1. INTRODUCTION

1.1 Emergency incident operations can be physically and mentally taxing to firefighters and emergency medical personnel operating on the scene. Fire and EMS responders perform physically demanding work while operating in personal protective equipment (PPE). The physical stressors are intensified during the performance of duties by the environmental factors of high heat and humidity as well as cold weather and wind.

1.2 On scene rehabilitation as defined in NFPA 1584 is an intervention designed to mitigate against the physical, physiological and emotional stress of firefighting in order to sustain a member’s energy, improve performance, and decrease the likelihood of on scene injury or death. Recovery is defined as the process of returning a member’s physiological and psychological states to levels that indicate the person is able to perform additional emergency tasks, be reassigned, or released without any adverse effects. It is the intent of this policy to ensure an effective rehabilitation and recovery of all members following an emergency response.

2. INCIDENT COMMANDER (IC) RESPONSIBILITIES

2.1 Ensure that the Rehabilitation Group is established when required.

2.2 Assume the responsibility for the Rehabilitation Group if it is not delegated.

2.3 Consider the circumstances of each incident and make adequate provisions early in the incident for the rest and rehabilitation of all members operating at the scene.

2.4 Incident Commander is responsible to assign units to the Rehabilitation Group after they have completed their tasks. When in use, this may be done via the Incident Command Application.

3. REHABILITATION MANAGER

- Supervise the RAC Unit on scene at fires and emergencies.
- Assist in coordination of additional resources for the Rehabilitation Group.
- Maintain communications with the Incident Command Post, Resource Unit Leader (RUL) and EMS Officer assigned to the Rehabilitation Group.
- Ensure members participate in medical screening based on EMS member’s assessment.
- Recognize need for additional resources at expanding incidents (e.g., additional RAC units, relief).
• Stress the importance to members of the benefit of on scene decontamination (hood cleaning).
• This position will be staffed by a Battalion Chief or a Captain.

4. OFFICER RESPONSIBILITIES

4.1 Maintain an awareness of the physical and mental conditions of each member operating within their span of control and ensure adequate steps are taken to provide for each member’s safety and health.

4.2 Ensure that members remain hydrated and have access to water.

4.3 Continuously assess their crew to determine their need for relief and rehabilitation.

5. MEMBER RESPONSIBILITIES

5.1 Participate in rehabilitation activities when assigned.

5.2 Maintain adequate hydration levels.

5.3 Advise their officer when they believe their level of fatigue or exposure to heat or cold is approaching a level that could negatively affect them or the operation in which they are involved.

5.4 All members shall remain aware of the health and safety of other members of their unit.

6. REHABILITATION FIREFIGHTER RESPONSIBILITIES

6.1 The IC shall establish rehabilitation according to the circumstances of the incident. Rehabilitation can take place with or without the establishment of a formal functional area of operation. During routine incidents, such as small non-structural fires, companies can conduct rehabilitation on their own. Company rehabilitation can occur during an SCBA cylinder change, the transition from active fire attack to overhaul, or other similar situations.

6.1.1 Upon the transmission of a 10-75 a RAC unit will be assigned. Upon arrival the RAC firefighter in consultation with an EMS Officer will select a location from where RAC operations will commence. This area shall be known as the “Forward RAC area.” The Forward RAC area will be the location of the Rehabilitation Group. The RAC unit firefighter and EMS Officer should aim to set up the Forward RAC Area within 50 feet of the Command Post and within eyesight of the fire building whenever possible.

6.1.2 While responding, notify dispatcher if responding with 1 RAC Firefighter and request a second RAC Unit to respond.

6.1.3 As necessary, members shall report to the Forward RAC Area for rehabilitation and care.
7. **REHABILITATION GROUP OPERATIONS**

7.1 A Rehabilitation Group shall be established by the IC at every 10-75 or greater alarm, and at long duration and/or physically demanding incidents, especially during times of extreme temperatures. The IC should verify the establishment of the Rehabilitation Group and assume the responsibility of the Rehabilitation Group if it is not delegated.

7.1.1 The Rehabilitation Group will consist of an EMS Officer, a BLS and ALS crew and a Rehabilitation and Care (RAC) Unit. At second or greater alarms and prolonged incidents the Rehabilitation Manager will supervise the RAC Unit and assist in the coordination of additional resources needs for the Rehabilitation Group.

7.1.2 Upon arrival at the scene of an incident, a RAC Firefighter shall contact Command and the EMS Officer, via handie-talkie, to coordinate the location of the Forward RAC Area.

7.2 Members entering rehabilitation should normally rest for approximately 20 minutes before being reassigned. Depending on conditions, the IC, in consultation with the Rehabilitation Group Manager, Medical Branch Director or designee, may modify the time frame for rehabilitation.

7.3 At expanding incidents (second alarm or greater), the Medical Branch Director in consultation with the IC or Rehabilitation Manager shall reevaluate the location of the Forward RAC Rehabilitation Area. The evaluation should account for and be based on the following.

- Large enough to accommodate the number of personnel expected, with a separate area for members to remove their PPE.
- Removed from hazardous atmospheres, including apparatus exhaust fumes, smoke, and other toxins.
- Remote from spectators and media.
- Establishment of a transportation corridor for access and egress of EMS vehicles.
- Ease of access and egress for personnel.
- Provide shade in summer and protection from inclement weather when necessary.
- Provide shelter in a heated environment in cold weather.
- Have access to water for hydration and both active and passive cooling when necessary.

7.4 At second or greater alarms or when special called for by the IC, the Resource Unit Leader (RUL) shall assign units being relieved or released to the Rehabilitation Group, as appropriate. The RUL and the Rehabilitation Manager shall maintain radio contact with each other and closely coordinate the assignment/release of units to/from the Rehabilitation Group to ensure all members are afforded the proper care. Units shall be sent in manageable groups, usually four units at a time, so as to not overcrowd the Rehabilitation Group.
7.5 The Resource Unit Leader shall use the Rehabilitation Tracking Sheet (see AUC 230 Appendix 1) and/or the Incident Command Application to document which units and members have reported to, and been evaluated by the Rehabilitation Group. Once members complete the rehabilitation process, they may become available for another assignment to augment the operation.

7.6 At incidents where the RUL is not assigned (Example: 10-75 or all hands fire) the IC retains the responsibility to ensure proper rehabilitation is conducted as per the above procedures.

7.7 At the conclusion of the operation, the IC shall ensure the Rehabilitation Tracking Sheet is reviewed for unit compliance.

7.8 When the Rehabilitation Group is established, the rehabilitation process shall include the following:
   - Doffing of PPE (removing helmet, hood, gloves, bunker coat and pulling down bunker pants).
   - Rest and recovery.
   - Rehydration (fluid replacement).
   - Calorie and electrolyte replacement.
   - Active and/or passive cooling or warming as needed for the incident type and climatic conditions.
   - Medical assessment by EMS to all members exposed to products of combustion shall have their oxyhemoglobin (SpO2), and carboxyhemoglobin (SpCO) levels measured.
   - Medical care as required.
   - Relief from climatic conditions as necessary.

7.9 EMS members shall visually assess each member as they enter the Rehabilitation area. If a member is symptomatic indicating heat illness or cold injuries, EMS members shall provide emergency medical care as per protocol. If emergency medical care is provided, an ePCR shall be completed.

7.10 EMS shall have the authority, as delegated by the IC, to use their professional judgment in recommending members remain in rehabilitation or transporting them for further medical evaluation or treatment.

7.11 If a unit is assigned to Rehabilitation, then all members from that unit must take part in medical monitoring.
7.12 At 10-75 and greater alarm fires or as determined by the IC.

7.12.1 Members will be considered patients if:

- They are complaining of illness or injury.
- Have symptoms of CO exposure or hypoxia.
- Have a SpCO of 15% or greater or a SpO2 of less than 90%.

7.12.2 If members are identified as patients, treatment shall begin and they shall be transferred to the Treatment Sector for further care and potential transport to a hospital.

7.12.3 Members identified as patients shall be tracked on the FDNY On-site Triage/Tracking Form and have an ePCR completed.

7.12.4 Members identified as patients and treated for carbon monoxide exposure, whether or not transported to a hospital, shall include the medical data on an injury report.

7.13 Members who are not considered patients shall continue their rehabilitation and no paperwork is required.

7.14 Special Units, Squads, Rescues and Haz-Mat Ops Units shall be given priority for medical monitoring when the Unit’s release is pending completion of the monitoring activities.

7.15 Units that do not complete the rehabilitation/monitoring protocol per section 4 shall be re-assigned to the incident by the IC for Rehabilitation purposes and not released until completion.

7.16 Following release, Fire units shall be directed to return to quarters to shower and change into clean station uniforms.

8. ENVIRONMENTAL FACTORS

8.1 The difference between the member’s core body temperature and the environmental temperature is called the thermal gradient. If the environment is warmer than the member, heat will flow from the environment to the member. If the environment is cooler than the member, heat will flow from the member to the environment. The greater the thermal gradient, the more rapid will be the subsequent heat transfer.

8.2 Members subjected to heat stress and fatigue can sometimes suffer life-threatening emergencies such as heat stroke or cardiac arrest. Bunker gear can impede heat dissipation and traps moisture next to the skin. To reduce heat stress and prevent life-threatening emergencies due to an elevated core body temperature, members will use active and passive cooling methods in a designated Rehabilitation Group.
8.2.1 Active cooling is the process of using external methods or devices (e.g., misting fans) to reduce elevated core body temperature.

8.2.2 Passive cooling is the process of using natural evaporative cooling (e.g., sweating, moving to a cool environment) to reduce elevated core body temperature.

8.3 The impact cold weather has on members and operations must be recognized. Cold weather requires special consideration in regard to incident scene operations. A significant factor for members is the combination of cold and wind. The presence of wind increases the transfer of heat by the forces of convection. The wind increases the transfer of heat away from the person’s body.

9. GUIDELINES FOR NUTRITION AND HYDRATION

9.1 Maintaining an adequate level of hydration throughout the workday is of the utmost importance. At a moment’s notice, members may be called to engage in very strenuous activity in a hot environment. Maintaining hydration throughout the tour is the only way to ward off dehydration later. Pre-hydration begins the day before a tour. Normally, water is appropriate for hydration. Members should drink water every day, but water can quench thirst without providing needed carbohydrates and electrolytes. When activities are of moderate to high intensity, sports drinks should be considered for re-hydration and caloric and electrolyte replacement.

9.2 Members should follow accepted guidelines for hydration and nutrition. Beverages, foods, and substances that should be avoided include the following:

- Carbonated, high-fructose-content, and high-sugar drinks.
- Foods with high fat and/or high protein content.
- Alcohol consumption prior to duty.
- Excessive fluids.
- All tobacco products.
- Protein supplements.
- Stimulants, appetite suppressants, decongestants.
- Excessive consumption of caffeinated beverages.
- Energy drinks that contain various stimulants, including caffeine.

9.3 Five gallon water jugs carried on Fire apparatus shall be checked and refilled with fresh water at each roll call.

9.4 Members shall consume fluids to satisfy thirst during rehabilitation and be encouraged to continue hydrating after the incident.

9.5 Nausea and loss of thirst can be early signs of dehydration and heat stress. Therefore, all members should demonstrate the ability to consume some fluids. If members cannot demonstrate the ability to take in some fluid, they should be medically evaluated.
9.6 Dehydration is the loss of body fluid, or a negative fluid balance. The magnitude of dehydration can vary tremendously following strenuous activity in the heat. Dehydration can have several detrimental effects on the body, including the following:

- Impairs the body’s ability to maintain core temperature.
- Decreases strength.
- Increases the onset of fatigue.
- Loss of coordination.
- Decreases blood volume, which increases cardiovascular strain.
# Rehabilitation Tracking by Unit

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**Incident Commander________________**

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