**12.06.05 OCCUPATIONAL EXPOSURE TO HEAT AND COLD STRESS**

 **EMERGENCY INCIDENT REHABILITATION**

**1.0 REFERENCE**

 WAC 296-305-05004

**2.0 POLICY**

**2.1** It is the policy of The XXXXX to establish a rehabilitation plan that ensures the physical and mental condition of members operating at the scene of an emergency or a training exercise does not deteriorate to a point which affects the safety of each member or that jeopardizes the safety and integrity of the operation.

2.2

**3.0 DEFINITIONS**

 N/A

**4.0 RESPONSIBILITIES.**

**4.1** Incident Commander. The Incident Commander shall consider the circumstances of each incident and make adequate provisions early in the incident for the rest and rehabilitation for all members operating at the scene. These provisions shall include: medical evaluation, treatment and monitoring; food and fluid replenishment; mental rest; and relief from extreme climatic conditions and the other environmental parameters of the incident. The rehabilitation shall include the provision of Emergency Medical Services (EMS) at the Basic Life Support (BLS) level or higher.

**4.2** Supervisors (Officer’s in Charge (OICs)). 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 to provide for each member s safety and health. The command structure shall be utilized to request relief and the reassignment of fatigued crews.

**4.3** Personnel. During periods of hot weather, members shall be encouraged to drink water throughout the work day. During any emergency incident or training evolution, all members shall advise their supervisor when they believe 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. Members shall also remain aware of the health and safety of other members.

**5.0 GUIDELINES**

**5.1** Rehabilitation should be considered by staff officers during the initial planning stages of an emergency response. The climatic or environmental conditions of the emergency scene should not be the sole justification for establishing a Rehabilitation Area. Any incident that is large in size, long in duration, and/or labor intensive will rapidly deplete the energy and strength of members and therefore merits consideration for rehabilitation.

**5.2** When temperatures <45 ̊ in wet conditions or <32 ̊ when dry the Department shall:

* + - * Provide Warm Up Areas in REHAB for Firefighters with warm fluids and blankets.
			* Have OICs shall monitor and give access to members by BLS care for hypothermia and frostbite.
			* Immediately take to REHAB Firefighters who cannot stop shivering, are moving slowly or have waxy or blue skin for evaluation.

**5.3** Climatic and environmental conditions which indicate the need to establish a

 Rehabilitation Area is a heat stress index above 90 F.

**5.4** A critical factor in the prevention of heat injury is the maintenance of water and electrolytes. Water should 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 40 F. Rehydration is important even during cold weather operations. Heat stress may occur during fire fighting or other strenuous activity when protective equipment is worn. Caffeine and carbonated beverages should be avoided during strenuous activities because both interfere with the body s water conservation mechanisms.

**5.5** The department should provide food at the scene of an extended incident when units are engaged for three or more hours. Soup, broth, or stew are highly recommended because they are digested much faster than sandwiches and fast food products. Fruits such as apples, oranges, and bananas provide supplemental forms of energy replacement. Fatty and/or salty foods should be avoided.

**5.6** All medical evaluations shall be recorded on standard forms along with the member s name and complaints and must be signed, dated and timed by the Rehab Office or his/her designee.

**5.7** Members assigned to the Rehabilitation Sector/Group shall enter and exit the Rehabilitation Area as a crew. The crew designation, number of crew members, and the times of entry and exit from the Rehabilitation Area shall be documented by the Rehab Officer or his/her designee on the Company Check-In/Out Sheet. Crews shall not leave the Rehabilitation area until authorized to do so by the Rehab Officer.

**5.8** The Rehab Officer will make a plan to include rapid transport from the Rehab Area to a medical facility by in house or contract Emergency Medical Technicians. Live Fire training requires transport ready EMS on scene.

**5.9** Multiple rehabilitation areas must be set up if the geographical area or size of the scene creates barriers limiting members' access to rehabilitation.

 The rehabilitation area shall be of sufficient size to accommodate the number of crews using the area at the same time.

 **5.10** Resources. The Rehab Officer shall ensure all necessary resources required to adequately staff and supply the Rehabilitation Area are available and include but not be limited to:

1. Fluids - water, activity beverage, oral electrolyte solutions and ice.
2. Food - soup, broth, or stew in hot/cold cups.
3. Medical - blood pressure cuffs, stethoscopes, oxygen administration devices, cardiac monitors, intravenous solutions and thermometers.
4. Other - awnings, fans, tarps, heaters, dry clothing , floodlights, blankets and towels, traffic cones and fire line tape (to identify the entrance and exit of the Rehabilitation Area.)

**5.11**  Medical Evaluation : the following criterion shall be used in the evaluation of members in rehab. Protocols shall be followed at all times.

i. Vital Signs to include: BP, Pulse rate as soon as possible, and respirations. The vitals shall be taken upon arrival at rehab and every 10-15 minutes while member remains in rehab. If Systolic BP is >200 and/or Diastolic is >110 and remains high after an extended rehab time, then member may be transported to hospital for evaluation. If Pulse rate is >140 and remains there after 10-15 minutes, the member should be placed on oxygen and temperature taken. If after an extended rehab the pulse rate hasn’t dropped below 140, the member shall be placed on EKG. If after 30 minutes the heart rate has not come down, the member shall be transported to the hospital for evaluation.

ii. Temperature: an oral temp will be taken if pulse rate meets or exceeds 140 bpm. If temp meets or exceeds 100.6F rehab shall be extended. If temp remains elevated after 30 minutes, the member shall be placed on EKG and IV rehydration should be considered. If temp continues to remain elevated after 1 hour in rehab, the member shall be transported to hospital for evaluation.

iii. Cardiac Function: if a member is complaining of Chest pain, Shortness of Breath, or any other chest discomfort or accelerated heart rate, the member shall be placed on Oxygen and ALS Ambulance should be dispatched to the scene to evaluate the patient. This member shall not be permitted to return to active duty and will be transported to the hospital for evaluation. The member will be treated as per the GrantCounty Protocols.

iv. Other Medical Conditions and or Trauma: all members complaining of any conditions, illnesses or injuries shall immediately report it to their immediate supervisor and/or Incident Command and report to rehab immediately for evaluation and treatment

**6.0 ADDITIONAL RESOURCES**

**6.1** Supervisor Training: Use the L&I training kit found at: <http://www.lni.wa.gov/safety/traintools/trainer/kits/HeatIllness>

**6.2** Employee Training: Use the L&I training kit found at <http://www.lni.wa.gov/safety/traintols/trainer/kits/HeatIllness/>

**7.0 APPENDIX**