

## **TOWNSHIP FIRE DEPARTMENT CHAPTER 2: SUGGESTED OPERATING GUIDELINES**

Part 6: I.C.S. - Logistics Function

Subject: Rehabilitation Process for Members During Emergency Operations & Training Exercises

Page 1 of 9

Section: 2-6-2

Effective Date: 07-01-95

Reviewed/Revised Date: 04-26-10

2.01 Goal. To ensure that the physical and mental condition of personnel operating at a scene of an emergency or training exercise does not deteriorate to a point that affects the safety of each member or jeopardizes the safety and integrity of the operation.

2.02 Policy. A designated rehabilitation area shall be established at the discretion of the Incident Commander (IC). When a rehab area has been deemed necessary, the Chief of Rescue or other licensed 1<sup>st</sup> Responder, EMT or Paramedic will be responsible for the management and coordination of the rehabilitation area. Rehabilitation shall be implemented at all emergency operations and training exercises where strenuous physical activity or exposure to heat and cold exist.

2.03 Function of Rehab Area. A Rehab Area will provide a designated place where members assemble to receive:

- A) Medical Evaluation
- B) Treatment and Monitoring
- C) Food and fluid replenishment
- D) Mental Rest
- E) Relief from extreme climatic/environmental conditions
- F) Provide EMS at the minimum of BLS & ALS Transport as required

2.04 Responsibilities

- A) Incident Commander

The IC shall consider the circumstances of each incident and make adequate provisions early in the incident for the rest and rehabilitation for all personnel operating at the scene. The IC shall communicate with the senior medical EMS personnel the expected size, intensity, length of incident, etc.

- B) Supervisors/Line Officers

All supervisors shall maintain an awareness of the condition of each member operating within their span of control and ensure that adequate steps are taken

**Subject: Rehabilitation**

**Date: 07-01-95**

**Page 2 of 9**

to provide their safety and health. The command structure shall be utilized to request relief and the reassignment of fatigued crews.

C) Personnel

During periods of hot weather, personnel shall be encouraged to drink water and activity beverages throughout the workday. During any emergency incident or training evolution, all personnel shall advise their supervisor when they believe that their level of fatigue or exposure to heat or cold is approaching a level that could affect themselves, their crew, or the operation in which they are involved. Personnel shall also remain aware of the health and safety of other personnel of their crew.

D) Rehab Officer.

The Rehab Officer shall obtain the rehabilitation materials and establish the Rehab area. The Rehabilitation Officer shall don the rehab Officer vest and announce by radio the establishment of a rehab area and its location. He / She shall also make provisions to secure any additionally needed rehab materials. Requests for additional resources shall go through the incident commander. It is suggested that a request for a stand-by ambulance be directed (via telephone) to the shift supervisor of the appropriate ambulance service.

2.05 Establishment of Rehabilitation Group

A) Responsibility

The Incident Commander shall establish a rehabilitation group when conditions indicate rest and rehabilitation is needed for personnel operating at an incident scene or training evolution. A member will be placed in charge of the group and shall be known as the rehab officer. The rehab officer will typically report to the logistics officer or the incident commander in the framework of the incident command system.

**Subject: Rehabilitation**

**Date: 07-01-95**

**Page 3 of 9**

**B) Location**

The incident commander will normally designate the location for the rehabilitation area. If a specific location has not been designated, the rehab officer shall select an appropriate location based on the site characteristics and designations below.

**C) Site Characteristics**

1. It should be in a location that will provide physical rest by allowing the body to recuperate from the demands and hazards of the emergency operation or training evolution.
2. It should be far enough away from the scene that personnel may safely remove their turnout gear and SCBA and be afforded mental rest from the stress and pressure of the emergency operation or training evolution.
3. It should provide suitable protection from the prevailing environmental conditions. During hot weather, it should be in a cool shaded area. During cold weather, it should be in a warm, dry area.
4. It should enable personnel to be free of exhaust fumes from apparatus, vehicles, or equipment.
5. It should be large enough to accommodate multiple crews, based on the size of the incident.
6. It should be easily accessible by EMS units.
7. It should allow prompt entry back into the emergency operation upon recuperation.

**D) Site Designations**

1. A nearby garage, building lobby, or other structure
2. A school bus, or other large vehicle
3. Fire apparatus, ambulance, or other vehicle at the scene
4. An open area in which a rehab area can be created using tarps, fans, etc.

**Subject: Rehabilitation**

**Date: 07-01-95**

**Page 4 of 9**

E) Resources

The rehab officer shall secure all necessary resources required to adequately staff and supply the rehabilitation area. The supplies should include the items listed:

Fluids

- Water (hot and cold),
- activity beverages
- oral electrolyte solutions
- ice

Recommended Nourishment

- Short term: granola bars
- Long term: Soup, Broth or stew in hot/cold cups

Medical

- Basic Department Issued Trauma Kit
- O2 Kit with non-rebreather masks and nasal canula's
- AED
- Pulse Oximeter
- Oral thermometers

Other

- Awnings
- Tarps
- Fans
- Misting fans
- Heaters
- Dry clothing,

**Subject: Rehabilitation**

**Date: 07-01-95**

**Page 5 of 9**

- Extra equipment
- Floodlights
- Blankets, Towels
- Traffic cones and Fire tape (to mark the entrance and exit of rehab area)

F) The Rehab supervisor will update Command with information concerning:

- 1) Firefighters in Rehab Area.
- 2) Firefighters available for reassignment.
- 3) Status of injured personnel.

G) The Rehab supervisor will release firefighters to staging to await assignments from Command.

2.06 Guideline

A) Rehabilitation Group Establishment.

Staff officers during the initial planning stages of an emergency response should consider rehab. However, the climatic or environmental conditions of the emergency scene should not be the sole justification for establishing the rehab area. Any activity/incident that is large in size, long in duration, and/or labor intensive will rapidly deplete the energy and strength of personnel and therefore merits consideration for rehabilitation.

Climatic or environmental conditions that indicate the need to establish a rehab area are a heat stress index above 80F or wind-chill index below 20F

B) Preventive Hydration.

A critical factor in the prevention of heat injury is the management of water and electrolytes. Water must be replaced during exercise periods and at emergency incidents. During heat stress, the member should consume at least one quart of water per hour. The rehydration solution should be a 50/50 mixture of water and a commercially prepared activity beverage and administered at about 40F. Rehydration is important even in cold weather operations where, despite the

**Subject: Rehabilitation**

**Date: 07-01-95**

**Page 6 of 9**

outside temperature, heat stress may occur during firefighting or other strenuous activity when protective equipment is worn. Alcohol, carbonated beverages, and caffeine beverages should be avoided before and during heat stress because both interfere with the body's water conservation mechanisms.

**C) Nourishment Recommendations**

The department should provide food at the scene of an extended incident when units are engaged for three or more hours. A cup of soup, broth, or stew is highly recommended because it is digested much faster than sandwiches and fast food products. In addition, foods such as apples, oranges, and bananas will be provided as supplemental forms of energy replacement. Fatty and/or salty foods should be avoided.

**D) Mandatory Rest**

The "two air bottle rule" or 45 minutes of work-time, is recommended as an acceptable level prior to mandatory rehabilitation. Personnel shall rehydrate while SCBA cylinders are being changed. Firefighters having worked for two full 30-minute rated bottles, or 45 minutes, shall be placed in the rehabilitation area for rest and evaluation. In all cases, the objective evaluation of a personnel fatigue level shall be the criteria for rehab time. Rest shall not be less than ten minutes and may exceed an hour as determined by the rehab officer. Fresh crews, or crews released from the rehab area, shall be available in the staging area to ensure that fatigued personnel are not required to return to duty before they are rested, evaluated and released by the rehab officer.

**E) Factors Affecting Recovery**

Personnel in the rehabilitation area should maintain a high level of hydration. Personnel should not be moved from a hot environment directly into an air conditioned area because the body's cooling system can shut down in response to the external cooling. An air conditioned environment is acceptable after a cool-down period at ambient temperature with sufficient air movement. Certain drugs impair the body's ability to sweat and extreme caution must be exercised if the member has taken antihistamines, such as Actifed or Benadryl, or has taken diuretics or stimulants.

**Subject: Rehabilitation**

**Date: 07-01-95**

**Page 7 of 9**

## 2.07 Emergency Medical Services

### A) Medical Evaluation

Emergency medical services should be provided and staffed by the most qualified (licensed) EMS personnel on the scene. They shall evaluate vital signs, examine personnel, and make proper disposition (return to duty, continue rehab, or on scene medical treatment and transport to hospital). Continued rehabilitation should consist of additional monitoring of vital signs, providing rest, and providing fluids for rehydration. EMS personnel should be assertive in an effort to find medical problems early. If the personnel condition, symptoms, or medical history indicates potential serious problems, then the on scene treatment and transportation to a medical facility should be prompt and aggressive per local transporting agency's protocols.

Emergency workers will report to the rehabilitation area and receive an immediate medical evaluation when:

- Emergency workers having worked for two full 30-minute rated bottles, or 45 minutes, shall be placed in the rehabilitation area for rest and evaluation.
- Referral from self, Fire Officer or Safety Officer.
- A SCBA failure in which a firefighter is exposed to the toxic products of combustion as a result of a firefighter removing his/her SCBA face piece.
- Weakness, dizziness, muscle cramps, nausea / vomiting, headache. Any injury.
- Altered mental status, chest pain, difficulty breathing, burns, or possible inhalation injury necessitate immediate ALS treatment and prompt transport per local transporting agency's protocols. Any other conditions will be evaluated by the senior medical person at the scene and the need for treatment and transport will be determined.

### B) General Guidelines for Rehabilitation of Emergency Workers

- After receiving a medical evaluation and based on the severity of signs and symptoms, the highest trained medical authority shall determine whether rest and rehab or medical treatment and transport are required.

**Subject: Rehabilitation**

**Date: 07-01-95**

**Page 8 of 9**

- An emergency worker with a normal presentation will rest for a minimum of 15 minutes, rehydrate (1-2 quarts of fluid) and then report to the Staging Officer or IC to return to duty.
- An emergency worker with an abnormal presentation (weakness, dizziness, muscle cramps, nausea / vomiting, headache, etc.) will rehydrate, rest, and receive BLS treatment as indicated by presentation, heart rate, BP and temperature.
- Emergency workers shall receive ALS treatment and prompt transport if presenting signs and symptoms and / or vital sign remain abnormal for 15 minutes or greater.
- Altered mental status, chest pain, difficulty breathing. BP < 90 systolic, burns or possible inhalation injury necessitates immediate ALS treatment and prompt transport.

**C) General Heart Rate and Body Temperature Parameters**

The heart rate should be measured as early as possible in the rest period. If a personnel heart rate exceeds 110 BPM, an oral temperature should be taken. If the personnel temperature exceeds 100.6F he/she should not be permitted to wear protective equipment. If it is below 100.6F and the heart rate remains above 110 BPM, rehabilitation time should be increased. If the heart rate is less than 110 BPM, the chance of heat stress is negligible.

**D) BLS Medical Treatment for HR>110 BPM and/or temperature >100.6F**

The following treatment shall be initiated:

- Remove all turnout gear and heavy clothing. Maintain privacy with a sheet.
- Wet from head to toe
- Place supine in shaded area with rapidly moving air (fan)
- Apply cool compresses to axilla and groin

**IF PROBLEM DOES NOT CORRECT WITHIN 20 MINUTES, OR IF ORAL TEMPERATURE REMAINS ABOVE 100.6 AND PULSE IS > 110 BPM THEN:**

- ALS care and transport is required

**Subject: Rehabilitation**

**Date: 07-01-95**

**Page 9 of 9**

- Attach To Cardiac Monitor / perform 12-lead EKG as indicated
- Check Pulse Ox (Consider Possible CO Inhalation)
- Prompt transport to hospital

E) Documentation

All routine medical evaluations shall be recorded on the "Emergency Incident Rehabilitation Report." along with the personnel's name and any complaints. The EMS personnel recording the information shall initial the entry. The form must be signed and dated by the rehab officer at the conclusion of the incident and included with the incident commander's final report.

All on-scene BLS or ALS treatment shall be recorded on an EMS sheet, which will be given to Command, documented as an incident through the Communications Center, entered through a WARDS report and submitted to the chief at the conclusion of the incident.