



HR/HF

FFCC – Policy/SOG Program

Operations

Safety- Incident Scene Rehabilitation

Policy # 10-03

Life Safety Initiative: 2

Issued: 03/31/10

Subject: Incident Scene Rehabilitation

Purpose: This policy establishes the department procedures for rehabilitation at emergency incidents or training activities where strenuous physical or mental activity or exposure to extreme heat or cold exists. This policy is written to comply with the intent of NFPA 1584, 2008 edition.

Scope: This policy applies to all members of the Fire Department

Policy

The Incident Commander (IC) at an emergency incident or training activity shall be responsible to consider the circumstances of each event and make adequate and early provisions to provide for the rest and rehabilitation of personnel.

Division/Group Supervisors and Company Officers shall maintain an awareness of personnel operating within their span of control and ensure adequate steps are taken to provide for each person's health and safety. This includes ensuring that appropriate re-hydration and rest for their personnel is accomplished. Each individual is additionally responsible for his/her preparedness prior to an incident, including sufficient rest prior to reporting for duty, pre-hydration during warm weather, proper nutrition, proper dress and ensuring their PPE is in good working order. During any emergency incident or training activity, all personnel are to advise their supervisor when they believe their level of fatigue or exposure to heat/cold is approaching a level that could affect themselves, their company, or the operation they are involved in. Company officers shall assess their crew at least every 45 minutes. All individuals shall remain aware of the health and safety of others within their company.

Establishment of rehab

The IC shall establish rehab when conditions indicate that rest and rehabilitation is needed for personnel working at an incident or training activity. Climactic or environmental conditions that indicate the need to establish rehab are a heat stress index above 90 degrees Fahrenheit or wind-chill index below 10 degrees Fahrenheit. Additional factors that should be considered in the need to establish rehab include:

- Time – including extended use of PPE and exposure to weather conditions
- Complexity – including crime scenes, specials teams incidents
- Intensity – mental and/or physical stress at incidents such as major extrications, interior search and rescue, etc.

The Rehab Manager shall function within the IMS and report to the Incident Commander (IC) or the Incident Safety Officer (if established). In larger or more complex incidents the Rehab Manager will report to the Medical Unit Leader or Logistics Section Chief.

Staffing of Rehabilitation Group

The Rehab Group shall be staffed by a minimum of one (1) BLS ambulance and crew. The minimum level of available care shall be BLS and the IC shall designate an EMT or Paramedic as Rehab Manager. For incidents that escalate to a higher alarm, a Chief officer should be assigned to the Rehab Group if possible.

- Rehab shall be staffed with one (1) EMT or Paramedic for every 10 persons who are being concurrently rehabbed
- Rehab shall maintain one (1) BLS or ALS ambulance for every 15 persons who are being concurrently rehabbed

When a formal rehab group is being established, the use of designated rehab teams and resources should be notified as early as possible to allow for travel and setup time.

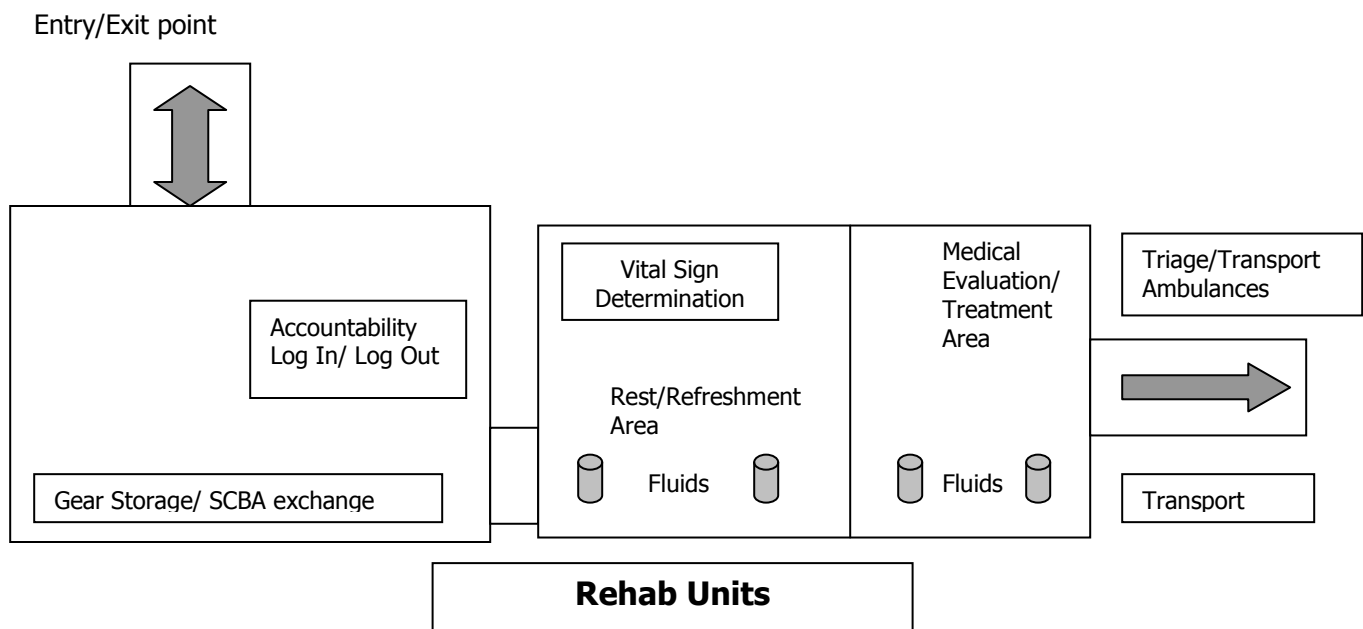
Site location and characteristics

The IC will normally designate the location for rehab. If a specific location has not been designated, the Rehab Manager shall select an appropriate location. Multiple rehab locations may be necessary if the incident is large or divided. In the event there is more than one location, it shall be given a geographic designation consistent with the location at the incident. Each rehab shall have its own Rehab Manager. During high rise incidents the location of forward rehab shall be at least one floor below the forward staging location.

Rehab should be in a location that will provide physical rest by allowing personnel to recuperate from the demands and hazards of the emergency incident or training activity. Specific criteria for selecting a rehab location include:

- Be far enough away from the scene that personnel may safely remove PPE and have their vital signs checked while receiving fluids and rest
- Provide suitable protection from the prevailing weather conditions. During hot weather it should be in a cool, shaded area. During cold weather, it should be in a warm, dry area.
- Large enough to handle the needs of the incident
- Easily accessible by ambulance
- Enable personnel to be free from exhaust of apparatus, vehicles or equipment
- Allow for prompt re-assignment by the Rehab Manager as determined by the IC.

The Rehab Area should be marked using scene tape and signs and provide a single entry/exit point. The following diagram illustrates the standard flow pattern for rehab:



Rehab efforts

- Rehab efforts should include the following:
 - Relief from weather conditions
 - Rest and recovery
 - Active and/or passive cooling or warming as needed
 - Rehydration
 - Calorie and electrolyte replacement for longer duration incidents
 - Medical monitoring
 - Accountability

Rehab period

- All personnel involved in emergency operations should be routinely evaluated in rehab. The following criteria should be used as a general guideline:
 - After the use of two 30 minute SCBA cylinders
 - After use of a single 45 or 60 minute SCBA cylinder
 - After 40 minutes of intense work without SCBAHowever, extreme weather or strenuous working conditions may decrease the intervals.
- Members entering rehab shall rest for a minimum of 10 minutes. Members shall rest for a minimum of 20 minutes if meeting the above listed criteria. Personnel requiring rest periods of greater than 30 minutes should be closely monitored for medical conditions. Those who exhibit problems with the baseline medical assessment after 30 minutes should be treated following EMS protocols and may require transport to the hospital.
- Personnel requiring more than one hour of rest shall be released from duty and transported to the hospital

Hydration

- Personnel should rehydrate with at least 16 ounces of water during each SCBA cylinder change
- For scheduled events, personnel should pre-hydrate with at least 16 ounces of water within two hours of the event
- During heat stress, personnel should attempt to replace at least one (1) quart of water per hour. Plain water or commercially prepared beverages which replenish electrolytes are the preferred beverages for rehydration during rehab. Caffeinated beverages such as coffee or tea to aid warming during cold weather may be consumed, but these should be used sparingly and are not to be considered as rehydration.

Medical evaluation

- EMS personnel assigned to rehab shall have the authority to use their professional judgment to keep members in rehab or to transport them for further medical evaluation or treatment. EMS personnel shall be alert for the following:
 - Complaints of chest pain, dizziness, shortness of breath, weakness, nausea, or headache
 - General complaints such as cramps, aches, and pains
 - Symptoms of heat or cold related stress
 - Changes in gait, speech, or behavior
 - Changes in alertness and orientation to person, place, time
 - Vital signs considered abnormal based on local EMS protocols
- Personnel who are symptomatic or with abnormal findings shall receive additional monitoring during rehabilitation

Accountability

- Companies shall report to rehab using the department's accountability system. Assignment to rehab is to be considered an order similar to any other incident scene assignment.
- Personnel assigned to rehab shall enter and exit the rehab area as a company. The company designation, number of personnel, and the times of entry/exit shall be documented by the Rehab Manager.

- Companies shall not leave the rehab area unless released by the Rehab Officer and shall then report to staging, Operations, or the IC

Serious injuries

- If one or more of company members suffer a serious or fatal injury during an incident, all members of the company shall be removed from service as soon as possible. CISD or other mental health services shall be made available.

Documentation

- Any non-emergent injuries (sprain, strain, laceration etc...) treated in rehab other than fluids, food, and/or rest shall be documented on the appropriate rehab form. The employee will fill out a fire department injury report upon returning to quarters.
- All rehab evaluations shall be documented on the appropriate rehab form
- Any/all rehab reports involving mutual aid or automatic aid personnel shall be made available to their respective departments

By the order of: _____
Fire Chief

Date:

References:

- NFPA 1500, *Fire Department Occupational Safety & Health Program*, 2007 edition
- NFPA 1584, *Standard on the Rehabilitation Process for Members During Emergency Operations and Training Exercises*, 2008 edition

Resources (click title to access resource):

NIOSH Firefighter Fatality Investigation Reports

- Firefighter Suffers Sudden Cardiac Death During Live Fire Training – North Carolina
- Fire Captain Suffers Fatal Heart Attack After Conducting Live Fire Training – Pennsylvania
- Paid On Call Fire Fighter Suffers a Fatal Cardiac Event Just After Completing Two Hose Training Drills - Wisconsin
- Recruit Fire Fighter Suffers Heat Stroke during Physical Fitness Training and Dies Nine Days Later - Florida
- Live-Fire Training Exercise Claims the Life of One Recruit Fire Fighter and Injures Four Others– Florida

Other resources

- University of Illinois, Fire Service Institute report *Firefighter injuries and fatalities: the role of heat stress and PPE*
- Maryland Fire Rescue Institute report *Health and Safety Guidelines for Firefighter Training*
- U.S. Fire Administration report *Emergency Incident Rehabilitation*