

# Buechel Fire Protection District

## SAFETY POLICIES

SP-0023

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Title: Rehabilitation Procedure

Approval Date - 1-12-2011

Section	Instruction
1.	<p><b>Purpose:</b></p> <p>To establish department procedures in accordance with NFPA 1584 <i>Standard on the Rehabilitation Process for Members During Emergency Operations and Training Exercises</i> (2008 Edition). These procedures provide for the implementation and use of a rehabilitation process as a tactical requirement of the incident management system (IMS) at the scene of an emergency or training exercise. The primary goal is to utilize firefighters to their fullest capabilities without extending them beyond their limits of endurance. These procedures will ensure that personnel affected by metabolic heat buildup, dehydration, physical exertion, and/or extreme weather received evaluation and rehabilitation during emergency operations.</p>
2.	<p><b>Scope:</b></p> <p>All personnel operating at the scene of an emergency or training exercise.</p>
3.	<p><b>Implementation:</b></p> <p>The Incident Commander shall be responsible for the implementation of rehabilitation (Rehab) procedures for personnel operating at emergency incidents and during training exercises. The Incident Commander shall determine the appropriate level of Rehab warranted.</p>
4.	<p><b>Rehab Levels:</b></p> <p>Rehabilitation shall be implemented as follows:</p> <p><b><u>Level One -</u></b></p> <p>Level One Rehab is the systematic, but informal, procedure of providing rest and recuperation to those members operating at routine incidents and training. Level One Rehab normally occurs when the tactical objective has been achieved, i.e., control of the fire, extrication completed, hazard mitigated, etc. Level One Rehab normally suffices when the tactical goal is achieved within 15 minutes of the incident on-scene time and during brief, non-strenuous training exercises.</p> <p>Level One Rehab will <b>not</b> normally require additional resources such as EMS,</p>

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	<p>fire companies from staging, Rehab designated vehicles, Rehab Officer, vital sign monitoring, etc.</p> <p><b><u>Level Two -</u></b></p> <p>Level Two Rehab is the systematic and formal procedure of providing medical evaluation, rest, and recuperation to those members operating at a multiple alarm, Level 2 Hazmat or other complex, time intensive incident or training exercise. Level Two Rehab may be established at extra equipment incidents as deemed necessary by the Incident Commander.</p> <p><b><u>Level Three-</u></b></p> <p>Level Three Rehab is the systematic and formal procedure of providing rehabilitation beyond the constraints of Level 2 Rehab, usually an incident or training exercise exceeding 12 hours in length. Level Three Rehab shall be established at the discretion of the Incident Commander as deemed necessary.</p> <p>Level Two and Level Three Rehab will require additional resources and considerations.</p> <p><b>Level Two and Level Three Rehabilitation Procedures:</b></p> <p>Incident Commander Responsibilities -</p> <ol style="list-style-type: none"><li>1. MetroSafe shall be notified when a Level Two Rehab is established.</li><li>2. The Rehab area location shall be identified. The Rehab area should be adjacent to the incident staging area and large enough to accommodate various specialty units, one or more EMS units and, at major incidents, a Command Bus. <u>The area should be removed from hazardous atmospheres</u> including apparatus exhaust fumes, smoke, and other toxins, provide shade in summer and protection from inclement weather at other times. Any mobile canteen units which respond to the incident (Salvation Army, Red Cross, etc.,) should also be placed within the Rehab area positioned such that the unit's exhaust will not infiltrate the rehab area.</li><li>3. Designate a Rehab Officer.</li></ol>

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	<p>Rehab Officer Responsibilities:</p> <ol style="list-style-type: none"><li>1. Continually update the list of all companies/units in-service at the incident.</li><li>2. Communicate with the designated Command Post Officer (usually the Planning Officer) information regarding the arrival and exiting of companies at Rehab.</li><li>3. Maintain and/or ensure documentation of all Rehab activities, including the recording of each member's vital signs and any treatment provided (i.e. oxygen administration).</li><li>4. Ensure that all companies in active service at the incident are processed through Rehab prior to departure from the scene.</li><li>5. Prepare a post-incident rehabilitation report which lists all personnel who were processed through Rehab, along with their vital sign recordings and any medical treatment provided. This report shall be forwarded through the chain of command to the Office of Safety.</li><li>6. Ensure environmental monitoring with a 4-gas Meter is conducted periodically to ensure that an environmentally safe Rehab area has been established and maintained.</li></ol> <p>Company Officer Responsibilities:</p> <p>Each company shall report immediately to the Rehab area when so directed. Company personnel should refrain from consuming food or beverages <b>prior</b> to their initial evaluation upon arrival to Rehab. It is important that the vital signs be taken within three to five minutes of release from duties to be most accurate.</p> <p>Upon arrival at Rehab, the Company Officer shall report to the Rehab Officer and provide the names of those company members entering Rehab. When it is not possible for the entire company to report to Rehab together, (i.e., pump operators) the Company Officer shall ensure that all assigned members are evaluated before leaving the</p>

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	<p>scene. The Company Officer shall hold his company in Rehab until departure is authorized by the Rehab Officer.</p> <p><b>Rehab and Staging:</b></p> <p>During Level Two and Level Three Rehab operations, one or more companies should be maintained in the Staging area. As companies are directed to report to Rehab, the replacement companies should be assigned from the staged tactical reserve. Upon completion of rehab, the company may be directed to report to staging, given a tactical assignment, or released from the scene.</p> <p>Procedural Guidelines for Level Two and Level Three Rehabilitation Operations:</p> <ol style="list-style-type: none"><li>1. Relief from climatic conditions: Members shall be afforded relief from climatic and/or extreme conditions.</li><li>2. Rest and recovery: Members entering rehabilitation for the first time shall rest for a minimum of 10 minutes and longer where practical. Members shall rest for a minimum of 20 minutes following the use of a second 30-minute self-contained breathing apparatus (SCBA) cylinder, a single 45-minute or 60-minute SCBA cylinder, or 40 minutes of intense work without SCBA.</li><li>3. Cooling or warming: Members with heat-related stress shall remove protective clothing and, if applicable, apply active cooling (forearm submersion or misting fans) and/or passive cooling to regain normal body temperature.</li></ol> <p>Members with cold-related stress shall not remove protective clothing, but add dry clothing, wrap in blankets, or use other methods to regain normal body temperature.</p>

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5.	<p><b>Documentation:</b></p> <p>The following information shall be recorded as soon as possible after a company reports to the Rehab area:</p> <p>4. Re-hydration (fluid replacement): Members entering rehabilitation shall consume fluids to satisfy thirst during rehabilitation and be encouraged to continue to rehydrate after the incident. *Rehydration is important even during cold weather operations.</p> <p>5. Calorie and electrolyte replacement: Members shall replace calories and electrolytes as required, particularly during incidents of more than 3 hours and incidents where members are likely to be working for more than 1 hour.</p> <p>6. Medical monitoring: Emergency medical services (EMS) shall be available as part of the incident scene rehabilitation for the evaluation and treatment of members. EMS personnel shall evaluate members arriving at rehabilitation for symptoms suggestive of a health or safety concern and determine the appropriate disposition (return to duty, additional rehabilitation, or transport).</p> <p>EMS, at a minimum, shall be alert for the following:</p> <ul style="list-style-type: none"><li>a. Personnel complaining of chest pain, dizziness, shortness of breath, weakness, nausea, or headache.</li><li>b. General complaints such as cramps, aches and pains</li><li>c. Symptoms of heat- or cold-related stress</li><li>d. Changes in gait, speech, or behavior</li><li>e. Alertness and orientation to person, place, and time</li></ul> <p>* EMS shall complete a patient care record for any member receiving medical treatment beyond hydration and nourishment.</p> <p>7. Accountability All members entering and exiting rehabilitation shall be assigned by the incident commander and shall be tracked through the personnel accountability system.</p>

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	<ol style="list-style-type: none"><li>1. Company Designation</li><li>2. Names of personnel</li><li>3. Age</li><li>4. Time in</li><li>5. Vital sign evaluations<ol style="list-style-type: none"><li>A. Blood pressure</li><li>B. Pulse</li><li>C. Pulse Oximetry (if available)</li><li>D. Carbon Monoxide Oximetry (if available)</li></ol></li><li>6. Medical treatment provided</li><li>7. Time out</li></ol> <p>Prior to departure from Rehab, all expended SCBA cylinders should be exchanged for full cylinders.</p> <p>No one shall be released from Rehab without further medical attention if their vitals are not within the established parameters. A second set of vital signs must be taken on everyone whose first set were outside the established parameters. The second vital sign evaluation should be taken after a ten minute rest period.</p> <p><b>Vital Sign Parameters:</b></p> <p>In order to identify persons who may need a detailed medical evaluation, vital sign parameters have been established. These are listed as follows:</p> <ol style="list-style-type: none"><li>1. BLOOD PRESSURE: Systolic pressure should be between 160 and 100, Diastolic pressure should be between 90 and 50.</li><li>2. PULSE: Between 110 and 50.</li><li>3. PULSE OXIMETRY: Above 92%.</li><li>4. CARBON MONOXIDE OXIMETRY *Nonsmokers &lt; 5%, Smokers &lt; 8%</li></ol>

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	<p data-bbox="428 506 1382 646">5. OTHER SIGNS OR SYMPTOMS: Other signs or symptoms that the evaluator determines may require further medical evaluation.</p> <p data-bbox="380 688 1382 829">It is important to emphasize that vital sign readings outside the established parameters may or may not indicate a medical problem. These parameters are established to aid rehabilitation evaluators and to increase the level of protection for personnel at emergency scenes.</p> <p data-bbox="380 835 724 869">Vital Sign Documentation:</p> <p data-bbox="380 911 1382 1199">The Rehab Officer shall maintain documentation of all vital signs taken during Level Two and Level Three Rehab by causing the Rehabilitation Report to be filled out in its entirety. All persons whose vital signs are not within the established parameters shall be identified in the "Remarks" section of the form; including all subsequent vital sign readings and any medical treatment provided (the back side of the form may be used if additional space is needed). Blank Rehabilitation Report Forms shall be available from all fire company apparatus and command vehicles.</p> <p data-bbox="380 1241 1260 1274">*On arrival to the Rehab Area, a carbon monoxide oximetry reading:</p> <ul data-bbox="477 1316 1373 1797" style="list-style-type: none"><li>• over 12% indicates moderate carbon monoxide inhalation</li><li>• over 25% indicates severe inhalation of carbon monoxide</li><li>• Members with initial CO levels <u>over 8% but below 15%</u> will be given the opportunity to breathe ambient air for 5 minutes, and the CO oximetry rechecked.</li><li>• If still above 8%, the member will be given oxygen by mask until the value drops below 5%</li><li>• Any value <u>over 15%</u> will be given oxygen by mask until the value drops below 5%</li></ul>

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	<ul style="list-style-type: none"><li data-bbox="475 474 1382 615">• Any value <u>over 25%</u> will receive a complete medical evaluation by pre-hospital personnel and transported to University of Louisville Hospital</li></ul> <p data-bbox="427 674 1341 743"><u>No member shall leave the Rehab Area until the carbon monoxide oximeter level is below 5% for nonsmokers and below 8% for smokers.</u></p> <p data-bbox="475 821 1078 852">*** See SP-0023 for Rehabilitation Report ***</p>