ECC & EMS supervisors |
| EMS ADMIN | 800 MHz | EMS admin group for AMA traffic |
| BMC-MED | 800 MHz | Blake Medical Center ED telemetry group |
| LWR-MED | 800 MHz | Lakewood Ranch Medical Center ED telemetry group |
| MMH-MED | 800 MHz | Manatee Memorial Hospital ED telemetry group |
| DOC-MED | 800 MHz | Doctors Hospital ED telemetry group |
| SMH-MED | 800 MHz | Sarasota Memorial Hospital ED telemetry group |
| HOSPALL | 800 MHz | Common communications group for all hospitals |

D. Statewide mutual aid 800 MHz groups

| **GROUP/CHANNEL NAME** | **TOWER(S)** | **REPEATED/SIMPLEX** |
|---|---|---|
| MAFLA | EAST | REPEATED |
| MAFLA-D | N/A | SIMPLEX |
| 8CALL90 | WEST, EAST, MYAKKA & DUETTE | REPEATED |
| 8CALL90-D | N/A | SIMPLEX |
| **GROUP/CHANNEL NAME** | **TOWER(S)** | **REPEATED/SIMPLEX** |
| 8TAC91 | EAST & WEST | REPEATED |
| 8TAC91-D | N/A | SIMPLEX |
| 8TAC92 | WEST & DUETTE | REPEATED |
| 8TAC92-D | N/A | SIMPLEX |
| 8TAC93 | MYAKKA | REPEATED |
| 8TAC93-D | N/A | SIMPLEX |

Repeated channels require activation of the repeater on the tower indicated. Simplex communications are local (radio-to-radio) and don't require activation of a repeater.

E. Communications format

1. All communications transmissions to and from units under dispatch control of ECC shall utilize plain text. No "ten-codes", signals or other coded communications shall be used (with the exception of "Code Green" – see MCROG-104).
2. ECC and all units under its control utilize the International Alpha Character System for transmission of information (vehicle license tags, building names, etc.).
3. All calls for service are dispatched over MC-FD-W, MC-FD-E & DISPATCH. All available units must monitor DISPATCH (either via portable, mobile or base station connected to Informer/First-In) at all times for call assignment.
4. ECC shall dispatch calls for response to fire and EMS units under its control utilizing a standard format, outlined as follows:

   <u>Fire, EMS or combined emergency response</u>

   - Stations with First In Alerting System (FIAS): Attachment in CAD provides activation and initial announcement at station
   - Stations without FIAS: Two-tone alerts transmitted over MC-FD-W, MC-FD-E & appropriate 800 MHz group using simul-select function

- Pulse tone after two-tone alerts and prior to voice dispatch indicates that a call for service is being dispatched (all units on DISPATCH group must hold any transmissions until after call dispatch is complete)
- Voice dispatch over simul-select as follows: Responding unit(s), radio group assignment, call type, business/subdivision/complex name, address, inside location (apartment, lot number, etc.) if applicable, and map grid number, followed by a repeat of the information
- Time out

Non-emergency response

- Same format as above, but responding unit segment of the voice dispatch is preceded by the phrase "NON-EMERGENCY RESPONSE".

F. Miscellaneous communications issues

1. Inter-discipline communications

   Radio communications with other public safety or local government agencies such as Manatee County Sheriff's Office, Florida Highway Patrol, city police departments, Animal Services, Public Works, etc. shall be conducted on EMER*8. Marine Rescue can communicate with fire and EMS units on the group assigned to the call. Future use of the INTEROP2-5 groups will be implemented when a majority of law enforcement radios are programmed with this group.

2. FCC laws

   Manatee County Public Safety broadcasts over public airwaves, so all personnel and procedures are subject to federal laws under the FCC. Therefore, it is not only never acceptable but also illegal to misuse or abuse the radio system. This includes inappropriate language, arguing, unprofessional tone or inappropriate background noise.

3. Cancellation of EMS response by fire personnel

   Fire personnel who arrive at a scene prior to the arrival of EMS shall assess patient condition. If the situation does not warrant the need for EMS response (no injuries, patient has left the scene, etc.), EMS may be cancelled prior to arrival by on-duty authorized fire personnel (EMT or higher certification). The person cancelling EMS must provide their ID number which will be documented on the CAD screen by ECC. If there are no authorized personnel on scene, or if there is a question as to whether EMS is needed (patient appears to be sick or injured but wants to cancel EMS), the responding EMS unit may be given this information and advised they may change their response status to non-emergency at EMS discretion.

4. Fire mutual aid to EMS

   EMS has seventeen (17) ALS transport units and one (1) ALS engine available for response to calls. During normal operations/call load, EMS responds to calls with any medical need and as

for standby at structure fires or other major fire events. Fire districts are toned for medical calls based upon call type assignments designated by the Manatee County Fire Chiefs' Association. Fire units are toned to respond to all serious medical calls, vehicle accidents, and hazardous situations (extrication, etc.) with injuries, along with EMS. Fire units will be toned for response to less serious medical calls when EMS response is anticipated to be in excess of eight (8) minutes. Fire units (with the exception of TEFD & DUFD) are not usually toned for response to minor medical calls.

When excessive call load is experienced, response time for EMS may be extended. To prevent any compromise of patient care, ECC will make a county-wide announcement to the fire districts when there are four (4) or fewer Manatee County EMS units available for response. At that point, fire units will be toned for response to all calls, regardless of type or severity. When five (5) MCEMS units become available, ECC will make another announcement discontinuing fire response to routine medical calls.

# CONDITIONS ACTIONS NEEDS (CAN) REPORT

## PURPOSE

To establish a uniform radio report so companies transmit a clear, concise, and informative radio transmission to other companies and the Incident Commander(IC).

## APPLICATION

Conditions Actions Needs (C.A.N.) Report – this model easily identifies to the person giving the report and the Incident Commander how well they are doing, the conditions they are facing, and any support or resource needed.

- Conditions - denotes what you are seeing at your present location or assignment. It is not meant to be a long drawn out description but a short and to the point picture of your current conditions. The conditions section of the report can also affirm to the Incident Commander your location.
- Actions - tells companies and the Incident Commander the current actions being taken by you and your crew. This is meant to be a quick report of your company actions. Examples of actions would be: completing primary search, attacking fire on second floor, opening up fire area, and stretching a back-up line to the fire floor.
- Needs - describes to the Incident Commander and companies the requirements for you to complete your assigned tasks. Will you need extra companies? Are your current resources sufficient, will you require any additional tools or equipment?

***Example Radio Traffic:***

*"Division 2 from Command…give me a C.A.N. Report"…*

*"Command from Division 2…we have heavy smoke and heat conditions on the 2nd floor, water is on the fire with a 1 ¾" line, we need a second line and ventilation"…*

*"Command copies…heavy smoke and heat, water is on the fire, needing a second line and ventilation."*

# MUTUAL AID RESPONSE

A. Automatic Response Mutual Aid

1. Automatic Response Mutual Aid shall be defined as immediate response at prearranged levels for predefined circumstances through a written supplemental agreement by two or more participating agencies.
2. All fire agencies that wish to provide or receive mutual aid shall enter into a supplemental agreement commonly known as the 4 County Mutual Aid Agreement, between Manatee, Sarasota, Charlotte, and Desoto Counties.

B. Multiple Alarm Incidents

1. The predetermined "Response Matrix shall allow fire rescue departments to request additional alarm support as the size of the incident escalates.
2. Each fire agency may, through the "Response Matrix", establish pre-designated apparatus response by geographic area.
3. It is the responsibility of each department to analyze the predetermined need for multiple alarms and work through the mutual aid network to establish their "Response Matrix's."

C. State Task Force/ Strike Team Deployments

1. This guideline establishes strike teams/task forces that shall provide response to other fire services agencies outside of Manatee, Sarasota, Charlotte, Pinellas, Hardee and Hillsborough counties.
2. A deployment is greater than 24 hours and assembly time of 3 hours or more.
3. A qualified Team leader shall respond as part of the strike team/task force as assigned by the "Fire Coordinator" with a command unit.
    a. An Assistant Task Force Leader may be assigned.
    b. If Manatee County is not supplying the Team Leader, a Liaison shall be assigned.
4. Orders filled shall comply with the Florida Fire Chief's Association's qualifications and standards.

D. Brush Fire Task Force (In county/mutual aid)

*Note: This is an immediate response with a less than 24 hours assignment.*

1. <u>North Task Force</u>
    a. First response to southern Manatee and to Pinellas, Hillsborough, Polk, and north Hardee

Counties.

b. Staging shall be established at North River Sta. #3 and resources deployed within 30 minutes of dispatch

c. One (1) Task Force Leader with a Command Unit from a qualified list. One (1) Assistant Task Force Leader from a qualified list may also be assigned.

d. The North Task Force shall consist of:

i. North River .....Brush Truck
ii. Parrish .....Brush Truck
iii. Bradenton.....Engine
iv. West Manatee.....Engine
v. Duette.....Tanker

Any unit from the South Task Force may be substituted for any North Task Force unit not available to respond.

2. South Task Force

a. First response to northern Manatee and to Sarasota, Charlotte, Desoto and south Hardee Counties.

b. Staging shall be at East Manatee Sta. #6 and resources deployed within 30 minutes of dispatch

c. One (1) Task Force Leader with Command Unit from a qualified list, One (1) Assistant Task Force Leader from a qualified list may also be assigned.

The South Task Force shall consist of:

i. East Manatee .....Brush Truck and Tanker
ii. Southern Manatee .....Engine
iii. Cedar Hammock .....Engine
iv. Myakka .....Brush Truck

d. Any unit from the North Task Force may be substituted for any South Task Force unit not available to respond.

3. Agency Responsibilities:

a. Provide qualified firefighters on units.

b. Determine minimum level of training for unit members.

c. Provide a Staging Officer (North River and East Manatee.

d. Provide only qualified Task Force Leaders.

e. Provide a command unit for their Leader capable of radio communications on all 800 MHz Manatee County fire groups and VHF V-FIRE 22 Talk Around (Old DOF Red).

4. Task Force Leader Responsibilities:
    a. Coordinate with the Fire Coordinator and Staging Officer
    b. Monitor assembly time and attempt departure within 30 minutes of dispatch.
    c. Maintain two ICS 211 Check-in forms, one for check-in staff one for Leader.
    d. Provide an incident briefing to all units regarding communications, travel, information, maps, etc. prior to departure.
    e. Report to check-in, provide ICS 211 form.
    f. Supervise the team and/or liaison with assigned incident representative.
    g. Provide the Manatee County Fire Coordinator with the ICS 211 and 214 form upon returning.
    h. An Assistant Task Force Leader shall be assigned.

E. Structural Strike Teams and Task Forces (In county/mutual aid)

*Note: This is an immediate response with a less than 24 hours assignment.*

1. Engine Strike Team(s)
    a. Requested response to Pinellas, Hillsborough, Polk, Hardee, Desoto, Sarasota, and Charlotte Counties.
    b. The five closest engines and on duty Battalion Chief to the requesting county shall be dispatched directly to the scene and the Fire Coordinator notified.
    c. The Fire Coordinator shall assist the fire agencies and dispatch as needed in coordinating addition response requests and Manatee County coverage.
2. Structural Task Force(s)
    a. Requested response to Pinellas, Hillsborough, Polk, Hardee, Desoto, Sarasota, and Charlotte Counties.
    b. The aerial, tanker, Battalion Chief, and 3 closest engines to the requesting county shall be dispatched directly to the scene and the Fire Coordinator notified.
    c. The Fire Coordinator shall assist the fire agencies and dispatch as needed in coordinating addition response requests and Manatee County coverage.

F. Tanker Strike Team (In county/mutual aid)

*(Note: This is an immediate response with a less than 24 hours assignment.)*

1. ECC shall dispatch a tanker from:
   a. North River
   b. Parrish
   c. Duette
   d. East Manatee
   e. Myakka City
2. The closest Battalion Chief shall be dispatched as the Tanker Strike Team Leader who will coordinate the Tanker Strike Team response. The Tanker Strike Team Leader shall report to the Incident Commander and be prepared for assignment by the Incident Commander to be in charge of the tanker shuttle/rural water supply operation for the incident.
3. Tankers and the Tanker Strike Team Leader shall respond directly to the scene on a channel separate from the incident, although units may be staged at the incident.
4. Tankers shall be NIMS Type II having a minimum capacity of 1,000 gallons and pump a minimum of 120 gpm.
5. In addition, tankers should be able to fill and empty 90% of their capacity at an average rate of 1,000 gpm per NFPA 1901.

G. Rehab Task Force (In county/mutual aid)

*(Note: This is a non-emergency response for a large or complex incident expected to last more than 3 hours)*

1. Upon a request from Command, ECC shall respond the following units if have not already been dispatched:
2. An EMS unit to be dedicated to Rehab
3. A local American Red Cross Disaster Assistance Team (DAT) truck
4. A local Salvation Army Emergency Disaster Service (EDS) truck
5. The Manatee County Medical Reserve Corp
6. The Southern Manatee Fire Rescue Rehab trailer
7. Command shall assign a Rehab Group Leader, who is not the Safety Officer, either from units already on scene or from units responding as part of the Rehab Task Force.

8. Elements of the Rehab Task Force shall independently report directly to the established incident staging area or to a location specified by Command and assemble with the Rehab Group Leader and the other elements of the Rehab Task Force.
9. Rehab Task Force units are responsible to have a minimum level of supplies with them when they report to the scene to rehabilitate and monitor emergency responders expected to be on scene for exhaustion, dehydration, or heat related stress. However, the Rehab Task Force is not intended to provide the services of the Food or Medical Units for the incident.

# SAFE OPERATIONS NEAR MOVING TRAFFIC

## Purpose:

The purpose of this procedure is to provide for the safety of firefighters and other emergency responders on the scene of crashes and other incidents at the roadside and in roadways.

## Scope:

Recognizing that vehicle related incidents are the #2 killer of firefighters, this R.O.G. establishes guidelines for safe operations at vehicle accidents, vehicle fires, medicals emergencies and all other scenes where personnel are required to operate in or near a roadway or highway.

## Overview:

The first priority for the fire department must be to ensure that its personnel arrive safely at an emergency scene and operate safely at that scene. Operating at roadway incidents is particularly risky due to the hazards posed by moving traffic. Fire personnel must create a safe area to protect themselves and the people they are assisting while taking into account the dangers inherent in working in or near traffic.

In a roadway incident, the fire department's response is only one part of the total mitigation effort. Thus, fire personnel must coordinate their operations with law enforcement agencies, departments of transportation, and other organizations that may have jurisdiction. The fire department should take the initiative to contact these organizations to work with their personnel in advance of emergencies to determine the roles and responsibilities each will take to make an emergency mitigation effort smooth and effective. Ongoing training involving all organizations will create the cooperation, communication, and trust necessary for safe and efficient public safety service at roadway incidents.

The fire department's primary role at a roadway incident is to safely provide the service needed to stabilize any victims and mitigate the situation without allowing operations to cause additional hazards for passing motorists. For other roadway emergencies such as vehicle fires, the fire must be safely controlled while providing for responder safety. Fire personnel should assume that motorists will be inattentive and/or distracted and gear their operations to account for problems that may arise.

## A. Terminology:

The following terms are relevant for roadway incidents and should be used during incidents, in analysis of incidents, and in training for response in or near moving traffic.

1. *Advance warning* — Notification procedures used to warn approaching motorists of the need to move from driving normally to driving as required by the temporary emergency traffic control measures ahead.

2. *Block* — Positioning of fire department apparatus at an angle to the lanes of traffic, creating a physical barrier between upstream traffic and the emergency work area. Includes "block to the right" and "block to the left."
3. *Buffer zone* — The distance or space between emergency personnel and vehicles in the protected work zone and nearby moving traffic.
4. *Downstream* — The direction traffic moves as it travels away from the incident scene.
5. *Shadow* — The protected work area of a roadway incident shielded by the block from fire apparatus and other emergency vehicles.
6. *Taper* — The action of merging lanes of moving traffic into fewer moving lanes.
7. *Temporary work zone* — The physical area of a roadway within which emergency personnel perform their mitigation tasks.
8. *Transition zone* — The lanes of a roadway within which upstream motorists must change their speed and position to comply with the traffic control measures established at an emergency scene.
9. *Upstream* — The direction traffic is traveling from as the vehicles approach the incident scene.

**B. Safety Tactics for Fire Personnel**

The risk of injury and death when working in and near moving traffic is extremely high. Fire personnel shall use the following tactics to keep themselves safe and reduce their risks:

1. Firefighters shall always wear gear with retroreflective trim appropriate to the situation. If turnout gear is not necessary, safety vests with fluorescent retroreflective trim meeting the requirements of ANSI 207 **AND** a helmet with chin strap.
2. At least one firefighter should always face and be aware of oncoming traffic.
3. Firefighters shall use the first arriving apparatus to establish an initial block to create a temporary work zone.
4. Firefighters should exit apparatus on the shadow side, away from moving traffic. If that is not possible, they shall watch carefully and use caution in exiting apparatus. They should not walk around fire apparatus without taking caution and ensuring that they will be safe in doing so.
5. At dawn, dusk, and nighttime, firefighters should ensure that apparatus headlights, spotlights, and traffic control strobes that may impair motorists' vision are turned off. Emergency warning lights should be kept to a minimum; more is not better. Amber warning lights are best for all ambient lighting conditions.
6. Working with law enforcement personnel, firefighters should establish advance warning and adequate transition area traffic control measures upstream of incidents to allow approaching motorists to reduce travel speeds in the transition zone and pass the incident safely. This includes placing traffic cones and flares at intervals on both the upstream and downstream sides of the incidents.

7. Firefighters arriving on the scene ahead of responding fire apparatus shall use extreme caution when accessing the emergency scene and while working on the incident scene.
6. Establish advanced warning and adequate transition area for approaching traffic control measures upstream of the accident to reduce travel speeds of approaching motorist.

**C. Safety Tactics for Fire Apparatus**

1. In addition to conveying fire personnel to emergency scenes, fire apparatus shall be used to create safe temporary work zones.
2. The first-arriving apparatus shall be angled at about 45 degrees on the roadway with a "block to the left" or "block to the right" to establish a physical barrier between the incident and oncoming traffic.
3. If practical, apparatus should be placed to block the lane of the incident and one additional lane. However, the road should not be closed unless absolutely necessary and with the agreement of law enforcement personnel.
4. If practical, apparatus should be placed so that firefighters can exit on the shadow side and the pump operator can work on the shadow side.
5. Apparatus shall be used to block a temporary work zone large enough for all necessary emergency operations.
6. Ambulances shall be placed within the temporary work zone downstream of the incident with their loading doors angled away from moving traffic.
7. If the emergency is at an intersection or near the center of the roadway, two or more sides of the incident should be protected. The blocking shall be prioritized from the most critical or highest traffic flow side to the least critical. If only one fire apparatus responds, police vehicles should be used for blocking on the less critical sides.
8. If apparatus respond to an emergency on a limited- access freeway in the lanes going opposite from where the incident has occurred, they shall use an approved lane to turn around, or go to the next exit and turn around.
9. Blocking apparatus shall be positioned in a manner that will prevent it from entering the safe temporary work zone if it is struck by passing vehicles.

**D. Safety Strategy for Incident Command**

1. The first-arriving Company Officer and/or the Incident Commander (IC) shall be responsible for ensuring that the emergency operation is conducted in a safe manner.
2. The IC shall ensure that fire apparatus provide the necessary blocking to establish a safe temporary work zone. He/She shall establish communications with other agencies on the scene to ensure that the overall response is as smooth and effective as possible. He/She shall ensure that appropriate transition zones are established and marked with cones or flares both upstream and downstream of the temporary work zone

3. The IC shall direct placement of ambulances and parking of additional vehicles to ensure safe medical operations and to ensure that such vehicles do not pose a hazard or a problem to any responding personnel.
4. The first-arriving officer and/or IC shall act as scene safety officer until this assignment is delegated.
5. The IC shall ensure that the temporary work zone is lighted as needed in such a way that the vision of oncoming motorists is not impaired.
6. The IC shall manage the termination of the incident as swiftly and effectively as the initial activities. Personnel, apparatus, and equipment shall be removed promptly, to reduce exposure to traffic hazards and to minimize congestion.

**D. Operational Roadside Considerations**

1. Never trust moving traffic. Behave as if the driver of every vehicle is trying to run you over.
2. Wear retroreflective vests or retroreflective clothing while working on the incident scene. Turnout gear is not enough.
3. Be situationally aware—remember that you are working on a high speed roadway just inches or feet away from certain death or injury.
4. Use fire apparatus as a shield to protect the incident scene.
5. Place ambulances downstream of blocking fire apparatus, if possible, to protect the loading area.
6. Stage additional ambulances away from the incident scene, if possible, until they are needed.
7. Minimize the use of emergency lights at night on the scene. Turn off lights that will blind or confuse oncoming drivers, such as headlights.
8. Personnel should not get involved with directing traffic, unless the hazard mandates it or directed to do so by law enforcement.
9. Consider moving vehicles off the roadway when appropriate.
10. Request law enforcement to take an active role in traffic control and scene protection as soon as possible.
11. Close the minimum number of traffic lanes while assuring responder safety. Work cooperatively with law enforcement officers on lane closures.
12. Clear the scene as soon as possible after patients have been removed and hazards are controlled.
13. Consider appointing one person as “traffic watch” to warn of impending danger, if staffing is adequate to do so.
14. Personnel should not get involved with sweeping the roadway, unless absolutely necessary.
15. Beware of the danger of secondary collisions that will propel vehicles into the incident scene.

# INCIDENT REHABILITATION

**SCOPE:** This guideline identifies situations where the establishment of Incident Rehabilitation (Rehab) is appropriate. It provides information on the operation and establishment of Rehab. This guideline also provides a reference for the tasks and procedures that are to be implemented by personnel managing and using Rehab, including the equipment and staffing needs for these operations.

No member should be permitted to continue emergency operations beyond safe levels of physical or mental endurance. The intent of the Rehab guideline is to reduce the risk of injury that may result from extended field operations under adverse conditions. The guideline is in no way intended to diminish tactical operations.

A. **Establishing Rehab:**

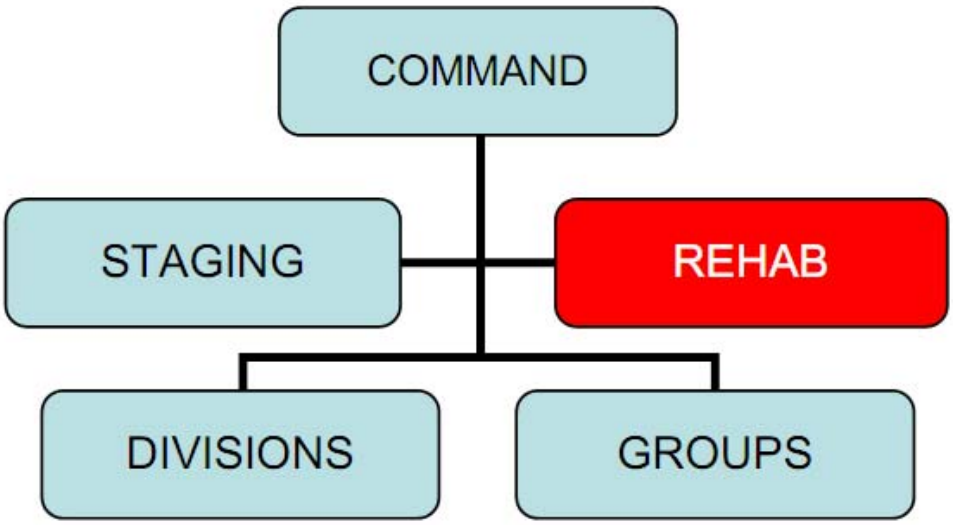
1. Rehab may be established at smaller working incidents as a Group reporting to the Incident Commander (IC).
2. Rehab should be implemented at greater alarm emergencies and during extended operations. When an expanded Incident Command System is used, Rehab is a function of the Logistics Section. The situations that generally produce the need for Rehab include, but are not limited to:

    - greater alarm structural fire operations
    - wildland fire operations
    - hazardous materials incidents
    - trench rescue
    - confined space rescue
    - training exercises or special events
    - any other situation deemed necessary by the IC

3. The responsibility for the establishment of Rehab rests with the IC. Other Command system positions, such as the Safety Officer, may assist the IC with recognition of the need for Rehab. Larger incidents may require the commitment of resources to accomplish the necessary Rehab tasks.

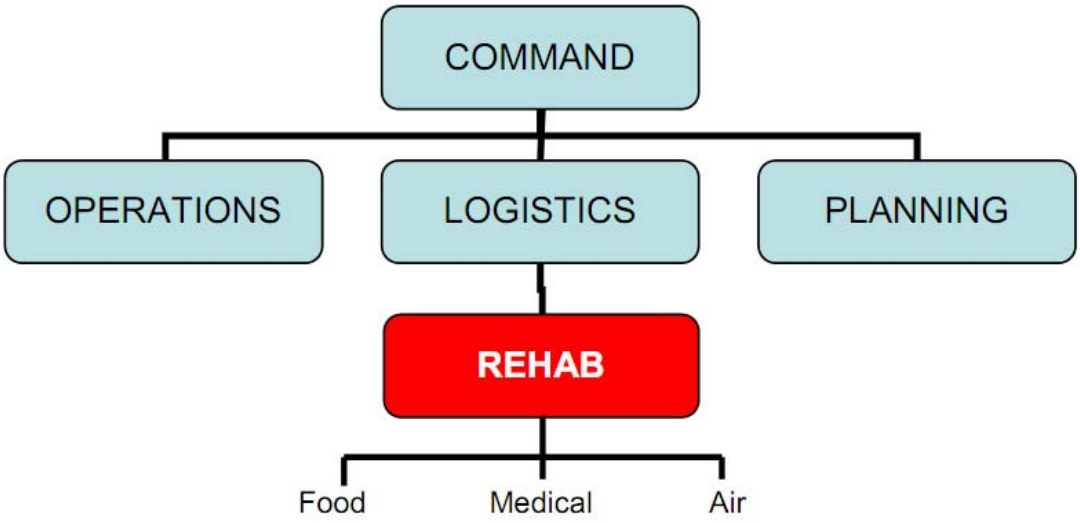
4. Emergency Medical Services (EMS) staff in rehabilitation shall have the authority, as delegated by the Fire Chiefs, to use the criteria established in Section D “Rehab Process” of this document to keep members in rehabilitation or to transport them for further medical evaluation or treatment. This includes all scenes (small and large), self and formal Rehab.

**REHAB IN A SIMPLE ICS ORGANIZATION**




5.

**REHAB IN AN EXPANDED ICS ORGANIZATION**



B. **Rehab Functions:**

1. Rehab should not be confused with or identified as Staging.

2. Rehab should be used to evaluate and assist personnel who could be suffering from the effects of sustained physiological or mental exertion during emergency operations. Rehab provides a specific area where personnel will assemble to receive:

   - a physical assessment
   - revitalization – rest, hydration, and nourishment
   - medical evaluation and treatment of minor injuries
   - continual monitoring of physical condition
   - transportation for those requiring treatment at medical facilities
   - initial stress support assessment
   - reassignment

3. The Rehab area should have a Manager assigned by the IC to manage and control all the functions associated with Rehab. The Rehab Manager may be identified by an appropriate command vest. A full formal Rehab may consist of the following positions:

   - Designated Rehab Manager
   - An engine company
   - Replacement SCBA bottles or Cascade unit
   - Advanced life support (ALS) ambulance (Medical Unit)
   - Rehab vehicle (Food Unit)
   - Critical incident stress management team members, as needed

4. Rehab resources will automatically be dispatched on all second alarm or greater incidents or when special-called by the IC. It is the responsibility of the IC to make an early determination of situations requiring the implementation of Rehab.

5. It may be necessary to establish more than one Rehab due to the incident size, weather conditions, or geographic barriers. When more than one Rehab area is assigned to an incident they should be separately named (i.e. Rehab 1 and 2, North Rehab and South Rehab, Rehab A and Rehab C, 18th Street Rehab and 19th Street Rehab, etc).

6. Incidents involving large life loss or extended rescue operations (i.e. plane or train crash), the critical incident stress management (CISM) team should be contacted and be assigned to Rehab.

7. The Rehab area should be able to accommodate the number of personnel (fire, law enforcement, other) expected (including EMS personnel for medical monitoring) and accommodate a separate area to remove personal protective equipment (PPE) and SCBA. A cascade or cache of SCBA bottles should be located adjacent to or within rehab in order to replenish equipment while personnel are in rehab.

8. Accessibility for multiple ambulances and EMS personnel should medical treatment or transportation be required. The area should also be away from hazardous atmospheres including apparatus exhaust, smoke, and other toxins. The location should not be assessable to spectators and media whenever possible

9. The Rehab area and vehicles should be located close to but separate from the Command Post (CP) whenever possible. Rehab should be established where it is out of the line of sight to the incident to ensure personnel in rehab aren't affected by ongoing operations. The Rehab area boundaries may be defined with scene tape or traffic cones and should have only one entry point. There are 3 units the Rehab area should be divided into that will be described later in this guide.

C. **Types of Rehab**

**Self-Rehab**

1. This is a process of personnel getting some rest and replenishing fluids carried on their vehicles outside of the constraints of a formal rehab. Self rehab may be the only rehab activities performed at short duration events. NFPA 1584 recommends that the self rehab period be at least 10 minutes long.

2. After firefighters have rested for 10 minutes they may seek reassignment at the incident through the command system. The crew boss should check all their members to make sure they appear fit for further service.

3. If a crew member does not appear to be fit for reassignment, they should be referred to medical personnel who are on scene for further evaluation and rest. The remainder of the crew may be reassigned by the IC.

**Formal Rehab**

Formal Rehab should be established in situations where incidents are expected to extend personnel beyond where self-rehab is sufficient enough.

1. Personnel should enter a formal rehab area as follows:

- Depletion of two SCBA cylinders or earlier, based on the physical complexity of the task;
- Completing 40 minutes of intense work without an SCBA.
- After performing duties in a hazardous materials Level A suit
- When directed by an officer to do so
- When feeling the need to do so

D. **Rehab Process**

1. The Rehab area can be subdivided into three sections designated by the letters A-C.

**Section A Entry Point / Initial Assessment / Gear Storage**:

This is the initial entry point and decontamination area. Personnel should enter Rehab as a crew and stay together within their assigned section Decontamination shall be performed in the Rehab Entry point, following proper procedures (e.g. Post fire decon (ROG-112), HazMat decon, hand washing, etc.) to ensure the Rehab Rest and Rehab Monitoring areas remain free of contaminants and other potentially harmful substances.

A personnel should log accountability information (name, assigned unit, time in, etc.) from crews on a standard Rehab Check-in Form (see attached sheet) and assess the following on each person after doffing gear and resting for ~~one minute:five~~ ten (10) minutes.

- Time checked in
- Heart Rate
- BP
- Respiratory Rate
- Temperature (If available)

An area for gear storage should be provided just outside the check-in.

Any personnel entering check-in who is having any of the following signs/symptoms after ~~five (5)~~ ten (10) minutes of rest should be immediately directed to Medical Monitoring:

- Heart Rate > 120
- Respiratory > 30
- BP Sys >160
- BP Diastolic > 100

Temperature > 100.6 (if available)

- Chest Pain
- Shortness of Breath
- Weakness
- Nausea
- Headaches
- Mental Status Change
- Changes in Speech
- Changes in gait
- Vomiting

Personnel within normal limits shall be directed to Rest and Nourishment for rehab.

**Section B: Rest and Refreshment**:

This section provides the necessary fluid and food replacement as needed. During warm weather conditions, all personnel in this section are expected to remove coats, helmets,

gloves, and protective hoods. Turnout pants also should be removed or at least rolled down over the boots. Additional heat stress reduction measures may also be taken such as fans, A/C, water misting, cool towels, and immersion chairs. Passive Cooling should be available in this area such as removal of gear, out of direct sunlight, and water.

Initial CISM support can be provided in this section, if necessary.

The following pertain to personnel assigned to Rehab Section B:

- Low physical exertion – 10 minutes
- High physical exertion – 20 minutes

**Section C: Medical Monitoring, Treatment, and Transport**

This section shall be staffed by an ALS crew under the direction of Manatee County EMS and at least one EMS transport vehicle. Personnel reporting here will receive medical evaluation and treatment for heat stress and other injuries or illnesses per local protocol. Active Cooling shall be initiated through the use of cool towels, fans, and immersion chairs. A standard Patient Care Report should be started for each person sent to this unit. Medical Monitoring includes the following:

- Pulse
- Blood pressure
- Respiratory Rate
- Pulse Oximetry
- ECG
- CO and CN monitoring, if available
- Body temperature (If available)

Personnel assigned to this unit are to be cooled with Active cooling, and hydrated with appropriate sports drinks and water. Any food intake should be of a healthy nature, such as power bars.

After appropriate rehabilitation and medical monitoring (minimum of 20 minutes for an initial cool-down and evaluation period) the pulse, blood pressure, and temperature will be reevaluated and members will be triaged with one of the following dispositions:

a. Returned to duty – responds appropriately to rest and re-hydration.
b. Removed from duty – evidence of an illness or injury that requires further medical treatment. Personnel in this category need to be monitored in the unit until the incident ends and/or up to 4 hours after the incident before being sent home.
c. Transported to an appropriate medical facility for further evaluation and treatment.
d. If the paramedic evaluating the firefighter feels it is in the best interest of the firefighter, they can require longer rehab.

All personnel released from Rehab will gather their gear, ensuring they have full SCBA bottles, and are with their crew and report to staging for reassignment.

## E. Rehab Resources

1. Manatee County EMS
   a) The first EMS unit to arrive on scene will check-in with Command for assignment to one of the following:
      1. Medical Group (Operations Section) for incident patient care;
      2. Medical Unit/Rehab Manager (Logistics Section) for formal Rehab Section C – Medical Treatment and Transport;
      3. Standby at the incident at a safe distance in case of either assignment becomes necessary. Assistance with self rehab may be conducted during this assignment.
   b) If an EMS unit is formally assigned to either (1) the Medical Group or (2) the Medical Unit in Rehab, another EMS unit should be dispatched to the incident to assume the other open roll. Additionally, an EMS Supervisor should be notified.
2. Engine Company
   a) The engine company assigned to a formal rehab will provide the manpower to operate and coordinate section A- Check-In, and section B- Rest and Refreshment.
   b) The Officer of this unit may be used as the Rehab Manager
3. Red Cross and Salvation Army
   a) Either agency (IC's discretion) provides refreshments and food for incidents expected to last 3 hours or more and would be assigned to Rehab Section B – Rest and Refreshment.
4. Manatee County Transit and School Board
   a) Either agency may provide an air conditioned bus for personnel to rest in for incidents expected to last 3 hours or more and would be assigned to Rehab Section B- Rest and Refreshment.
5. Southern Manatee Fire Rescue Rehab ~~Vehicle~~ trailer
   a) Provides heat stress reduction measures such as fans, A/C, water misting, cool towels, and immersion chairs for incidents expected to last 3 hours or more and would be assigned to Rehab Section B- Rest and Refreshment and Section C- Medical Monitoring.
6. Haz Mat
   a) Also provides heat stress reduction measures such as fans, water misting, and tents for incidents expected to last 3 hours or more and would be assigned to Rehab Section - Rest and Refreshment.
7. Closest Air/Cascade Unit
   a) Provide spare SCBA bottles and/or refill bottles on site. May be set up next to the Rehab area to accommodate personnel entering Section A – Entry Point / Initial Assessment.
8. Medical Reserve Corps – Manatee County Department of Health

**Rehab - Check-in/out sheet**

Location: _____

Incident #: _____

Date:_____

| | Name | Truck | Time in | HR | BP | Resp rate | Temp | Medical monitoring (Y or N) | Time out |
|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | |
| 2 | | | | | | | | | |
| 3 | | | | | | | | | |
| 4 | | | | | | | | | |
| 5 | | | | | | | | | |
| 6 | | | | | | | | | |
| 7 | | | | | | | | | |
| 8 | | | | | | | | | |
| 9 | | | | | | | | | |
| 10 | | | | | | | | | |
| 11 | | | | | | | | | |
| 12 | | | | | | | | | |
| 13 | | | | | | | | | |
| 14 | | | | | | | | | |
| 15 | | | | | | | | | |
| 16 | | | | | | | | | |
| 17 | | | | | | | | | |
| 18 | | | | | | | | | |
| 19 | | | | | | | | | |
| 20 | | | | | | | | | |
| 21 | | | | | | | | | |
| 22 | | | | | | | | | |
| 23 | | | | | | | | | |
| 24 | | | | | | | | | |
| 25 | | | | | | | | | |

Rev 05/24/18

Vitals taken after five minutes of rest

See Rehab guidelines sheet for more information

Return sheet to FD when done

# Post Fire Decontamination

## PURPOSE

Firefighting is an inherently dangerous occupation. Working on a fire ground you run a greater risk of associated cancers / hazards than the general population. The following procedures are some simple steps that can be taken to reduce the risk of future firefighter related cancers.

## POLICY

All personal protective clothing should be presumed to have been exposed to hazardous Carcinogens and shall be cleaned as soon as possible. While several steps are outlined in this policy new studies and trends shall also be applied.

## PROCEDURES

### Pre-Firefighting Operations:

- Personnel shall check their PPE every day when coming on shift, and after each use.
- Any damaged PPE shall be placed out of service and replacement shall be obtained, as soon as possible, prior to entry in any IDLH atmosphere.

### Firefighting Operations (On Scene):

- All PPE shall be used for the duration of the scene until zones are deemed safe by the incident commander; this shall include active firefighting operations, salvage and overhaul, and other IDLH atmospheres.
- If the incident commander determines personnel have elevated amounts of contaminates on their PPE, additional apparatus may be called to the scene to relieve the contaminated crew.
- Prior to leaving the fire scene gross decontamination shall be applied with water. This includes using low pressure lines to rinse all exterior bunker gear & hand tools. Radios used inside an IDLH shall be wiped down with decon wipes before leaving the fire scene.
- Use soap and water to wash hands, face, and neck area. If soap and water are not available the use of decon wipes shall used to wipe down affected areas.
- Gear that is contaminated with smoke and other products of combustion should not be placed in the cab of the apparatus. Once at the station the gear should be placed in clear bags.
    - Gear shall not be placed in red biohazard bags, unless contaminated with blood or other OPIM’S; following exposure control plans.

**Post Firefighting Operations (At Station):**

- While doing post fire clean-up of equipment and gear personnel shall be wearing latex or leather gloves and eye protection, Tyvek suits are optional.
- Perform thorough decon of all hand tools
- Perform thorough decon of all helmets using mild soap and water
- Perform thorough decon of all SCBA mask using approved cleaning solution or mild soap and water
- All bunker gear & hoods should be disassembled and prepare for cleaning
- Personnel shall move into their spare gear including hood, if applicable
- All exterior and interior contaminated areas of the truck shall be cleaned and disinfected
- All hose lines shall be washed
- Personnel shall take a shower as soon as possible after the fire.
- Dirty uniforms shall be washed in departmental owned small extractors
- SCBA packs shall be cleaned with soap and water including the wiping down of the inside of the regulator with approved cleaning solution or soap and water.
- Report all damaged gear or equipment as soon as possible.

## RESPONSE, APPARATUS PLACEMENT AND COMPANY FUNCTIONS

**SCOPE:** This ROG provides guidance for units as they respond and position for operations at emergency scenes. It also establishes the primary assignments for units to begin work prior to command becoming fully functional.

### A. Response

All units will respond in "emergency status" (warning devices activated) to all dispatches unless the unit or officer determines otherwise based on pre-arrival information. Units responding from quarters shall clear the station within 60 seconds. When in emergency status, apparatus shall follow the quickest route possible and maintain a safe speed considering the conditions and posted speed limit; personnel shall remain seated and wear provided restraints. Drivers shall use the utmost care and pay extra attention to safety when moving. All emergency units shall conform to Florida Statutes, Chapter 316.072, for response safety regulations. Responding units shall maintain radio contact on the appropriate channel with the communication center and advise when on-scene. **Units shall not contact command while enroute to request assignment. Arriving first alarm units shall follow standard placement assignments (Level 1 staging) unless advised by command to do otherwise.** Second and greater alarm units shall stage at a remote site from the scene (Level II staging) and notify the staging officer (if established) or command of location and status. All Level II staged units should be at the same location. Personnel shall stay with their respective units in staged status until given an assignment through the command system. Units not used in function positions (pumping, laddering, lighting, etc.) shall be parked out of the way.

### B. Standard Placement (Level I Staging)

Upon arrival at the scene, units shall position their vehicles based on standard practice, maximum effectiveness and safety. Placement of units at situations other than fire alarms, structure fires, and smoke investigation will be covered in other incident-specific ROG's.

1. First Arriving Engine Company – This unit shall be placed at the front of the fire structure, slightly to one side (to allow truck placement), or in best position based on size-up factors to begin suppression or investigation activities.
2. First Arriving Truck Company – Unit to be placed at front of structure in position to reach roof surfaces for ventilation.

Exception #1 – Multi-story occupied structure with smoke or fire showing, placement shall be to enable rescue from upper floors.

Exception #2 – Large volume fire showing (already vented) and/or threatening exposures, placement shall be to enable establishment of aerial fire stream.

Exception #3 – Mobile home parks or small structures (under 1,400 sq. ft.), placement shall be 250 feet from fire structure out of way of engines laying lines but accessible for equipment or defensive operations, unless unit is used for other functions.

Exception #4 – If a truck company is first due, it will follow first arriving engine functions.

3. Second Arriving Engine Company – Placed in position to provide water supply upon direction of either command or first arriving engine.

4. First Arriving Command Unit (B/C) – Placement shall be in position to afford view of structure and suppression area if possible and safe. Visibility of command unit to other operating units is important.

Subsequent arriving support, staff or command units shall be placed away from function areas and out of the way. If possible, all units should be placed on the same side of the street or in a position that maintains an open access lane large enough for apparatus to get into or out of the functions area. Size-up factors may indicate the need for the first unit on scene or command to direct incoming units to other than standard placement.

## C. Staging (Level II)

Staging is established either by command or by the first arriving unit (unassigned) enroute as part of a second alarm. A large area (safe and secure, if possible) shall be identified at least 600 feet from the function area for the assembling of incoming units, prior to assignment by command. The first arriving unit is responsible for either assigning staging or passing staging to another unit. The next unit must acknowledge receipt of assignment. The staging officer shall maintain a list of units and personnel, control ingress and egress from staging, and communicate with command. Individual units in staging shall not communicate with command.

## D. Standard Company Functions

In order to coordinate initial efforts on-scene, the following standard functions and priorities are assigned by company. These standard functions are to be carried out automatically by the assigned company until alternative assignments or stop orders are issued by command.

1. First Arriving Engine

    a. Size-up or investigation
    b. Forcible entry (if required)
    c. Search and rescue
    d. Placement of initial attack line
    e. Establishment of own water supply (if necessary)

2. Second Arriving Engine

    a. Locate and establish initial water supply
    b. Provide manpower to supplement secondary attack lines or rescue operations
    c. Support sprinkler and standpipe operations if applicable

3. Third Arriving Engine or Heavy Rescue

    a. Placement shall be away from the fire structure, out of the way of functioning units. Unit will be assigned as directed. (Examples: RIC, staging, manpower, etc.)

4. First Arriving Truck or Ladder

    a. Size-up for ventilation method or aerial operations
    b. Assist in search and rescue (if requested)
    c. Position and set up ladder (commercial or multi-story)
    d. Prepare and position personnel to effect ventilation and communicate readiness to command

5. First Arriving Ambulance

    a. Placement shall be 300 ft. from fire structure out of way of functioning units but accessible for equipment or EMS operations.

6. First Arriving Tanker

    a. Establishment of water supply to primary suppression engine.
    b. Anticipate and prepare for tanker shuttle operations.

All companies shall be prepared to assume alternate duties, assignments or roles, depending on size-up factors and direction from command. When possible, companies shall keep personnel together and function as a team. A team will consist of a minimum of two personnel. A company deviating from standard functions shall communicate the intent to do so to command.

# AUTOMATIC ALARM RESPONSE

**SCOPE:** Upon receipt of an automatic alarm, the first due apparatus will respond emergency for initial size-up and determination.

The remainder of the first alarm will respond non-emergency until upgraded response is requested by the first due apparatus, verification of fire by the communication center, or upgraded response is requested by a chief officer.

In the case of schools, nursing homes, hospitals, hotels, or other target hazards, no answer justifies an upgrade of the response, during normal business/working hours. During non-business/working hours, the company officer will confirm with the communication center the status of a keyholder for the building.

**NOTE:** Automatic alarms are defined as those transmitted by automatic detection devices through a central alarm office and then relayed to the communication center.

# RESETTING OF AUTOMATIC FIRE ALARMS

In order to reduce unnecessary responses to automatic fire alarms, fire department personnel will exhaust every effort to reasonably find the source of the fire alarm activation, ruling out the possibility of actual fire or smoke conditions within the structure. Fire alarms may be reset by fire department personnel when:

1. There is a known and/or confirmed device activation; and
2. The reason for the activation is known; and
3. The condition(s) that activated the device are no longer present. This does not apply to malfunctioning devices.

## A. TROUBLE ALARMS:

The key holder shall be advised to contact their alarm company for service.

## B. FIRE ALARMS PLACED OUT OF SERVICE:

Fire alarms may be placed out of service by authorized personnel when:

1. There is an unknown activation.
2. Multiple alarms within a short amount of time. This amount of time can be determined by the nature for alarms, occupancy, previous trouble with the system, etc.

## C. SILENCING ALARMS:

Alarms may be silenced by authorized personnel when:

1. All occupants have evacuated the building.
2. It is determined that no fire exists.
3. Radio communications within the structure are hindered by the audible signal.

## D. DOCUMENTATION:

A departmental Fire Alarm Report shall be written on all fire alarms, both commercial and residential. The departmental Fire Alarm Report shall be filled with accurate information about the alarm and be signed by both a fire department representative and a keyholder. In the event that a keyholder cannot be contacted, this too shall be documented. Copies of the Fire Alarm Report shall be distributed per departmental policy.

Every effort shall be made to inform the fire prevention office of the status of the alarm.

## SPRINKLER AND STANDPIPE OPERATIONS

**Scope:** This ROG provides guidance for using built-in private fire protection systems wherever possible or practical.

A. Sprinkler System Operations:

1. The first or second arriving engine on the first alarm assignment shall be responsible to position at the Fire Department Connection (FDC) and secure a water supply.

2. Officer on that engine shall assign one man to locate the main valve and insure that it is open.

3. Any smoke or fire in the structure requires charging the FDC.

4. FDC shall always be charged by a minimum of two (2) supply lines, unless connection is with large diameter hose.

5. The system should remain charged until ordered shut down by Command.

B. Standpipe System Operations

1. The first or second arriving engine on the first alarm assignment shall be responsible to position at the Fire Department Connection (FDC) and secure a water supply.

2. Officer on that engine shall assign one man to locate the main valve and insure that it is open.

3. Any smoke or fire in the structure requires charging the FDC.

4. FDC shall always be charged by a minimum of two (2) supply lines, unless connection is with large diameter hose.

5. The system shall remain charged until ordered shut-down by Command.

6. Interior attack teams shall use F. D. hose in conjunction with standpipe outlets. F. D. personnel shall not use in-house hose lines.

C. General

1. Engines should avoid using hydrants that are connected to the private system so as not to steal water supply from the system.

2. Private fire pump installations should be checked early in operations to insure proper operation and their status reported to Command.

3. In structures over 3 stories, without a standpipe, an exterior standpipe could be established using a Truck Company or Ladder Company in order to provide water for handlines for interior fire attack on the fire floor.

## THERMAL IMAGING CAMERA

**Scope:** The purpose of this ROG is to identify key information that personnel need to know concerning Thermal Imagers and their use. Thermal Imagers are devices that are used as another tool to enable fire suppression crews to operate safely and more efficiently in the pursuit of their goals, "saving life and property".

The main objectives of using Thermal Imagers are:

- Life Hazard Protection
- Evaluating Fire Conditions
- Evaluating Structural Integrity

**Background:** A Thermal Imager requires no light to see, instead, it uses heat to form an image on a screen. Different heat levels show up as white, gray or black (heat is white). The image on the screen looks much like a "fuzzy" picture on a black and white television. This allows the firefighter to conduct building searches with much greater speed, accuracy and efficiency.

In addition to using Imagers for building searches, Imagers are also used for a variety of other crucial tasks, such as;

- during size-up, personnel can see which area of a structure the fire is in and identify important construction features
- locating hidden sources of heat, such as an overheated electrical appliance
- "seeing" invisible hazardous material vapors
- "viewing" the liquid levels inside closed tanks of some hazardous materials
- locating missing persons in the woods or in thick brush
- locating victims on the surface of water, specifically at night

**Procedures:** These procedures, for use at a structure fire incident, are meant as a guideline. They should be followed in "general terms". The actual situation should be evaluated to determine the best use of the Thermal Imager.

1. The Imager should be used to assist with the exterior size-up, if applicable.

2. Upon entering the structure, when visibility is reduced due to darkness or smoke, the "**6-point Method**" of scanning should be applied using an "**S-Pattern**".

The **6-Point Method** is achieved by beginning at the upper right corner of the room (pt. 1), scan left to the upper left corner (pt. 2), down to the middle of the wall (pt. 3), right to the middle (pt. 4), down to the lower right corner (pt. 5), then left along the floor to the lower left corner (pt. 6). (The easy way to remember the method is that you are simply scanning in an **S-Pattern**)

3. Using the Imager for victim search should normally be done with the protection of a hoseline, although certain situations may dictate otherwise.

(Additional resources may need to assemble at the scene prior to conducting these operations simultaneously. It should also be noted that proper ventilation and attacking the seat of the fire may be the best strategy for a successful rescue. A proper on-scene size up must be the deciding factor)

4. When the first area/room is scanned, move to the second area/room and repeat the procedure. This is known as the **Point-to-Point** search technique, the crew is moving from **Point-to-Point**.

5. It is important to move from **Point-to-Point** deploying the traditional left or right hand search pattern so that if the Imager fails, you have a method to continue with and/or a method to find your way out.

6. If large amounts of heat are seen developing, this may be an indication to retreat until additional ventilation can be achieved. BEWARE of conditions indicating flashover.

7. Personnel should also search under and behind objects and employ traditional search techniques due to the fact that the Imager does not see “through” objects.

8. A secondary search should also be conducted to confirm the results of the primary search.

**Summary:** As with all fireground tactics and strategy, training and experience must be used to evaluate the conditions present and choose the safest, quickest, most efficient method to mitigate the situation to the best possible outcome of all involved. The Thermal Imager is only one tool to help you achieve your goal and it, like other tools, must be used properly. It is the on-scene Officers who will need to judge exactly how and when to use the tool.

# FIREGROUND OPERATIONS AT ONE AND TWO-STORY STRUCTURE FIRES

This ROG is to be used as a guideline with much independent thought and judgment required by all personnel. However, the mitigation of the incident requires a strict adherence to the general guidelines outlined in the Incident Management System ROG.

## A. The Incident Commander's Rules of Engagement of Structural Firefighting

1. Immediately conduct, or obtain, a 360 degree size-up of the fireground.
2. Determine the victim risk profile.
3. Conduct a risk assessment and develop a **SAFE ACTION PLAN.**
4. If you do not have the resources to protect firefighters – consider defensive operations.
5. **DO NOT** risk firefighters lives for what is already lost – consider defensive operations.
6. Extend **LIMITED** risk to protect **SAVABLE** property.
7. Extend very **CALCULATED** risk to protect **SAVABLE** lives.
8. Firefighters are authorized to question an unsafe practice and conditions.
9. Keep interior crews informed of changing conditions.
10. Conduct continuous risk assessment – revise the action plan.
11. After search and rescue is completed, if there is no progress towards fire control, seriously consider withdrawing crews.
12. Always have a rapid intervention crew in place.

## B. Standard Company Functions

In order to coordinate initial efforts on-scene, the following standard functions and priorities are assigned by company. These standard functions are to be carried out automatically by the assigned company (ROG #201) until alternative assignments or stop orders are issued by command.

**The first arriving crew shall establish command.**

1. **First Arriving Engine**
    a. Size-up or investigation

b. Forcible entry (if required)
c. Search and rescue
d. Placement of initial attack line
e. Establishment of own water supply (if necessary)

2. **Second Arriving Engine**
   a. Locate and establish initial water supply
   b. Provide manpower to supplement secondary attack lines or rescue operations
   c. Support sprinkler and standpipe operations if applicable

3. **Third Arriving Engine or Heavy Rescue**
   Placement shall be away from the fire structure, out of the way of functioning units. Unit will be assigned as directed. (Examples: RIC, staging, manpower, etc.)

4. **First Arriving Truck or Ladder**
   a. Size-up for ventilation method or aerial operations
   b. Assist in search and rescue (if requested)
   c. Position and set up ladder (commercial or multi-story)
   d. Prepare and position personnel to effect ventilation and communicate readiness to command.

5. **First Arriving Ambulance**
   Placement shall be 300 ft. from fire structure out of way of functioning units but accessible for equipment or EMS operations.

6. **First Arriving Tanker**
   a. Establishment of water supply to primary suppression engine.
   b. Anticipate and prepare for tanker shuttle operations.

All companies shall be prepared to assume alternate duties, assignments or roles, depending on size-up factors and direction from command. When possible, companies shall keep personnel together and function as a team. A team will consist of a minimum of two personnel. A company deviating from standard functions shall communicate the intent to do so to command.

**C. SIZE UP (ROG 102)**

1. Size up begins when the call comes in, continues enroute. If the structure is listed in map book drawings or pre-emergency surveys, they should be referenced for additional info.

2. In order to initiate the evaluation of any incident, the first arriving company will transmit, on the assigned radio channel, a size-up as soon as possible after arrival.

3. If possible and necessary, additional size up should be made by proceeding around the structure either on foot or by apparatus, depending on the structure involved. A thermal imager may assist in the determination of the location of the fire room from the outside, as well as an indication of

the heat level in exterior walls and roof areas, keeping in mind that these areas, especially attics, may be extremely hot under normal summer conditions.

4. Size-up serves to advise other responding units and command officers of the expected situation and the communication center the nature of the incident. If, upon arrival, an accurate size-up cannot be given or if after several minutes on the scene, the situation changes significantly, an up-dated size-up will be given. Any special hazards noted on arrival (Haz-Mat, wires down, structural failure, gas leak, etc.) should be noted in the size-up. After the initial size-up, the first arriving company will use the Incident Command System ROG as a guide for further communications.

5. The initial radio report is to include the following information:

   a. Unit designation of the first arriving unit on scene.
   b. A brief description of the structure. (building description, occupancy type, etc.)
   c. Obvious conditions (amount and location of smoke, flame, victims, etc.)
   d. Brief description of action to be taken
   e. Declaration of strategy (offense or defense)
   f. Any obvious safety concerns
   g. Identification and location of Command
   h. Request or release of resources, as required

6. An on-going size up during the operation by command officers should be used to make adjustments to tactics and strategies, as needed.

## D. UTILITIES

Turn off any electrical power, gas or other utilities supplying the building, as needed.

## E. WATER SUPPLY

A water supply shall be established, as needed. Operations from tank water shall be limited to a single attack handline and a backup handline. Additional handlines or master streams shall first require a sustained water supply from either a fire hydrant, another pumper or tanker, or rural water supply operation.

## F. ENTRY

**Prior to entering a structure for search and rescue or for interior fire attack, the following must be done** (under normal circumstances);

1. Assign an IRIC or establish a RIC (see ROG 106 – Rapid Intervention Crew)

2. Crews should have a charged hoseline with them when inside the structure as appropriate.

3. When conducting a blind search, crews shall announce on the radio, which way they will search, right or left pattern.

4. Crews should periodically communicate all pertinent information about their actions, findings and status to the Incident Commander.

5. Whenever possible, each personnel should have a radio, flashlight & tool with them. The type of tool depends upon the situation and what tools other crew member's posses. A thermal imager should also be taken inside, when appropriate.

6. If the decision is made for an interior attack, all crews operating should be aware of this. Likewise, if the decision is made for an exterior attack, all crews operating should be aware of this, and in both instances, special consideration should be given to exposures, especially if the fire dictates an exterior/defensive attack. If the attack is going to change from an interior to an exterior attack, all crews should be made aware of this and all crews shall be out of the structure prior to an exterior attack being made. Do not attack the fire offensively and defensively at the same time.

7. The acronym **RECEO** is an easy to remember tactical attack plan.
   **R**escue
   **E**xposures
   **C**onfine
   **E**xtinguish
   **O**verhaul

## G. VENTILATION

1. The tactical ventilation of the structure should be a priority task to remove the products of combustion from the structure. This will enhance the survival chances of occupants and assist companies operating within the structure. Command should assign a company to perform this task, when needed.

2. When on-scene size up indicates that Positive Pressure Ventilation can be utilized safely in conjunction with fire attack, positive pressure ventilation should be used. The blower, hoseline, entry opening and exhaust opening must all be chosen and in place prior to implementing this tactic. If the situation is not conducive to this type of ventilation, another type should be chosen, if necessary.

## H. BENCHMARKS (ROG 101)

1. "Command" shall communicate to the Communication Center and all units on-scene the following progress marks, based on reports from divisions and following the strategic/tactical plan:

    1. "Command" established. Name of incident and location of command given.

2. Working fire or working incident. (Any incident requiring the commitment of three (3) or more companies to resolve)
3. Level of MCI or Level of Haz Mat Incident.
4. Type of firefighting strategy - offensive or defensive.
5. Extrication in progress
6. LZ established
7. Water supply established. (Upon completion of an uninterrupted supply source)
8. Exposures protected. (If applicable)
9. Entry made into "Hot Zone"
10. Helicopter on scene
11. Water on fire. (Upon the first application)
12. Primary search complete. (With either "all clear" or the number of victims found)
13. Ventilation indicated. (When first ventilation progress is seen)
14. Time check acknowledgment size-up. (Give a brief description of the current status of the incident when advised by dispatch of a 20 minute notification)
15. Fire knocked down.
16. Secondary search completed. (With either "all clear" or the number of victims found)
17. Situation under control. (When the units on the scene can handle the situation and no further escalation is indicated and the majority of the hazard is abated)
18. Patients extricated
19. Patients transported. (If applicable)
20. Helicopter departed to _____hospital
21. Fire out. (When "heavy" overhaul is completed)
22. "Command" is terminated.

## I. INCIDENT SAFETY

**A Safety Officer should be assigned as soon as possible on all working structure fires.**

1. Command shall assign personnel for the rescue of members operating at emergency incidents, if the need arises. The composition and make up of rapid intervention crews shall be permitted to be flexible based on the type of incident and the size and complexity of operations. (See ROG #106)

2. When inexperienced personnel are working at an incident, direct supervision shall be provided by more experienced officers or personnel.

3. When personnel are operating in hazardous areas, they shall work in teams of two or more who are in communications with each other through visual, audible, physical, safety guide rope, electronic, or other means to coordinate their activities and are in close proximity to each other to provide assistance in case of emergency.

4. There shall be at least two individuals assigned (IRIC or RIC) to remain outside the hazardous area and maintain an awareness of operations inside the hazardous area. These personnel shall meet the requirements of Florida Administrative Code 69A-62.003 (Firefighter Employment Standards) and be either state certified as a Firefighter I or II,

## J. ACCOUNTABILITY

The Membership Accountability Roll Call (MARC) Accountability System shall be used, per ROG #105.

## K. PERSONAL PROTECTIVE EQUIPMENT (PPE) (ROG #103)

1. Full gear & SCBA, with PASS, shall be worn by all personnel approaching or entering the structure, when the situation warrants, until advised otherwise by the Officer in Charge.

2. S.C.B.A. shall continue to be used until a check of the structure is made with a gas detection device and the atmosphere inside is determined to be free of contaminates that may be hazardous. This also includes during overhaul and investigative tasks.

## L. SPECIAL SITUATIONS

The following special situations and many others not specifically mentioned, may be encountered and might require alternate tactics and strategies to mitigate the emergency successfully and safety. Below are a few specifics that should be considered.

**Operating At Fumigation Tented Structures**
- Position all apparatus, personnel and command post up-wind of the structure.
**- Utilities may have remained on during the fumigation process.**
- Do not enter the building until it has been ventilated or fire has vented through the roof. Positive pressure ventilation will allow personnel to stay out of the fumigant while accomplishing the task.
**Note: Building windows will be in the open position as part of the fumigation process.**
- Remove "tenting" material from the outside of the structure.
- All personnel shall have full protective gear, including S.C.B.A.
- Approach the fire from up-wind. Use wide angle water fog stream. Make interior attack per normal, if safe to do so.
- It is very important for personnel to stay away from, or out of, the smoke of a building that is undergoing fumigation, **unless wearing SCBA.**
- Evacuation should be considered if smoke is threatening an occupied area.
- Remember, fumigants used are extremely toxic. In the proper quantities, death may result. **In most cases, fumigants is use today are made up of the chemical Sulfural Floride (Vikane & Zythor brand names), which is an inhalation hazard only. Sulfural Floride is odorless, with a vapor density heavier than air.**
**- An information label will be attached to all sides of the tent.**
**- The chemical Chloropicrin (tear gas) is used to make sure the structure is clear of people before the final tenting is applied**.
Following the guidelines above will greatly reduce the additional risks presented by the presence of fumigants.

**Lightweight Roof and Floor Trusses (wood or steel)**

**WARNING!**
Earlier research by the *National Engineered Lightweight Construction Fire Research Project* indicated that unprotected lightweight truss assemblies can fail within 6 to 13 minutes of exposure to fire.

According to the Wood Truss Council of America (WTCA), wooden trusses are used in roof systems in more than 60% of all buildings in the United States. Truss and related engineered wooden floor systems are also becoming more common. Today, more engineered structures use lighter weight materials, producing larger spans and clear openings. Trusses can be designed to carry expected loads, be produced economically, be safely handled, and reduce construction costs

Engineered building components may provide adequate strength under normal loading; but under fire conditions, these truss systems can become weakened and fail, leading to the collapse of roofs, floors, and possibly the entire structure. Truss systems are usually hidden, and fires within truss systems may go unnoticed for long periods of time, resulting in loss of integrity. Structural design codes often do not factor in this decreased system integrity, as fire degrades the structural members. Fire fighters typically rely on warning signs to indicate imminent truss failure such as roofs and floors that feel spongy or are visibly sagging. Quite often, these warning signs are not good predictors of truss system failures.

Unfortunately, fires are not predictable: conditions often deteriorate quickly, and fire-damaged building components, including trusses, can collapse with little warning. Engineering calculations provide data for an approximate time of failure under specified fire conditions; however, under uncontrolled fire conditions, the time to truss failure is unpredictable.

Early detection of fires involving truss systems is important for safe fireground operations. Pre-incident planning is an important tool for identifying the type of building, the building contents, the load-bearing and interior wall locations, and the presence of trusses. This information will aid incident commanders in managing the multiple hazards in a fire. Today's construction methods incorporate lightweight building components, and this trend is expected to grow. Learning about trusses and their performance under fire attack can greatly enhance fire fighter safety. Lives will continue to be lost unless fire departments make appropriate fundamental changes in fire-fighting tactics involving trusses. These fundamental changes include the following:

1. Venting the roof using proper safety precautions
2. Opening concealed spaces quickly to determine fire location
3. Being constantly aware of the time the fire has been burning
4. Providing continuous feedback on changing conditions to the incident commander
5. Watching for signs of structural deterioration
6. Employing a defensive strategy once burning of truss members is identified

Fire fighters may be injured and killed when fire-damaged roof and floor truss systems collapse, sometimes without warning. Firefighters should take the following steps to minimize the risk of injury and death during structural fire-fighting operations involving roof and floor truss systems:

1. Identify roof and floor truss construction. Look for an emblem near the front entrance indicating the use of lightweight truss systems.

2. The incident commander should conduct an initial size-up and risk assessment of the incident scene before beginning interior fire fighting.
3. Immediately report the presence of truss construction and fire involvement to the incident commander.
4. Immediately open ceilings and other concealed spaces whenever a fire is suspected of being in a truss system:
    a. Use extreme caution, as opening concealed spaces can result in a backdraft.
    b. Always have a charged hose line available.
    c. Be positioned between the nearest exit and the concealed space to be opened.
    d. Be aware of the location of other fire fighters in the area.
5. Understand that fire ratings may not be truly representative of real-time fire conditions and that truss systems' performance may be affected by fire severity.
6. Evacuate fire fighters performing operations under or above trusses as soon as it is determined that the trusses are exposed to fire and move to a defensive attack.
7. Use defensive overhauling procedures after extinguishing fire in a building containing truss construction. Use outside master streams to soak the smoldering truss and prevent rekindles.
8. Use a thermal imaging camera as part of the size-up to help locate fires in concealed spaces.

**Temporary Hurricane Shutters**

Temporary hurricane shutters prevent special challenges to the occupants as well as the firefighting crews. The following information should be considered when a fire occurs in such a structure, especially an occupied residential structure.

1. Problems:
    a. A delay in the fire being reported
    b. Fire companies arriving later
    c. Fires not able to self-vent out windows
    d. Difficulty determining the location of the fire seat
    e. Increased chance of flashover and/or backdraft
    f. Higher heat conditions inside
    g. Less visibility inside
    h. The inability to horizontally vent
    i. The inability to use PPV in conjunction w/ fire attack
    j. The inability of occupants to escape out windows
    k. The inability to make a “grab” from outside a window
    l. The inability to exit with a victim from/out nearest window
    m. Firefighters unable to escape a burning structure
    n. A huge burden on resources to remove the shutters

2. The degree of difficulty encountered in removing the shutters will depend upon several factors

    a. type of shutter
    b. type of fastener
    c. number of fasteners
    d. location of fasteners

e. whether the shutter is attached on two sides or all four sides
f. type of material the fastener is fastened to
g. types of tools available
h. number of firefighters available
i. size, endurance and strength of the firefighters

3. Tactical Guideline

a. Plan A – remove by hand
b. Plan B – remove with hand tools
c. Plan C – remove with power tools
d. Plan D – Leave Shutters in Place & Revise Your Tactics/Strategy

4. Some suggestions/ideas to consider:

a. Vertical ventilation
b. No entry past the first room
c. Increase frequency of PAR
d. Remove only some shutters
e. The use of piercing nozzles
f. Call for additional resources
g. Assigning additional RIC teams
h. Increase use of thermal imagers
i. Take a defensive stand only

## FIREGROUND OPERATIONS AT MULTI-STORY BUILDING INCIDENTS

**SCOPE:** This ROG establishes definitions, considerations, and guidelines for managing life safety and fire suppression activities at multi-story buildings. For this ROG, multi-story buildings are considered three stories or more in height.

Fires in multi-story buildings present some particular problems during rescue and firefighting operations. Most of these are related to the difficulties of access, the complexities of construction, and the number of occupants in these structures. Due to these considerations, any situation in a multi-story structure is more complicated than the same situation occurring at one or two story buildings

Fire Officers and Incident Commanders shall be aware of MCROG-206.A.1-12, The Incident Commander's Rules of Engagement for Structure Fires.

### A. Definitions

Combination wet standpipe system: A system of piping and fire pumps built into a structure to supply water under pressure for firefighting purposes. Fire department connections are provided so that fire department pumpers can supplement either the water supply or pressure.

Critical-path construction: A system design used in construction projects to schedule various stages of construction operations for optimum speed of production. Such scheduling reduces interference between crafts and minimizes delays usually inherent at various stages of construction.

Exterior or external exposure: The hazard of ignition to a building or its contents from a fire in an adjoining building or some other exterior source.

HAD: An abbreviation for heat-activated device (thermostat).

HVAC: An abbreviation for heating, ventilation, and air-conditioning system.

Interior or internal exposure: The hazard of ignition to a room or its contents from a fire within the same building.

Limited-load area: A surface area that may appear to be solid but that is actually designed to carry certain maximum-weight loads.

Non-required exit: A means of egress in addition to required exits.

Occupancy: The use or function of a building or a portion thereof.

Occupant load: The number of people normally occupying a building or floor.

Pipe and duct shaft: A vertical or horizontal enclosed passageway housing service utilities, piping, and ducts.

Plenum: A container that encloses a volume of gas under greater pressure than the atmosphere surrounding the container – e.g., ductwork.

Poke-through construction: A method used to bring service utilities into a building area of a given floor by drilling holes through the concrete floor. Ducts, service pipes, wiring, and the like are connected through these holes to the master utilities in the attic space of the floor below.

Programmed elevator: An elevator controlled by electronic devices. These devices automatically schedule stops at various floors to serve the demands of building occupants during periods of peak traffic.

Required exit: A legal means of egress for occupants of a building.

Scissor stairways: Two stairways in the same shaft that serve alternate exits or alternate floors. Scissor stairways may or may not include common landings.

Stack effect: The accelerated movement by convection of enclosed, heated air, as in a smokestack or chimney.

Structural-load design: The total weight that a structure or portion thereof is engineered to support.

Wet-standpipe system: A system of piping that contains water for firefighting purposes and is built into a structure.

## B. Considerations

- Fire floor identification
- Life safety of persons in immediate danger
- Initiating suppression activities on the fire floor
- Water supply for the initial attack and extended operations
- ICS structure
- Conditions on the floors above the fire
- Pre-fire plan review
- Adequate SCBA units, bottles, and air supply
- Control of elevators, stairwells, utilities, HVAC systems, communication systems, and roof access
- Establishment of Rapid Intervention Crew (RIC)

## C. Guidelines

### Arrival on Scene

1. All units are to follow Recommended Operating Guidelines for Size-Up.

2. First arriving engine shall proceed to the reported or identified fire/smoke floor in full gear including SCBA, high-rise pack.

3. Second arriving engine company shall follow the ROG for standpiped or sprinklered building if applicable.

4. First arriving truck company shall place and set up the apparatus to provide access to the fire floor or egress from above the fire if indicated by conditions. Otherwise, the company will provide function as directed by command.

5. The Battalion Chief shall follow the IMS operating guideline and establish COMMAND near the primary entrance to the structure on the exterior.

6. Any Fire Showing or the encounter of a body of smoke shall result in a second alarm response.

7. Second alarm and/or mutual aid companies shall stage at level II staging until assignments from command are received.

## D. Command Considerations

Once initial companies have started up to the fire floor, COMMAND must establish and consider the following:

- Provide a water supply for the attack
- Assign personnel to check the floor above the fire floor
- Establish lobby control
- Call for additional resources
- Build management system (IMS)

## E. Organization for Working Fires

A strong organization (IMS) is required to support a firefighting force above ground. The principle objective of the organization is to provide firefighting divisions with manpower and equipment to operate effectively and to assist in solving some of the major problems involved in multi-story structures.

## F. Command

Should build this organization as quickly as possible after assigning units needed for the initial attack. These elements can be expanded upon as the availability of personnel and resources increases.

The assignment elements which need to be considered in most working multi-story incidents are:

- Fire floor
- Lobby control
- Operations (floor below)
- Floor above (extension)
- Level I staging (two floors below)
- Level II staging (exterior)
- Evacuation group
- Vent group

1. Fire Floor

   a. Use of elevators at any time will be determined by command.

   b. Crews assigned to the fire floor will determine life safety needs of the occupancy and begin evacuation if applicable.

   c. Locate seat of the fire.

   d. Determine horizontal extension.

2. Lobby Control

   Lobby control is responsible for the control of elevators and stairway access, the operation of alarm panels, communication systems, and building system controls located at ground level.

   Lobby control shall maintain a log of all personnel going up to the fire area, and must be established early in the incident.

3. Floor Above the Fire Floor

   Crews on the floor above the fire floor will determine the life safety needs of the occupancy and begin evacuation, if applicable.

Crews will check for any vertical fire extension.

4. Operations

    a. Shall be established one floor below the fire floor.

    b. Consideration should be given to moving operations to a separate radio frequency.

5. Level I Staging

    a. Level I staging shall be established two floors below the fire floor.

    b. Once initiated, all companies and equipment shall report to staging for assignment.

    c. All companies entering the structure shall carry tools, nozzles, hoses, and spare SCBA bottles necessary to perform assigned functions.

6. Floor Below Fire Floor

    a. Before operations begin functioning from this floor, the floor must be checked for any fire extension and salvage needs for the building's contents.

    b. Staging for firefighting operations shall be just off a designated stairwell one floor below the fire floor or as designated by command.

7. Level II Staging

    Second alarm and mutual aid companies shall report to this area for assignment once initiated by command.

8. Evacuation Group

    a. Evacuation requirement may be significant in a multi-story building incident. The assignment of an evacuation group for this function may be indicated.

    b. The evacuation routes available to occupants of a high-rise building are normally limited to two stairways. These stairways are also the prime access route for firefighting force to make an attack.

    c. Occupants in the immediate fire area should be evacuated as quickly as possibly to the third floor below the fire floor. Further evacuation should be predicated on risk to the occupants, since premature evacuation often hinders fire control efforts and adds to general confusion at the scene. The determination of risk, and the decision to evacuate, should be made by personnel on the floor.

d. Subsequent evacuations should manage to avoid interference with operations as much as possible. Accountability of individuals evacuated or removed for medical treatment is of the utmost importance.

9. Evacuation Process

a. Evacuation if necessary, shall be in the following priority:

1. Fire Floor
2. Floor above the fire floor
3. Top floor of structure
4. Other floors working downward from top

b. Command shall establish a medical sector and all evacuees shall be directed to the location where they will be checked for injuries and names and ages and addresses of all evacuees recorded.

c. Elevators shall not be used for evacuation of occupants, unless authorized by Command.

d. Law enforcement agency having jurisdiction shall be requested to provide security for any evacuated structures.

10. Communications

With the exception of emergency traffic, communications between Command and the fire floor shall take priority over all other communications.

# FIREGROUND OPERATIONS AT RESTAURANTS

**SCOPE:** This ROG establishes additional guidelines for incidents occurring in restaurants.

## A. **Procedure:**

Restaurant fires can be mitigated in a similar fashion as other structures with the following additions:

1. Person in charge of the restaurant will be advised to contact the Hotels and Restaurants Division of the State Department of Business and Professional Regulations;

    a. Anytime a hood suppression system discharges within a restaurant.

    b. Anytime a fire extinguisher is discharged within a restaurant.

    c. Anytime more than a small amount of smoke is generated within a restaurant.

2. The commanding officer shall notify fire prevention of any activation or discharge of a fire suppression system prior to leaving the scene.

3. The person in charge of the restaurant will be advised by the commanding officer that all cooking shall cease until they have all fire suppression equipment back in service.

4. A final inspection shall be completed by an Inspector of this department to ensure that all fire protection equipment has been put back in service.

# FIREGROUND OPERATIONS AT VEHICLE FIRES

**SCOPE:** This ROG establishes guidelines for operational management of vehicle fires.

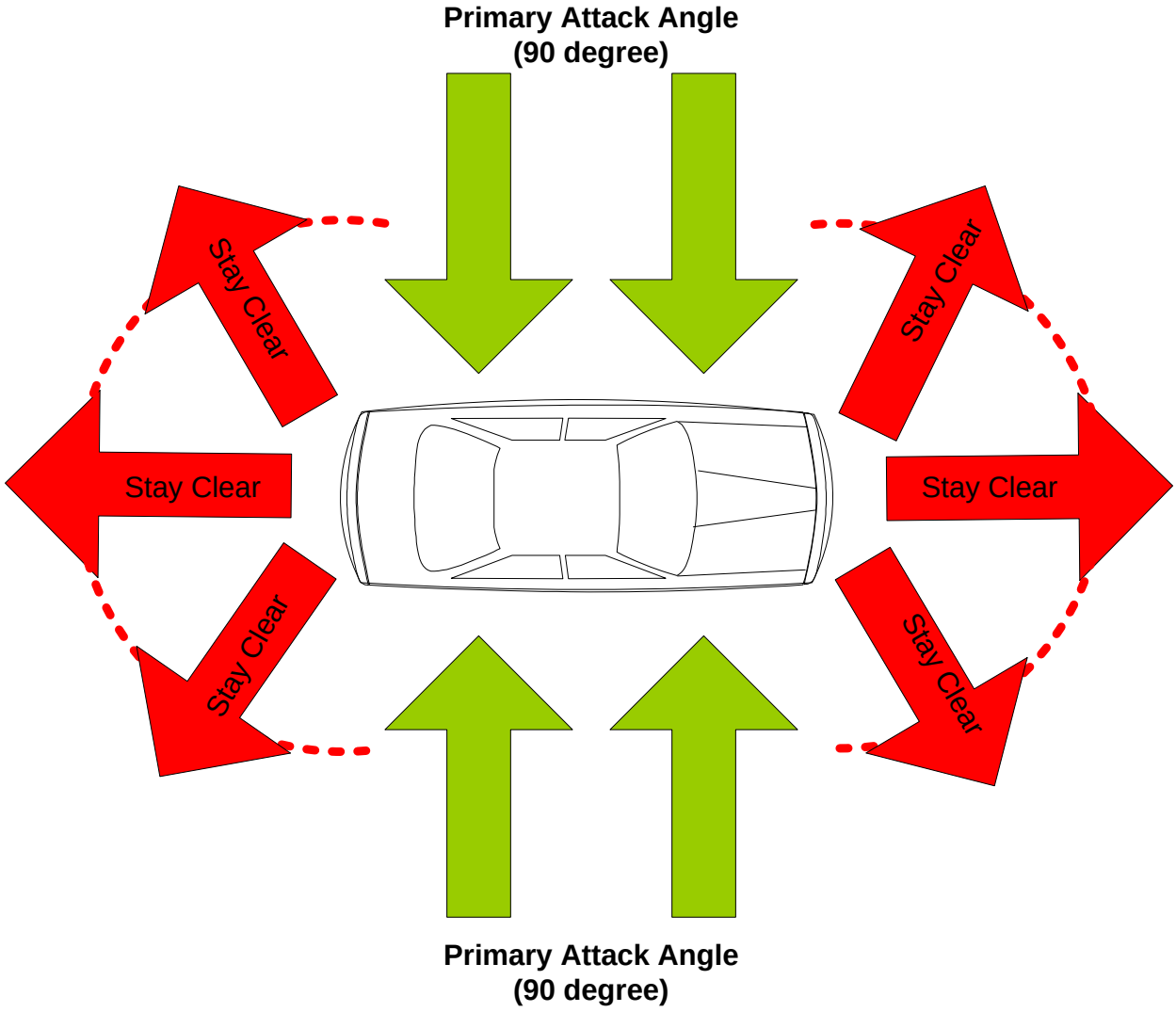
A. **General**

1. The size-up of the incident should begin when the call is received and continued until the incident has been mitigated due to the ever-changing conditions.
2. Enroute, additional information may indicate that additional responses are required (e.g., endangering a structure, the vehicle involved is a propane, gasoline, diesel, or other hazardous material transport truck, etc.). This guideline is for a typical vehicle fire. Any other vehicle incidents must be evaluated for adjustments in strategy and tactics.
3. Be aware that many vehicles on the road are "alternate fuel", "Flex Fuel" or "Hybrid gas/electric" powered.
4. Alternate fuels may be LPG, LNG, Vegetable Oil or possibly Hydrogen.

B. **Operational Guidelines**

1. Upon arrival, spot your apparatus upwind and uphill if possible.
2. Provide a size-up of the incident.
3. A pre-connected line, full gear, and S.C.B.A. shall be used when at least one compartment (engine, passenger, trunk) is involved in fire.
4. If the vehicle is not as involved as described, this same minimum equipment may still be required at the discretion of the officer in charge.
5. Information should be attained as soon as possible concerning any vehicle occupants and if the vehicle is gasoline, diesel, propane, or electrically powered.
6. The preferred attack should be made at a 90 degree angle from the side of the vehicle with the hoseline placed between the vehicle fire and any exposures (see drawing on page 2).
7. For a vehicle without occupants, extinguish any ground fire around or under the vehicle first, then attack the remaining fire in the vehicle.
8. As soon as possible, the passenger and trunk compartments shall be checked for possible victims. Water should continue to be applied to the vehicle until all heated components are cooled, including tires, rims, drive shaft, bumpers, fuel tank, air bag modules, and any other components subject to explosion.
9. Upon extinguishment, the battery may require disconnecting. Whether the cables are cut or removed, disconnect the negative side first to prevent arching.

10. Hybrid vehicles have "battery banks" that produce very high voltage. All corrugated orange cables will be high voltage and should be avoided.
The battery pack contains sealed batteries that are similar to rechargeable batteries used in laptop computers, cell phones, and other consumer products. The electrolyte is absorbed in the cell plates and will not normally leak out. However, under fire conditions, the electrolyte may become exposed or drop out and burning or smoldering batteries emit toxic gases. Wear SCBA and protective equipment.



## LAND BASED FIREGROUND OPERATIONS AT MARINE VESSEL FIRES

**SCOPE:** This ROG establishes and shall act as a guide for fire operations in dealing with fire and smoke conditions in marine vessels, when moored to a dock, pier or other structure that permits land based fire suppression efforts.

Fire Officers and Incident Commanders shall be aware of MCROG-206.A.1-12, The Incident Commander's Rules of Engagement for Structure Fires.

A. Definitions

Forward/Bow - front of vessel.

Aft/Stern - rear of vessel.

Starboard side - right side of vessel viewing toward the bow.

Port side - left side of vessel viewing toward the bow.

Listing - the shifting of a vessel to either side due to improper loading or excessive fire-fighting water.

B. Guidelines for Arriving Units

1. First arriving unit shall perform a size-up of the situation including:

- Communicate fire conditions (smoke showing, flame showing, partial/well/or fully involved)
- Record depth of water where vessel is moored.
- Meet with the vessel Master, First Mate, or Owner operator (depending on who is available) to determine the location and extent of the fire conditions.
- Locate and secure the vessel firefighting blue prints (fire plans)
- Ensure that the crew has completed or is completing the evacuation of any civilian passengers and all non-firefighting vessel crew members
- Secure the cargo manifest and determine if any hazardous cargo is present and where it is located
- Determine if any of the vessels fire protection, systems and or ventilation systems have been activated.
- Ensure that NO firefighting operations are continued by the vessels crewmembers or any civilians.

2. Establish a unified command structure (if applicable) as soon as possible. The first priorities for the incident shall be:

   - Life safety
   - Incident stabilization
   - Property conservation
   - Environmental protection

3. The First on scene Company Officer and or Chief Officer shall determine how and where to commence rescue and suppression operations and what equipment is needed.

4. The Second arriving Engine Company shall establish a reliable water supply to support fire operations and also subsequently provide supplemental rescue, suppression duties and ventilation operations.

5. The first arriving Truck Company shall position and ladder to the main deck (if applicable) thus to ensure a secondary means of emergency egress, a reliable water supply to the ships ancillary fire system or to provide a supplemental water to firefighting crews.

6. Operational fire priorities: RECEO

   - Rescue
   - Exposures
   - Confinement
   - Extinguishment
   - Overhaul

7. Additional operational priorities:

   - Selection of a location to fight the fire
   - Multi-agency accountability and coordination
   - De-watering operations, including control of runoff
   - Pollution prevention and control
   - Vessel trim and stability

8 .Subsequent arriving units shall report to a Level II staging area, unless designated by command.

## C. Operational Guidelines

1. An aggressive coordinated attack is the most effective tactical option in the majority of ship fire situations, within the bounds of safety to life and property.

2. Use a team approach, taking advantage of all the assistance available from members of the ship's crew, the Coast Guard, and technical advisors.

3. Three (3)-person companies under the supervision of an Officer are the best for hose teams or other work units. A two person (2) person team is the minimum unity for any assignment aboard any vessel.

4. All on board private fire protection systems should be employed whenever possible, including standpipes, hose stations, and sprinklers systems. Provide additional water for these systems by by the ships (ISC) International Shore Connection. DO NOT provide more than 80 psi to the standpipe system for any vessel.

5. Every effort should be made to shut down electrical systems (commonly 400Vac & DC) when they pose a danger to interior crews, however; it should be realized that these systems operate bilge pumps, ventilation systems and other essential equipment.

6. On large passenger type vessels, evacuation and rescue shall have top priority. Firefighting operations shall be handled like those in multi-story fire operations.

7. On fire in mechanical areas (engine room, compressor room, generator room, hydraulic pump areas, etc.) every effort shall be made to suppress the fire with the vessels fixed CO2 fire suppression system first. If this is not successful, high expansion foam (if available) should be utilized to fill these confined spaces to attain extinguishment. The entry by firefighting personnel should not be attempted unless the fire can not be suppressed by any other means.

8. Firefighting on all commercial marine vessels on open water, and only where requested by the U. S. Coast Guard, shall be conducted using all marine safety precautions. The fire chief has the sole responsibility in granting the request for shore based firefighting personnel.

9. Hazardous material leaks and/or spills are commonplace during commercial marine vessel firefighting. Utilize the Hazardous Materials Response Team and Coast Guard to aid in containment of these spills.

## D. Tactical Considerations

1. Protect any and all mooring lines to prevent the vessel from drifting. The vessels crew members and port authority personnel shall be the only authorized personnel to handle a vessels mooring lines. Utilize harbor tugs if necessary to keep a vessel at the dock.

2. Maintain a boat in the water (Coast Guard, fire service, law enforcement, or port authority) on the outboard side of the vessel in case of a man overboard.

3. Any decision to move a vessel must be agreed upon by the incident Unified Command.

4. Initiate vessel de-watering procedures using the vessels systems or portable water removal equipment concurrent with the fire-fighting operation

5. The Unified Command has the responsibility to maintain the stability of the vessel on the fire through the control of water application and removal.

6. Under NO circumstances shall any fire service personnel make the decision to intentionally sink (scuttle) any marine vessel.

7. At NO TIME shall any fire department personnel proceed onto the vessel without full protective gear and SCBA.

8. With the exception of emergency traffic, communication between command and the crews engaged in rescue and or suppression operations will have priority over all other radio traffic.

9. Staging of firefighters for the purpose of awaiting entry on to the vessel through the main deck, shall be determined by command, to not impede egress access.

10. Subsequent arriving Chief Officers shall consult with command for additional assignments.

# FIREGROUND OPERATIONS AT WILDLAND FIRE INCIDENTS

**SCOPE:** This ROG establishes guidelines for the management of incidents involving ground cover fire in the wildland/urban interface.

## A. Definitions

Anchor Point – a term associated with attack methods, referring to an advantageous location, usually one with a barrier to fire spread, from which to start constructing a fire line. Used to minimize the chance of being outflanked by the fire while constructing the fire line. Most anchor points originate at or near the area of origin.

Backfiring – intentionally setting fire to fuels inside the control line to reduce fuel and contain a rapidly spreading fire. Used in the indirect method only.

Burning Out – Setting fire inside a control line to consume fuel located between the edge of the fire and the control line.

Firebrands – pieces of burning debris carried aloft into the convective column. May be carried outside the perimeter of the main fire by wind, causing spot fires.

Brush – shrubs and stands of short, scrubby trees generally three to twenty feet high.

Contained – The status of wildfire suppression signifying that a control line has been completed around the fire that can reasonably be expected to stop the fire's spread.

Control Line – a term used for all constructed or natural fire barriers used to control a fire.

Controlled – The status of wildfire suppression signifying that no further action is necessary and the control lines are expected to hold under the foreseeable conditions.

Crown Fire – any fire that advances from top to top of trees or brush that is more or less independent of the surface fire.

Fire Line – the part of a control line that is scraped or dug down to mineral soil. Normally only used in wooded areas. Generally not used on grass fires.

Fire Perimeter – the entire length of the outer edge of the fire.

Head of a Fire – the most active part of a wildland fire.

Heavy Fuels – fuels of large diameter, such as logs, snags, and large tree limbs. These ignite slowly and burn slowly but produce a large amount of heat.

Mop-up – after the fire has been contained, all actions required to make the fire "safe." This includes trenching, falling snags, and checking all control lines.

Rear of Fire – the portion of a fire opposite the head and near the origin. The slowest burning part of a fire.

Spotfire – Fires that have been started by firebrands and are outside the perimeter of the main fire.

Wildland/Urban Interface – An area where structures and other man made improvements intermingle with wildland fuels.

**B. Priorities**

1. Protection of life
    a. Firefighter
    b. Civilian
2. Protection of property
3. Fire containment

**C. Tactical Guidelines**

1. The first arriving engine should:
    a. Provide size-up (size of fire, type of fuel, fuel load, exposures, direction of spread, and any access points for brush units).
    b. Initiate command procedures.
    c. Protect exposures, if any.
    d. Identify water supply resources.
    e. Identify the type of attack warranted and initiate, if appropriate.
    f. Protect the general area of the fire origin and preserve any evidence. Obtain contact information of any witnesses and/or property owners.

2. The first arriving mutual-aid brush unit should:

   a. Assist with exposure protection.

   b. Gain access to upwind portion of burned-out area providing apparatus and manpower are not endangered.

   c. Extinguish fire based on type of attack and secure fire lines. If the Florida Forest Service has provided fire lines, allow fire to burn up to those lines.

3. The first arriving water supply unit should:

   a. Assist with exposure protection.

   b. Stage near secure water supply prepared to supply water or assist with extinguishment.

**D. Command Considerations**

1. Command should be established with appropriate geographic and functional divisions developed early on. Emphasis should be placed on establishing a rehab group.

2. In large operations, current weather information should be obtained and updated throughout the firefighting operation.

3. Keep fire attack unit operations confined to the burned area. Observation for spot fires caused by flying embers or radiant heat should be done by all units. Defensive operations, in front of a head fire and outside burned area, should only be undertaken when life or property is endangered and a secure escape route is available to firefighters.

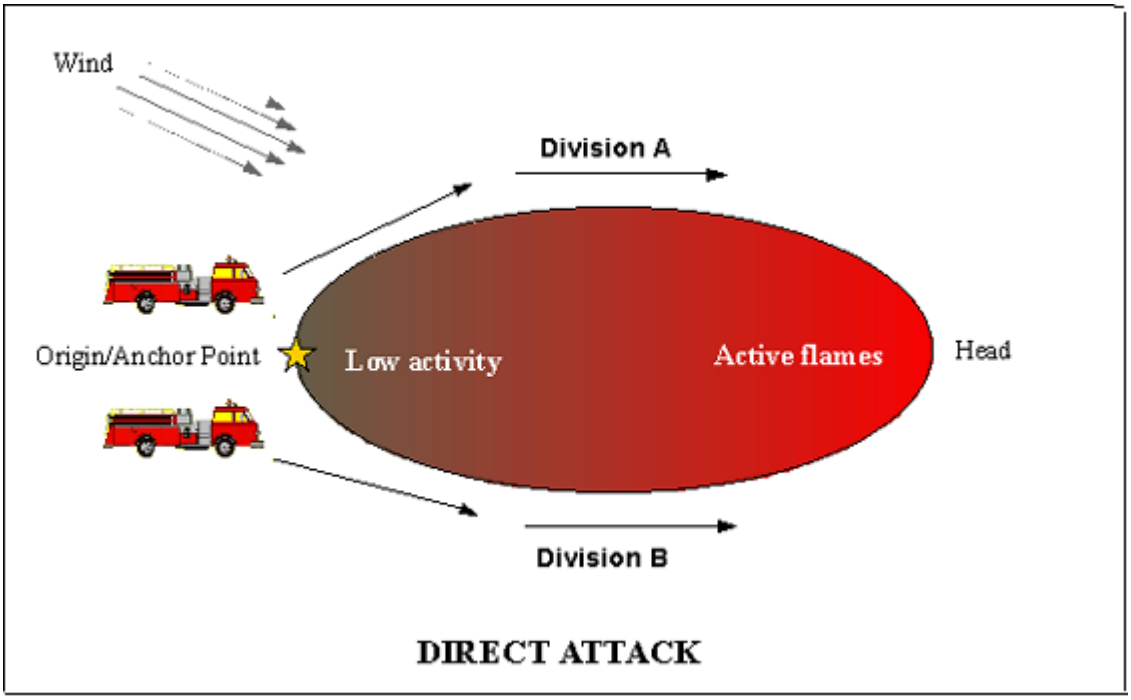
4. Florida Forest Service resources are extremely useful in firefighting operations and save manpower and apparatus wear and tear. In any wildland firefighting operation, the Florida Forest Service may be requested through dispatch.

5. When multiple mutual aid brush units are utilized, a team concept should be adopted; one unit attacking, one securing the line, and both protecting each other. A reserve brush unit should be available in case of mechanical failures or unexpected fire conditions.

6. If a wildland fire does not endanger life or property, the best strategy may be to let it burn to natural or manmade boundaries where extinguishment will be simplified.

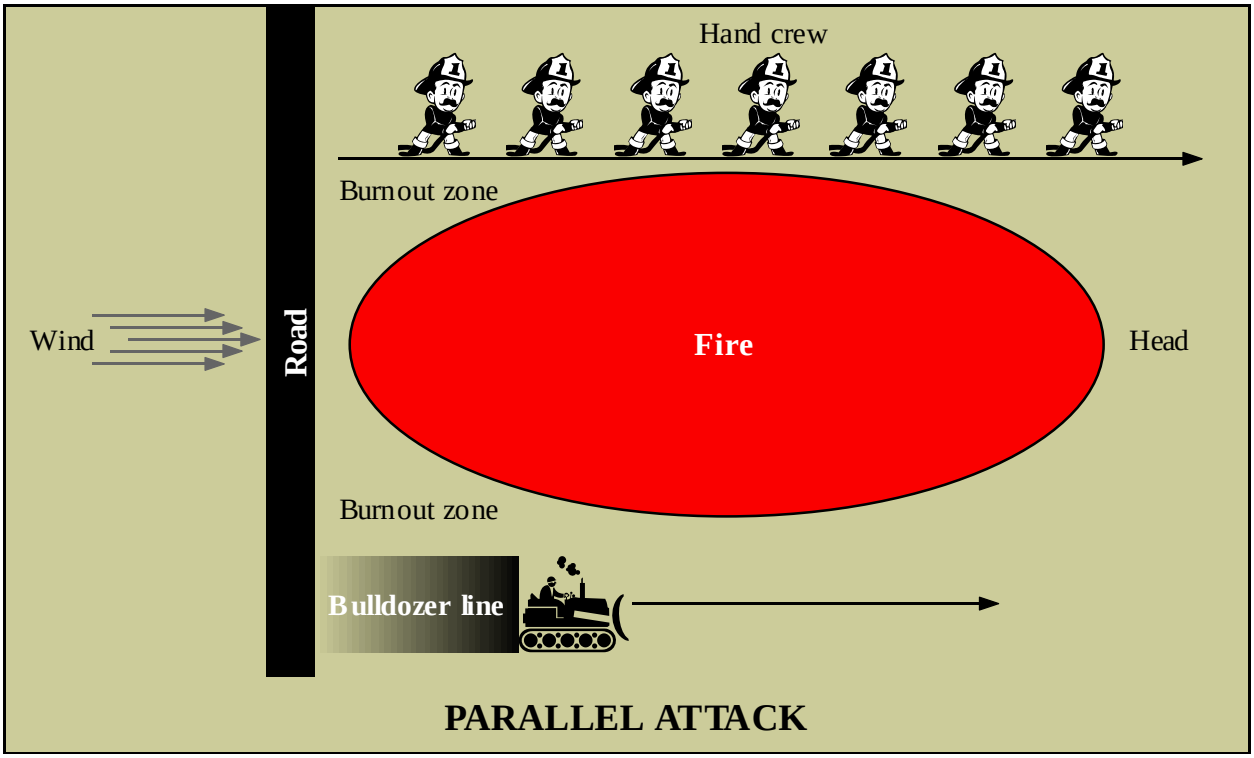
E. **Operational Guidelines**

1. DIRECT ATTACK: personnel and resources work close to the fire's edge and put it out there. Best to use on small, slow moving fires with light fuels. Where possible, apparatus should remain in area that has already burned (black).




DIRECT ATTACK

2. PARALLEL ATTACK: made by hand crews and bulldozers when intense heat or fire spread precludes direct attack. Back off 5 to 50 feet and parallel the flank.




## F. Safety Considerations

1. The level of protective clothing to be used shall be determined by the incident commander but shall include as a minimum:

   a. Department-issued NFPA-approved wildland helmet, eye protection, gloves, pants, shirt, hood, and boots.

   b. If not in department-issued wildland turnout gear, personnel shall wear structural turnouts. This includes helmet, hood, boots, turnout pants, turnout coat, and gloves.

2. Eye and respiratory protection shall be worn as conditions warrant.

3. Request an EMS response to closely monitor all personnel for symptoms of heat exhaustion, dehydration, etc. A rehab area shall be established whenever appropriate.

4. The incident command system shall be used whenever more than one company operates at an incident.

5. Standard Fire Orders:

    1. Keep informed on fire weather conditions and forecasts.
    2. Know what your fire is doing at all times.
    3. Base all actions on current and expected fire behavior of the fire.
    4. Identify escape routes and safety zones and make them known.
    5. Post lookouts when there is possible danger.
    6. Be alert. Keep calm. Think clearly. Act decisively.
    7. Maintain prompt communications with your forces, your supervisor, and adjoining forces.
    8. Give clear instructions and be sure they are understood.
    9. Maintain control of your forces at all times.
    10. Fight fire aggressively, having provided for safety first.

6. Watch-out Situations

    1. Fire not scouted and sized up.
    2. In country not seen in daylight.
    3. Safety zones and escape route not identified.
    4. Unfamiliar with weather and local factors influencing fire behavior.
    5. Uninformed on strategy, tactics and hazards.
    6. Instructions and assignments not clear.
    7. No communication link with crew members of supervisor.
    8. Constructing line without safe anchor point.
    9. Building fire line downhill with fire below.
    10. Attempting frontal assault on fire.
    11. Unburned fuel between you and fire
    12. Cannot see main fire, not in contact with someone who can.
    13. On a hillside where rolling material can ignite fuel below.
    14. Weather becoming hotter and drier.
    15. Wind increases and/or changes direction.
    16. Getting frequent spot fire across line.
    17. Terrain and fuels make escape to safety zones difficult.
    18. Taking nap near fire line.

7. Safety Considerations near electric transmission lines and towers

    1. Heavy smoke, flame and heat from wildfires can create an electrical path between an energized wire and the ground, causing electric transmission lines to short circuit.
    2. Maintain 100 foot clearance from overhead tower lines with heavy smoke passing through them and a 35 foot clearance from all transmission structures should be observed.

Guard against getting your apparatus stuck in soft terrain. As a general rule, structural engines should not leave the roadway.

## Fireground Operations at Dumpsters, Garbage Trucks or Unknown Type Trash Fires

1. When arriving at garbage truck, trash hauler, dumpster, rubbish, trash or unknown type materials fire, give a brief description of what you find.

   Example: full size garbage truck, small trash hauler truck, small dumpster on fire, compactor dumpster on fire that is attached to a structure, pile of unknown material burning, etc.

2. Keep in mind that vehicles hauling trash, such as garbage trucks, small trash haulers, etc. should be treated as a vehicle fire if the engine or passenger compartment is involved.

3. The special precautions referenced here deal with the trash component only**.**
   a. These types of fires shall be attacked from upwind, if possible, and the stream from the hoseline should initially be directed on the fire from a distance to determine if any unknown materials or substances are present that may react violently with water.
   b. Only then should you advance on the fire and complete extinguishment.
   c. The rubbish, dumpster, etc, should be overhauled completely and a check should be made for any possible victims.

# FIREGROUND OPERATIONS- Compressed Natural Gas Vehicles – Large Trucks

**SCOPE:** The following ROG establishes guidelines for operations at the scene of fires involving large commercial vehicles powered by compressed natural gas (CNG). Emphasis is placed on the safety of responders, civilians, and exposure protection.

Compressed Natural Gas (CNG) and Propane (LPG) are two very different fuels with different properties and require different tactics to mitigate a fire safely. **Applying water to CNG cylinders during a fire will disable the temperature activated pressure relief devices (PRD) and can cause a catastrophic explosion.** CNG fuel cylinders are designed to maintain their structural integrity and safely vent their contents during a fire, but there have been incidents where CNG fuel cylinders have exploded even when appropriate tactics were used.

A. **Procedure**

1. Operational Considerations

a. The officer should determine what type of fuel powers the vehicle as soon as possible when dispatched to the fire. The most common CNG powered trucks in Manatee County are beer delivery tractor trailers owned by J.J. Taylor Distribution and some garbage trucks.

b. CNG vehicles will be labeled with a blue diamond shaped decal with the letters CNG. This decal will be located on all four sides of the vehicle.


c. View of CNG decals and the location of the CNG fuel cylinders can be obstructed by smoke and flame conditions on scene. The officer should meet with the driver and determine the type of fuel that powers the vehicle and the location and orientation of the CNG fuel cylinders (if applicable).

d. The CNG fuel cylinders are usually located on top of the cargo area of garbage truck or hidden inside the rear tailgate. If there is a fire in the cargo area, have the driver dump the cargo out of the garbage truck as soon as possible there by taking the heat source away from the CNG fuel cylinders. If the cargo cannot be

dumped or the CNG vehicle is not a garbage truck, the officer should determine if there is direct flame contact or excessive heat impinging on the CNG fuel cylinders.

1. If the cylinders are impinged by flame or taking heat then there is a potential for an explosion with large pieces of burning shrapnel being expelled.

    a. **DO NOT APPLY WATER** to the CNG fuel cylinders. This can cause them to explode during a fire.
    b. Evacuate 1500 feet in all directions.
    c. Protect exposures from the maximum distance possible from the CNG Fuel tanks. Consider using unmanned hose lines when possible.
    d. Crews should be positioned with a substantial barrier such as a fire apparatus between them and the fire.
    e. Be prepared to extinguish fires in surrounding structures ignited by burning shrapnel or venting gas.
    f. Consider evacuating buildings within the 1500 foot exclusion zone. Evacuate occupants through the back exit using the structures as a protective barrier from shrapnel for their egress.
    g. Allow the fire to take its course.
    h. Once the CNG cylinders have vented it is safe to extinguish the fire using conventional tactics, all cylinders will be empty after venting occurs.

2. If there is no flame impingement on the CNG fuel cylinders and cylinders are not being heated up, then conventional firefighting tactics can be used to extinguish the fire.
    a. Continually monitor the status of the CNG cylinders for flame impingement.
    a. Under normal conditions the maximum safe working pressure for a CNG fuel cylinder is 4500 psi. A rapidly rising cylinder pressure indicates a potential cylinder failure.
    b. Status of the CNG cylinder pressure can be monitored at the fuel pressure gauge located in the Fuel Management Module box which is on the driver side exterior frame rail and identified with a blue CNG decal.

e. Rescue indicated

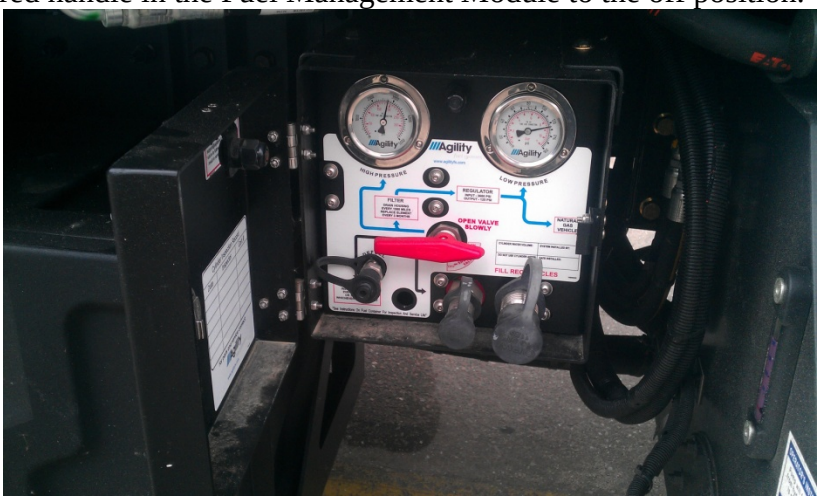
2. Rescue is indicated or if personnel need to work in the exclusion zone while the CNG cylinders are impinged with flame or taking heat.

a. If possible crews should avoid approaching and working in the area at either end of the CNG fuel cylinders.

b. Crews should locate vent tubes and avoid working in this area. When activated vent tubes will release a 10 to 20 foot long, high pressure "blow torch" style flame for up to 10 minutes, the pressure alone (3600 to 4500 PSI) can strip SCBA mask and other protective gear from firefighters, knock firefighters off of ladders or off the top of the truck.

c. If cylinder pressure exceeds 4500 psi or is rapidly rising indicting a potential cylinder failure, the crews have the option to back out.

Vehicle accidents:

1. CNG vehicles can be treated the same as any other vehicle involved in an accident with the following exceptions.
   a. Shut off electrical power to the truck via the battery switch which is typically located near the drivers seat inside the cab of the truck
   b. Shut off the fuel supply for the engine. This can be done by turning the red handle in the Fuel Management Module to the off position.
   c. 

   d. Determine if the CNG cylinders have been damaged.
   e. If the CNG fuel cylinders still contain CNG and are damaged such as leaking, gouged deeper than the thickness of a dime, cracks in the

cylinder, dented or discolored due to fire or chemicals set up a 1500 foot exclusion zone.

f. Advise the wrecker driver that this is a CNG vehicle and advise him of the structural status of the CNG cylinders and pressure if known.
g. Do not fight fires impinging on weakened or damaged pressurized tanks.
h. If the CNG fuel cylinders have been damaged, assume they will fail and follow the flame impingement procedure listed above.
i. During a rollover with fire, it is important to know the location of the PRD vent tubes and note what exposures will be ignited when they activate. Avoid working around vent tube area.
j. DO NOT cut the stainless steel CNG fuel lines as they are under high pressure and can injure personnel.
k. CNG is odorized and leaks can be found using a combustible gas meter. Natural gas is lighter than air.

2. Officers can always request a phone consult or a response from the Manatee County Haz Mat Team via Group 3 page through ECC.

# HELICOPTER LANDINGS - MEDICAL

**SCOPE:** This guideline is established to provide guidance for the landing and lift-off of medical helicopters.

1. Landing Zone

    a) The landing zone (LZ) shall be approximately 100' X 100' during the day or night. Establish an area that is free of debris, buildings, trees, and power lines as close to the incident as possible without creating a hazard to the incident.

    b) The landing zone (LZ) shall be marked on all four sides by four strobes or fluorescent orange cones properly secured (one for each corner) so they are not blown away by rotor wash.

    c) The Incident Commander or Transport Group Supervisor shall notify the communication center of the designated LZ giving the coordinates, specific landmarks and name of the LZ.

    d) Use the National Incident Management System as per ROG #101.

2. Landing Zone (Helispot) Manager (LZM) Also known as the Air Transport Manager in a Multi-Casualty Incident
    a) The LZM shall be designated by Command or the Transport Group Supervisor and shall be the person in charge of directing the landings and take-offs of the medical helicopters and shall be located at the head of the landing zone on the windward side.

    b) The LZM has complete control and authority of the landing zone as well as communications with the helicopter(s) as designated in the Communications Section.

    c) The LZM is responsible for the safe landing and takeoff of the helicopters and must maintain visual and radio contact with the pilot at all times.

    d) In the event of a safety hazard, the LZM must transmit over the radio to the pilot “ABORT, ABORT, ABORT”.

    e) Secondary duties may include “rotor point guard” if required by the medicvac crew. This would require the LZM to move the pilot’s position after the landing is completed.

    f) The LZM shall use the radio designation "LZ" and shall report to Command or, if established, the Transport Group.

    g) Assuming that the helicopter will make the final approach into the wind, the LZM shall position their self at the head of the LZ with the wind to their back after the pilot has acknowledged a visual location of the LZ.

h) After the helicopter has landed, the LZM shall move to the left side of the helicopter approximately 50 feet away and relieve the helicopter crew person from that position. The LZM shall watch the rear rotor blade area and allow no one to enter the area except helicopter personnel and anyone assisting with the stretcher. The helicopter crew will, in most cases, have the stretcher assistants drop off prior to entering the secure zone.

i) When the patient and crew members are loaded on the helicopter and are ready for take off, the LZO shall return to the head of LZ and wait for the helicopter to clear before the LZ is terminated. (Hold LZ at least 30 seconds before termination).

3. Communications

a) Communications with the helicopter will be directed through the LZ Manager.

b) Primary communications with the helicopter will be on Mutual Aid – Talk Around.

c) Advise the helicopter as soon as you have it in sight and, when necessary, give directions to the pilot as to your location, i.e. "Bayflight 2, this is I-75 LZ, the LZ is approximately 1 mile west of your present location." Specifically use the helicopter's ID and the LZ name when communicating.

d) The LZM should be prepared to pass on patient information as requested by the helicopter.

e) Describe the LZ to pilot i.e., "The LZ is in the parking lot behind the water tower on the NW corner of the intersection."

f) Advise the pilot of any obstructions near the LZ such as towers, powerlines and antennas.

g) The LZM will advise Command (or Transport Group) AND the communications center t when each helicopter has landed and when they have departed and of their destination.

4. Safety Precautions For Helicopter Services

a) Always approach the helicopter from the front.

b) Never go near the tail of the aircraft.

c) No smoking on the LZ.

d) No running on the LZ.

e) No vehicles within the LZ, including emergency vehicles.

f) No civilians on the LZ.

g) Protect your eyes from debris which may be thrown up by the rotor wash.

h) Carry all long objects or equipment parallel to ground and below waist.

i) Always approach a slope landing from downhill side.

j) The flight crew and pilot are responsible for the loading and unloading of patients and equipment. They will direct operations.

k) The flight crew and pilot are responsible for opening and closing all helicopter doors and compartments.

l) Weather conditions to avoid include low clouds, poor visibility due to fog, rain or haze, thunderstorms, lightning, extreme turbulence, and gusty winds.

m) Extinguish all white lights in the LZ at night and never shine toward the aircraft.

5. Lift-Off Procedure

a) Once the patient is loaded, all personnel should immediately retreat beyond the LZ perimeter.

b) Advise all onlookers to turn their back, shield their eyes, hold down loose equipment (i.e., stretcher, blanket, etc.).

c) The LZM will re-establish radio contact with the pilot and keep all vehicles and personnel off the LZ until the pilot has indicated he is clear of the LZ and will not be returning, in case of mechanical problems.

d) Members assigned to the landing zone should observe the aircraft for open compartments or hatches, smoke or fire from the engine exhaust system or loose engine coverings under the main rotor blade.

e) When the patient and crew members are loaded on the helicopter and are ready for take off, the LZM shall return to the head of LZ and wait for the helicopter to clear before the LZ is terminated. Hold the LZ at least 30 seconds before clearing it and terminating the LZ.

## NEWBORN INFANT DROP OFF

On July 1st, 2000, CSHB 1901-the Abandoned Baby Bill-went into effect. Under this law, hospitals and fire stations shall admit and provide all necessary services and care to a newborn infant brought to their facility pursuant to this law. In 2008, HB 7007-Safe Haven for Newborn Infants changed the Florida Statute to allow parents to drop off newborn (7 days or less) infants at a fire station that is staffed 24 hours by firefighters and/or EMTs. The law also provides immunity for Firefighters and EMTs acting under this statute. The following steps shall be taken:

- Any parent may leave a newborn infant seven days or younger at a hospital or at a fire station staffed with full-time firefighters or emergency medical technicians.
- Hospitals shall admit and provide all necessary services and care to a newborn infant brought to their facility pursuant to this law.
- Any parent who leaves a newborn with a fire station or hospital will not be subject to prosecution for neglect of a child or contributing to the delinquency of a child as a result of leaving the child with the fire station or hospital.
- A child left at a fire station or hospital in compliance with the law will not be considered an abandoned child and the Department of Children & Families will not investigate, unless there is evidence of actual or suspected child abuse or neglect.
- Except where there is actual or suspected child abuse or neglect, any parent has the absolute right to remain anonymous unless he or she tries to reclaim the infant.
- Firefighters and emergency medical technicians must provide emergency medical services to the newborn infant to the extent of their training and shall arrange for the infant's immediate transportation to the nearest hospital.
- Firefighters and emergency medical technicians accepting custody of an infant and providing emergency medical services and care pursuant to this law are immune from civil and criminal liability.
- The hospital will immediately contact a local licensed child-placing agency upon admitting a newborn infant under these conditions.
- Any hospital that admits and provides emergency medical services to an abandoned newborn infant 7 days old or younger must report any incident of actual or suspected child abuse.
- This action by the parent constitutes implied consent for treatment of the infant.

# BLOODBORNE PATHOGENS EXPOSURE CONTROL PLAN

## I. KEY DEFINITIONS & ABBREVIATIONS

HBV - hepatitis B virus

HIV - human immunodeficiency virus

Bloodborne Pathogens - pathological microorganisms that are present in human blood and can cause disease in humans.

Contaminated - presence or reasonably anticipated presence of blood or OPIM on an item or a surface.

Exposure Incident - a specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or OPIM that results from the performance of an employee's duties.

Occupational Exposure - reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or OPIM that may result from an employee's duties.

Other Potentially Infectious Materials (OPIM) - includes the following human body fluids; semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva, any other bodily fluid that is visibly contaminated with blood, and all other bodily fluids in situations where it is difficult or impossible to differentiate between body fluids; or any unfixed tissue or organ from a human.

Parenteral - piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts, and abrasions.

Regulated Waste - liquid or semi-liquid blood or OPIM; contaminated items that would release blood or OPIM in a liquid or semi-liquid state if compressed; items that are caked with dried blood or OPIM and are capable of releasing these materials during handling; contaminated sharps (needles); and pathological or microbiological wastes containing blood or OPIM.

Universal Precautions - an approach to infection control. Treat all human blood and body fluids as if known to be infected with HBV, HIV, or other bloodborne pathogens.

## II. Exposure Control Procedures

In the interest of preventing accidental exposure to bloodborne pathogens and other infectious materials, it is recommended each agency in Manatee County develop an internal exposure control policy specific to internal, Local, State, and Federal requirements. It is further recommended each agency adopt procedures to comply with OSHA Bloodborne Pathogens regulation, 29 CFR 1910.1030.

# FIRE RELATED FATALITIES / LIFE THREATENING BURN INJURIES

**Scope**: A uniform guideline to assist Fire Departments in Manatee County with the investigation of fire related fatalities, life threatening injuries, and/or burns to civilians and firefighting personnel. This document identifies immediate on-scene fire company actions, immediate notifications and establishment of fire investigation command.

## A. **Procedure:**

Immediately upon the determination of a fire related death, life threatening injuries and/or burns, the fire Officer In Charge should initiate specific actions.

The following actions should immediately be taken as soon as a unit arrives on scene and determines that fire fatality exists.

1. Leave deceased victim in location found.

   - Exception to moving the victim

     a. deceased victim was relocated during course of search/rescue.
     b. deceased victim's body will be further compromised by immediate fire conditions. If victim's body has been relocated from area of discovery, leave in position of relocation and make specific note of area of initial discovery.

2. Continue fire suppression efforts only, do **NOT** initiate salvage or overhaul operations until further notice by the Investigator in Charge.

3. Area of discovery of deceased/injured victim should be secured/preserved as best as possible.

4. Secure entire fire scene, limiting entry to essential personnel only. An entry log should be immediately initiated, identifying personnel entry to area of discovery.

5. Preserve all physical evidence.

   a. In the event of a firefighter death, life threatening injury and/or burns:
      i. The Personal Protective Equipment (PPE) will immediately be removed from service.
      ii. Custody will be maintained by the fire chief or his designee, or law enforcement agency.
      iii. The PPE shall be kept in a secure location with controlled and documented access.
      iv. All PPE shall be nondestructively tagged and stored on in paper or cardboard container to prevent further degradation or damage. **PLASTIC OR AIRTIGHT CONTAINERS SHALL NOT BE USED.**

v. The PPE will be made available to qualified members of the department, law enforcement agency or outside experts as approved by the fire chief, to determine the condition thereof.
vi. Retention time for custody of the PPE shall be determined by state statute or rule.

## B. Immediate On-Scene Notifications

O.I.C. shall have the Communications Center make immediate notification requesting response:

* responsible investigative authority of Fire District involved (i.e.: Fire Chief, Fire Marshal, Fire Investigator, etc.)
* State Fire Marshal's Office - Field Investigator
* Appropriate Law Enforcement Agency - Supervisor

## C. Chain of Command

The Incident Commander shall coordinate with O.I.C. of Scene Investigation.

The investigative authority of the Fire District shall be the O.I.C. of Scene Investigation until the arrival of the State Fire Marshal's Office and/or the appropriate law enforcement agency.

Upon arrival of said agencies, coordination of transition of O.I.C. of Scene Investigation will be initiated, with investigative authority of the Fire District assuming a support role to the determined lead agency(s). Incident Command and the Communications Center shall be immediately notified of this O.I.C Scene Investigation transition, as well as the name of the Agency(s) and representative(s) assuming Investigation Command.

## D. On Scene Investigative Actions

A coordinated briefing of all principle investigative authorities, with Investigation Command clearly identified.

Investigation Command to determine and identify Investigation Team members.

Establishment of Action Plan by Investigation Command.

Determination of assignments by Investigation Command, including:

records
witness statements
photography
origin/cause investigation
scene diagram
evidence collection

E. Public Information Issues

Coordination between Incident Command and Investigation Command establishing single source P.I.O.

F. **Conclusion / On-Scene Debriefing**

Investigation Command will conduct a group debriefing of team members upon completion of fire scene investigation. Investigation Command will determine need for subsequent debriefings or meetings of team members. Investigation Command will release team members.

# MASS CASUALTY INCIDENTS

## I. PURPOSE

Establish uniform response and operating procedures for the management of incidents involving multiple patients and requiring multiple resources. This shall be for, but is not limited to, traumatic incidents such as a plane crash, vehicle accident, explosion, terrorist act, industrial accident, building collapse or hazardous material incidents where there are 5 – 10 patients or more requiring emergency medical treatment.

## II. DEFINITIONS

AHJ – Agency/Authority having jurisdiction

Command (verb) – the act of a fire or EMS member taking charge of an incident

Command (noun) – the fire or EMS person or group of people in charge of an incident. Synonymous with Incident Commander and Unified Command. Should be preceded by the name of the incident such as "Desoto Mall Command".

Command Officer – the Fire Shift Commander, EMS Supervisor, or any Fire or EMS Chief Officer.

Crew – the personnel that staff a fire crew, engine company or EMS medic unit.

Crew Boss – the person in charge of a crew.

EMS – Manatee County Department of Public Safety, Emergency Medical Service Division.

Fire – Any Manatee County Fire Rescue agency.

MCI – A multi-casualty incident with 5 – 10 or more patients. Can be a medical only incident or a fire, technical rescue, and/or hazardous materials incident(s) with multiple casualties.

## III. POLICY/PROCEDURES

### A. Response

1. When there are 5 – 10 reported patients at an incident, an EMS Supervisor shall determine if an MCI response (Level 1) is warranted. If so, then ECC shall be directed to dispatch a Level 1 MCI response according to the Florida Incident Field Operations Guide (FOG).

    a. EMS – At least 4 EMS Units and 1 Supervisor dispatched for the MCI portion of an incident in addition to any EMS units already assigned to standby for firefighting or hazardous materials functions.

    b. Fire – 2 Fire Units dispatched for the MCI portion of an incident in addition to any other fire units already assigned to firefighting or hazardous materials functions.

2. When 11 or more patients at an incident are confirmed, the appropriate level of MCI response shall be determined by on scene resources according to the Florida Incident Field Operations Guide (FOG) and that level of response shall be activated by ECC as follows:

3. Level 2 MCI (11 – 20 patients)

    a. EMS – Automatically dispatch at least 6 EMS Units and 2 Supervisors to the MCI portion of incident in addition to any other EMS units already used to standby for firefighting or hazardous materials functions.

    b. Fire – Automatically dispatch 3 Fire Units and 1 Battalion Chief to the MCI portion of the incident in addition to any fire units assigned to firefighting or hazardous materials functions.

4. Level 3 MCI (21 – 100 patients)

    a. EMS – Automatically dispatch at least 8 EMS Units and 3 Supervisors to the MCI portion of the incident in addition to any other EMS units already used to standby for firefighting or hazardous materials functions.

    b. Fire – Automatically dispatch 4 Fire Units and 1 Battalion Chief to the MCI portion of the incident in addition to any fire units assigned to firefighting or hazardous materials functions.

    c. Place all local hospitals and available helicopter resources on standby as well as West Coast - Southern Ambulance, MSO for the Command Bus, EMS Logistics for disaster supplies, American Red Cross Disaster Unit, and Transit buses for possible response.

    d. Notify the on call Emergency Management Duty Officer and the on call Fire Coordinator and send the appropriate Fire and EMS staff pages of the MCI Level 3.

5. Level 4 MCI (101 – 1000 patients)

    a. EMS – Automatically dispatch at least 12 EMS Units and all Supervisors to the MCI portion of the incident in addition to any other EMS units already used to standby for firefighting or hazardous materials functions. Dispatch an additional 8 ALS transport units and 20 BLS transport units from West Coast – Southern Ambulance and the surrounding counties.

    b. Fire – Automatically dispatch 5 Fire Units and 1 Battalion Chief to the MCI portion of the incident in addition to any fire units assigned to firefighting or hazardous materials functions. Dispatch an additional 5 fire engines to the MCI from the surrounding counties.

    c. Automatically dispatch the MSO Command Bus, EMS Logistics Officer for disaster supplies, 2 transit buses, and the Local Red Cross Disaster Unit.

d. Place all local and regional hospitals on standby as well as all available helicopter resources.

e. Notify the on call Emergency Management Duty Officer, the on call Fire Coordinator, and the State Watch. Send the appropriate Fire, EMS, Emergency Management and county group pages of the Level 4 MCI.

6. Level 5 MCI (over 1,000 patients)

a. EMS – Automatically dispatch at least 12 EMS Units and all Supervisors to the MCI portion of the incident in addition to any other EMS units already used to standby for firefighting or hazardous materials functions. Dispatch an additional 8 ALS transport units and 20 BLS transport units from West Coast – Southern Ambulance and the surrounding counties.

b. Fire – Automatically dispatch 5 Fire Units and 1 Battalion Chief to the MCI portion of the incident in addition to any fire units assigned to firefighting or hazardous materials functions. Dispatch an additional 5 fire engines to the MCI from the surrounding counties.

c. Automatically dispatch the MSO Command Bus, EMS Logistics Officer for disaster supplies, 4 transit buses, and the Local Red Cross Disaster Unit.

d. Place all local and regional hospitals on standby as well as all available helicopter resources.

e. Request through the Fire Coordinator 4 Strike Teams of ALS transport ambulances, 4 Strike Teams of BLS transport ambulances, 2 Strike Teams of Fire Engines, 1 State Medical Response Team (SMART), and 1 State Morgue Team.

f. Notify the Public Safety Director, EMS Chief, appropriate law enforcement agency(s), on call Emergency Management Duty Officer, on call Fire Coordinator, and the State Watch Office. Send the appropriate Fire, EMS, Emergency Management, and county group pages of the Level 5 MCI.

g. Additional resources may be requested through the Fire Coordinator to the State Watch Office as needed.

**B. Incident Management**

1. Assure safety of the scene.

2. Institute Incident Command System per MCROG #101 and/or EMS General Orders.

3. Organize fire and EMS resources assigned to the MCI as a Medical Group under the supervision of an EMS Command Officer. For larger incidents, the resources assigned to the MCI may need to be organized into a Medical Branch under the direction of an EMS Command Officer with more than one Medical Group assigned to them.

4. On all calls involving three or more ambulances, a tactical radio group will be assigned to the Medical Group, Transport Group, and/or EMS Branch by the dispatcher as approved by Command. The decision of which radio groups to be utilized will be the responsibility of ECC. and will be chosen by available Tac channels. Following the assignment to switch, all involved units will acknowledge on the appropriate assigned tactical group. If an unmonitored Tac channel is assigned to the incident, it will be the responsibility of Command to relay vital information to the dispatcher via a monitored group.

5. Additional EMS supervisors may assume other Command roles as deemed necessary by Command. The vest bearing the appropriate position should be worn by the EMS supervisor to ensure proper on-scene identification. The following defines the role of each position:

    a. **Command** - EMS Supervisor who is Command of a medical only MCI or is in Unified Command with the Fire Commander and/or others for fire, technical rescue, or hazardous materials incidents with multiple casualties. Overall coordination of scene and under most circumstances is the only person to communicate with ECC.

    b. **EMS Branch Director** - Coordinates field operations of fire and EMS personnel assigned to the MCI portion of an incident. “EMS Branch” reports to "Command". The Medical Group Supervisor and the Transport Group Supervisor reports to the “EMS Branch” if activated.

    c. **Medical Group Supervisor** – Coordinates the overall triage, treatment, and logistics functions of an MCI. For larger MCI’s, a Triage Manager and Treatment Manager may be appointed to maintain the span of control for these functions and reports back to the “Medical Group” if activated. In addition, the Medical Supply Manager and Morgue Manager will report back to the “Medical Group” if activated.

        i. **Triage Manager** - Supervises the triage area. If initial triage is occurring in a hot zone, extrication zone, or hazardous area, then the safe area patients are brought to for secondary triage is considered THE triage area. “Triage” reports to the "Medical Group".

        ii. **Treatment Manager** - Establishes and supervises a safe treatment area for victims away from the central activities of the incident. “Treatment” reports to the "Medical Group". The treatment area may be sectored as follows:"

            - Red (Priority I) Leader – coordinates the <u>immediate</u> medical treatment of patients. “Red” reports to “Treatment”. Usually assigned to an EMS charge paramedic.

            - Yellow (Priority II) Leader – coordinate the <u>delayed</u> medical treatment of patients. “Yellow” reports to “Treatment”. Usually assigned to an EMS charge paramedic.

- Green (Priority III) Leader – coordinates the minor medical treatment of patients. "Green" reports to "Treatment". Can be assigned to Fire, EMS, or civilian personnel such as the American Red Cross.
- Black (Priority 0) Leader - coordinates initial body and scene preservation and morgue activities with the Medical Examiner's Office and Law Enforcement. Can be assigned to Fire or EMS personnel.

iii. **Supply Manager** - Coordinates the acquisition and delivery of vehicles, medical supplies and equipment to scene. "Supplies" reports to the "Medical Group".

b. **Transport Group Supervisor** – Coordinates the overall check-in and staging of EMS transport units, and the medical control functions of an MCI. For larger MCI's, an EMS Staging Manager and Ground and/or Air Transport Manager may be appointed to maintain the span of control for these functions and will report to the "Transport Group" if activated. In addition, the Medical Control Manager will report to the "Transport Group" if activated.

i. **EMS Staging Manager** - In the event of a large scale incident, an EMS Staging Officer will be appointed to organize and coordinate the staging area of ALS and BLS transport vehicles and buses. "EMS Staging" reports to the "Transport Group".

ii. **Ground Transport Manager** - Directs the assignment of transports for all patients from the treatment area(s). Communicates with the EMS Staging Manager and Air Transport Manager for available transport units. "Ground Transport" reports to the "Transport Group".

iii. **Air Transport Manager (LZO)** – Also known as the Landing Zone Officer or Helispot Manager. Coordinates the helicopter land zone(s) for aeromedical transport and communicates with the helicopter(s). Communicates with Ground Transport Manager when helicopters have arrived and departed. "Landing Zone" reports to the "Transport Group".

iv. **Medical Control Manager** – Coordinates with the medical facilities concerning their availability and assignment of patients. Maintains the "medical corridor" and the records of each victim's condition and destination. Communicates with ECC and hospitals as required. "Medical Control" reports to the "Transport Group".

c. **PIO/Media Officer** – A member of Command Staff responsible for gathering data pertinent to the incident for public release. Reports to "Command" and verifies information with Command before reporting to the media. Reports to the media shall be given at regular intervals. The PIO/Media Officer shall advise reports of the scheduled times of releases as appropriate. In addition, the PIO/Media Officer will coordinate the photographic or video documentation of the incident if necessary. This task may be delegated to appropriate specialty personnel the PIO/Media Officer may respond such specialty personnel to the scene as required and authorized by "Command."

6. All personnel should utilize their ICS position title for on-scene communications.

7. Under most circumstances, "Command" shall be the only person to communicate with ECC. All on-scene communications shall be conducted on an assigned tactical group. Special or individual calls shall not be made to the on-scene commander unless back-up communications are available to that officer.

8. On-scene EMS units shall direct all non-hospital communications to their assigned Leader, Manager, or "Group Supervisor" whichever is applicable.

9. When on-scene operations have ceased, "Command" shall advise ECC that "Command is terminated."

**C. Initial Response Actions and Considerations**

1. First Arriving EMS Crew

   a. Survey scene for hazards - safety is the first concern.

   b. After the determination of an MCI is made, advise ECC of the MCI level and pass or assume "Command". ECC shall dispatch the appropriate Fire and EMS supervisory response, additional Fire and/or EMS units, the Command Bus, and the EMS disaster trailer based on the MCI level given. "Command" shall subsequently be turned over to the first arriving Fire or EMS Command Officer in order to enable the EMS crew to provide uninterrupted patient care.

   c. If the incident prohibits the immediate accessibility to the patients, the first in EMS crew and/or the first in EMS supervisor should establish a patient collection point in a safe area for triage while Fire accesses the patients and brings them to the patient collection point. (Note that the establishment of a patient collection point is not limited to the inaccessibility to patients. However, it may be necessary because of the amount of patients involved, i.e. more than five). If there is immediate access to the patients without the threat of hazards, start the rapid triage protocol.

2. Second Arriving EMS Crew

   a. Identify a staging area for additional EMS units to respond to. Notify ECC of its location as soon as possible. ECC will then relay this information to all responding personnel.

   b. The second in EMS unit should establish and/or assist the second in EMS supervisor in the establishment of a Triage area.

3. Third Arriving EMS Crew

    a. The third in EMS unit should establish and/or assist the third in supervisor with the establishment of a Red or Priority I treatment area.

4. Fourth Arriving EMS Crew

    a. The fourth in EMS unit should establish and/or assist the fourth in EMS supervisor in the establishment of a Yellow or Priority II treatment area.

5. All other arriving EMS Crews Assigned to the MCI

    a. All other arriving medical transport units should report to the on-scene EMS Staging Area and check-in with the Transport Group Supervisor for assignment. The Transport Group Supervisor shall assign EMS units between the needs of the Medical Group and needs of the Transport Group or as directed by “Command” or the “EMS Branch”.

    b. If assigned to the Medical Group, medical crews shall stage their unit in an area that does not impede the flow of units assigned to transporting patients. When assigned, crews will check-in with the “Medical Group” and report to the treatment area with the equipment and medical supplies that are needed to manage Priority II patients for extended periods of time.

    c. If assigned to the Transport Group, EMS crews shall stay with their units in the EMS Staging Area and await assignment from the Transport Group or Ground Transport Manager.

    d. If a Fire crew is assigned to the MCI, stage apparatus in an area that does not impede the flow of units assigned to transporting patients. Fire crews will check-in with the “Medical Group” and report to the triage area with the equipment and medical supplies that are needed for START triage.

6. Patient flow shall be from the incident area ("hot zone") to the collection point and secondary triage area, to the treatment areas (red, yellow, green), through the medical corridor (Medical Control), to the medic units/helicopters, to the hospitals and trauma centers.

7. The following Simple Triage And Rapid Treatment (START) system shall be utilized for adults:

    a. If possible, have all persons involved with the incident who can walk, move to a safe area. Use the siren speaker or bull horn to instruct those who can to walk to the safe area. Give them a landmark to go to. These are designated "walking wounded". As soon as additional personnel arrive, a Green - Priority III Leader should be assigned to look after the walking wounded. This may be EMS, Fire, or civilian personnel such as the American Red Cross.

b. Evaluate and tag each and every patient involved. This should be a continuous process until all patients are evaluated in order to constantly update each patient's condition. The evaluation and tagging process as described below should not take more than 60 seconds per patient.

i. Assess Ventilation. If none, reposition the airway. If still none, tag Priority 0 (black). If Respirations more than 30/minute or less than 10/minute: tag Priority I (red). If Respirations less than 30/minute,

ii. Assess Perfusion. If Capillary blanch test more than two seconds or radial pulse not palpable, tag Priority I (red). If Capillary blanch test less than two seconds or radial pulse palpated,

iii. Assess Mental Status. If they follow simple commands, tag Priority II (yellow). If they fail to follow simple commands, tag Priority I (red).

8. The following Jump (START) Simple Triage And Rapid Treatment system shall be utilized for pediatrics:

a. If possible, have all persons involved with the incident who can walk, move to a safe area. Use the siren speaker or bull horn to instruct those who can to walk to the safe area. Give them a landmark to go to. These are designated "walking wounded". As soon as additional personnel arrive, a Green - Priority III Leader should be assigned to look after the walking wounded. This may be EMS, Fire, or civilian personnel such as the American Red Cross.

b. Evaluate and tag each and every patient involved. This should be a continuous process until all patients are evaluated in order to constantly update each patient's condition. The evaluation and tagging process as described below should not take more than 60 seconds per patient.

i. Assess Ventilation. If none, re-position the airway. If still none, palpate a pulse. If there is a pulse, give 5 rescue breaths. If the child begins breathing, tag Priority I (red). If there is no pulse and/or no breathing after 5 rescue breaths, tag Priority 0 (black). If Respirations more than 45/minute or less than 15/minute, tag Priority I (red). If Respirations less than 45/minutes,

ii. Palpate Pulse. In none, tag Priority 1 (red). If pulse is palpable,

iii. Assess AVPU. If child is posturing, unconscious, or has an inappropriate response to pain stimuli, tag Priority I (red). If child is alert, response to voice commands, and responds appropriately to pain stimuli, tag as Priority II (yellow).

## IV. RESPONSIBILITY

A. It is the responsibility of all MCI personnel (including supervisors) to utilize these guidelines under the appropriate circumstances.

B. On-scene communications should be directed to " Command" or the ICS position that the EMS crew is reporting to on-scene regardless whether they are from the same agency or not. Special or individual calls are prohibited unless it is of an urgent nature requiring private communications or secondary communications are available allowing uninterrupted "scene operations" communications.

C. Fire and EMS units working a mass casualty incident should adhere the following incident protocol:

1. At the Scene:

   a. Do not free lance.

   b. Adhere to instructions given by ICS staff (in vests).

   c. Remain with your ambulance until assigned a task or until instructions are given.

   d. Do not talk with the news media.

   e. Do no contact hospitals regarding patient status. This will be done only by the following personnel in order of priority:

      i. "Command" if no "EMS Branch" or "Transport Group" or “Medical Control” established.

      ii. "EMS Branch" if no "Transport Group" or “Medical Control” established.

      iii. "Transport Group" in no Medical Control established.

      iv. “Medical Control” only if established.

   f. Keep radio traffic to a minimum.

   g. If you have any questions, ask the ICS position to which you are assigned.

   h. Your portable equipment and supplies may need to be removed and used in the treatment areas.

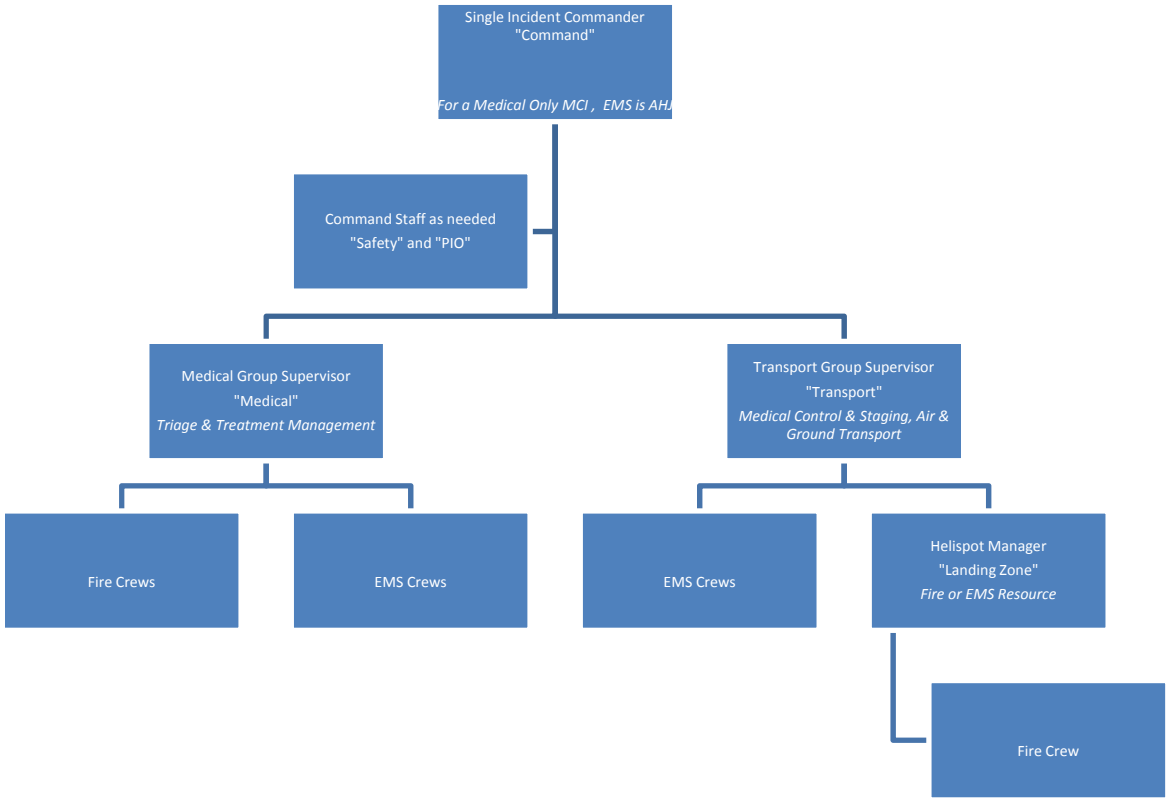
2. At the Hospital:

   a. Quickly deliver the patient and respond back to the staging area as soon as possible.

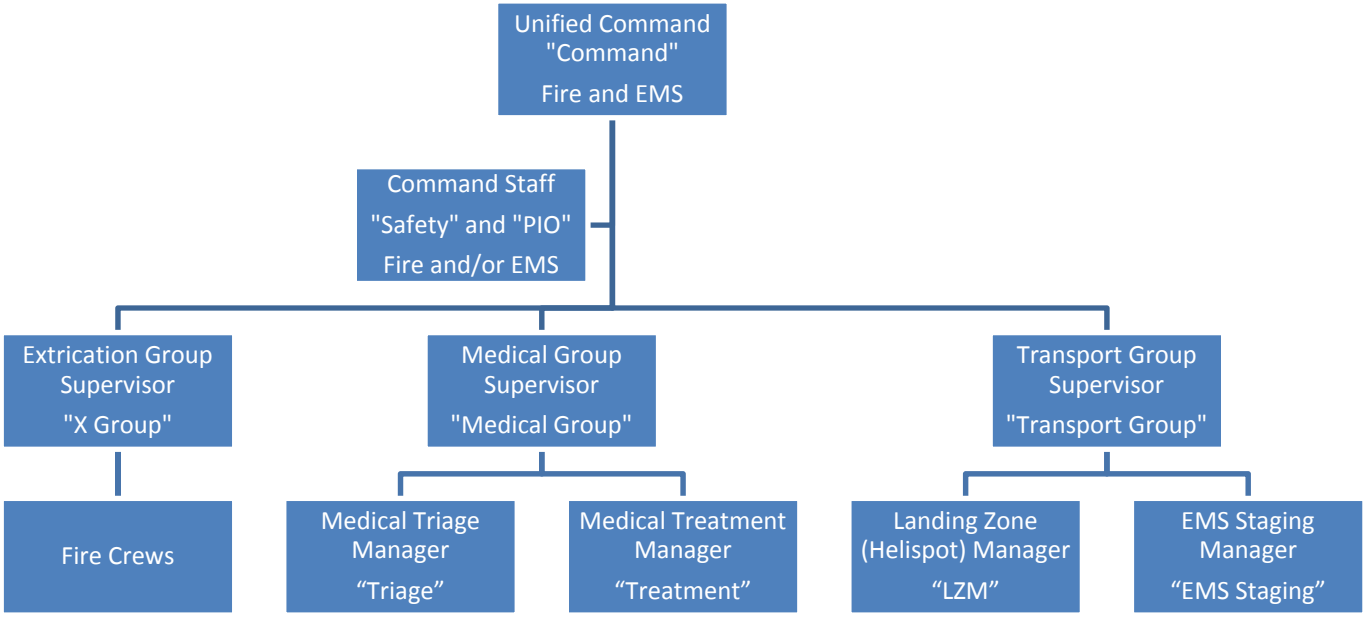
   b. Before leaving, pick up any medical equipment or other supplies (such as back boards) which may be needed at the incident scene.

## V. ICS ORGANIZATION EXAMPLES

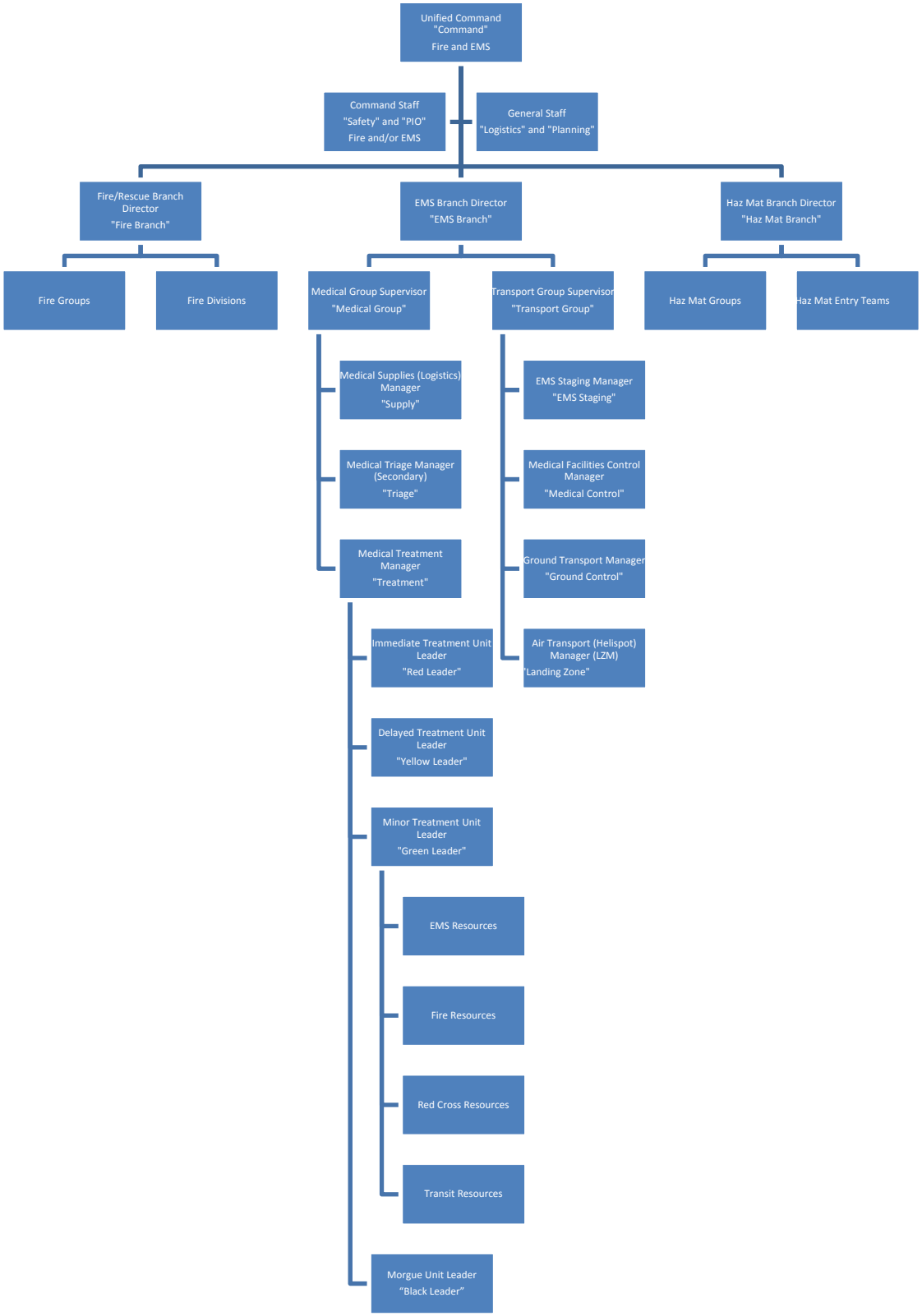
A. ICS organization for a medical only MCI



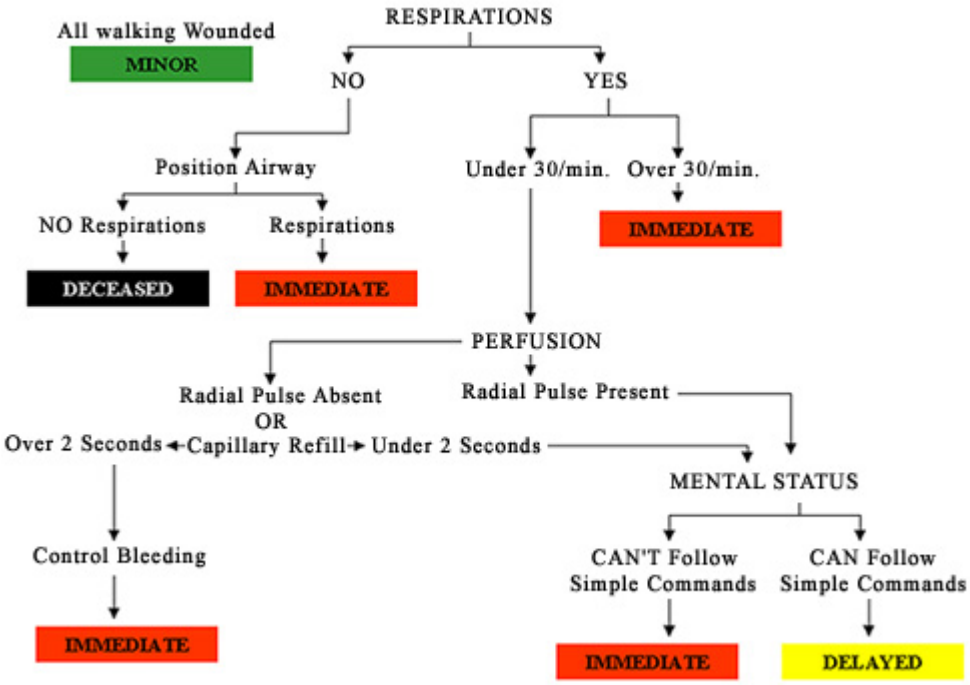

B. ICS organization for an MCI at a Fire, Technical Rescue, or Hazardous Materials Incident

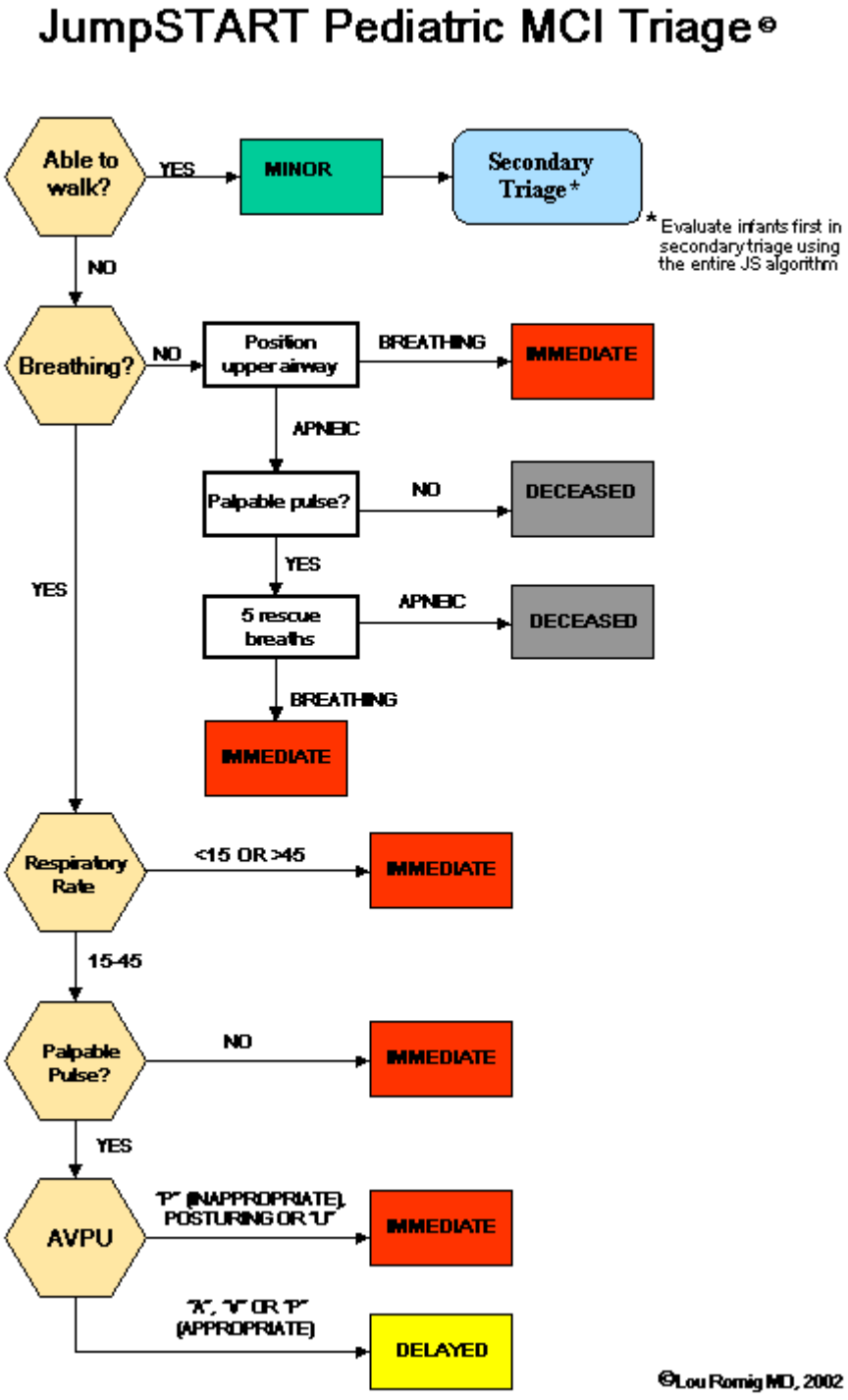


C. ICS organization for an MCI at a major multi-jurisdictional incident or disaster.



D. Algorithms for START (Adults) and JUMP START (Pediatrics)




JumpSTART Pediatric MCI Triage©
Able to walk?
YES
MINOR
Secondary Triage*
* Evaluate infants first in secondary triage using the entire JS algorithm
NO
Breathing?
NO
Position upper airway
BREATHING
IMMEDIATE
APNEIC
Palpable pulse?
NO
DECEASED
YES
5 rescue breaths
APNEIC
DECEASED
BREATHING
IMMEDIATE
YES
Respiratory Rate
<15 OR >45
IMMEDIATE
15-45
Palpable Pulse?
NO
IMMEDIATE
YES
AVPU
"P" (INAPPROPRIATE), POSTURING OR "U"
IMMEDIATE
"A", "V" OR "P" (APPROPRIATE)
DELAYED
©Lou Romig MD, 2002

## VEHICLE ACCIDENT & EXTRICATION RESCUE

**SCOPE:** This ROG pertains to all operations at vehicle accident and extrication incidents.

A. **Overview**

This ROG is meant to be a short synopsis of several items that should be addressed at all such incidents. These are brief general guidelines and all personnel operating at such incidents should have the proper training to perform these and all related tasks. Additionally, **MCROG #110 – Safe Operations Near Moving Traffic** should be reviewed for additional pertinent information concerning operations at vehicle accidents.

**B. Operations**

1. Provide a size-up of the incident using the inner and outer circle survey method and establish ICS procedures, if the scene/situation requires such.

2. Spot the apparatus between the vehicles involved and the flow of traffic for the protection of rescue crews and patients. Personnel should initially block the lane they may be working in and one additional lane, if needed.

3. If there is no fire hazard and no issues with un-deployed airbags, do not disconnect or cut the battery cables. If hazards exist requiring disconnection of the battery, disconnect without cutting the cables if possible. Always disconnect or cut the negative side first to prevent arcing from your tool or cutters. If the battery cables must be cut, cut a 2-3" portion from the cable to prevent the cable from "re-contacting" the battery, due to "cable memory".

4. Personnel must make every effort to preserve any evidence so that it may be available for law enforcement. If personnel must move vehicles, mark the wheel locations on the road for law enforcement. If there are serious injuries or a fatality, DO NOT move vehicles unless absolutely necessary.

5. At multi-casualty incidents (MCI) or those requiring extrication, evaluate the need for additional resources and battalion chief notification.

6. During extrication procedures, the vehicles shall be properly and effectively stabilized and an extinguisher or charged hoseline shall be readily available.

7. If vehicle air bag supplemental restraint systems are present and not deployed, the following may apply:
   a. Move seat back and/or tilt seat back if it will not compromise patient treatment, unlock all doors and lower electric windows.

b. Disconnect battery (see #3).

c. Do not place yourself or anything else between the patient and the air bag module.

d. Follow the 5-10-20 distance rule. Do not place yourself or anything else within 5 inches of a seat, knee, door or curtain airbag module, within 10 inches of a driver (steering wheel) airbag or within 20 inches of a passenger (dash) airbag.

e. Airbag restraint or deflation devices should be considered for use for undeployed driver airbags. (Secunet airbag cover, Bag-Buster, etc)

f. DO NOT cut, spread, pry, or disturb any airbag module or inflator assembly.

8. DO NOT cut, spread, pry, or disturb any seatbelt pre-tensioner assembly.

9. Use the "Rip n' Strip" method of exposing those areas that may contain seatbelt pre-tensioner activators and/or airbag inflator assemblies so you can avoid disturbing these areas. This means remove plastics/fabrics/etc. from posts/seats and areas known to house these dangerous components.

10. If "hybrid" (gas/electric powered) vehicles are involved, the following should be considered:

    a. DO turn the key off and place it on the dash, for all to see. (Some hybrid motors shut off when the accelerator is depressed and start up when pressed)
    b. DO NOT cut ORANGE cables - DANGER HIGH VOLTAGE
    c. DO NOT disconnect or cut the cables to the main battery cell, usually located in the trunk.
    d. DO remove the fuse relay blocks under the hood to deactivate the electrical system

## ROPE RESCUE

**Scope:** The following procedures are to be used for managing training and emergency incidents involving the use of ropes, knots, and rope rescue systems including rappelling. The purpose is to provide guidelines to be used by emergency personnel to conduct safe and efficient rope rescues and rappelling exercises for the victim as well as the rescuers.

**Background:** NFPA 1983, Standard on Fire Service Life Safety Rope, Harness, and Hardware, is the primary standard covering the types of equipment used by the fire service for rope rescue. The standard provides minimum performance requirements for the life safety rope, harness, and hardware. All equipment used for rope systems and discussed in the operating guideline shall adhere to this standard.

This ROG also follows NFPA 1670, Operations and Training for Technical Search and Rescue Incidents and NFPA 1006, Standards for Rescue Technician Professional.

## SAFETY PROCEDURES:

1.) Rope rescue in high angle situations shall be used as a last resort.

2.) On all emergency incidents involving rope rescue, there shall be a Safety Officer appointed by the Incident Commander.

3.) On all training drills, the Officer in Charge shall be the Safety Officer, or appoint one.

4.) All equipment shall be inspected prior to each use. No one shall be attached to or rappel on a rope system until all equipment, anchors and rigging are checked.

5.) Personnel recognized for their special training in the discipline of rope rescue should be dispatched to all emergency incidents, if available.

6.) Personnel shall report to Command for briefing on the incident. The briefing should include rescue strategy and the potential for additional personnel and/or equipment.

7.) A bottom belay person and a back-up safety line shall be used, whenever possible.

## EQUIPMENT

### Personal Protective Equipment

The structural firefighting turnout gear worn by most firefighters may not be appropriate for rope rescue situations, unless there is a fire in close proximity or an imminent threat of starting one. The type of fire fighting personal protective equipment (PPE) for rope rescue is the following:

1. Helmets -Shall be worn by all personnel involved in the incident.

2. Gloves -Shall be worn by anyone handling rappel or safety lines that are in use.

   *Do not use structural firefighting gloves. Extrication style gloves are allowed as long as they are dedicated solely for the use as rope rescue gloves. It is important to keep chemicals away from the nylon life safety ropes.*

3. Eye Protection - When appropriate eye protection shall be utilized to keep airborne particles and flying debris from entering the rescuers eyes.

**Auxiliary Equipment**

All system components that are load bearing accessories that are designed to utilize with life safety rope and harness including, but not limited to, ascending devices, carabiners, descent control devices, rope grab devices and snap links.

Rope rescue auxiliary equipment is classified by NFPA into three categories, General use (G), Light use (L), and Escape use (E). Generally you can find the letters “G”, “L”, or “E” marked on the equipment.

“General use” designates that the item may be used in the system that is intended for two people.
“Light use” designates that the system is designed to hold only a single person.
“Escape use” is meant for escape lines or bail outs and is intended for a single person for a single use

**Rescue Hardware**

The term hardware refers to mechanical devices needed to fully and safely utilize rescue rope and to construct mechanical advantage systems with rope. All hardware shall meet NFPA 1983 standard. The most common rescue hardware is listed below:

1. Figure Eight Descender w/Ears
2. Carabiners
3. Rescue Rings
4. Anchor Plates
5. Ascending Devices
6. Bar Rack
7. Pulleys

**Rescue Software**

The term software refers to rope, webbing, accessory cord, rescue harness, pick-off straps, anchor straps and load release straps. These items can be used alone or in combination to protect rescuers and victims in situations involving significant elevation differences.

1. Rope falls into two classifications: life safety rope and utility rope.
2. All bags containing rope shall be marked with a tag to indicate lifeline, training rope or utility lines.
3. Life safety rope is used to support rescuers and or victims during an actual event or training evolution.
4. Utility rope is used for hoisting equipment and/or securing objects in place, not for supporting rescuers or victims.

5. Webbing is used extensively in rescue to construct anchor systems and harnesses, to package and secure victims, and to lash rescue components together.
6. Accessory cord refers to rope that is of smaller diameter than life safety rope (7mm or 8mm). It is used for lashing litters and forming prussik loops.
7. There are three classifications of harnesses used in rescue incidents:
   **Class I Harness**- fastens around the waist and around the thighs or under the buttocks. It is designed to be used for emergency escape with a design load of 300 lbs" (L) Light use"
   **Class II Harness**- fastens around the waist and around the thighs or under the buttocks. It is designed to be used for emergency escape with a design load of 600 lbs" (G) General use"
   **Class III Harness**- fastens around the waist, around the thighs or under the buttocks and over the shoulders. It is designed to be used for emergency escape with a design load of 600 lbs. Class III harness shall be permitted to consist of one or more parts."(G) General use"

**Suggested rope construction and size;**

Lifelines – minimum of 1/2" kernmantle.

Utility Rope –Any rope that is no longer classified as life safety rope

**Fire Service Knots**

To utilize the rescue equipment described above, rope and webbing must usually be tied into knots. While there is a technical difference between knots, bends and hitches, the general term knots is used to denote any of the three. To be suitable for use in a rescue, a knot must be easy to tie and untie, be secure under load, and reduce the rope's strength as little as possible. The following have been identified at appropriate knots to use for fire service personnel:

1. Becket Bend
2. Double fisherman
3. Figure-eight follow through
4. Figure-eight on a bight
5. Double loop figure eight
6. Bowline
7. Water knot
8. Clove Hitch
9. Girth Hitch
10. Prussik Hitch
11. In Line Figure Eight
12. Butterfly Knot
13. Safety Knot

**Anchor Systems Tie-Off Procedures:**

The variety of ways anchor systems can be configured is limited only by the situation, the equipment, the training of the rigger. All anchor systems shall provide a safe and dependable means of securing the rescue rope to a bombproof anchor point. (Bombproof is an absolutely, positively immovable object). Webbing shall be used whenever possible to a secure, suitable anchor. A water knot shall be used to

secure webbing together. All webbing and rope shall be protected at all sharp or abrasive areas by a chafing pad or similar material.

1. A two (2) point or three (3) point self-equalizing anchor shall be used whenever possible.
2. The angle of the anchor webbing is very important and should be kept to a minimum.
3. All anchor webbing shall be secured to the base or lowest point of an anchor whenever possible.

The attachments provide some examples of single and multi-point
Anchoring systems.

**Rappelling or Lowering Commands:**

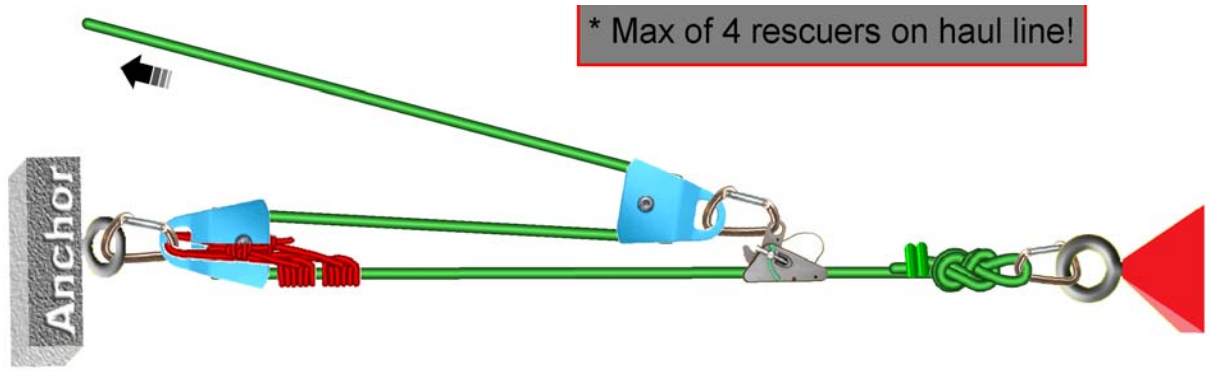
There are four(4)commands that shall be used when rappelling or lowering. These commands are a vital step in keeping the rappelling incident or training exercise safe:

1 **Belay On**- This is announced when the rescuer is attached to the belay line.

2. **On Rappel or "on main line"** - is given when the rappellor is ready to descend a line. This command advises the belay person to be prepared to perform their duties and responsibilities. The rappellor shall not go "on-line" until they hear "on belay"

3. **On Belay-** "On Belay" is answered back to the "On Rappel" command by the belay person, when prepared.

4. **Off Rappel-**"Off Rappel" is given by the rappellor when they are cleared from the rappel line and the line is free of equipment.




3 Caribiners
2 Single Pulleys (Blue)
1 Ascender
Tandem Prusiks- (1-Red and 1-Green)

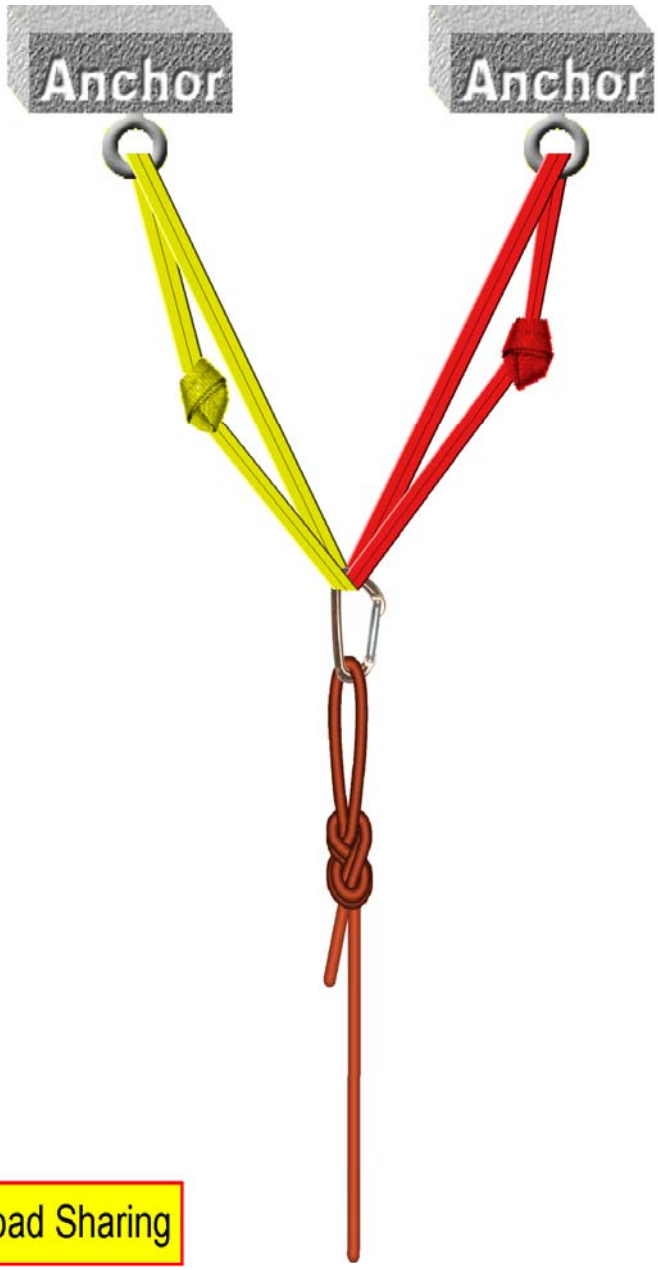
"Z- Rig"
3:1

Illustration created using RescueRigger

2- Caribiners
1- Single Pulley

*add and additional pulley at anchor for a change of direction


2:1




2 Point Load Sharing


Anchor
Anchor
2- Point Self Equalizing
Illustration created using RescueRigger

2- Caribiners
2- Single Pulleys

* replace the pulley at the anchor with a double pulley for a change of direction

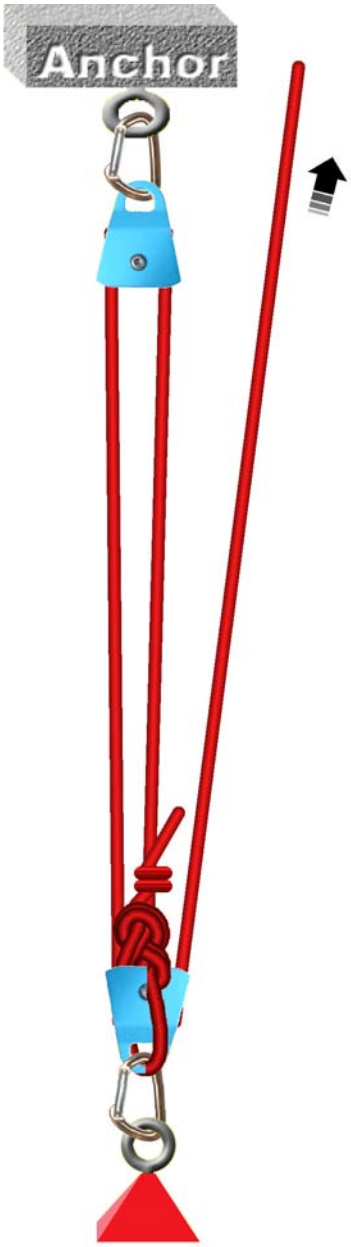
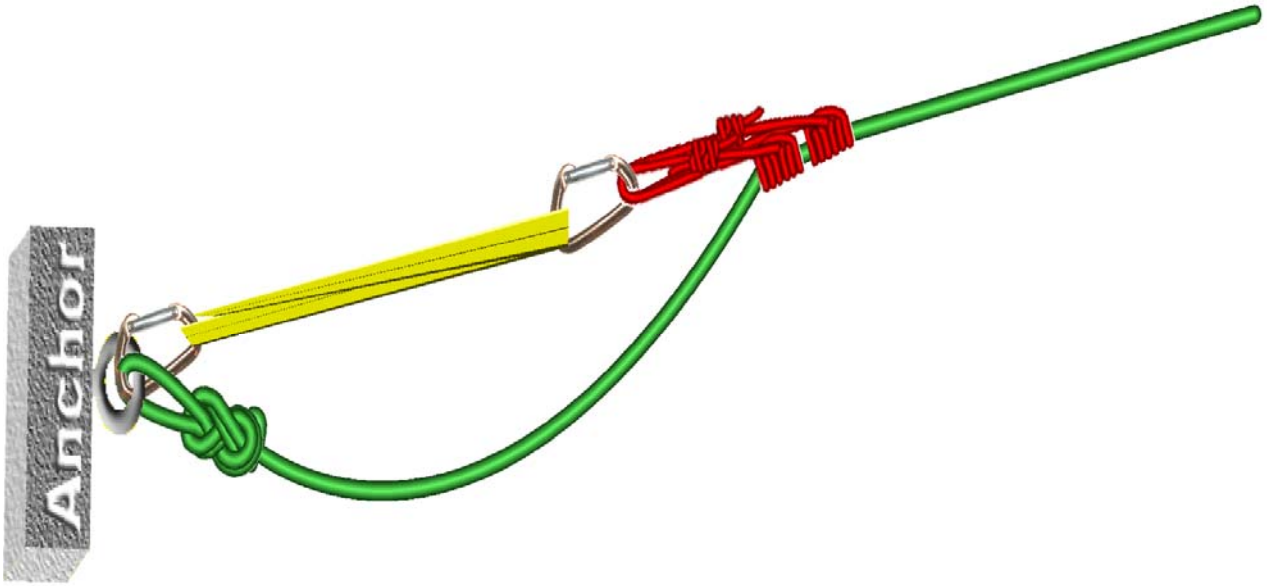



Illustration created using RescueRigger

3:1

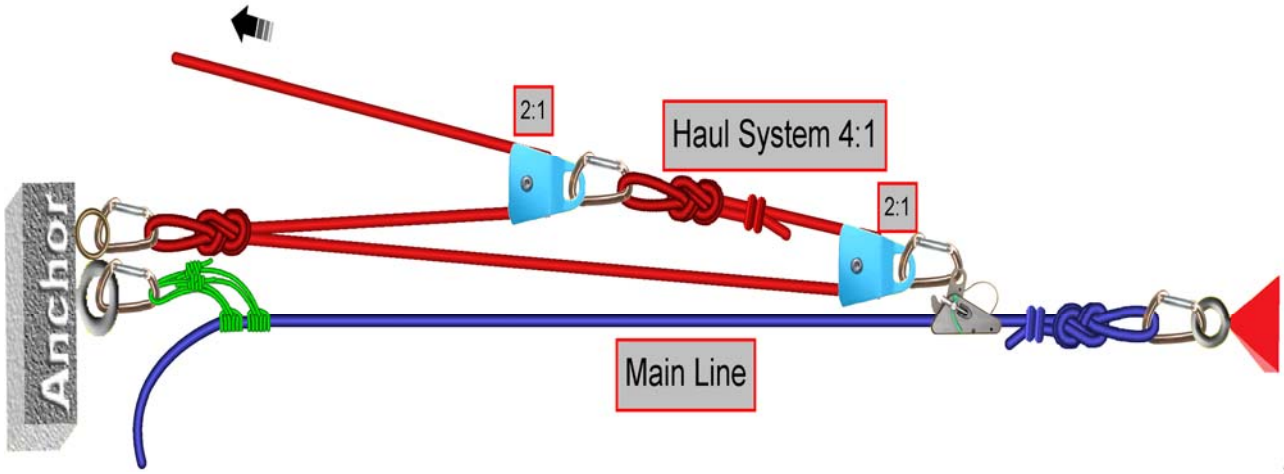



1- Tandem Prusiks
1- Any Length webbing
2- Caribiners

*100% strength retention due to bypassing the knot

Cheater System

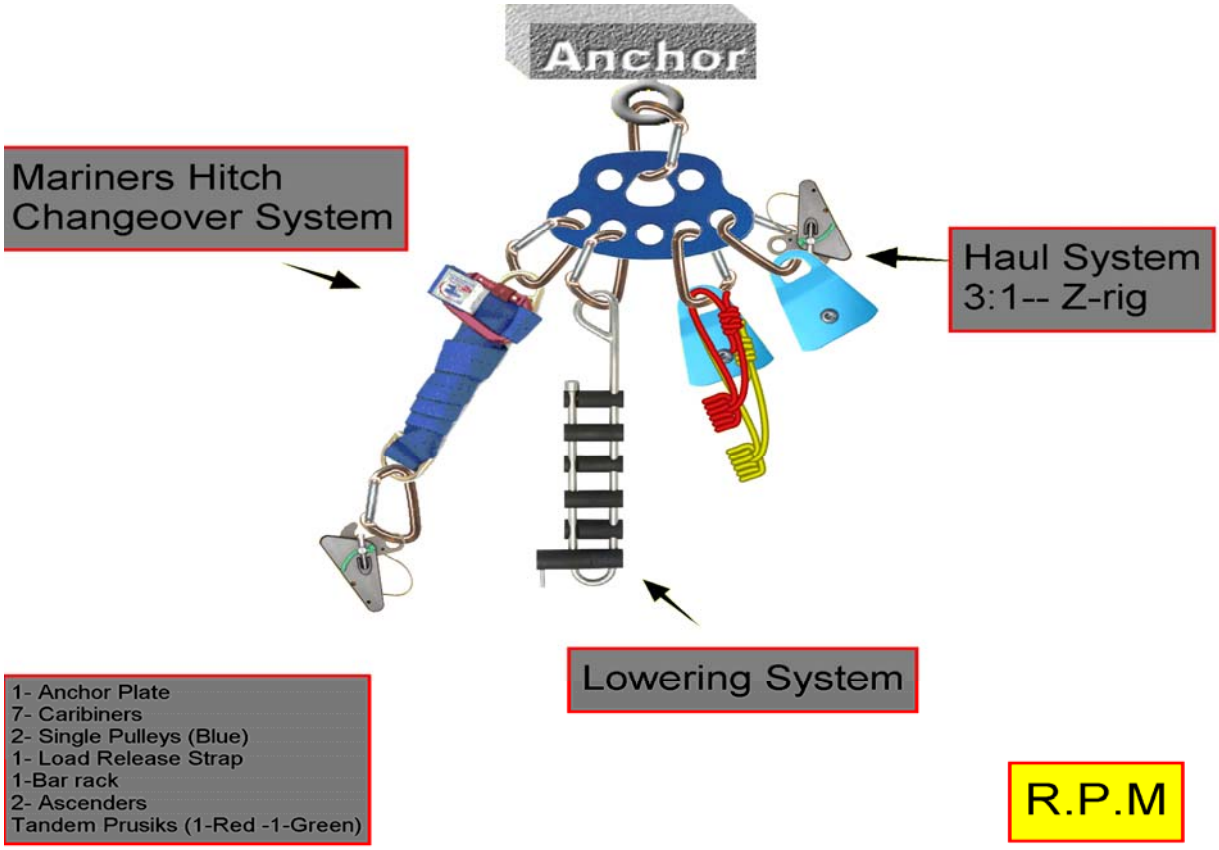
Illustration created using RescueRigger




5- Caribiners
2- Single Pulleys
1- Gibbs
1 Set of Prusiks

Double J
4:1

Illustration created using RescueRigger


Anchor
Mariners Hitch
Changeover System
Haul System
3:1-- Z-rig
Lowering System
1- Anchor Plate
7- Caribiners
2- Single Pulleys (Blue)
1- Load Release Strap
1-Bar rack
2- Ascenders
Tandem Prusiks (1-Red -1-Green)
R.P.M
Illustration created using RescueRigger

# Structural Collapse Rescue

**Purpose:** The following Recommended Operating Guidelines (ROG) are established to provide personnel with guidelines to follow in the event of a structural collapse incident.

**Scope:** Structural collapse operations cover a wide range of incident scenarios. These scenarios will vary in difficulty from incident to incident. Therefore it becomes necessary to implement a standard but flexible plan of action that can be used for rescue operations or to determine when an operation exceeds the capabilities of the responding agency.

**References:** NFPA 1670, 1006. Florida Incident Field Operations Guide, Chapter 15.

## Personnel performing operations under these guidelines shall not exceed their level of training.

## Responder safety shall be the priority at all structural collapse incidents.

## Incident command and control shall be implemented and maintained at all times.

### A. STRUCTURAL FAILURE CAUSES:

Structural collapse or failure may occur for several reasons such as natural occurrences, fire or explosions, human factors, engineering errors. Determining cause will allow responders to obtain additional information in order to implement a plan of action.

### PHASE I: SCENE PREPARATION AND RECONNAISSANCE

Upon arrival at a "structural collapse", the first due Officer shall obtain the following information from an initial size up of the scene. Information can be gathered from first arriving companies, witnesses, and structural engineer or job site foreman.

**Step One: Assessment / Size Up**

1. Perform a 360 degree safety survey and size-up of the damaged area.
2. Establish a safety zone, two times the height of the building.
3. Locate and secure the job site foreman or a reliable witness.
4. Building occupancy and use.
5. Determine the number of occupants. Consider such factors as the time of day

6. Determine possible location and number of victims trapped.

7. Obtain blueprints, maps or have on-site personnel draw a sketch of the site.

8. Determine if rescue operations currently under way and by whom. Remove all non rescue personnel from the established hazard zone.

9. Determine the nature and extent of damage, mechanisms of entrapment and the danger of fire travel in confined spaces.

10. Determine electrical, mechanical and/or chemical hazards along with the location of live electrical wires and main electrical panels.

11. Determine the possibility of flooding from burst mains, plumbing and sewers.

12. Determine the possibility of additional collapse of the building and or adjoining structures.

13. Make a conscious decision as to whether this is a "rescue or recovery".

14. Determine number of entry points and locations.

15. Assure first due engine companies stretch hose lines to the collapse site to protect exposures in case of fire or explosion.

**Step Two: Staffing and Equipment**

1. Assure needed response of additional technical rescue teams, local, regional technical rescue teams, and/or FEMA teams.

2. Assure needed response of a Safety Officer (TRT trained if possible).

3. Assure needed response of structural, water, gas and/or electrical engineers.

4. Assure a full technical rescue response is assigned and prepare to insert into the existing ICS structure

5. Assure needed response of hazardous material unit.

6. Assure multiple ALS Rescue units and ambulances.

7. Establish a treatment and triage area.

8. Assure adequate air supply, cascade truck and cylinders.

9. Assure sufficient rehab area is established.

10. Assure visible Incident Command and/or Operations Branch is established.

**Step Three: Make the General Area Safe**

1. Establish a perimeter with fire line tape and assign police to assure an access point. Assure that the Incident Commander assigns an access control person, preferably not a technical rescue team member.

2. Identify and secure or control the following hazards:
    a. Utilities. Control of the utilities in and around a structural collapse is critical to ensure the safety of responding personnel and victims. The following utilities should be considered:
        1. Electrical services (primary and secondary)
        2. Gas, propane, fuel oil, or other alternative energy sources (primary systems)
        3. Water
        4. Sanitary systems
        5. Communications
        6. Secondary service systems (i.e., compressed, medical, or industrial gases)

    b. Hazardous Materials. Collapsed structures might include various materials unique to an occupancy that, when released during a structural collapse, could pose a hazard to victims and responders.

    c. Personal Hazards. At the site of any structural collapse, there are many dangers that pose personal injury hazards to the responders. Hazards such as trips, falls, blows, punctures, impalement, and so forth.

    d. Confined Space. Some structural collapses necessitate a confined space rescue. Responding personnel should be familiar with and trained in confined space rescue requirements and techniques.

2. Monitor atmospheric conditions, as needed.

3. Ventilate the confined space if the area is known to have a live victim

4. Ventilate the space with positive pressure. There may be times when positive pressure will not work as needed. Continually assess the effectiveness of your ventilation process by:

    a. Atmospheric monitor readings.
    b. Assessment of type of configuration of the space, void and crevice.

5. Assure fire control measures, if needed.

6. Do not allow sources of ignition on site.

7. In the event that, in the opinion of the Incident Commander, Structural Engineer and/or Safety Officer, the structure and/or atmospheric readings become unsafe to continue operations, all entry teams shall be removed from the area immediately until such time conditions are corrected.

**STOP: AWAIT THE ARRIVAL OF TECHNICAL RESCUE TEAM PERSONNEL AND EQUIPMENT REQUESTED THROUGH DISPATCH.**

**ALL OTHER PHASES OF THE OPERATION WILL PROBABLY BE CARRIED OUT BY AREA TECHNICAL RESCUE TEAMS. HOWEVER, FIRST RESPONSE FIRE UNITS WILL PROBABLY ASSIST. ADDITIONALLY, ANY SURFACE VICTIMS WILL PROBABLY BE TENDED TO OR RESCUED BY THE INITIAL RESPONSE UNITS, AS THE SCENE DICTATES.**

# Trench and Excavation Rescue

**Purpose:** To address the awareness or operations level of first arriving Firefighting or EMS crews during a trench or excavation rescue.

**Scope:** This guideline is for all Fire and EMS crews when presented with victims trapped or buried from a trench or excavation collapse greater than four feet in depth including the spoil pile that is closer than four feet from trench lip.

## Personnel performing operations under these guidelines shall not exceed their level of training.

## Responder safety shall be the priority at all collapse incidents.

## Incident command and control shall be implemented and maintained at all times.

Definitions

Trench- a narrow excavation below the surface of the ground. In general, the depth is greater than the width. A trench greater that 15' at its base is considered an excavation.

Excavation- a man made cut, cavity or trench in the earth's surface formed by earths removal. In general, an excavation is wider that it is deep.

### A. General Guidelines:

- **No** Firefighter, EMS or civilians shall enter any trenches or excavations greater than four feet in depth including spoil pile for any reason that has not been fully protected and deemed safe by Technical Rescue Team personnel.
- **Any** incident involving trapped, buried or persons requiring medical treatment in above mentioned trenches or excavations will require response from the technical rescue team.
- **Ensure** Technical Rescue Team Response.
- **Secondary Collapse** is extremely possible. Soil type is to be considered worst possible during any rescue or recovery incident. Shut down any equipment that is non-essential for a distance of 300 feet from collapse.
- **Emergency Vehicles** shall park no closer than 150 feet from collapse site and should be shut down if not in use. Hazard zone of at least 75 feet should be established via fire line tape.
- **All traffic** within 300 feet of collapse zone shall be stopped of detoured. Use off law enforcement is encouraged.
- **Hazardous Materials** Involved in trench or excavation incidents will require a Hazardous materials technician.
- Utilities of any kind found in a trench or excavation warrants notification of that utility company via ECC

**B. First Due Assessment:**

1. First due crews shall gather the following important information:

   a. Find a competent foremen or person on the scene with knowledge of incident.
   b. What is the true nature of the incident? Such as collapse, medical, rescue or recovery.
   c. How many victims and their locations.
   d. Width, depth and length of the trench.

   e. Are there any on- scene hazards:
      i. Disrupted and or exposed utilities.
      ii. Mechanical hazards involving heavy equipment.
      iii. Hazardous Materials.
      iv. Secondary collapses.

   f. What type of work was being performed

2. Once these items are evaluated, the following should be completed:

   a. Establish a **visible command** and control total access to the collapse area. Do not allow any personnel or citizens in or around any unprotected trench or excavation. Use law enforcement if needed.
   b. Ensure that a technical team is responding.
   c. Ensure utilities are responding if needed.
   d. Identify all hazards. Act accordingly to hazards.
   e. Request a county vacuum truck to respond for dewatering operations in the trench or soil removal

**STOP; AWAIT THE ARRIVAL OF TECHNICAL RESCUE TEAM PERSONNEL AND EQUIPMENT REQUESTED THROUGH DISPATCH.**

**SHEETING AND SHORING OPERATIONS, ENTRY AND RECOVERY OPERATIONS SHOULD BE CARRIED OUT UNDER THE DIRECTION OF A TECHNICAL RESCUE TEAM.**

# CONFINED SPACE RESCUE

**SCOPE:** This ROG is established as a guideline for fireground operations at confined space incidents. It is designed to guide members in the recognition and control of the special hazards associated with this type of incident.

## A. Definitions

Acceptable Entry Conditions – conditions that must exist in a confined space to allow entry and to ensure those employees can safely enter and work in the space.

Attendant – a person stationed outside the confined space who is trained in safe entry procedures and who monitors the authorized entrants.

Authorized Entrant – a person who is authorized to enter a confined space.

Blanking/Blinding – absolute closure of a pipe, line, or duct by fastening a solid plate that completely covers the area and does not leak.

Ceil – the maximum peak concentration of a substance, based on a time weighted average, to which a person may be exposed.

Confined Space – any enclosed space which is large enough that a worker can enter to perform work, has limited or restricted means of entry or exit, and is not designated for continuous occupancy.

Emergency – any occurrence, including failure of hazard control or monitoring equipment, or an event either internal or external to the space which could endanger the entrant(s).

Engulfment – surrounding or the effective capture of a person by a liquid or finely divided solid substance.

Entry – the act by which a person intentionally passes through an opening into a confined space, including when any part of the body breaks the plane of the opening.

Entry Permit – a document that contains the minimum required information (as a checklist) which is completed prior to entry into a confined space. Entry occurs as soon as any part of the entrant's body breaks the plane of the opening.

Entry Supervisor – the person responsible for determining safe entry conditions, overseeing entry operations, and terminating entry as required.

Hazardous Atmosphere – any atmosphere that exposes a person to the risk of impairment of ability to self-rescue, injury, illness, or death caused by flammables, toxics, dusts, or oxygen deficiency, or is immediately dangerous to life or health.

IDLH - Immediately Dangerous to Life or Health; any condition that poses an immediate or delayed threat of loss of life or that would cause irreversible or adverse health effects, or that would interfere with an entrant's ability to escape unaided from the space.

Inerting - displacement of the atmosphere in a confined space by a noncombustible gas (such as nitrogen) so that the atmosphere is noncombustible.

ISHE - Immediate Severe Health Effects; an acute clinical sign of a serious, exposure related reaction occurring within 72 hours of exposure.

Isolation - process by which a confined space is completely protected against the release of energy and material into the space.

LEL - Lower Explosive Limit; the lowest concentration of flammable vapor that will explode when ignited.

LFL - Lower Flammability Limit; the lowest concentration of flammable vapor that will burn when ignited.

Oxygen Deficiency - any atmosphere that contains less than 19.5 percent oxygen by volume.

Oxygen Enrichment - any atmosphere that contains greater than 23.5 percent oxygen by volume.

PEL - Permissible Exposure Limit; the maximum peak concentration of a substance to which a person may be exposed for a given time period.

Permit Required Confined Space – a confined space that has one or more of the following characteristics: contains or has the potential to contain a hazardous atmosphere, contains a material with the potential for engulfing an entrant, is so configured that a worker could become trapped or asphyxiated by constriction, or contains any other recognized serious safety or health hazard.

Permit System - employer's written procedure for preparing and issuing permits for entry and for returning the space to service following termination of the entry.

Prohibited Condition - any condition in a confined space that is not allowed by the permit during entry.

STEL - Short Term Exposure Limit; the 15-minute weighted average exposure not to be exceeded at any time during a work day.

TWA - Time Weighted Average; the average exposure in any 8-hour work shift or 40-hour work week that a person may be exposed to.

TLV - Threshold Limit Value; the recommended air quality limit for any certain substance.

B. **General**

- Approximately 84 percent of confined space accidents result in injury or illness, and 70 percent result in the death of one or more workers.
- Confined spaces have a very high probability of containing hazardous materials or hazardous conditions that may cause injury, illness, or fatality.
- Approximately 40 percent of confined space fatalities are the result of asphyxiation or suffocation due to oxygen deficiency.
- Nearly all confined space accidents are preventable.
- Being aware of the hazards in confined spaces and knowing how to control the hazards greatly reduces the risk of accidents.
- Using proper pre-entry checks and safe entry procedures reduces injuries and illness, and could save your life or the life of a co-worker.

C. **Objectives**

- Recognize hazards
- Control known hazards
- Use safest and easiest rescue actions

D. **Types of Confined Spaces**

| | |
|---|---|
| Pits | Pipelines |
| Vaults | Ducts |
| Tunnels | Storage Bins |
| Storage Tanks | Septic Tanks |
| Clear wells | Settling Tanks |
| Aeration Tanks | Sludge Wells |

| | |
|---|---|
| Mixing- Tanks | Process Basins |
| Pump Stations | Clarifiers |
| Sewers | Manholes |
| Digesters | Grit Tanks |
| Sewer Regulators | Meter Pits |
| Elevated Tanks | CSO Structures |

Open topped spaces where a ladder is needed to enter and exit the space (more than five feet deep)

E. **Confined Space Hazards**

1. Atmospheric Hazards

- Oxygen deficiency (less than 19.5%)
- Oxygen enrichment (greater than 23.5%)
- Explosive/flammable atmospheres (greater than 10% LFL)
- Toxic atmospheres (PEL for specific substance)

2. Physical Hazards

- Hot or cold temperatures
- Noise and vibration
- Falling objects
- Slick or wet surfaces
- Engulfment, drowning
- Lack of room
- Mechanical hazards
- Rodents, insects, diseases

F. **Oxygen Scale**

| | |
|---|---|
| Greater than 23.5% | Oxygen enriched |
| 23.5% | Maximum level for safe entry |
| 21% | Normal air concentration |
| 19.5% | Minimum level for safe entry |
| 16% | Impaired judgment and breathing |
| 14% | Faulty judgment and rapid fatigue |
| 6% | Difficulty breathing and death in a few minutes |
| 0% | |

G. **Symptoms of Exposure**

Below is a list of common symptoms of exposure to toxic gases or oxygen deficiency that may be warning signs of an unsafe atmosphere. Confined space entry participants should be able to recognize the signs and symptoms of exposure as warning signs to atmospheric hazards.

- Shallow or rapid breathing
- Blurred vision
- Chest pains
- Weakness in the knees or fainting
- Sudden skin irritations
- Dryness of the throat
- Ringing in the ears
- Spots before the eyes
- Profuse sweating
- Disorientation
- Slippery, sweet taste on the lips

**H. Monitoring and Testing**

1. Air in the confined space must be tested with a calibrated direct reading instrument prior to entry. Test first for oxygen, then flammables, then toxics. Test the air at the entrance to the space and at several points within the space, from top to bottom.

2. Air in the confined space must be tested periodically during continuous ventilation to ensure that the ventilation is not causing a hazardous atmosphere within the space. ***DO NOT*** trust your senses to determine if the air is safe for entry. Many toxic gases cannot be seen or smelled. Oxygen levels can only be determined by testing.

3. It is essential that continuous monitoring of the atmosphere and the ventilation of the space is provided. Many confined space fatalities and related illnesses have resulted from a change in air conditions that were not detected initially.

4. A cartridge-type respirator may be needed to reduce exposure to some gases and vapors, even if the air is safe for entry. The use of supplied air may be needed to reduce exposure to some gases and vapors, even if the air is safe for entry.

5. Safe Entry Levels for Certain Gases

- Oxygen 19.5% to 23.5%
- Carbon Monoxide 35 ppm
- Hydrogen Sulfide 10 ppm
- Sulfur Dioxide 5 ppm
- Ammonia 25 ppm
- Carbon Dioxide 5000 ppm
- Combustible Gas Less than 10% LFL
- Ozone 0.1 ppm
- Chlorine 1 ppm

## I. <u>Ventilation</u>

1. Ventilation must be provided continuously for every confined space entry, and the blower and equipment must not produce a hazardous atmosphere. Conditions often change while the space is occupied, requiring continuous ventilation of the space.

2. The ventilation hose should be placed so that the air is blown into the confined space near the bottom of the space. The forced air normally replaces the atmospheric hazards within the space, and helps to produce proper oxygen levels needed for safe entry.

3. Should ventilation fail to provide acceptable atmospheric conditions, the space cannot be entered.

4. If a hazardous atmosphere develops during entry, entrants shall leave the space immediately, the space shall be evaluated to determine how the hazardous atmosphere developed, and measures shall be implemented to protect employees from hazardous atmosphere before subsequent entry.

J. **Isolation Procedures**

To prevent the release or introduction of liquids, chemicals, gases, sludge, or other materials into the confined space and to prevent injury from electrical shock from mechanical devices and equipment used in the space.

1. Follow "Lock Out/Tag Out" ROG (406).

2. Blank and bleed all pneumatic, hydraulic, chemical, compressed air, gas, fuel, and process lines that are connected to the confined space.

3. Disconnect mechanical devices from their drive mechanism (belts, chains, couplings, etc.).

4. You may need to flush the confined space to remove residual contamination. Continuous ventilation may also remove residual contamination from the space.

K. **Entry Permit Requirements**

A permit provides a checklist of items needed for pre-entry checks to determine safe entry conditions.

A permit provides a permanent record of the members involved, how long they were exposed to the atmospheric conditions, and the conditions experienced before and during entry operations.

Information needed on the permit includes the following:

1. Identification and location of the confined space.

2. The purpose of the entry.

3. The date, time, and duration of entry procedures.

4. The names of authorized entrants.

5. The names of the attendants.

6. A checklist of the personal protection equipment (PPE) required for entry.

7. A record of the measurements observed during operations, the initials of the tester, and the time of the tests.

8. Acceptable levels of contaminants for safe entry.

9. Methods used to summon emergency or rescue personnel.

10. The name and signature of the entry supervisor.

11. Any other information as needed.

Any problems encountered during entry operations should also be noted on the permit.

L. **Entry Supervisor Duties**

1. Know and recognize potential confined space hazards and the effects and consequences of exposure.

2. Verify whether pre-entry procedures have been performed, and whether acceptable entry conditions have been met, and that rescue services and the means for summoning them are available.

3. Issue an entry permit once the pre-entry procedures have been successfully performed and conditions are safe for entry.

4. Remove unauthorized persons from the area.

5. Require ventilation of the confined space to protect entrants from exposure, or to control atmospheric hazards.

6. Make sure that acceptable entry conditions are maintained during entry operations.

7. Terminate entry operations if unacceptable conditions develop.

8. Cancel the entry permit once the assigned work is completed and all entrants have successfully exited the confined space.

M. **Attendant Duties**

1. Be stationed and remain outside the confined space at all times during entry operations, unless relieved by another attendant.

2. Maintain an accurate count of the number of entrants within the space.

3. Know and recognize potential confined space hazards and the effects of exposure, and monitor activities inside and outside the space during entry operations.

4. Order evacuation of the confined space if a condition develops that is dangerous, if behavioral effects of exposure are exhibited by the entrant(s), or if the attendant cannot safely and effectively perform their duties.

5. Warn unauthorized persons to stay away from the area.

6. Do not perform other duties that could interfere with the duties of monitoring and protecting the entrant(s).

N. **Entrant Duties**

1. Know the hazards that may be encountered during operations.

2. Recognize the signs, symptoms, and consequences of exposure.

3. Maintain effective communications with the attendant(s) during entry operations.

4. Be aware of and know how to properly use personal protective gear, and monitoring and safety equipment used for confined space entry.

5. Exit the space when the attendant(s), or entry supervisor orders evacuation.

6. Initiate self-evacuation and inform the attendant(s) if signs or symptoms of exposure, or a dangerous condition is detected.

O. **Confined Space Equipment**

- Combustible gas detector
- Safety harness
- Toxic gas detector
- Air supply
- Oxygen detector
- Air-supplied respirator
- Auxiliary blower
- Auxiliary generator
- Manhole lifters
- Barricades
- Safety ladder(s)
- Traffic cones
- Tripod and winch

- Warning signs
- Life line/retrieval line
- Cartridge respirator
- Lanyards (rope or other)
- Safety lighting
- Fall protection device
- Distress alarm
- Safety shoes
- Protective suits
- 5- or 15-minute escape pack
- Hard hats
- SCBA
- Boots, gloves
- Controlled descent device
- Wireless communicators
- 4-gas monitor (O2, LEL, H2S, CO)

P. **Guidelines for Safe Entry**

1. The atmosphere within the confined space should be checked for oxygen content, combustible gases, and toxic gases – in that order – and the measurements recorded using a 4-gas monitor (O2, LEL, H2S, CO) which will allow for simultaneous monitoring and testing.

2. The confined space should be ventilated before and continuously during entry to remove or control atmospheric hazards within the space.

3. Use a supplied air respirator or a Self-Contained Breathing Apparatus to protect yourself from accidental exposure.

4. Wear a lifeline or retrieval line while in the confined space.

5. Use the buddy-system to provide knowledgeable, trained attendants to maintain communications and to control the lifeline.

6. Isolate the confined space, locking out mechanical equipment, and prohibit the introduction of liquids, chemicals, gases, etc. into the space.

7. Establish standard emergency procedures to perform rescue work, including means of summoning outside help.

8. Establish an entry permit system and prohibit workers from entering the confined space without an authorized permit.

9. Do not attempt rescue on your own. Approximately 80 percent of confined space fatalities are would-be rescuers who entered the space to retrieve affected workers.

Q. **Confined Space Entry Regulations**

Limits for air contaminants: 29 CFR 1910.1000 (Z Tables)

Federal regulations: 29 CFR 1910.146 Permit-Required Confined Spaces

Federal regulations: 29 CFR 1926.21 Safety Training and Education

## Confined Space Rescue
## ENTRY PERMIT

PRIOR TO ENTRY - Complete this side of permit

***PRIORITIES ***

Number of Possible Victims: ____ Rescue / Recovery: _____

Potential Hazards:_____

_____

_____

Communication Method: _____

*** REMOTE TESTING *** By: _____ Time: _____

1.) O2 _____ % (19.5-23.5)
2.) LEL _____ % (10)
3.) CO _____ ppm (35)
H2S _____ ppm (10)
CL2 _____ ppm (.5)
Other _____

*** CHECKLIST ***

- ☐ On Site Permit Located
- ☐ Ventilation
- ☐ Safety Officer
- ☐ Lockout/Tagout
- ☐ Area Secured
- ☐ Stand-By Crew

*** ASSIGNMENTS ***

Entrants

_____

_____

_____

_____

Attendant

_____

DURING & AFTER ENTRY - Complete this side of permit

*** ENTRANTS ***

| Name | Time In / Time Out |
|---|---|
| _____ | _____ / _____ |
| _____ | _____ / _____ |
| _____ | _____ / _____ |
| _____ | _____ / _____ |

*** PERSONAL PROTECTIVE EQUIPMENT (PPE) REQUIRED ***

(check those that apply)

- ☐ S.C.B.A.
- ☐ P.A.S.S.
- ☐ Full Body Harness
- ☐ Lifeline
- ☐ Helmet
- ☐ Eye Protection
- ☐ Handlight
- ☐ Other
- ☐ Airline w/ SKA-PAK
- ☐ Bunker Gear
- ☐ Harness
- ☐ Retrieval System
- ☐ Gloves
- ☐ Hearing Protection
- ☐ Radio
- ☐ Other

*** ATMOSPHERIC MONITORING ***

(Record results of continuous monitoring every 15 minutes)

| Time | O2 | LEL | CO | H2S | CL2 | Other |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

Detector Model: _____ Serial #: _____ Tester initials: _____

*** MISCELLANEOUS INFO ***

Type of Space: _____ Location: _____

Type of Lockout/Tagout: _____

Incident Problems: _____

_____

Supervisor Signature: _____ Date: _____

# LOCK OUT/TAG OUT

## SCOPE:

This ROG should be used whenever there are personnel working in or around energized electrical sources or any type of stored energy (electrical, air pressure, water pressure, spring pressure, hydraulics, or other potential energy sources). This guideline covers the service, maintenance and emergency response to any machinery or equipment in which unexpected energizing or start-up could cause injury or further injury to a patient or to themselves as rescuers.

At no time shall personnel service, remove or perform maintenance, or work in an emergency situation on any equipment or machinery until the stored energy source has been bled down, dissipated, turned off and/or blocked and the machinery has been locked and/or tagged out.

Lock-out and tag-out is required for all personnel who may have to operate at an emergency scene if any procedure could involve either patient or rescuer exposure to live electrical parts or exposure to a stored energy source on any machinery or equipment.

## Procedure:

1. Whenever a situation is encountered that meets the above qualifications upon arrival at the scene personnel shall check to see if building/plant personnel or company personnel have begun the Lock-out/Tag-out procedure. If they have begun the procedure add your company lock and/or tag to ones already present.

2. If Lock-out/Tag-out procedures have not been initiated personnel will initiate this guideline. Notify all affected personnel that a Lock-out/Tag-out procedure is required and the reason why (i.e. emergency). With the assistance of the building/plant/equipment personnel shut down the equipment using the normal shut down procedure if you can assure that the person who is entangled won't be hurt further.

3. Operate the disconnect switch, valve, circuit breaker, or other isolating device(s) so that the equipment is isolated from it energy source. Toggle switches, push buttons and other types of control switches **are not** isolating devices.

4. Dissipate and isolate all stored energy (if applicable) such as that found in springs, elevated machine members, rotating parts, hydraulic systems, and air, gas, steam or water pressure. All stored energy must be dissipated or restrained by methods such as repositioning, blocking, bleeding down, etc.

5. Lockout the energy isolation device(s) with approved energy lockout device(s), individual company lock(s) and/or tags. If more than one company is working at the same incident, each company shall put their individual lock(s) and/or tag(s) on the energy lockout device.

6. If it is impossible to use a lock another positive means of disconnecting the circuit or equipment must be used. Other positive means may include unplugging, disconnecting the conductors, or removing a fuse. A Tag must be placed on the plug, conductors, fuses, breakers etc. If no positive means can be used, placing a radio-equipped firefighter at the controls to keep the machine/equipment from being activated shall be used.

7. Check for Zero energy (Hot Stick, Electric Meter, etc.) Then a start up of the equipment to ensure the equipment at zero energy if Possible. ( Rescue personal safety must come first before rescue can start)

8. Only after the machine/equipment has been properly locked/tagged out shall emergency personnel begin to work to remove the entangled/trapped patient. Always try and have a representative of the company where the incident is located to assist you with their expertise on the equipment.

9. The key(s) to the lock-out/tag-out devise shall remain with the incident commander once the lock has been applied.

10. Should an investigation by the Fire Department or any other agency be required, our lock-out/tag-out equipment shall be photographed and left in place until the investigation is completed and/or a Chief Officer or Senior Officer authorizes its removal.

11. The Incident commander shall notify the Communications Center that Lock-out/Tag-out is in place and what the disposition will be.

# HAZARDOUS MATERIALS RESPONSE & RESCUE

**SCOPE:** This ROG establishes guidelines for the management of a hazardous materials incident and provides for the safety of response personnel.

**CONTENTS**



## A. HazMat Acronym Guideline

H - Hazard Identification
Recognize and identify the presence of a hazardous material. Use your ERG.

A - Action Plan
Evaluate the situation by determining what you are going to do, immediate and long term needs, and who is in charge.

Z - Zoning
Control the risk by establishing Hot, Warm, Cold, and Safe zones.

M - Managing the Incident
Establish the necessary incident command structure to handle the emergency.

A - Assistance
Determine additional resources needed including more fire companies, hazmat groups, technical assistance or private contractors.

T - Termination
Assess what is needed to conclude the incident such as clean-up, decontamination, physical exams, rehabilitation, and post-incident analysis.

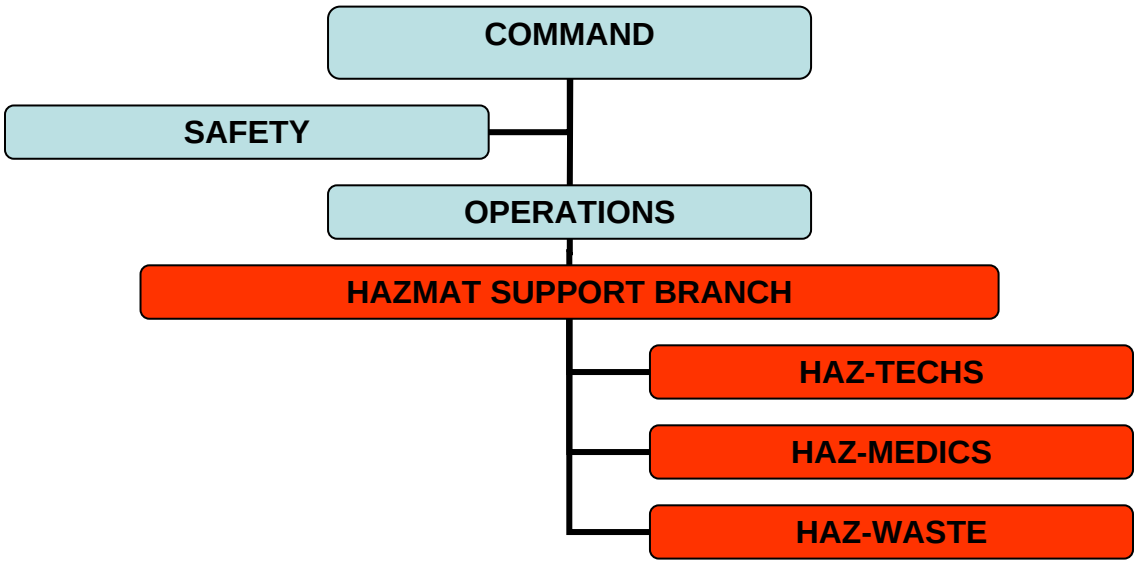
## B. Incident Objectives

1. Protect yourself by utilizing "Time-Distance-Shielding" protective measures, and establish a Rally Point and evacuation signal in case the situation becomes uncontrolled.
2. Secure perimeter and designate control zones of operations
3. Identify and control hazard: container shapes & sizes, occupancy & location, markings & placards.
4. Gather information & re-evaluate "scene safety"
5. Notify appropriate resources
6. Rescue, decontaminate, triage affected individuals
7. Move uninvolved crowds, bystanders, employees, and media to safe zone
8. Stabilize the incident
9. Avoid secondary contamination by limiting exposure to unknowns.
10. Secure evidence of potential crime scene. If suspect WMD (weapons of mass destruction) CBRNE (chemical, biological, radiological, nuclear, or explosives) release.

## C. Strategy Options

1. Non-intervention Strategy: non-entry; allow incident to subside or mitigate itself.
2. Defensive Strategy: non-entry; contain, confine, or mitigate from safe distance.
3. Offensive Strategy: hot zone entry; contain, confine or mitigate by entering hot zone.
4. Marginal Strategy: hot zone entry; critical search & rescue operations only.

**D. Haz Mat Organization Chart**




**E. Response & Recognition Guidelines**

1. Size up begins upon notification by ECC/911, additional information may continue by dispatch while en-route.

2. Utilize current DOT Emergency Response Guidebook for quick reference. Use GUIDE #111 for un-identified cargo.

3. Approach from upwind/uphill position if possible; identify from a safe distance, and use placards as a guideline only. Use your ERG Guide pages for initial Site Safety Plan.

4. Establish ICS – minimum of an on-scene Commander & Safety Officer. The Manatee County Hazmat Branch reports to the Operations Chief. Use your ERG "checklists" for detailed reference chart.

5. Secure perimeter and designate control zones. Use the ERG-GUIDE as reference.

6. Determine the presence of victims (ambulatory & non-ambulatory) decon if necessary, and isolate for triage, treatment, and transport.

7. Information gathering – MSDS sheets, plans, documents, and witness statements.

8. Request "consultation page" to the on call "HazMat Specialist" if needed.

9. Perform - Initial Risk/Benefit Analysis: physical characteristics, Fire/Health/Reactivity hazards, gas or liquid, container-color, shape, size, PPE level required, etc.

10. Establish – staging location.

11. Establish - Incident Level. This Incident Level system will be used to assign a uniform set of designation levels to HazMat releases in order to assist 1st responders in mitigation, management, and tracking of releases and for continuous improvement planning.
    - INCIDENTAL / NON-EMERGENCY RELEASE : releases that are handled by employees of the responsible party. Or, releases that are handled by public employees in a non-emergency status. Ex. County HazWaste Technicians
    - ROUTINE EMERGENCY RELEASE: releases that are handled by a single jurisdiction. Ex. LPG/ natural gas, saddle tank on tractor trailer spill.
    - LIMITED EMERGENCY RELEASE: releases that require mutual aid to the authority having jurisdiction. Ex. Fuel Tanker spill.
    - LARGE SCALE / FULL EMERGENCY RELEASE : releases that require activation of the county EOC and impact multiple agencies. Ex. WMD.

12. Continually monitor scene and update incoming units of any changes or lack thereof.

## F. Operational Considerations for Life Safety Response

1. Rescue

   a. Command should perform a Risk/Benefit Analysis by considering the following questions in a rescue operation:

| | |
|---|---|
| -Capabilities & training level of the rescuers? | -Knowledge of the material(s) involved? |
| -Is the scene safe for operations? | -Can I make it safe to operate? |
| -Are the victims viable? | -Are they ambulatory? |
| -Can they self-evacuate? | -Are they contaminated? |
| -Do they require extrication? | -Is a search & rescue safe and possible? |
| -Is specialized PPE required? | -Did I request resources for back-up? |

   b. Units on-scene are expected to take REASONABLE risks to protect life and property.

   c. If a person, even a fellow firefighter, has been overcome, you may also be affected.

   d. If a firefighter has been overcome, rescue shall only be done using the “buddy system” and by properly trained and equipped rescuers.

   e. Rescuers entering in the hot zone must also be considered contaminated and when exiting, properly decontaminated along with other victims.

f. Standard protective equipment (e.g., bunker gear and S.C.B.A.) can be permeated by many chemicals. Rubber S.C.B.A. masks and boots can be penetrated by certain chemicals, also.

2. Public Protection – Evacuation / Protect in Place

a. Evacuation distances shall be based on DOT references, HazMat Branch recommendations, or best judgment, if no other reference sources are readily available.

b. Evacuation may require the assistance of other agencies, such as the Manatee County Emergency Medical Services, Manatee County School Board, Red Cross, Manatee County Emergency Management to implement "reverse 911" calls.

3. Isolation / Secure & deny entry

a. Access control points must be established to provide control of entry into the contaminated area or hot zone.

b. Contaminated persons and/or equipment must be isolated in a refuge area until they can be properly decontaminated.

c. Rescued victims must be isolated & decontaminated (Dry/Gross or both) and placed in a patient staging area until they are cleared by the Hazardous Materials Branch for transport.

d. Medical treatment and triage teams entering the warm zone must be considered contaminated until cleared by the Incident Commander or designee.

e. Emergency gross decontamination may be required; this area may be performed in the hot zone (refuge area) or warm zone (safe refuge area).

f. Once a warm zone and a contamination control line (CCL) are established, restrict access and exit to this area.

4. Decontamination – Gross, Dry, or Mass

a. Separate persons who are asymptomatic from those who are symptomatic.

b. All decontamination procedures will be done under the authority of the Incident Commander.

5. Safety

   a. An overall incident Safety Officer shall be established as soon as practical by the on-scene Incident Commander.

   b. An assistant safety officer for the HazMat Branch may be established when operations begin or at any time during the incident.

   c. On the initial approach by first in units all personnel shall wear full bunker gear and S.C.B.A., in accordance with ROG #103 Incident Safety.

   d. Once control zones have been established and secured, a higher level of PPE shall be worn as appropriate. When exiting the cold zone into the warm and hot zone, unless otherwise recommended by the Incident Commander.

   e. Medical evaluation will be required for all personnel that may have been exposed.

6. Termination – Federal OSHA requirement.

   a. Debriefing Phase; is usually conducted at the scene and immediately after the emergency phase is over (Level "0") and before responders leave the scene.

   b. Critique Phase; is a learning tool to help correct response problems or reinforce effective actions.

   c. After Action Activities; post critique phase where the ideas, recommendations, and improvements suggested are acted upon.

## G. Operational considerations for Environmental Response

1. The following information should be collected by the on-scene Incident Commander:

   - Material "if known"
   - Approximate amount
   - Identity of the responsible party
   - Location of the incident
   - Actions taken by the Fire department or responsible party
   - Call-back number for additional information
   - Nature of affected environment (soil, street, water, air, storm drain, sewer drain, etc.)
   - Specific request for assistance if needed (DEP, HazMat Specialist, etc)

2. Any reasonable actions necessary for the immediate protection of life (gross decon) may be undertaken without undue concern for pollution implications, however, any resulting pollution will require cleanup.

3. Small (25 gallons or less) spills of gasoline and similar "light" pollutants which are not threatening any surface water source may be handled as follows:

   a. Impervious (paved) surface

   ♦ Cover lightly with sand, dirt, or other material as directed by DEP, HazMat Branch or Environmental Management, and allow to "air dry" or evaporate.

   b. Ground area

   ♦ Insure that all material is being absorbed and that none is running off or may run off into any surface water.
   ♦ If runoff is a concern, dike with sand, dirt, or other materials as directed by the DEP, HazMat Branch, or Environmental Management.

4. Larger spills of gasoline and similar "light" pollutants or spills of a heavier fuel, such as diesel fuel or motor oil must be diked and kept from running into any surface water source (pond, river, drainage ditch, etc.). In case of emergency, or under the conditions of a fire hazard, foaming the spill for protection may be necessary. Be aware that the water/foam covering will add to the gallonage of the spill and the dikes may have to be enlarged accordingly. Every reasonable effort should be make to minimize the pollution damage.

   Under these conditions and during containment actions, three items become very important:

   a. Obtain, if at all possible, the name and address of the individual/company responsible for the polluting spill.

   b. Provide within your report to ECC/911 center a request for pollution clean-up assistance, including a brief description of the area and extent of polluted area so they can inform the appropriate agency the nature of the problem.

   c. Request a consultation with the HazMat Specialist in order to provide incident specific assistance.

5. Except as may be necessary for safety, it will not be necessary for Fire department equipment and personnel to remain on the scene once the category of response has be

reclassified to a "Level 0" non-emergency situation. Transfer control of the scene to the appropriate personnel and document all activities and communications.

6. Use a gas detection device, when applicable, to detect and monitor hazardous gases.

7. All departments shall refer to the Florida Department of Environmental Protection / Bureau of Emergency Response "State Emergency Response Program".

## H. Flammable Vapor Response

### Outside of Structure

1. Units arriving on scene will provide size-up according to ROG #102 Size-Up and establish Command if applicable. Use of a gas detection meter is recommended.

2. The first arriving engine company shall position itself at a minimum of 300' upwind from leak. **Note: 300' may not be sufficient for propane tanks. Refer to the Emergency Response Guide for additional precautions.**

3. Remaining units shall stage at a safe distance and wait for assignment

4. Company officer and one firefighter, carrying a dry powder chemical, will advance to the area of the gas leak to determine:

    a.) Size of leak
    b.) Source of leak
    c.) Type of material leaking
    d.) Appliance or buried line

5. Driver/operator and remaining firefighters shall prepare for suppression or protection assignment (i.e., 1¾" hand line).

6. Command or company officer will advise what additional resources are necessary, including gas company response.

7. LPG flaring "burn-off" techniques shall only be performed by trained personnel.

### Inside of Structure

**All units** will stage at least 300 feet away (upwind), with a company officer and one firefighter to investigate.

1. Occupants should evacuate from the hot zone immediately. Full evacuation, based upon risk analysis and following considerations:

    a.) Size of leak
    b.) Type of material
    c.) Type of container
    d.) Reading from gas detectors

2. Control zones shall be established. These hazard zones will be monitored utilizing gas detectors that are carried on fire department and hazardous material units.

3. All personnel working in the hot zone area must wear PPE & SCBA.

4. Control ignition sources in the area of the leak.

    a.) Extinguish/shut off pilot lights, flares, open flames, smoking materials and electric/gas motors.
    b.) Disconnect any electrical power from remote sources when possible.

5. LPG flaring "burn-off" techniques shall only be performed by trained personnel.

## I. Liquid Leak Response – Flammables/Combustibles

1. Units arriving on scene will provide size-up according to Incident Management System and establish Command.

2. The first arriving engine company shall position itself uphill and upwind from the liquid leak if possible.

3. Remaining units shall stage at a safe distance and wait for assignment.

4. Company officer and one firefighter will advance to the area of the gas leak to determine:

    a.) Size of leak
    b.) Source of leak
    c.) Type of material leaking
    d.) type of container

5. Driver/operator and remaining firefighters shall prepare for suppression assignment (i.e., - 1¾" hand line).

6. All personnel working in the hot zone area must wear PPE & SCBA.

7. Evacuation, if necessary, shall be based upon:

1) Size of leak or spill
2) Type of material
3) Type of container
4) Reading from gas detectors

8. When it becomes necessary to perform rescue or protect life, the spilled material shall be covered with foam or other vapor reducing product if available.

9. Control zones shall be established. These hazard zones will be monitored utilizing gas detectors that are carried by fire department units, HSU trailers, or HazMat Branch personnel.

10. Control ignition sources in the area of the spill.

    1) Extinguish/shut off pilot lights, flares, open flames, smoking materials and electric/gas motors.
    2) Disconnect any electrical power from remote sources when possible.

11. Restrict product run-off into storm sewer, sanitary drains, or other drainage systems when ever possible.
12. Diking with absorbent materials such as booms, pads, or bulk material is acceptable.

J. CBRNE Response – (Chemical, Biological, Radiological/Nuclear and Explosives).

1. Units arriving on scene will provide size-up according to Incident Management System and establish Command.

2. The first two arriving engine companies and Battalion Chief shall position uphill and upwind from the chemical spill or leak if possible.

3. Remaining units shall stage at a safe distance and wait for assignment.

4. Establish Incident Command and determine:
    a.) Size of the issue – establish a hot zone
    b.) Source of issue and type of CBRNE
    c.) If there any patients and are they salvageable
    d.) If proper equipment is on scene to perform an immediate rescue
    e.) What other resources are needed

5. If there is a viable rescue,
    a.) All personnel working in the hot zone area must wear SCBA and the proper level of PPE.

b) Have the back-up crew (2 out) in place with proper PPE and a charged hoseline for decontamination before the rescue team (2 in) enters the hot zone.

c) Maintain constant communications with the entry team(s).

d) Do not conduct any hazardous materials mitigation, only life rescue.

e) Remove all viable patients from the hot zone to the gross decon area before transferring to medical personnel.

6. Evacuate, if necessary, shall be based upon:
   1) Size of the blast field
   2) Secondary explosives
   3) Wind direction
   4) Contamination field

7. Control zones shall be established. These hazard zones will be monitored utilizing appropriate detectors that are carried by fire department units, HSU trailers, or HazMat Branch personnel.

8. A Safety Officer shall be appointed and shall develop a written site safety plan.

9. Provide perimeter security to protect any evidence.

10. Secure and mark all clothing and personal effects doffed by victims during decontamination and medical care.

K. Personal Protective Equipment

1. Levels of PPE.

a) Level D – Bunker Gear with SCBA.

i) Offers the least protection to enter a CBRNE atmosphere to conduct a rescue. Provides maximum protection from heat, water, and mechanical injury and is the most readily available protection to firefighting personnel .

ii) Adequate protection when assigned to provide decon and for hazardous materials incidents involving flammables or combustibles.

b) Level C – Non-encapsulating chemical resistant suits with Air Purifying Respirators (APRs) or Powered Air Purifying Respirators (PAPRs).

i) Offers adequate protection to enter a CBRNE atmosphere to conduct a rescue and to provide decon.
ii) Do not use in flammable or combustible atmospheres.

c) Level B – Non-encapsulating chemical resistant suits with SCBA.

i) Offers adequate protection to enter a CBRNE atmosphere to conduct a rescue and to provide decon.
ii) Provides better protection when pulmonary agents, cyanide, or vesicants are involved.
iii) Do not use in flammable or combustible atmospheres.

d) Level A – Fully encapsulated chemical resistant suits with SCBA.

i) Offers the maximum protection to enter CBRNE atmospheres to conduct a rescue.
ii) Do not use in flammable or combustible atmospheres.

2. Donning PPE

a) Using the acronym MSG-BS, don chemical resistant suits as follows:
i) M – Mask (and SCBA if Level A)
ii) S – Suit (fully encapsulated or non-encapsulated)
iii) G – Gloves (first glove against the skin should be cotton. Avoid latex)
iv) B – Boots (chemical resistant)
v) S – Seal (check the seal of your partner's suit. Use chemical resistant tape only for non-encapsulated suits)

3. Care and Maintenance of PPE

a) Level D – Decon on scene and wash after each CBRNE incident per the manufacturer's guidelines.
b) Level B and C – Throw away non-encapsulated suits after use.
c) Level A - Decon on scene and wash after each CBRNE incident per the manufacturer's guidelines. Pressure test after each use and annually.

## L. Attachments

1. Florida Department of Environmental Protection / Bureau of Emergency Response: State Emergency Response Program
2. Vapor Release Addendum

## Title: Container Emergencies - Flaring of Liquefied Petroleum Gases (LPG)

## Purpose

To establish safe procedures and provide guidance to Fire department personnel when they encounter a situation that would require the flaring of LPG at a hazardous materials emergency incident.
This is normally performed by local LPG PROFESSIONALS. However, under certain circumstances, emergency personnel may have to assist or take the lead on these types of operations in order to expedite reducing the risk to Life Safety and / or property by leaking propane tanks.

Flaring – **Controlled burning of a high vapor pressure liquid or compressed gas in order to reduce or control the pressure and / or dispose of the product. Propane will burn off at a rate of approximately 5-gallons per minute (20lb cylinder) at 70º F.**

## Policy

This procedure will apply to all incidents where the Fire department "Authority having jurisdiction" responds and determines that a flaring operation would be appropriate.
These guidelines will apply to Fire personnel who are on scene, when a LPG PROFESSIONAL is performing the flaring.

- Used to achieve three basic objectives:
    1. Reduce the pressure inside of a cargo tank.
    2. Dispose of vapors remaining inside of the tank after liquid has been transferred.
    3. Burn off liquid or vapor when other transfer methods are not possible.
- Flaring is an acceptable alternative when it is necessary to expedite recovery operations.
- Flaring is also an alternative as an interim step when other product transfer operations are not available or not possible due to accessibility.

## Applicability

This guideline shall be utilized to guide selection and use of the appropriate equipment in performing a flaring operation. The Incident Commander must be aware of the following: the hazards involved, options for maximum safety through the use of control zones, notification of LPG PROFESSIONALS, HazMat Specialist, and/or other trained personnel.

## Procedure:

1. Identify Hot Zone if not already done and secure area.

a) The Hot Zone will include the area of radiant heat exposure and not just the gas free atmosphere. The gas free atmosphere can only be established with a calibrated combustible gas meter.
   i. All items and structures exposed to radiant heat must be protected with a hose stream and shielding as appropriate.
   ii. Hose streams must be of sufficient size to adequately dissipate the radiant heat.
   - Caution - Large volumes of water can cause flooding and movement of containers.

b) Only personnel essential to the operation should be in Hot Zone.

2. Determine what the problem is:
   a) Fire
   b) Leak
   c) Container failure / damage

3. Verify contents of container using:
   a) Use D.O.T. labeling, Compressed Gas Association labels, lettering, etc.
   b) Color of cylinder (use caution as color coding is not standardized except for the medical gas industry standard.)
   c) Type of valve, relief devices or absence of, and connections.
   d) Shape, design, and size of tank.
   e) Information from responsible party.

4. Determine whether it is safe to conduct flaring operation.
   a) Proper equipment available to perform flaring. County Flare Kit is staged at the HazMat Storage building @ 1640 60th Ave. Drive E. Bradenton
   b) Adequate exposure protection available.
   c) Sufficient distances available.
   d) Consensus with product supplier and / or owner to flare if possible.
   e) Warm zone (decontamination corridor) established.
   f) Cold zone (vapor free) area established through the use of a calibrated combustible gas meter for staging necessary personnel.
   g) Safe zone established for bystanders, workers, and media.
   h) Damage assessment done of tank.
   i) Overhead power lines removed or de-energized.
   j) Position of tank does not prevent safe removal of product.

5. Specific site safety considerations which should be addressed during this phase of the incident include:
   a) Ensure that backup crew is available and in place to protect all personnel involved in the flaring operation.
   b) A minimum of one 1 ¾" hose-line shall be deployed to protect firefighters, perform decon if necessary, and protect exposures.

c) Make sure all personnel know the emergency evacuation signal and the escape path for personnel working in the Hot Zone.
d) Continuously monitor the hazard area with flammable gas monitors.
e) Maintain hazard control zones throughout the flaring operation and enforce personnel protective equipment requirements.
f) Ensure all personnel remain alert throughout the operation. Frequent relief and rotation of personnel should be considered to prevent problem.
g) Ensure the burner head is sufficiently above the ground to prevent ground fires and damage to supply hose. (Remember flaring of liquid product produces much greater radiant heat than gas.)

6. Termination procedures.

## Minimum Equipment Required:

1. Red Dragon Propane Flare Kit Model #PFM-16LPS with operating manual
2. 3-sandbags or 3-sections of 2½" or 3" inch hose to anchor stand
3. Pilot fuel source (20# lb. cylinder "5-gallon" capacity)
4. Spark lighter or Safety lighter
5. Adjustable wrench
6. PPE (Minimum: gloves and eye protection are worn by LPG PROFESSIONALS)

## Minimum Personnel Required:

1. Incident Command Structure per Authority Having Jurisdiction
2. One Firefighter trained & competent with the Red Dragon Flare Kit
3. One Firefighter to assist

## Additional Information:

**Auto-refrigeration** – As propane vaporizes, the liquid portion in the tank cools. If the vapor rate is high enough the liquid will refrigerate to as low as -44° F (propane's boiling point), at this point vaporization will stop and it will appear the container is empty while super-cooled liquid remains in the container this is sometimes referred to as "dead liquid".

## Trouble Shooting Tips and other Flaring Rules to Remember:

**Lengthy Flare Jobs and The Pilot Fuel Source:** Always use a separate cylinder for the pilot source and have more than one pilot cylinder available for lengthy flaring situations. The pilot fuel source may become empty or drop below 18 P.S.I. and have to be replaced before the tank being evacuated is completely empty. When the pilot tank empties or drops below 18 P.S.I. the pilot will/may quit burning and raw LP gas could be released into the atmosphere. Follow the shut-down procedures and replace the pilot cylinder. Repeat lighting instructions to continue.

**IMPORTANT NOTE: YOU *SHOULD NOT* USE THE SAME TANK YOU ARE VACUATING FOR YOUR PILOT SOURCE.**

**Tank Freeze-Up and the Refrigeration Effect:** Tank freeze-up or pressure loss may occur when evacuating vapor withdrawal containers, especially while operating at outside temperatures below 50° F. Pilot containers may also be effected. Frost build up on the outside of the tanks, fittings and hoses are indicators of excessive refrigeration.

If the tank being evacuated is losing pressure, yet still contains fuel, you may be required to cease the flaring procedure for a few minutes to let the tank defrost. This effect can and will happen to the fuel tanks being evacuated. Other side effects are the flare tube may accumulate frost (the frost in this case contains propane). In the right conditions this from is flammable

If the pilot tank is losing pressure or freezing up, replace it with a larger cylinder.

**As the evacuation tank pressure drops, the speed of the process is reduced.**
The fuel in the LP cylinder is being evacuated and burned at tank pressure. As the fuel is being consumed the pressure in the cylinder will drop. Outside temperature also has a direct effect on tank pressure.

Therefore, the flare will not produce 529 gallons per hour consumption up to the very last second. A fuel cylinder being evacuated on an 85° F day will flare faster that a fuel cylinder being evacuated on an 40° F day.

# WATER RESCUE

**Scope:** This ROG is designed as a guide to ensure that the citizens of Manatee County receive the best service available in the event of a water emergency. The primary focus of this ROG is water rescues with a quick response of trained personnel and adequate equipment.

## A. Response/Size-up :

1. Size-up is a continuous process, from the time of initial dispatch until the mitigation of the emergency.

2. First arriving units should establish command and give a size-up of the situation as it evolves. This includes call and relaying directives to additional units and outside departments and resources.

3. Determine if the operation is a rescue or recovery from the information gathered. Secure a responsible party or witness(s).

4. For persons reported missing in the water, priority information should include:

   - Number of victims
   - Time victim last seen
   - Datum point
   - Depth of water
   - Available resources

   The Incident Commander shall determine if additional or different equipment is required to accomplish the rescue. It is imperative that the IC be aware of the additional equipment available, for example; Fish and Wildlife, law enforcement agencies and Coast Guard units. It is important that the on-scene size-up be done quickly to ensure the appropriate units for the situation are responding.

**B. <u>Surface Rescue</u>:** Non-swimming techniques shall always be considered before placing a rescuer in the water.

1. Reach pike pole, oar, etc.
2. Throw life ring, throw bag, etc.
3. Row utilize all available equipment such as surf boards, jet skis, rowboats to access victims and keep rescuer out of water.
4. Go use only in event of immediate life threatening situation. If swimming to a victim, wear a life vest and take flotation device along for the victim with a line attached tow the victim back to safety and never come within reach of a victim unless he/she is unable to hold on to the flotation device. Do not place life ring straps around your neck. Always be prepared to distance yourself from the victim if he/she becomes combative. Rescuers should be attached to a safety release device found on the PFD.

## C. Subsurface/Recovery

1. Subsurface rescues should not be attempted by those not properly trained.
2. Dive teams cannot respond to all marine calls, therefore it is essential that the first on-scene commander or unit recognize the need for a dive team and immediately request a dive team response from the communication center.
3. Top water swimmer or rescuers shall not dive in a situation beyond their training/capability.
4. The initial arriving officer will clear all civilians from the water, not engaged in the rescue.

## D. Submerged/Partially Submerged Vehicles

1. Vehicle searches should be done in teams of two.
2. Rescuers should avoid placing more than half their bodies inside a vehicle when conducting a search. The second rescuer should stay in physical contact with the rescuer searching the vehicle.
3. If hydraulic extrication is necessary to remove a patient, all attempts should be made to have the vehicle towed to shore. Bunker pants and boots should not be worn in the water.
4. All means should be made to secure the vehicle if possible.
5. Rescuers should be aware of second victims evidenced by car seats, toys, purses, or any other items which could assist in identification of victims.

## E. Safety:

1. Personnel within 10 feet of water shall wear a PFD
2. Personnel shall not enter the water without a safety line(unless in moving water). At no time should a safety line be attached to a rescuer unless the PFD is equipped with a safety release device.
3. Law enforcement units, at first reasonable opportunity, shall be used to secure a perimeter for the safety of the other responding units.
4. Any operator or Commander may request that another more appropriate unit be dispatched if the weather or situation is beyond the on-scene unit's training or capabilities.
5. Rescuers should not “dive” into the water, and care should be taken about creating waves when the victim may have a spinal injury.
6. Rescuers entering the water should be aware of possible obstructions, currents and the possibility of dangerous marine life.
7. Constant rescuer monitoring shall be implemented, with a “back-up” person available at all times.
8. Only rescuers with the proper training and equipment should enter the water.
9. Rescuers should not wear bunker gear near water unless engaged in firefighting operations.

## F. Tactics:

1. Personnel should enter the water to perform a rescue only as a last resort.

2. Rescuers shall attempt to "Reach" the victim with the devices that allow the rescuer to remain out of the water whenever possible.
3. If devices to reach the victim from land are not available, or cannot be used, an attempt should be made to "Throw" a flotation device, secured with a lifeline, to the victim. This can be used to pull the victim to safety.
4. If you cannot reach, throw or tow, the last resort is to "go" by entering the water.
5. A conscious victim should be given a flotation device while the rescuer stays out of reach during the rescue.
6. When approaching an unconscious or passive victim, procedures should be used to immobilize the spine and maintain an airway whenever possible.
7. Searches for persons reported missing in the water shall be conducted using a grid search pattern.
8. Concentrate initial searches for missing persons to within the depth of the water where the person was last seen, in each direction.

   Example: A person was last seen in 10' of water. The initial search should be conducted 10 feet in each direction. This would create a 20-foot diameter search area.

## G. Communications:

a. Primary communication will be via the 800 MHZ radio system.
b. When the Fish and Wildlife, Coast Guard or other marine units arrive on-scene the IC has the option of putting an 800 MHZ portable radio on those units or having a representative from that agency report to Command to assist in communications.
c. VHF radio installation is advantageous as the Fish and Wildlife, law enforcement and Coast Guard all have VHF capabilities.
d. If the Coast Guard is responding, the communications center will notify Command of the assigned VHF channel.
e. If the Coast Guard is not responding and the Incident Commander wishes to use a VHF channel, Command shall contact the Coast Guard directly or have the communication center request a working channel.

# MARINE EMERGENCY RESPONSE TEAM (MERT)

Public Safety agencies in Manatee County and Sarasota County have established an initial response matrix for emergency response for marine incidents in and around the navigable waters of Manatee and Sarasota Counties. The intent of this guideline is to coordinate the dispatch and response of all public safety based marine assets. Each incident based on nature and scope will dictate resources called upon, all incidents will receive the initial response of two Fire/Rescue assets and one law enforcement asset. All marine assets shall work in conjunction with the Unites States Coast Guard (USCG) in responding to marine incidents.

The companion ROGs with this document are Fire Ground Operations at Marine Vessel Fires MCROG #210 and Water Rescue MCROG #408.

## Operational Guidelines

1. The communication centers shall dispatch resources based on this guideline, taking into consideration the incident location, call type and scope. There will be a minimum of two (2) Fire/Rescue and (1) LE respondent and to each incident.
2. All responding units should respond to the initial incident with the resources at their disposal to properly mitigate the incident based on call type (SAR, FIRE, DIVE, OPS, HAZMAT, etc.). The responding units should be monitoring VHF channel16 as well as any frequencies assigned by the U.S.C.G. All units should make contact with each other and the USCG enroute to the incident.
3. The first responding unit on scene shall establish "On Scene Command" (OSC). Command should be designated by location description, e.g., "Sarasota Bay Command", etc. OSC must establish the tactical directive of the incident, e.g., "Search", "Fire Suppression", "Hazmat Containment", etc. Based on the situation on scene, the OSC should call additional resources, if needed, at this time. Additional resources should be requested through U.S.C.G or the Emergency Communications Center. Transfer of command shall be coordinated with the first on-scene U.S.C.G asset.
4. The OSC should provide the latest location information, tactical directives to responding units. The OSC will direct the operations of the Fire/Rescue resources and work in a Unified Command capacity with USCG, LE, FWC, and other responders. The OSC has the option to transfer Command to another respondent on scene. The transfer of Command must be face to face or within line of sight radio communication. The transfer of command must contain the following information:
    a. General situation status
    b. Primary problem, current conditions and probabilities
    c. Current effectiveness of the operations in place
    d. Established strategic objectives
    e. The current assignment of deployed assets
    f. Resources inbound
    g. Safety considerations

5. The OSC will monitor situational conditions, tactical effectiveness, direct or redirect operational efforts, and assure accountability of all Fire/Rescue asset
6. The OSC will direct the release of responding units after assuring accountability of responding personnel. The OSC will coordinate with USCG, LE and FWC all aspects of returning the scene to its original condition, e.g. towing boats away, booming any pollutants, contacting applicable agencies to mitigate issues, etc.
7. The OSC will be the reporting agent for the incident

**VHF Frequencies**

1. The Captain of the Port has authorized the use of the following VHF frequencies for public safety agencies in Manatee and Sarasota Counties
    a. 21A 157.050 MHZ
    b. 22A 157.100 MHz
    c. 23A 157.150 MHz
    d. 81A 157.075 MHz
    e. 83A 157.175 MHz
2. The use of these channels are subject to the following guidelines:
    a. Use shall be limited solely to communicate with Coast Guard Sector St. Petersburg on matters related to marine safety, marine emergencies, or fire suppression. The use of these frequencies for communications with non-Coast Guard users is not authorized.
    b. Use will be on a not-to-interfere basis with Coast Guard Operations.
3. Usage authorization for these channels is on a temporary basis, for a period not to exceed five (5) years unless otherwise granted by Coast Guard Sector St. Petersburg prior to August 2020
    a. Temporary periods are renewable, and will require a new letter of concurrence from the Captain of the Port

**Dispatch Guidelines**

1. Processing a marine related call that originated from 9-1-1 emergency line.
    a. Incident location is critical in regards to a timely response to marine incidents. Call takers shall make every effort to get as much detail in regards to position and location, i.e. landmarks, GPS position, Lat./Long., body of water etc.
    b. Number of persons on-board or in the water and any known health or medical concerns.
    c. Determine the nature of Distress:
        - Watercraft aground and in distress
        - Disabled watercraft with people on board

- Disabled watercraft threatening a structure
- Capsized watercraft
- Watercraft collision
- Medical emergencies on board watercraft
- Watercraft taking on water/sinking
- Diving accident
- Fire
- Distress Flare Sighting
- Person in water (PIW)
- Downed aircraft

d. As soon as practical dispatch Fire/Rescue and LE vessels based on the last known position of the vessel or PIW in distress.

e. Notify U.S.C.G Sector St. Petersburg and relay all incident information.

2. Participating Fire Agencies
    a. City of Bradenton Fire Department
    b. Englewood Area Fire District
    c. Longboat Key Fire Rescue
    d. North River Fire Rescue District
    e. Sarasota County Fire Department
    f. Venice Fire Department
    g. West Manatee Fire Rescue

**Safety**

- Personnel are required to wear a personal floatation device during all operations
    - Personnel may wear a Type II vest (Mustang Inflatable) during normal operations
    - During emergency operations, personnel shall wear a Type III vest
- Any operator or Commander may request that another more appropriate unit be dispatched if the weather conditions or situation is beyond the on-scene unit's training or capabilities
- Only rescuers with the proper training and equipment should enter the water.
- Rescuers entering the water should be aware of possible obstructions, currents and the possibility of dangerous marine life.
- Constant rescuer monitoring shall be implemented, with a “back-up” person available at all times
- Rescuers should not wear bunker gear near water unless engaged in firefighting operations.

- All vessel operators and their crew shall keep aware of changing weather conditions. Certain conditions can limit the marine vessel capabilities. The following examples are conditions that may warrant termination of a mission:
    - Tidal waters more than 4-foot seas.
    - Winds more than 25 mile per hour.
    - Storm clouds with lightning in the area of operations.

## CARBON MONOXIDE RESPONSE

**SCOPE:** This ROG provides guidance for the response to carbon monoxide (CO) alarms and documentation for readings found on site.

OSHA has established a maximum safe level of carbon monoxide of 35 ppm in the general work place. The US Environmental Protection Agency (EPA) has established that residential levels are not to exceed 9 ppm over an 8 hour average.

A. **Response**

1. The response to activated (CO) alarms shall be dictated by each jurisdiction having authority. The responding unit or units must have a CO monitor or obtain access to one, to properly evaluate the site.

2. Upon arrival, the departments representative (company officer) shall determine if the alarm is a CO alarm, fire alarm, or smoke alarm.

3. If a CO alarm has been activated, determine if any occupants are exhibiting symptoms of carbon monoxide poisoning, evacuate and treat if necessary.

B. **Investigation**

1. Determine the source of CO release.

2. Monitor and document levels of CO if found.

3. Evaluate the status of the CO alarm.

C. **The Source:**

1. If the source of the CO is found, it shall be turned off and occupant notified. If the alarm is determined to be faulty or needs replacing the occupant shall be notified.

2. Ventilate the structure if levels determine a hazard. When the premises has been determined to be safe according to CO detectors and monitors, the occupant shall be notified and shall receive a copy of the activation sheet.

D. **Documentation**

A Fire Alarm Activation Report may be used to document CO conditions in the occupancy.

# Hydrogen Cyanide (HCN) and Carbon Monoxide (CO) Detectors

**Purpose:** This guideline has been developed to provide you with guidance to safely work in a potentially dangerous atmosphere during overhaul and investigations. These toxic, flammable gases, even at low PPM (parts per million), can cause death or serious illness in a short period of time. They are deadly, due to their toxic properties, well before they reach their lower flammability level (LFL). The only way to detect their presence is by the use of a gas detector. If there is reason to detect their presence, there is reason to continuously monitor the atmosphere where employees are working.

**Scope:** This guideline covers All personnel who could be "reasonably anticipated" to work in an atmosphere that may contain Carbon Monoxide and/or Hydrogen Cyanide gas.

**Carbon Monoxide (CO)** is an odorless, colorless, nonirritating, flammable, and highly toxic gas. It is produced as a by-product in incomplete combustion. Common exposures to this chemical involve combustion engine exhausts, faulty gas burning appliances and at structure fires from smoke particularly during the smoldering phase. Carbon Monoxide combines with the hemoglobin in the bloodstream and causes the body to asphyxiate. Carbon Monoxide enters the body 200 times more readily than Oxygen. Death due to metabolic asphyxiation can result from exposure as low as 1200 ppm in 30 minutes. CO has a lower flammability limit of 12.5%.

**Hydrogen Cyanide (HCN)** is colorless, flammable, highly toxic gas and has an odor of almonds, but not all people can detect the odor. HCN is a product of incomplete combustion of plastics and synthetics. HCN is most commonly inhaled, but at high levels can be absorbed through the skin. Symptoms are similar to carbon monoxide exposure and include headaches, weakness, changes in taste and smell, chest pain and vomiting. Death can result from exposure as low as 135ppm in 30 minutes. HCN has a lower flammability limit of 5.6%.

**Use Procedure:** Both detectors will be kept in the Battalion Chief's vehicle and used continuously to monitor for the presence of Hydrogen Cyanide and Carbon Monoxide gases during overhaul at structure fires and during fire investigations. Both detectors should be used together, attached to the upper-body area of supervising personnel PPE in a manner to minimize debris and water from contacting the sensors.
In the event that an engine crew does not remain on-scene during a fire investigation - and therefore the detectors remain on-scene - investigators will return the detectors to the on-duty Battalion Chief when investigations are completed.

**Operation:** Both detectors are equipped with audible, visual, and vibrating alarms when in alarm. The front label depicts the type of gas each unit detects.

1. Turn the detector on by pushing the power button located on the left front of the detector - <u>THIS MUST BE DONE IN CLEAN AIR</u>

2. Allow the detector to go though the warm up cycle
3. Detector is ready for use when the display reads 0.0

**Alarm Procedure:**

1. In the event that one or both of the detectors alarm, any and all personnel working in the structure and not wearing full PPE and SCBA shall exit to fresh air. Work should not continue inside the area until proper PPE and SCBA precautions have been taken and / or the structure has been adequately ventilated.
2. The detector(s) shall be taken to a clean environment and zeroed out prior to continued monitoring.
3. These detectors are not to take the place of SCBA when conditions warrant (per MCROG #103). Common sense should always be used.
4. These detectors must be calibrated regularly for accuracy.

**Alarm Set Points:**

1. Hydrogen Cyanide (HCN) alarms at 4.7 ppm.
2. Carbon Monoxide (CO) alarms at 50 ppm.

# ADVERSE WEATHER OPERATIONS

**SCOPE:** This ROG provides guidance for companies encountering severe weather conditions during field operations. Company officers should use discretion to alter their functions should conditions change rapidly.

Heavy rain:

Heavy rain should not have any effect on fire or rescue functions except that care should be taken to protect patients or fire victims.

Lightning:

Lightning storms are common in and around the Tampa Bay area and are encountered frequently by fire rescue units. Personnel not actively involved in emergency operations should remain inside apparatus or structures during frequent local lightning. Aerial operations should be halted during lightning conditions.

Wind:

Sustained wind conditions can be very hazardous. At sustained wind speeds above 35 MPH aerial operations should be halted. At sustained wind speeds above 35 MPH, only critical fire/rescue operations should be undertaken at the Agency's discretion. All vehicles with high profiles and light weight (Haz Mat units, rescues, ambulances, etc.) should not be used. At sustained wind speeds of 50 MPH or higher, all fire units including engines and aerials, should remain in shelter. Personnel operating out in hazardous wind conditions shall wear full protective clothing for protection from flying debris. However, it should be remembered that full protective clothing may not stop flying debris from penetrating the body.

Hail:

When encountering hail conditions, all personnel will wear full protective clothing, and company officers should use discretion to determine if the company should seek shelter.

Tornadoes:

When a tornado or funnel cloud is observed in the field, companies should move away from it at right angles to its direction of travel, if possible. If proximity to the tornado prevents escape, the apparatus should be abandoned and personnel should seek shelter and keep together. If a tornado is observed from quarters, personnel should mount the apparatus and move away as indicated above.

Flooding:

Company officers must exercise considerable judgment and discretion relative to personnel safety when entering flooded areas. In rapidly moving water more than two (2) feet deep, personnel should use a

lifeline and wear Personal Flotation Devices (PFDs). In any water over three (3) feet deep, PFDs should be used. Particular care should be taken to avoid run-off areas, drains, open manholes, and ditches. Unless for life threatening emergencies, apparatus shall not travel in flood waters if the level of the water reaches the lowest part of the apparatus/running boards. Under no circumstances shall apparatus drivers create a wake while driving in flood waters.

Hurricanes:

Each department should refer to their own guidelines for events before, during and after a hurricane.

# TROPICAL STORMS & HURRICANES

***(See ROG #501)***

## A. Introduction

These procedures should be used as a guideline for the safe and quick response during a storm. Information contained here-in may need to be altered, depending on the circumstances and situation that may evolve from a storm.

## B. General Information

Hurricane season runs from June 1st through November 30th of each year. A hurricane is one of nature's worst storms. The entire storm, including the outer squall area, can reach 250 to 300 miles in width. Winds can reach upward to 125 to 150 miles per hours near the center. The effects of the storm may last three to four days. The hurricane itself lasts about 12 hours in actual duration, to a given area. The edge of the storm, or even its outlying squalls, can produce enough wind and rain to cause severe damage and flooding. —The most severe type of damage is caused by the storm surge, which is a sudden rise in the tide level. The surge may range from 2 to 15 feet in height.

Wind can cause severe damage. Winds blowing at 70 to 150 miles per hour can cause trees to up-root, windows blown in, power lines down, etc. These and other loose items can be blown through the air, causing severe injuries and damage.

Heavy rains can increase storm damage by causing additional flooding. Sewers back up and streets become inaccessible.

Evacuation from the outlying areas will cause excessive traffic problems that will reduce response times to emergencies during this time frame.

Areas of evacuation, shelters and evacuation routes and general information can be found in the Tampa Bay Region "Hurricane!" publication, which all employees have access to and should become familiar with. Several of the shelters could be located in the jurisdiction. These shelters could present a higher concentrated life hazard that we may have to deal with at various times.

## C. Evacuation Notice

In the event an evacuation is ordered by the County Commissioners, the following should be used as a guideline in sending vehicles and manpower out to the evacuation areas.

1. When announcing an evacuation over your PA systems, be specific and announce who has ordered the evacuation. i.e.: County Commissioners. If at all possible, we will try and ascertain which shelters will be opened immediately.

2. The most important instruction you will receive is an evacuation order. Once issued an evacuation order is mandatory under state law.

D. **Evacuation Zones and Shelters**

The zone boundaries and shelter locations can be found in the current edition of "HURRICANE", which is available at each station or from Manatee County Emergency Management.

E. **Jurisdictional Operations**

Based on the geographic and demographic issues, each department should establish their own Tropical Weather procedure.

# DISASTER DISPATCH & COMMUNICATIONS OPERATIONS

## I. SCOPE:

This ROG sets forth the operational plan for radio communications among all fire departments operating in Manatee County, Manatee County EMS and the Manatee County Emergency Communications Center to be utilized during extreme emergencies. Examples of such emergencies include, but are not limited to, hurricane/severe weather strike, major brush or structure fire requiring strike team/task force response, act of terrorism, major plane crash, etc.

## II. TIERED DISPATCH OPERATIONS

This procedure is designed to allow for flexibility and escalation of changes to the standard operational procedures used in fire & EMS communications. During situations involving extreme overload due to a single extraordinary event (fire, plane crash, etc.) or a prolonged, multi-event situation (severe weather, etc.), ECC may alter dispatch operations in order to handle the increase call load in a timely manner. These alterations are made at the discretion of the on-duty ECC supervisor and depend partly on current staffing and circumstance.

There are four basic tiers ("levels") of communications operation.

### A. TIER 1 – Normal operations

STATUS: Normal to moderately heavy call load

TIER 1 OPERATIONS: See ROG #107 - Communications

### B. TIER 2 – Abbreviated Dispatch Operations – Single Agency

STATUS: A fire department is receiving extremely heavy call and/or radio traffic load due to one or more extraordinary events, or due to extraordinarily large numbers of routine events. This heavy call load is anticipated to last a short time (6 hours or less) and ECC is able to handle the load with available staff. ECC CAD and radio systems are still functional. The fire department has established "District Command". EOC is probably not activated.

TIER 2 OPERATIONS:

1. District Command has requests ECC to begin Tier 2 operations for their jurisdiction.
2. ECC tones out all stations of the jurisdiction and makes an announcement that Tier 2 operations will begin until further notice.
3. All units of the jurisdiction are directed to monitor the dispatch group for all calls.

4. ECC ceases sending out two-tone alerts for the jurisdiction and gives all calls directly to District Command (or RDP if activated).
5. ECC continues to utilize all NAED call-taking protocols.
6. Individual units are still dispatched to CAD call screens and ECC tracks their times (I/Mobile, station printers, First In Alerting & paging will still function as normal).
7. All calls for the jurisdiction are assigned to their normal tactical groups.
8. Units are to limit radio transmissions to high priority only (en-route, arrive, size-up, clear, available).
9. Units will not be dispatched to medical calls except for: (a) if EMS has more than a 10 minute ETA, or (b) call type is MPDS Delta or Echo level call.
10. The Regional Dispatch Post (RDP) for the effected jurisdiction may be activated in which case ECC will give the calls directly to the RDP instead of District Command.

**C. TIER 3 – Abbreviated Dispatch Operations – County-wide**

STATUS: ECC is receiving extremely heavy call and/or radio traffic load due to one or more extraordinary events, or due to extraordinarily large numbers of routine events. This heavy call load is anticipated to last a short time (6 hours or less) and ECC is able to handle the load with available staff. ECC CAD and radio systems are still functional. EOC may or may not be activated (full or partial).

TIER 3 OPERATIONS:

1. ECC makes a county-wide announcement that Tier 3 operations will begin until further notice.
2. All fire and EMS units are directed to monitor the dispatch group for all calls.
3. ECC ceases sending out two-tone alerts and gives all calls directly to the appropriate units.
4. ECC continues to utilize all NAED call-taking protocols.
5. Individual units are still dispatched to CAD call screens and ECC tracks their times (I/Mobile, station printers, First In Alerting & paging will still function as normal).
6. All calls that only EMS is dispatched to will be assigned to EMS Admin; all calls where fire & EMS respond together will be assigned to the normal regional tactical groups.
7. Units are to limit radio transmissions to high priority only (en-route, arrive, size-up, clear, transport, available).
8. EMS units will be expected to expedite transports and patient transfer.
9. Fire departments tasked with Regional Dispatch Post (RDP) duties shall prepare for possible activation of Tier 4 operations.

## D. TIER 4 – Disaster Dispatch Operations

STATUS: 911 & radio call load is now overwhelming, or a nature that may last more than 6 hours, and/or ECC CAD system is non-operational. EOC is most likely activated. The Backup ECC may or may not be activated/in use.

TIER 4 OPERATIONS – FIRE:

1. ECC makes a county-wide announcement that TIER 4 operations will commence until further notice.
2. Pre-designated fire districts activate their RDP and monitor the dispatch group to receive all calls from ECC. Each department is assigned to a region and each region is assigned to a specific radio group.

| FIRE DEPARTMENTS | REGION | DISPATCH BY | RADIO GROUP |
|---|---|---|---|
| CHFR, TEFD | CENTRAL | CHFR | Tac 6 |
| WMFR, LBKFR | WEST | WMFR | Tac 4 |
| EMFR, MCFD | EAST | EMFR | Tac 3 |
| NRFD, PFCD, DUFD | NORTH | NRFD | Tac 5 |
| SMFR | SOUTH | SMFR | Tac 2 |

3. Fire RDP dispatchers acknowledge receipt of a call from ECC on the dispatch group and then dispatch the appropriate units to the call on the assigned regional tactical group.
4. If mutual aid is required from another region, it is the responsibility of the RDP dispatcher to request the appropriate assistance from ECC. ECC shall then notify the appropriate RDP to send mutual aid units to the call. Mutual aid units will be required to switch their radio traffic to the appropriate group.
5. The RDP dispatcher is responsible for tracking the status and times of all units responding to calls within their region.
6. Assuming CAD is operational, ECC will assign the call screen to the appropriate fire department CAD ID and then drop the call screen once the RDP has acknowledged the call. This will mean that units will not receive I/Mobile, First-In or station printer activation. If CAD is still functioning, automatic paging will still function.
7. For severe weather events, all wires arcing or wires down calls where people and/or buildings are not endangered will be given directly to EOC. Reports of street, coastal or building flooding will be given to EOC unless rescue of persons trapped is needed.
8. Fire units will not be dispatched to medical calls except for: (a) if EMS has more than a 10 minute ETA, (b) call type is MPDS Delta or Echo level call, or (c) as dictated by the EOC/Fire Coordinator.

9. Fire units will respond on their assigned operations channel and will communicate directly with the RDP dispatcher ("Central, North, South, East, or West Dispatch"), not with ECC.
10. EMS units will not be assigned to a regional tactical group with fire units for calls.
11. RDP dispatchers are to remain assigned to the RDP and may not be deployed into the field.
12. If technical problems (loss of power, radios, etc.) are experienced at a RDP, ECC may take temporarily take over dispatch responsibility for that region until the situation is resolved.

TIER 4 OPERATIONS – EMS:

1. All EMS units are to monitor the EMS Admin group for calls and remain on that group for response. A regional tactical group will only be utilized for overflow and mass-casualty incidents.
2. All EMS units will continue to be dispatched directly by ECC.
3. Assuming CAD is still operational, ECC will continue to dispatch all EMS units to CAD screens individually. I/Mobile, station printers & First-In Alerting will function as normal.

TIER 4 OPERATIONS – MISC:

1. For vehicle accidents with <u>unknown injuries</u>: If all recommendable units for one agency (fire or EMS) are depleted and response will exceed 15 minutes, the other agency may response alone and advise on the need for additional units.
2. Major events (structure fires, etc.) will still continue to be assigned to a separate tactical group. If ECC staffing does not allow for a tactical dispatcher, the RDP dispatcher may be asked to assign a co-dispatcher to monitor and work the tactical group.
3. <u>During periods when fire units are not able to respond due to Tropical Storm/Hurricane wind conditions, ECC will continue to send calls to the RDP. The RDP will be responsible to queue (stack) and prioritize the calls and dispatch them when conditions allow for a return to response.</u>

# CIVIL DISTURBANCE INCIDENTS

**Scope**: Upon initiation of any moderate to large-scale civil disturbance, the following guidelines are to be considered in the decision-making process when responding to fire and rescue-related emergencies during such disturbances. These guidelines are divided into the following areas: Philosophy, Organization, Communications, Operations, and Recovery.

A. **Philosophy**

1. Fire and rescue department forces are not to be used for disturbance control or combative intervention against the perpetrators.

2. At all times, decisions are to be made in the interest of reasonable degrees of safety for responding personnel and equipment, balanced against the department's responsibility to the public for emergency fire and EMS response.

B. **Organization**

1. The management system used to mitigate the incidents will be in concert with Incident Management System Operating guidelines.

C. **Communications**

1. Consideration will be given to assigning at least one Fire Coordinator to the County Emergency Operations Center to assist in coordinating the departments resources dispatched from that Emergency Communications Center, including coordination of apparatus, mutual-aid support, move-ups and call duplication prioritization.

2. Communications are to be established via the command post with the law enforcement command system by the most practical means, such as radio, telephone, person to person, liaison, etc., to ensure efficient and safe operation.

3. Immediately upon recognition of a significant buildup of disturbance activity, the battalion chief of the impacted jurisdiction will notify their administrative staff via the communications center of the situation.

4. All chief officers will be notified of the activity and their potential involvement via pagers or other devices by the communications center.

5. Where practical, and when the perimeter of the impacted area is identified, the remaining response areas may be handled in a "business as usual" dispatch mode. Where possible, identify the impacted areas to assist the communications center with dispatching concerns and caution notes.

6. Ambulance units assigned to calls within the given higher risk area must report to staging and work through the unified command structure.

7. Ambulance units assigned to calls outside of the given higher risk area shall not knowingly travel through the higher risk area while enroute to the call or hospital.

D. **Operations**

1. Response/Staging

a. Warning lights, sirens, and horns are not to be used normally in responding within impacted area.

b. The staging of fire and rescue units is anticipated in order to provide fire command with an opportunity to evaluate the safety and security considerations for fire and EMS personnel.

c. All fire and rescue department mutual-aid units assigned to the incidents or in staging are to be fully informed of situations as they develop. The safety of mutual-aid units will receive the same priority as the jurisdiction's units.

d. Requests to use a fire station for a law enforcement staging and/or command post, or the use of fire department apparatus, must be approved by the impacted Fire Chief or his designee.

2. Tactical

a. Where appropriate, a heavy stream application followed by a rapid withdrawal may be used. This should be based on reasonable judgment and evaluation of the relative loss/risk factor which shall be used in determining if a fire should be fought or not.

b. As attaching supply lines to a hydrant impedes the immediate withdrawal of units the use of hydrants will be with the expressed permission of the Incident Commander or Task Force Leader.

c. In the event of the use of chemical agent for emergency crowd control, normally all fire and rescue personnel will have been withdrawn. In the event that they have not, and have been exposed to chemical agents, decontamination will be accomplished through coordination with the Hazardous Material Coordinator.

d. If Task Force concepts are used, a Task Force leader will be designated by command.

e. Where practical, at least one person, or preferably one unit from the jurisdiction involved will be a part of each task force to provide some local familiarity.

3. Equipment

   a. Where practical, backup equipment may be used to prevent damage to first-line fire apparatus. This decision must be based on judgment and the urgency of the situation.

   b. Exterior tools and devices that could be used as weapons against fire and rescue personnel shall be placed inside the vehicle compartments for safety.

   c. At all times, full protective equipment shall be worn. Company officers shall make the necessary safety decisions for members of their command.

4. EMS

   a. Emergency medical transportation is to be accomplished by "load and run" procedures in high-risk situations, later transferring the patient to EMS, if appropriate, outside of the high-risk area. Note: After removing the patient from high-risk exposure, all appropriate pre-hospital medical operating procedures are to be carried out as is normally done.

E. **Recovery**

Document all cases and information, in detail, for cost recovery and later investigation.

# RESPONSE TO INCIDENTS INVOLVING CRIME SCENES & VIOLENT ACTS

**SCOPE**: This ROG establishes guidelines for responding to incidents involving a crime or violence and provide for a safe working environment by limiting emergency response personnel exposure to those incidents with or without law enforcement assistance.

## A. Definition

Violent Incident Scene – any scene which warrants law enforcement involvement, and the incident caused an injury by the actions of another (e.g.: shootings, stabbings, and assaults).

## B. Objective

1. To position the department's apparatus in such a way so as not to excite residents, but to provide for rapid access to the area.

2. To minimize contamination of crime scenes.

3. To identify information that may be important/relevant to law enforcement; how and when to pass that information to the appropriate law enforcement official.

4. Have consistent procedures in dealing with obviously deceased persons.

5. Have consistent procedures in dealing with Child Death and Injury Scenes.

## C. Procedure

1. Crime Scene Issues

    a. Care should be taken not to move possible evidence at the scene of a crime.

    b. Note any altering of the scene (i.e. turning on lights, opening or closing windows, moving of furniture or objects).

    c. Limit the number of personnel into the crime scene area and document who they are, where they went and what they touched. Pass this information on to Law Enforcement/Detective as soon as possible.

2. Obviously Deceased Persons

    a. Obviously deceased persons (i.e. in a state of decomposition, rigor and lividity patterns present) may not require any action on your part.

    b. Make note of the conditions of the obviously deceased and that you took no resuscitative efforts and made no entry into the scene. Pass this information on to Law Enforcement/Detective as soon as possible.

3. Child Injury and Death Scenes

    a. Make note of all injuries and bring them to the attention of Law Enforcement as soon as possible.

    b. Non-intentional acts that result in injury or death may be the result of neglect (i.e. drowning, poisoning, bed sharing suffocation etc.).

    c. Make note of the condition, actions and statements of the caregiver. The care giver may be impaired from alcohol, illegal drugs, or prescription medication abuse that could have resulted in the injury or death to the child. Bring this information to the attention of Law Enforcement/Detective as soon as possible.

    d. If you observe evidence of alcohol or drugs (see drugs or drug paraphernalia in the area) bring this to the attention of Law Enforcement/Detective as soon as possible.

    e. Doll re-enactments are performed by Law Enforcement in conjunction with Crime Scene and the M.E. Investigator when infants die suddenly during sleep and with no signs of injury/abuse. They are performed at the scene and usually within two hours of discovering the infant deceased. This allows the caregiver to show the placed and found position of the infant in conjunction with the sleep surface and persons that might have been sharing the sleep surface with the infant. This may result in a determination of death to be from suffocation.

4. Day Care Child Death or Injury Scenes

    Require an immediate Law Enforcement investigation and may require the Communications Center to pass this on as soon as possible.

5. Violent Scenes

    a. Any unit dispatched to a violent incident scene that will arrive prior to law enforcement intervention, will establish a Level II staging area one or two blocks from the incident.

b. Line of sight from the incident to the staging area should be a major consideration. The responding unit should stage in a place out of sight from scene in order not to contribute to an escalation of violence by the unit's appearance in the area.

c. The responding unit should report arrival when unit is in the area, and the establishment of the staging area along with its location.

# ACTIVE SHOOTER INCIDENTS

## SCOPE

This ROG establishes recommended operating guidelines for safe fire department and EMS responses to active shooting incidents that will maximize the possibility for victim survival and to minimize the "arrival to patient contact time." In addition, this ROG establishes standardized procedures for implementing joint Fire/EMS/Law Enforcement patient Swift Assisted Victim Extraction (SAVE) teams for active shooter incidents while minimizing risk to personnel.

## DEFINITIONS

- Active Shooter Incident – any event or occurrence where one or more armed persons has used deadly physical force on other persons and continues to do so while having unrestricted access to additional victims.
- Active Shooter **–** an armed person who has used deadly physical force on other persons and continues to do so while having unrestricted access to additional victims and ammunition.
- Barricaded/Hostage incident – a static situation involving one or more armed suspects, (with or without hostages), who have demonstrated or voiced violence, and have fortified a position of advantage in a room or building. No indication of immediate harm to any hostages.
- Casualty Collection Point (CCP) – a specific, designated area located in the cold zone where extraction teams hand casualties over to treatment personnel.
- Commander – The individual in charge of all resources within a given discipline (e.g. Fire Commander, EMS Commander, and Law Enforcement Commander). Under Unified Command, the Fire, EMS, and Law Enforcement commanders represent their respective disciplines within unified command and have individual authority limited to decisions concerning the use, non-use, or limitations on use of resources within the discipline represented.
- Concealment – protects you from observation, not weapon fire.
- Cover – protects you from observation and weapon fire.
- Contact Team – a group of Law Enforcement Officers that have the intent to stop the suspect(s) deadly actions.
- Critical Tactical Benchmarks – specific items, information or tasks that have been identified for mitigating an active shooting incident.
- Dynamic Situation – an incident that is fluid, evolving and changing with constant movement, numerous casualties, discovery of IED's and other tactical challenges.
- Forward Collection Point (FCP) – A semi-protected area within the warm zone that is established if the SAVE team encounters a large number of casualties in a general location that supersedes the team's ability to treat and evacuate immediately.
- Killed, Captured, or Contained – the shooter is dead, in custody, fled the scene, reasonably contained or barricaded.

- Person with A Gun Incident – any event or occurrence where the reporting party states that a person does or did have a gun. This would include any handguns or long guns.
- Risk Management Profile – a preamble in which response personnel operate under that ensures the visibility, assessment and mitigation of risk and loss of life in an emergency situation.
    - We will assume a significant degree of manageable risk to protect savable lives
    - We will assume a minimal degree of manageable risk to save what is already lost
    - All of the above are under a structured plan
- SAVE Team – A trained task force including a law enforcement (security) element and an emergency medical service element assembled for the purpose of rapidly assessing, treating and extracting casualties at incidents involving an active shooter(s) at public assembly occupancies.
- Scene Safe to Enter – law enforcement has determined that there are no known threats in the immediate area or incident location and it safe to move about the perimeter.
- Warm Zone – a semi-secured area of an incident that law enforcement has been through with no additional indicators of threats in the area (sight, sound, dispatch, etc.) and communicated the location of all viable victims.
- Stage for Law Enforcement – units should stage far enough away as to not become part of the incident, out of line of sight, out of line of fire and behind cover and with two directions of egress without turning around. Companies should turn off warning lights and be aware of any crowds that may pose a hazard.
- Static Situation – the suspect(s) have stopped moving and appear to be contained. An uncontained static suspect(s) can become dynamic without notice.
- Transportation Group – coordinates ambulance/rescue usage with Treatment Group and also, notifies and coordinates the number of patients sent to hospitals.
- Treatment Group – set in the “Cold Zone” and allocates resources to treat casualties with an emphasis on rapid treatment and transportation.
- Triage Group – receives casualties from extraction team and performs triage
- Violent Incident – any event or occurrence in which personnel may be exposed to harm as a result of a violent or threatening act whether real or implied.

## POLICY

Under Unified Command, all involved FD/ EMS, and LE agencies shall work collaboratively to develop a plan to extract, treat, and transport viable casualties of these incidents in a timely manner utilizing the SAVE system.

SAVE teams will quickly move viable casualties from warm zones to cold zones of the incident. This expedites casualty relocation to a safer area where definitive EMS procedures can be performed at a significantly reduced risk. FD/EMS personnel will only enter warm zones when the defined tactical benchmarks (as listed in Critical Tactical Benchmarks) have been completed.

## PROCEDURES

The following considerations are provided to give responding personnel direction and benchmarks to assist Unified Command (UC) in making the decision whether or not viable casualties are in the warm zone and are in need of rescue. The initial FD Commander will gather information and, if appropriate, coordinate an extraction plan in conjunction with LE through direct communication, within the Risk Benefit Analysis. Save teams will make entry into warm zones to rescue and relocate viable casualties from the warm zone to a predetermined location in the cold zone for further treatment and transportation to medical facilities.

### Dispatch Considerations:

Dispatch should collect as much information as possible and rapidly communicate that information to responding units via radio and mobile dispatching terminals. Based upon the information provided by dispatch and the LE agency in charge of the incident, an initial decision must be made by the responding FD/EMS units to: 1) stage and continue to evaluate and size-up the situation, or 2) to proceed with caution, based on information gathered directly into a more forward position, allowing evaluation and emergency rescue within the risk-benefit profile while utilizing cover and concealment.

Dispatch and FD/EMS units will share updates during response which may include:

- Type of violence (stabbing, shooting-handgun, rifle, etc.)
- Status of weapons and suspects
- Number of known casualties
- Location of LE officers or command post
- Ideal direction of approach or best scene access
- What type of environment are you responding to? Residence, School, Public area, Commercial building, etc. If so, how large is the building or area?
- Crews should monitor their 800 MHz radio designated LE channels for additional information.

Responding units based upon their experience and dispatch information should:

- Make an initial decision based upon the information provided by dispatch to either:
  - Stage and continue to evaluate and size-up the situation
  - Proceed with caution, based on information gathered directly into a more forward position, allowing evaluation and emergency rescue within risk-benefit profile while utilizing cover and concealment.
- Call additional resources as needed (i.e. additional ambulances, command staff, etc.)
- Request the location of the command post, if established; otherwise the law enforcement personnel in charge of the incident.

**On-Scene:**

When units are directed to stage or make the decision to stage they shall:

- Stage out of sight of the incident and away from crowds if possible
- Establish Fire Command and actively work to set-up Unified Command
- Provide continuous scene size-up for dangerous activity or opportunities to move forward based on new information
- Utilize 800 MHz radio to communicate on designated LE channels for additional information
- Stage out of any line of fire and behind cover
- Have a minimum of two directions of egress without backing up
- Turn off warning lights while staged
- Contact dispatch for additional information, if applicable

Units called into a secured scene or moving forward from staging into a secured scene shall:

- Contact LE by radio for additional information, if applicable
- Proceed with caution while conducting a windshield survey
- Utilize 800 MHz radio to monitor designated LE channels for additional information
- Turn off warning lights when approaching the scene, if practical
- Don additional PPE equipment, if available
- Be aware that bystanders and/or crowd may be a hazard
- Designate at least one person as a lookout. All personnel must have and maintain a heightened sense of awareness of their surroundings
- If treating casualties in cold zone, ensure that casualties have been searched prior to patient care and/or transport. This shall also include unconscious patients

If units find themselves in a potentially violent situation they should immediately retreat to a safe location. Emergency traffic and/or EMER buttons should be used if necessary.

**SAVE Team Critical Tactical Benchmarks**

Items listed below are considered critical benchmarks and shall be completed once the decision has been made to deploy SAVE teams and prior to entry into the warm zone. These Critical Tactical Benchmarks are:

***Command and Control***

- Unified Command shall be in place with good communications and jointly located
- Unified Command must agree that there are viable casualties
- The immediate threat must be killed, captured, or contained under these, or similar, situations: suspect(s) are dead, in custody, fled the scene, or reasonably contained or barricaded
- Unified Command **shall designate and agree** to a specific ingress and egress path for SAVE teams
- If a SAVE team is assembled, either the Fire or EMS Commander will be designated to direct and coordinate the joint extraction team operations
- Unified Command will designate a location for the Casualty Collection Point (CCP)
- The boundaries of the specific warm zone area for entry shall be defined and communicated to the SAVE team to ensure this area is a "warm zone" and appropriate for SAVE team deployment and ensure personnel do not enter hot zones
- Unified Command must jointly develop or, at a minimum, jointly approve an extraction plan based on available information and considering the Risk Management Plan
- The Fire Commander will consider the Risk Management Profile and all information available and has the final say as to deployment of fire resources into the warm zone
- The EMS Commander will consider the Risk Management Profile and all information available and has the final say as to deployment of EMS resources into the warm zone.
- Accountability shall be in place and tracked throughout incident

***Communication***

- SAVE team members shall be in constant communication with the designated Fire or EMS Commander, or their designee
- Members of SAVE teams shall do a face to face briefing with the SAVE Team Leader (STL) to ensure all members are familiar with their assignment

***SAVE Team Operations***

- SAVE team briefings shall include brief face to face communication on the following:
  - Route into the designated area
  - Team formations
  - Identify STL and Medic Team Leader (MTL) roles
  - Communications/Signals
  - Cover/concealment
  - How to respond if a threat is located
  - Casualty care issues
  - Primary and secondary egress routes
- Occupants to be extracted must be cleared by LE prior to treatment and extraction
- Only immediate lifesaving EMS care should be delivered in the warm zone, except when a forward collection point is established and secured within the warm zone and treatment is being provided at that location
- Keep in mind it is important to minimize exposure time in the warm zone
- Casualty collection areas will be identified in the IAP for the extraction teams to handoff casualties once extractions are made
- SAVE teams should only take appropriate equipment into the warm zone and keep in mind mobility is paramount
- The SAVE team shall enter as a team, leave as a team, and shall not become separated
- If the SAVE team is threatened or comes under fire, follow the STL's direction

## ADDITIONAL SAFETY CONSIDERATIONS

### DO'S

1. Be aware of your surroundings and impending danger. Circumstances can change quickly and devices intending to harm or impede responders may be present
2. When approaching the scene and while on scene display a confident in control attitude (Command Presence)
3. Clear the scene of potentially violent materials
4. Set up fire tape to help secure perimeter
5. Keep crew in sight at all times; never leave crew member alone
6. Use physical barriers between yourself and potentially violent person
7. Be subtle and non-aggressive in positioning yourself. Greet homeowner or casualties with a friendly demeanor
8. Separate disputants by taking them to an area where they can't see or hear one another (at least two crew members together) separating them will help calm the situation
9. Use calm quiet voice to de-escalate the situation
10. Keep a visual on people's hands
11. Keep a visual on those involved with incident (don't let them go to another room without escort, etc.)

### DON'TS

1. Don't get lulled into a false sense of complacency
2. Don't ignore the potential for violence on any incident. This includes traveling to and from the incident location
3. Don't ignore your gut feelings; when it doesn't feel right, it probably isn't
4. Don't be confrontational; be confident, but not abusive to anyone or any group
5. Don't be an easy target; be prepared to bail out when the need arises
6. Don't stand between disputants
7. Interview stance:
    - If you suspect violence, stand at a partial right angle out of arms reach
    - Don't stand against a wall
    - Don't fold your arms (judgmental)
    - Don't put your hands in your pockets (appears unconcerned)

**When in doubt, be safe not sorry!**

## Appendix A – SAVE Team Commands

- **FORM UP**: The SAVE Team Leader (STL) will direct the "ENTIRE" team to "form up". This command will direct "ALL" team members to immediately get into their assigned positions.
- **LOCK-ON**: The STL will direct the Medics to "lock-on". Each Medic will immediately place one hand onto the belt of the LEO directly in front of him/her. Each Security Wing will advise the STL that he/she has "lock-on".
- **LOCK-ON ME**: The STL will call this out to the entire Medic team. Immediately both wing Medics will release from the LEO in front of them and "lock-on" to the STL. The STL will have "ALL" of the Medics locked on to him/her.
- **MOVE**: Only the STL calls out for the entire team to move.
- **RELEASE-GO TO WORK**: Only the STL can call out this command. This command will be given only after the STL is confident that the security of the team is in place for the Medics to begin rendering aid to the victim(s).
- **RELEASE-GO STATIC**: Only the STL can call out this command. This command will be given only after the STL is confident that the security of the team is in place for the Medics and that the Medics can remain "SAFELY" in their current location.
- **INTERSECTION**: The STL will call this out upon approaching a hallway intersection. This will prepare the team to begin slowing down to a complete stop.
- **REVERSE**: The STL will call out this command if he wants the team to change direction to the rear. Rear Security can call this command only after he has called out "THREAT".
- **THREAT**: Any member of the team may call out "threat" if he or she observes, or even suspects that a subject(s) may cause harm to the team. If a Medic(s) calls out "THREAT" then he/she must point at the subject and continue SHOUTING and POINTING until a LEO takes control of the subject.
- **GUN/KNIFE**: Anyone on the team may SHOUT out "gun or knife" if they see or locate either weapon on anyone. The team member SHOUTING this "MUST" point at the subject at the same time. The team member "MUST" continue SHOUTING and POINTING until they receive assistance from another LEO(s).

# RESPONSE TO TERRORISM INCIDENTS

This ROG is divided into four separate categories of terrorism acts.

| | EVENT | LEAD AGENCY |
|---|---|---|
| A | Bomb Threat | Law Enforcement |
| B | Discovered Devices | Law Enforcement |
| C | Detonated Devices | Law Enforcement |
| D | NBC Devices (Nuclear, Biological, Chemical) | Law Enforcement |

## A. General

This ROG was developed to safely mitigate hazards caused by explosions of diabolic intent, and other acts of terrorism.

This ROG will adapt to a wide variety of terrorist incidents such as:

- Car bombing
- Detonations inside a structure
- All detonations occurring after a threat is made
- Pipe bomb in a crowd
- Any sudden partial or complete demolition of a structure with unknown cause
- Chemical/gas release inside a structure

It is important to note, that explosions from acts of terrorism often involve the use of a secondary device designed to target rescuers. For the safety of personnel, it will be anticipated that a secondary device exists.

## B. Scope

Terrorist incidents are divided into five basic categories. Using the acronym B-NICE, they are: Biological, Nuclear, Incendiary, Chemical, and Explosive. An explosion may include any of these elements. Explosions, with or without subsequent building collapse, will be considered intentionally caused unless verified to be otherwise.

## C. Management

Unified Command shall be utilized.

a. Establishing one field command post
b. Ensuring events are handled systematically and by priority
c. Organizing deployment of resources
d. Providing for multi-agency response
e. Centralizing focus on safety

In the event of a bomb threat or discovered device, the lead agency will be law enforcement. With the complication of an NBC release, detonation, multiple casualty, etc., the primary concerns become life safety, entrapment, hazard mitigation, search and rescue, fire suppression, decontamination, and advanced life support, all lying under the scope of responsibilities of the authority having jurisdiction.

With the establishment of a Unified Command, as opposed to multiple command posts for each agency, non-fire/rescue agencies responding will send a ranking officer to the Unified Command Post for direction.

D. **Safety**

Emergency operations must be organized to be successful. Actions of the first responders and early implementation of the IMS is vital to the overall outcome of the incident. Safety cannot be over emphasized. Incidents involving acts of terrorism are inherently dangerous and the risk to rescuers is great. Biological contamination, toxic atmosphere, structural collapse and the presence of a secondary device can cause severe injury or death to emergency responders.

Note: A situation may become too dangerous or impossible to attempt mitigation. The confirmation of nuclear, biological, or chemical presence may dictate needs far beyond the capability of local responders, thus requiring federal assistance, i.e., US Army. The only viable option may be to withdraw from the scene, deny entry and allow the incident to run its course.

E. **Support Agencies**

In the event of an incident of large magnitude, state and federal assistance will usually not arrive until 24 to 72 hours after the event and therefore cannot be relied on initially. Not all representative agencies are expected to arrive at the command post, but may be more appropriately utilized in the local or county emergency operations center. The scope of involvement will determine the agencies responding:

- Southern Manatee Fire Rescue District HazMat Team
- Manatee County Sheriff's Office Bomb Squad
- County Emergency Management
- Critical Incident Stress Management Team
- Medical Examiner
- Florida Department of Law Enforcement

- US Army
- Federal Bureau of Investigation (lead federal agency for terrorism response)
- Domestic Emergency Support Team (DEST)
  (involves) Department of Defense (DOD)
  Federal Emergency Management Agency (FEMA)
  Environmental Protection Agency (EPA)
  Public Health Services (PITS)
- Bureau of Alcohol, Tobacco and Firearms
- State Fire Marshal
- Urban Search and Rescue
- DMORT Team (disaster mortuary)

**SUBJECT: TERRORISM -DISCOVERED DEVICES**

The lead agency will be Law Enforcement. Fire/Rescue may be called upon to assist in isolating the incident.

The communication center will notify, by phone, all devices discovered. Depending on the threat potential, and the extent of the need for evacuation, the Authorized Agency Representative may upgrade response level. All response shall be non-emergency, unless indicated by the Authorized Agency Representative.

- Full bunker gear with SCBA
- The Authorized Agency Representative should obtain the location of the command post.
- All units to level II staging, uphill upwind, 3,000 to 5,000 feet from the scene. (In more congested areas this distance may not be practical.)
- Authorized Agency Representative should obtain specifics on type of device and potential for damage, and develop a contingency plan.

CONSIDERATIONS

- Consider if location has been the address of one or more false alarms in the recent past (staging location may need to be altered).
- If you can see the bomb technicians working - you are too close.
- Where there is one device, there likely will be a second nearby.
- Ideal staging distances may not be practical in more congested area.

Device Found on other types of scenes

- Immediately retreat to safe distances as needed
- Be aware that some devices may detonate when radios are transmitted
- Evacuate area/hot zone to an appropriate safe area, as determined and deny further entry
- Secure scene until law enforcement arrives

## SUBJECT: TERRORISM - DETONATED DEVICES

The lead agency will be the Law enforcement. All other agencies shall send a ranking officer to the Incident Command post for coordination. This policy is to assist in the coordination of the scene for fire rescue services.

Notifications that must be made:

- Local law enforcement
- County Emergency Management
- Bomb Squad
- Authorized Agency Representative

FIRST ENGINE

**Beware of Secondary Devices**

- Determine if scene is safe to enter (initial observations may indicate the need for immediate withdrawal, i.e., numerous deceased on ground, obvious blistering on victims, strong acrid odors, victims in seizure activity, etc.)
- Stage vehicle close enough to deploy an attack line if necessary to affect a rescue or mitigate immediate hazards to life.
- Size-up shall include approximate number of survivors, magnitude of damage, etc.
- Begin rapid evacuation from hot zone beginning at outer perimeter and working inward. Evacuate to a triage site in the safe zone (1,000 feet away, uphill/upwind).
- All surviving victims, walking-wounded, and all uninjured must be directed to the triage site for evaluation.

AUTHORIZED AGENCY REPRESENTATIVE (e.g. Battalion Chief/Shift Commander)

- Establish unified command post (1,000 feet from blast site uphill/upwind).
- Explosion of unknown cause or suspected to be of a terrorist nature requires a Haz-Mat upgrade, and appropriate bomb squad response.
- Consider need for additional resources:

  Technical Rescue
  USAR Team
  CISM
  Medical Director
- Consider allowing product to burn until identification can be made.
- Ensure control of media and establish one P.I.O. for all media contact.
- Implement the MARC accountability system.
- Establish medical sector to coordinate all treatment/transports through medical control.

The incident commander will want to ensure the following are accomplished by non-fire agencies:

- Bomb squad response for detection of complete/incomplete detonation
- Crime scene is secure
- Search for secondary device begun
- Ingress/egress is being maintained
- Structural engineers to establish soundness of remaining structure(s)
- Procure heavy equipment to support search and rescue.

ALL ADDITIONAL UNITS:

- Stage in a safe zone (1,000 to 3,000 feet away or as needed) until assignments are made.
- Establish a staging officer.

  ** No treatment of any casualty will be performed in the hot zone (blast site) of any act of diabolic intent. All c-spine control, bandaging, etc., will be accomplished at a safe zone (1,000 to 3,000 feet from blast site).
- Rapid evacuation of all survivors from the hot zone will be the primary objective.

CONSIDERATIONS:

- Existing hazards such as active fire, flammable gas leak, etc., not of an immediate threat to life, will be handled at the discretion of the Incident Commander or after determination has been made that a secondary device does not exist.
- No entry will be made into the hot zone (blast site) where it has been determined that there are no surviving casualties.
- It is expected with a terrorist attack, that people will die and that there may be nothing that can be done about it.
- It will be assumed that all intentional explosions involve a secondary device in the vicinity.
- Secondary devices are most always more powerful than the primary device.
- The primary explosive may not have detonated entirely and further disturbance could initiate a second explosion.
- The presence of unusual colored vapor clouds, strong acrid odors, victims in seizure activity, etc., could indicate the presence of a chemical/biological weapon.
- Every person involved at the blast site, including victims, are automatically considered a suspect.
- Explosions are considered a crime scene unless known to be otherwise.
- Any removal of clothing from victims requires containment as evidence (bagged) and marked with victims ID.
- Complete tracking of all patients. (i.e., to what hospital, mode of transport, etc.)
- Detonations may include a biological/chemical agent. Suspect packages that explode causing little or no damage.

**SUBJECT: TERRORISM – CBRNE DEVICES**
**(Chemical/Biological/Radiological/Nuclear/Explosive)**

The lead agency will be the Law Enforcement. All other responding agencies shall send a ranking officer to the Incident Command post for coordination.

Dispatch will initiate a full structure response for NBC incidents. The responding battalion chief will upgrade the call to include a Haz-Mat response, if warranted, and many elect to do so upon receiving additional information. As the incident may involve unknowns, the battalion chief should contact a Haz-Mat staff officer for recommendations.

DECONTAMINATION

Fire Rescue departments will assist the Manatee County Haz-Mat with de-con procedures.

INDICATION FOR IMMEDIATE RETREAT

The following observations may indicate the scene is too risky to enter:

- Unusual numbers of dying people or animals
- Mass casualties without signs of trauma
- Multiple victims in seizure activity

1. NUCLEAR

The possibility of a terrorist faction producing a nuclear bomb is very remote due to lack of technological capability. An act of terrorism involving a nuclear device would most likely involve procurement of radioactive devices and/or equipment to cause the release of radioactivity.

- isolate the area until support agencies arrive
- Notify the state warning point to activate response by the State Division of Radiation Control (from Orlando)

CONSIDERATIONS

- Most radioactive devices readily available emit a very. low level of radiation.
- The Southern Manatee Fire Rescue District Haz-Mat team is equipped with Geiger counters and dosimeters for radiation detection.

2. BIOLOGICAL

Acts of biological contamination are not likely to be immediately detectable, and may not be evident until 72 hours post exposure- Research is still developing detection devices in this area. These a$_{9}$ents contaminate by aerosol, orally, by skin contact and injection. Biological bacteria, viruses and toxins exist as liquid, crystalline or powder. Inhalation and ingestion are the primary

routes of exposure, but agents nay be contracted through the skin.

Common signs and symptoms that may occur from three hours to six days after exposure are mostly flu—like: fever, weakness, headache, nausea, vomiting, cough, diarrhea, and chills, other symptoms include: shock, chest pain, double vision, shortness of breath, and skin lesions.

Biological contamination may be suspected when multiple victims exhibit like symptoms. Biological agents for terrorism use include: staphylococcal enterotoxin B (SEB), botulism, cholera, encephalitis, anthrax, plague, ricin, smallpox, ebola, and mycotoxitis.

- Full bunker gear with SCBA
- Stage in a safe zone (1,000 to 3,000 feet away uphill/upwind) until determination is made for entry.
- Call for an upgrade to a Haz-Mat response
- Incident Command post in the safe zone (1,000 to 3,000 feet away, uphill/upwind)
- Evacuation and isolation of the incident.
- Emergency rescues at the discretion of the incident Commander
- Isolate victims and assess their need for decon
- All contaminated victims to a decon site
- Appropriate decon is a soap and water solution, followed by a 10 percent bleach solution.

3. CHEMICAL

The use of chemical weapons, unlike biological agents. will have immediate effects ranging from seconds after exposure until the first few hours. Chemical agents may be in the form of a solid, liquid or gas. Some common agents used are: phosgene, VX, cyanide, sarin, lewisite and mustard gas. All of which are lethal.

There are five categories of chemical weapons:

1. Nerve agents (similar to organophosphate) i.e., Sarin, VX
2. Blister agents (vesicants) i.e., mustard gas
3. Blood agents (asphyxiants) i.e., hydrogen cyanide
4. Choking agents, i.e., phosgene
S. Irritating agents. i.e., pepper spray, tear gas

Common signs and symptoms include: pinpoint pupils, difficulty breathing, redness and burning skin, blistering, cough, convulsions, vomiting, pain, muscle twitch, and excessive sweating.

- Full bunker gear with SCBA
- Stage in a safe zone (1,000 to 3,000 feet away uphill/upwind) until determination is made for entry.
- Call for an upgrade to a Haz-Mat response.
- Incident command post in the safe zone (1,000 to 3,000 feet away, uphill/upwind)
- Evacuation and isolation of the incident
- Emergency rescues at the discretion of the incident commander
- Isolate victims and assess their need for decon
- All contaminated victims to the decon site

- Appropriate decon is a soap and water solution, followed by a 10 percent bleach solution.

CONSIDERATIONS:

- The presence of unusually colored vapor clouds, strong acrid odors, victims in seizure activity, etc., could indicate a chemical/biological weapon has detonated.
- Scene evidence may indicate the need for massive decontaminations of victims.
- Chemical/biological presence may not be immediately detectable.

# ELECTRICAL EMERGENCY INCIDENTS

**Scope:** This ROG provides guidance for the handling of electrical emergency operations when it has been determined that an electrical emergency exists.

A. **Procedure:**

1. Determine the type of electrical problem and request the appropriate power company to respond, if needed.
2. Give the Communication Center proper location of incident (street address, phone number, etc.).
3. Set up operational perimeter. Request Law enforcement assistance when necessary. (The safe practice for establishing electrical incident operational perimeter is to maintain a minimum distance of one complete span of wires in all directions).
4. Park apparatus outside of operational perimeter.
5. If manpower is not available to standby, advise the Communication Center a company representative is needed on scene.

B. **Safety:**

1. Do not fight electrical fires unless de-energized. Protect exposures.
2. Be careful when spotting equipment and hose lines. Electrical lines may fall on apparatus, personnel, or hose lines.
3. Do not walk under transformers as they may contain burning oil. (Remember transformers can and do explode. The transformer may fall from the pole as well.)
4. Wear protective clothing. Full P.P.E. Command may omit SCBA during exterior operations.
5. Do not open shutters or hatches on vaults. This may cause an explosion due to the accumulation of flammable gases.
6. Keep bystanders clear of hazardous area.
7. Stay clear of manhole covers over electrical vaults - they have been known to blow off and fly as far as one hundred fifty feet.
8. No personnel shall enter electrical vaults; these are confined spaces and contain energized equipment. Fire Department Personnel will stand by to assist Power Company and Designated Confined Space Teams.
9. Toxic gas may be formed from electrical fires in vaults take necessary precautions.
10. Do not open pole mounted switches - they are for power company personnel only.

11. Do not assume that telephone wires are not energized - they may be in contact with high voltage wires.

12. Do not use water to control pole top fires unless de-energized by the power company. Protect exposures.

13. Avoid standing in puddles of run-off water during fire fighting operations when energized electrical equipment may be involved or nearby.

14. Assume that all wires down are **ENERGIZED** and act accordingly.

15. Do not use non-electrically rated equipment such as a pike pole to handle downed wires.

16. Remember that energized electrical wires are not just "on top" of poles, but many times run down the outside of a pole (inside a protective shroud) to supply underground electrical wires.

C. **Wires Down:**

1. Members are not to move wires to rescue victims. Power company representatives will inform command of safety conditions. Advise the Communications Center of life hazard conditions.

2. Be careful when spotting hose lines and apparatus additional lines may fall.

3. Establish a secure area (operational perimeter); include fences, vehicles, guardrails, railroad tracks, and puddles of water that may be electrically energized.

4. Standby and keep the public away from the scene until wires are de-energized by power company personnel.

D. **Cutting Wires:**

Cutting of wires is prohibited by this R.O.G. It is not possible to insure your safety during this type of operation. Power company personnel will handle removal of all wires.

E. **Electrical Fire Control:**

1. Power pole fire - do not extinguish with water. If life is threatened or a major structural component of the power pole is at risk follow directions of the power company personnel.

2. Electrical fires are best handled by shutting the down power source.

3. CO2 or dry chemical are the best extinguishing agents for electrical fires.

4. If a structure fire involves electrical service or wiring, the power to the building should be shut off.

5. Electrical vault fires should be extinguished only after they have been de-energized.

F**. <u>Vehicle Rescue</u>:**

1. Uninjured and injured victims should stay in vehicle until power company personnel can secure power to downed lines.

2. Remember that energized electrical wires are not just "on top" of poles, but many times run down the outside of a pole (inside a protective shroud) to supply underground electrical wires. Vehicles that have collided with such equipment and are still in contact with the shroud may be energized.

3. A vehicles tires may begin to burn if a vehicle is energized.

# ANIMAL AND INSECT RESPONSE

## SCOPE:

This ROG is intended to provide a guide for dealing with the complexities that animals and reptiles may bring to an incident. A common sense approach and a collaborated effort among agencies are needed to provide safety to crew members and the public.

A. **Aggressive Animals:**

Animal services stand-by officer shall be contacted to respond on all calls in regards to any aggressive or dangerous animal(s). Wildlife that is in its own habitat shall be excluded. Any domestic animal that is posing a threat to the safety of the public or emergency responders shall warrant a response by the Animal Services Officer and the appropriate law enforcement agency.

B. **Snakes / Reptiles Response:**

1. Law enforcement shall be contacted if life hazards exist. (Example: Vehicle in the water known to have alligators)

2. Crews should take the approach as if dealing with electrical hazards.

    a. Maintain a safe distance.
    b. Crews should not attempt to capture or kill specimen.
    c. Deny entry or proximity of all personnel who are not specifically trained to deal with the situation.
    d. A specialist may need to be contacted.
    e. During an immediate life safety situation, dispatch may be directed to contact a professional. However, the cost of such response may fall upon the requesting AHJ.
    f. If conducting a rescue, a safety spotter shall stand guard and maintain communications with the crew. The spotter shall evacuate crews if a hazardous condition arises (i.e. Animal gets too close to crew members).
    g. A vendor list for snake or reptile removal can be found on www.myfwc.com.
    h. To report nuisance alligator, call 866-FWC-GATOR (866-392-4286)

C. **Bovine / equine response**:

1. The handling of situations where animals (large) are causing hazards to traffic and or humans.

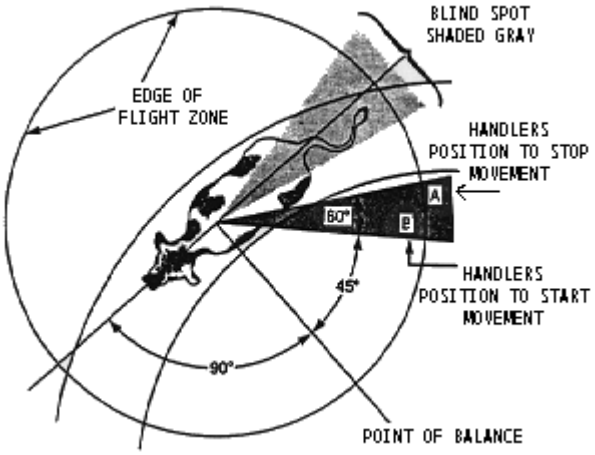
    a. Law enforcement shall be contacted for assistance for safety of personnel and for requesting additional specialty resources (i.e. barricades, cages, etc.).

b. Crew may need to use apparatus's as safe means of containing animal (blocking pathways) and as a means of providing safety for the crew members and/or the public.

c. A Veterinarian may be needed to control animal (dispatch should maintain a Veterinarians contact information for such events).

D. **Herding Large Animals**:

1. The first principle is that herd animals such as cattle and horses often become agitated and fearful when a lone animal is separated from the herd.
2. A single animal that is frantically attempting to rejoin its herd mates can be very dangerous.
3. Handling is safer when animals are moved quietly.
4. Handlers should not yell or flap their arms, because this may agitate the animals.
5. Excessive use of electric prods increases animal agitation, as well as hazards to handlers.
6. When cattle become agitated and fearful, up to 20 minutes is required for their heart rate to return to normal.
7. Agitated large animals are easier and safer to move if they are given an opportunity to calm down.




E. **Africanized Honey Bees (AHB)**

Africanized Honey Bees (Killer Bees) ARE currently in Manatee County. The following establishes guidelines for operations at the scene of all bee incidents, as AHB's cannot be identified in the field. Emphasis is placed on rescuer safety, patient rescue, and scene isolation.

1. Size-Up

Start size-up during initial dispatch. Gather as much information as possible. Below are some important considerations:

- Someone or something getting stung?
- More than one patient?
- Location of the patient and colony?
- Are there schools, parks, nursing homes within 300 yards?

2. Response

   a. During response no emergency lights or sirens should be used within 500 yards of the incident.
   b. Staging should take place a minimum of 300 yards away.
   c. Radio volumes and other noise producing devices will be turned down.
   d. Noise and vibration should be kept to a minimum.
   e. When possible an evaluation of the scene will be done prior to any rescue or attack.
   f. It should be determined, to the extent possible, if the bees are attacking, if persons or livestock are in danger, and if there is comb present.
   g. Remember, if the bees are stinging, this is a true emergency and the bees MUST be killed!
   h. As soon as possible, notify the Battalion Chief or Supervisor of the situation found, and a second engine should be called once determined that this is a emergency.

3. Defensive Operations

   a. Swarm call (Not an emergency)
      - Little or no sign of honey comb, and no stinging, advise the owner to stay away, keep kids and pets away.
      - Consider access control with fire line tape.
      - The bees should move on within 24 hours.
      - If the bees are still there 24-36 hours later, then an AHB contractor should be called by the owner at his/her own expense.

   b. Colony call (Not an emergency)
      - Honey comb present, but no stinging or immediate threat to resident, nearby schools, nursing homes, etc.
      - Consider access control with fire line tape.
      - Advise the owner to stay away, keep children and pets away, and an AHB contractor should be called by the owner at his/her own expense.
      - Remember, if the bees are stinging, this is a true emergency and the bees MUST be killed!
      - If you tell people to shelter in place, tell them when they can come out. Don't forget about them.

4. Offensive Operations

   Offensive operations should be prepared before leaving staging. Foam, hose, inductors and equipment should be removed from the dunnage or cabinet and prepared as much as possible while in staging. Preset 1-3/4" attack line using 3-6% foam, Class A foam is the most effective.

# RESPONSE TO AIRCRAFT INCIDENTS

**SCOPE:** The following ROG establishes guidelines for operations at the scene of an aircraft fire, crash, or emergency landing. Emphasis is placed on the rescue of aircraft occupants and exposures.

A. **Procedure**

1. Size-Up Considerations

   a. Size-up should begin at notification of the incident.

   b. Occupant survival is generally limited to accidents where the fuselage is mostly intact and a fire has not yet developed.

   c. Environmental and geographical factors have a major impact on response capability.

   d. Time of day.

   e. The magnitude and nature of the aircraft accident should be considered.

      Example 1: An aircraft accident in an open field can set off a major grass or brush fire, but an accident in a populated area can be more complex. If structures are involved, then their occupancy, construction type, and stability need to be evaluated.

      Example 2: If a crop-dusting aircraft accident occurs, steps need to be taken to protect emergency personnel and limit the spread of pesticide contamination. In addition, an assessment of damage to public utilities and their possible effect on operations should be made.

   f. Aircraft accidents that occur after takeoff usually involve large amounts of fuel. In addition to the potential fire problem, steps need to be taken to prevent a fire, or fuel or fuel vapors from entering waterways, streets, and underground facilities. Use a gas detection device, when applicable, to detect and monitor the site for hazardous gases.

2. Operational Considerations

   a. An aggressive attack using hose lines with fog nozzles, employing preplanned operating techniques should be used.

b. The volume of smoke, fire, and intense heat accompanying an aircraft fire can appear to be an overwhelming situation to firefighters. Experience from past incidents have proven that rescues can be accomplished even where large quantities of spilled aircraft fuel are burning.

c. Always assume that there are survivors of an aircraft accident until it is confirmed otherwise. In some instances, however, rescue of occupants can not be accomplished because of the remoteness of the accident or the severity of the impact forces. In such instances, firefighters should make a thorough search for survivors, protect any exposures, attack and extinguish the fire, and preserve the scene until the proper authorities arrive to assume responsibility.

d. Firefighters should be aware that aircraft structures differ from most other structures in ways that make fires more dangerous for the occupants and for themselves. Aircraft occupants are enclosed in a thin aluminum shell and are surrounded by large amounts of fuel with tremendous heat potential.

e. The aircraft electrical system should be treated with the same safety precautions as those used for a typical residence.

f. Most aircraft contain hydraulic fluid reservoirs and liquid or gaseous oxygen lines constructed mostly of aluminum. Those, as well as brake lines, will fail quickly under fire conditions. Fuel tanks are interconnected, and fire can propagate through ventilation ducts or manifolds. Fire impingement on empty or near empty fuel spaces can result in a violent rupture of tanks and wings.

g. Aircraft also differ from other structures in the critical aspect of stability. Most structures are cubical in shape and will collapse in place. Aircraft are cylindrical, conical, and usually on wheels. Therefore, movement, such as tilting and rotation effects, should be considered. Guy lines, chocks, air bags, and cribbing should be required when working around damaged aircraft. Current modern aircraft can weigh 800,000 pounds or more and have a height greater than a five-story building.

3. Incidents Not Involving Fire

a. When an aircraft accident occurs without fire, the following fire prevention procedures should be initiated.

- Hose lines should always be laid out and charged.
- Any spilled fuel should be covered with foam.

- ♦ Ignition sources such as hot aircraft components or energized electrical circuits should be eliminated.

- ♦ When moving wreckage, care should be taken to avoid causing sparks.

b. When foam is not available, water spray can be used to cool hot aircraft components and to move fuel away from the fuselage. However, washing fuel away with water required special attention to exposures, low areas, and drains where fuel and vapors can flow. The fuel should be directed to an area of containment free from ignition sources where it can be safely removed later.

4. Incidents Involving Fire

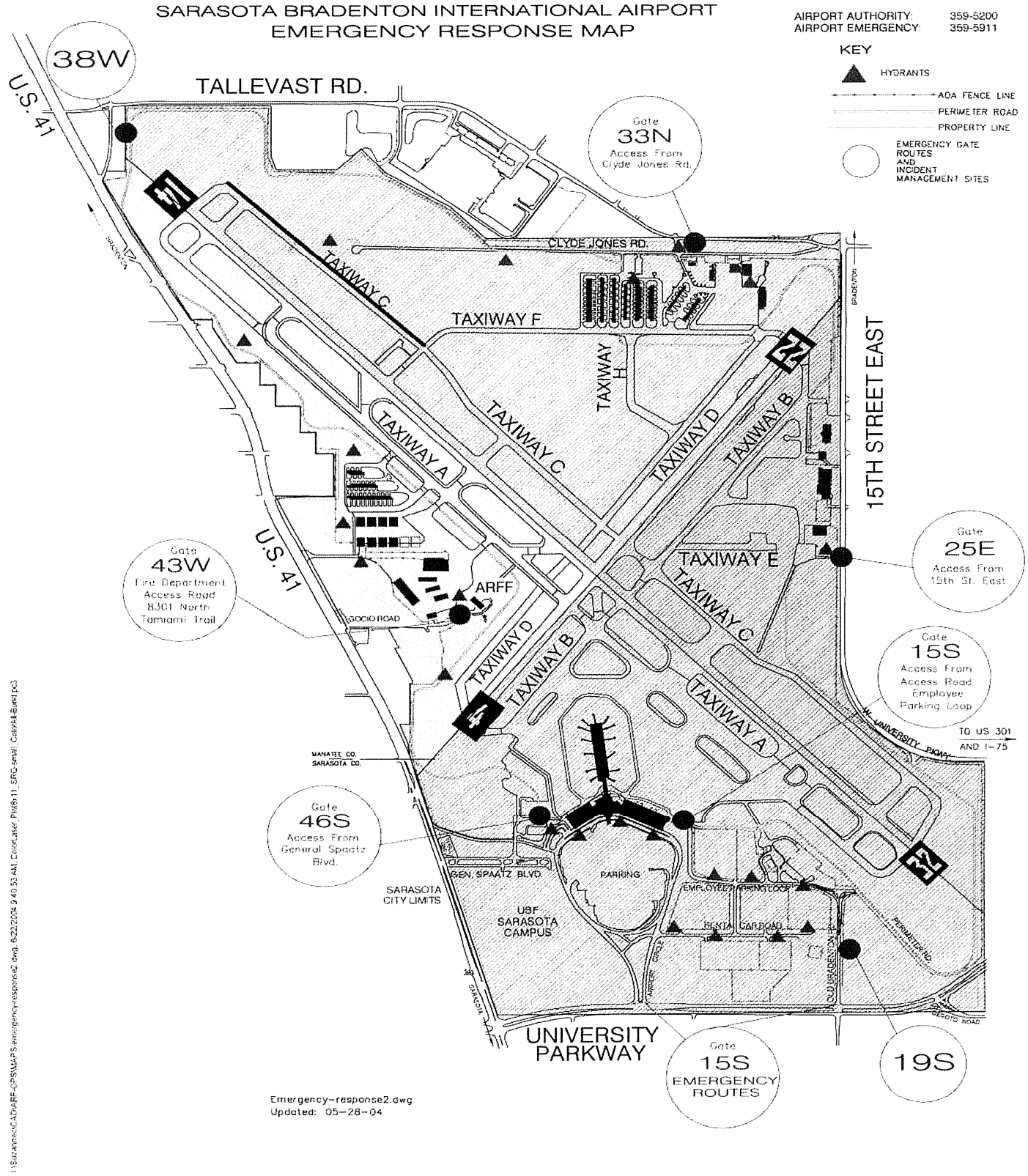
a. The location of survivors and the sources of heat or flame impingement against the aircraft will determine where hose streams should be applied first. Firefighters should keep in mind that the heat input into the occupied portion will be reduced if the surfaces of the fuselage exposed to flame or heat can be kept wet. If the fire has penetrated the fuselage, a direct internal attack should be initiated. Care should be taken to see that water runoff does not cause the fire to spread.

b. Normally, hose streams should be directed along the fuselage and efforts concentrated on driving the flames outward, allowing occupants to escape and permitting entry by firefighters for rescue operations. The fuselage and fuel tanks should be kept cool. It might be necessary to create an escape path from an exit point by "sweeping" fire out of the area with spray streams. Once an escape plan has been established, it should be maintained for evacuating occupants and firefighters performing rescue.

c. All available hose lines should attack the fire from the same general direction. If crews are operating on opposite sides of the fuselage, they should be cautious not to push the fire toward each other. Because prompt action is necessary to effect rescue, the first hose line in operation should be advanced immediately to keep the fuselage cool.

d. For aircraft rescue and firefighting, there are too many variables to establish hard and fast rules regarding use of equipment. Spray streams are normally more effective than straight streams in applying water or foam and afford much more personal protection.

e. The number of hose lines and quantity of water will be determined by the availability of the water, equipment, and per MUTUAL AID RESPONSE


SARASOTA BRADENTON INTERNATIONAL AIRPORT
EMERGENCY RESPONSE MAP
AIRPORT AUTHORITY: 359-5200
AIRPORT EMERGENCY: 359-5911
KEY
HYDRANTS
AOA FENCE LINE
PERIMETER ROAD
PROPERTY LINE
EMERGENCY GATE ROUTES AND INCIDENT MANAGEMENT SITES
38W
TALLEVAST RD.
U.S. 41
Gate 33N Access From Clyde Jones Rd.
CLYDE JONES RD.
TAXIWAY C
TAXIWAY F
TAXIWAY H
TAXIWAY A
TAXIWAY C
TAXIWAY D
TAXIWAY B
15TH STREET EAST
Gate 43W Fire Department Access Road 8301 North Tamiami Trail
U.S. 41
ARFF
GOCIO ROAD
TAXIWAY E
TAXIWAY C
Gate 25E Access From 15th St. East
Gate 15S Access From Access Road Employee Parking Loop
TO US 301 AND I-75
TAXIWAY D
TAXIWAY B
TAXIWAY A
MANATEE CO.
SARASOTA CO.
Gate 46S Access From General Spaatz Blvd.
GEN. SPAATZ BLVD
PARKING
EMPLOYEE PARKING
SARASOTA CITY LIMITS
USF SARASOTA CAMPUS
RENTAL CAR ROAD
PERIMETER RD.
OLD BRADENTON RD.
DESOTO ROAD
UNIVERSITY PARKWAY
Gate 15S EMERGENCY ROUTES
19S
Emergency-response2.dwg
Updated: 05-28-04