

SCOPE

All personnel attending or operating at the scene of a fire, other emergency, or training exercise.

PURPOSE

To provide guidance on the implementation and use of a rehabilitation process as a requirement of the incident management system (IMS) at the scene of a fire, other emergency, or training exercise. It will ensure that personnel who might be suffering the effects of metabolic heat buildup, dehydration, physical exertion, and/or extreme weather receive evaluation and rehabilitation during emergency operations.

PROCEDURES

1. REHAB

- 1.1. Rehabilitation shall commence when any emergency operation or training exercises pose a health and safety risk.
- 1.2. Rehabilitation shall be established for large-scale incidents, long-duration and/or physically demanding incidents and extreme temperatures.
- 1.3. The Incident Commander shall establish rehabilitation according to the circumstances of the incident. The rehabilitation process should include the following:
 - 1.3.1. Rest
 - 1.3.2. Hydration to replace lost body fluids
 - 1.3.3. Cooling (passive and / or active)
 - 1.3.4. Warming
 - 1.3.5. Medical monitoring
 - 1.3.6. Emergency medical care if required
 - 1.3.7. Relief from extreme climatic conditions (heat, cold, wind, rain)
 - 1.3.8. Calorie and electrolyte replacement
 - 1.3.9. Accountability
 - 1.3.10. Release

RESPONSIBILITIES

2. **INCIDENT COMMANDER**- The Incident Commander will be responsible for the following:
 - 2.1. Include rehabilitation in incident or event size-up.
 - 2.2. Establish a Rehabilitation Group to reduce adverse physical effects on firefighters while operating during fire, other emergencies, training exercises, and extreme weather conditions.
 - 2.3. Designate and assign a supervisor to manage rehabilitation.
 - 2.4. Ensure enough resources are assigned to rehabilitation.
 - 2.5. Ensure EMS personnel are available for emergency medical care of firefighters as required.
3. **REHAB GROUP SUPERVISOR**- The Rehab group supervisor shall be responsible for the following:
 - 3.1. Utilize rehab bags in designated site and don high visibility vests. Ensure equipment is in a ready state and location is easily identifiable.
 - 3.2. Prior to entering the rehabilitation area, ensure personnel go through a gross decontamination process.

- 3.3.** Prior to entering rehabilitation area ensure personnel doff PPE by removing bunker coats, helmets, hoods and opening their bunker pants to promote cooling. Personnel will also use wipes or wet towels to clean their face and necks after removing PPE.
 - 3.4.** Par tags will be collected and attached to rehab accountability board. Stopwatch will be started and ran through the duration of rehabilitation up until desired rest time is achieved.
 - 3.5.** Provide the required resources for rehabilitation including the following:
 - 3.5.1. Potable drinking water for hydration
 - 3.5.2. Sports drinks (to replace electrolytes and calories) for long-duration incidents (working more than one hour)
 - 3.5.3. Active cooling where required
 - 3.5.4. Medical monitoring equipment (chairs to rest on, blood pressure cuffs, stethoscopes, check sheets, etc.)
 - 3.5.5. Food where required and a means to wash or clean hands and face prior to eating
 - 3.5.6. Blankets and warm, dry clothing for winter months
 - 3.5.7. Bathroom facilities where required
 - 3.6.** Time personnel in rehabilitation to ensure they receive a minimum of 10 minutes of rest.
 - 3.7.** Ensure personnel rehydrate themselves.
 - 3.8.** Ensure personnel are provided with a means to be actively cooled or warmed where required.
 - 3.9.** Ensure that accountability is maintained and that personnel always remain within rehabilitation area.
 - 3.10.** Document members entering or leaving rehabilitation group utilizing rehab accountability board and medical monitoring rehab group sheets. (Reference Appendix 208A)
 - 3.11.** Ensure personnel are given a clean hood upon leaving the rehabilitation area. The contaminated hoods are to be bagged for later cleaning. (Hoods provided by individual agencies)
 - 3.12.** Inform the Incident Commander if a member requires transportation and treatment to a medical facility.
 - 3.13.** Serve as a liaison with EMS personnel.
 - 3.14.** The Company Officer / Rehab Group Supervisor will then advise Command of the status of the companies' ready for reassignment.
 - 3.15.** Rehab assignment location will consist of the following characteristics:
 - 3.15.1. Large enough to accommodate the number of personnel expected (including EMS personnel for medical monitoring), with a separate area for members to remove PPE
 - 3.15.2. Accessible for ambulance and EMS personnel, should emergency medical care be required
 - 3.15.3. Removed from hazardous atmospheres including apparatus exhaust fumes, smoke and toxins often encountered on the incident scene
 - 3.15.4. Shade in summer and protection from inclement weather at other times
 - 3.15.5. Access to a water supply (bottled or running) to provide for hydration and active cooling
 - 3.15.6. Away from spectators and media
- 4. COMPANY OFFICERS-** The Company Officers shall be responsible for the following:
- 4.1.** Be familiar with the signs and symptoms of heat and cold stress.
 - 4.2.** Monitor the company members for signs of heat and cold stress.

- 4.3. Notify the IC when stressed members require relief, rotation, or reassignment according to conditions.
- 4.4. Provide access to rehabilitation for company members as needed.
- 4.5. Ensure that the company is properly checked in with the Rehab Group Supervisor and that the company remains intact.
5. **Crew Members-** All crew members shall be responsible for the following:
 - 5.1. Be familiar with the signs and symptoms of heat and cold stress.
 - 5.2. Crew members should maintain adequate physical fitness and hydration prior to an incident.
 - 5.3. Maintain awareness of themselves and company members for signs and symptoms of heat and cold stress.
 - 5.4. Promptly inform the Company Officer when members require rehabilitation and/or relief from assigned duties.
 - 5.5. Maintain crew integrity.
6. **EMS-** EMS shall be responsible for the following:
 - 6.1. Report to the IC and obtain the rehabilitation requirements.
 - 6.2. Coordinate with the Rehab Group Supervisor.
 - 6.3. Identify the EMS personnel requirements.
 - 6.4. Check vital signs, monitor for heat stress and signs of medical issues.
 - 6.5. Document medical monitoring.

REHAB OBJECTIVES

7. OBJECTIVES

- 7.1. All personnel shall maintain hydration on an ongoing basis (pre-incident, incident, and post-incident).
- 7.2. Members shall be sent to rehabilitation as required.
- 7.3. All members should be sent to rehabilitation following the use of two 30, 45 or 60-minute SCBA cylinders.
 - 7.3.1. A supervisor may adjust the time frames depending on work or environment conditions. (NFPA 6.1.4.1)
 - 7.3.2. Due to the change in NFPA 1981-2013 the low air alarm is now at 33%, because of this, personnel can be allowed to work through two 60-minute bottles prior to being sent to rehabilitation.
- 7.4. Active cooling (wet towels, forearm immersion, misting fans) can be applied where temperatures, conditions or workload create the potential for heat stress.
- 7.5. In hot, humid conditions, a minimum of 10 minutes (20 minutes is preferable) of active cooling can be applied following the use of the second and each subsequent SCBA cylinder.
- 7.6. Personnel in rehabilitation shall rest for at least 10 minutes prior to being reassigned or released.
- 7.7. Personnel entering rehabilitation for the second time shall rest for 20 minutes prior to reassigned or released.
- 7.8. EMS personnel shall provide medical monitoring and emergency medical care as per medical protocol.
- 7.9. If a member is demonstrating abnormal vital signs, he or she shall be monitored frequently during rehabilitation.

- 7.10.** Personnel who are weak or fatigued with pale clammy skin, low blood pressure, nausea, headache, or dizziness shall be assessed by EMS personnel.
- 7.11.** Personnel experiencing chest pain, shortness of breath, dizziness, or nausea shall be transported to a medical facility for treatment.
- 7.12.** Personnel transported to a medical facility for treatment shall be accompanied and attended to by a fire agency representative.
- 7.13.** Members should drink water during rehabilitation. After the first hour a sports drink containing electrolytes should be provided. Soda caffeinated and carbonated beverages should be avoided.
- 7.14.** Nutritional snacks or meals shall be provided as required during longer duration incidents.

VITAL SIGN RECOMMENDATIONS

8. VITAL SIGNS

- 8.1.** Temperature- Normal temperature will range from 98.6°f to 100.6°F. Tympanic measurements can be up to 2°F lower than core body temperatures.
- 8.2.** Heart Rate- Normal rates are from 60 to 100 beats per minute. A firefighter that has not achieved a heart rate of less than 100 beats per minute by the end of 20 minutes should not be released from rehabilitation.
- 8.3.** Respiratory Rate- Normal rates are 12 to 20 breaths per minute. By the end of the rehabilitation period, the firefighter should have a respiratory rate within these parameters.
- 8.4.** Blood Pressure- Upon recovery during rehabilitation the member's blood pressure should return to, or even be slightly lower than their baseline. A member whose blood pressure is greater than 160 systolic and/or 100 diastolic should not be released from rehabilitation.
- 8.5.** Pulse Oximetry- Normal SpO2 readings are between 95 and 100 percent. Firefighters should be in the normal range after rehabilitation to be released.