



Standard Operating Guidelines
Section 200.0

SECTION:		GUIDELINE:	
200.0		Rehab	
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Rehab

The Incident Commander (IC) at an emergency incident or training activity shall be responsible to consider the circumstances of each event and make adequate and early provisions to provide for the rest and rehabilitation of personnel.

DETERMINING NEED FOR REHABILITATION ON SCENE

Department Officers shall maintain an awareness of personnel operating within their span of control and ensure adequate steps are taken to provide for each person's health and safety. This includes ensuring that appropriate re-hydration and rest for their personnel is accomplished. Each individual is additionally responsible for his/her preparedness prior to an incident, including sufficient rest prior to reporting for duty, re-hydration during warm weather, proper nutrition, proper dress and ensuring their PPE is in good working order.

During any emergency incident or training activity, all personnel are to advise their Officer when they believe their level of fatigue or exposure to heat/cold is approaching a level that could affect themselves, their company, or the operation they are involved in. Officers shall assess their crew at least every 45 minutes. All individuals shall remain aware of the health and safety of others within their company.

Each incident is unique and the Incident Commander must immediately assess whether there may be a need for rehabilitation for firefighters on-site. Any incident expected to last 3 hours or longer should have rehabilitation ordered, and the Town of Beloit Rehab 28 and SWEPT shall be requested. When heat, high humidity, deep standing water, or cold exposure is likely on scene, rehabilitation should generally be initiated as soon as possible with regards to onset of the incident.

Weather conditions are important with regards to firefighter safety. The heat stress index should be calculated in warm conditions, and the wind chill index in cold conditions. As humidity and wind play important factors in cooling, it is not sufficient to make rehab deployment decisions based on temperature alone.

Indications for immediate rehabilitation at a working fire scene:

- Heat stress index greater than 89 degrees if turnout gear and any exertion is anticipated
- Any heat stress index over 105
- Remember that direct sunlight and turnout gear add significant temperature stress
- Waist or deeper water is in operations area where personnel may need to stand or work
- Wind chill under 10 degrees or actual temperature below Zero Degrees

CREW REQUIREMENTS FOR REHABILITATION

Once the Incident Command determines that scene rehabilitation is warranted and it is operational, it is then mandatory that all personnel on scene follow rehab guidelines. It should never be left to individual firefighter discretion whether they need rehab or not. This has been shown time and again to be a dangerous behavior. While any firefighter should be permitted to report to rehab at anytime they feel they need it, they must report at specific intervals to be evaluated, hydrated, and obtain adequate cooling/warming, and rest. Reporting intervals shall be defined under normal and extreme operating conditions. Extreme conditions shall be defined as heat stress index greater than 105, temperature or wind chill at zero or below. If at any time, a crewmember feels the need for rehab it should be provided as soon as possible. Crews should rehab together. High pressure SCBA will give crews more work time. Crews should be sent to rehab based on decreased work capability and fatigue, not only when their air tank is empty.

These criteria are considered maximums, and crews should routinely be sent to rehab prior to reaching these maximums.

Normal operations - 45 minutes in turnout gear with SCBA
60 minutes in turn out gear, if no SCBA used
30 minutes of very strenuous work, even if no turnouts or SCBA used

Extreme operations- 30 minutes in turnout gear with SCBA
45 minutes in turn out gear, if no SCBA used
15 minutes of very strenuous work, even if no turnouts or SCBA used

Accountability

- A. Teams shall report to rehab using the department's accountability system. Assignment to rehab is to be considered an order similar to any other incident scene assignment.
- B. Personnel assigned to rehab shall enter and exit the rehab area as a company. The team designation, number of personnel, and the times of entry/exit shall be documented by the Rehab Manager.
- C. Teams shall not leave the rehab area unless released by the Rehab Officer and shall then report to staging, Operations, or the IC

(From DSPS SOG's) Staffing of Rehab

Rehab shall be staffed by a minimum of one (1) BLS ambulance and crew. The minimum level of available care shall be BLS and the IC shall designate an EMT or a Paramedic in charge of rehab, as Rehab Manager.

For incidents that escalate to a higher alarm, an Officer should be assigned to the Rehab Group if possible.

- A. Rehab shall be staffed with one (1) EMT or Paramedic for every 10 persons who are being concurrently rehabbed
- B. Rehab shall maintain one (1) BLS or ALS ambulance for every 15 persons who are being concurrently rehabbed

When a formal rehab group is being established, the use of designated rehab teams and resources should be notified as early as possible to allow for travel and setup time.

REHAB UNIT CONFIGURATION

- Distance from working scene enough to allow turn out gear and SCBA to be removed.
- Appropriate shelter from conditions.
- This may require warm vehicle or building or simple tent .
- Fans and portable heaters as needed.
- Must be free of smoke and apparatus exhaust.
- Size must be large enough for anticipated use.
- A clear entry and exit site must be established.
- Easy and clear access for emergency ambulances must exist .
- Should be staffed with dedicated medical personnel of highest level available.
- The Rehab Chief Officer must have final say as to disposition of individuals in the unit

ROLE OF THE REHABILITATION UNIT DURING OPERATIONS

- Medical assessment on arrival- mental status, temperature, and manual vitals.
- Rest, hydrate, normalize body temperature, and eliminate exposure stress.
- Monitor those who meet observation parameters in designated treatment area.
- Treat acute injuries; arrange transport when needed in designated treatment area.
- Clear personnel to return to staging area for assignment.

MEDICAL ASSESSMENT

On arrival obtain quick mental status, manual vitals, and oral temperature or axillary temperature (oral most accurate). Goal is under 100.6

Obtain pulse and BP. Pulse over 130 signifies trouble. BP above 150 systolic or 110 diastolic should be further evaluated

Blood Pressure Guidelines:

BP < 140 systolic and < 90 diastolic meet criteria for discharge

BP 140-60 systolic and 90-100 diastolic are discharged but told to follow-up with their physician for repeat BP measurement

BP > 160 but < 180 systolic and BP > 100 but < 120 diastolic are placed on light duty and removed from active operations on the fireground. They must bring a fitness for duty note from their primary physician stating that the BP has been addressed prior to returning to duty

BP > 180 systolic or > 120 diastolic requires transport to the ED for evaluation

Vomiting, light-headedness, extreme pale skin color, profound nausea indicates serious heat exposure. These individuals should be moved to a treatment area and likely can not return to action

Individuals who meet all parameters of assessment can move to rest, hydration area.
Individuals with abnormal vital signs or findings shall be moved to a treatment area.

REST AND RE-HYDRATION

Those personnel who are assessed to have acceptable parameters on arrival to rehabilitation unit should be moved to rest area. Here, they should cool their arms and hands for 10 minutes if hot. Fluids orally should be partially water and partially a commercially made sports drink such as Power-aid or G2 for electrolyte replacement. Fluids should be on ice so they have a temperature close to 40 degrees. Gear should come off in hot operations with nothing on the head. Minimal time of rest is 10 minutes. If individual feels well, check pulse. If the pulse is under 110, may release to duty. If pulse is above 110, check temperature. Continue rest, cooling and hydration. Once temperature is under 100.6 and pulse is under 110, individual may be released.

Rest and rehab times shall be mandatory 15 minutes, and can be as long as deemed necessary by rehab commander.

When operations are expected to last over 3 hours, food should be made available. Food should be high energy snacks, bananas and fruit. Do not use caffeine, fatty foods or salty food until conclusion of event. Warm drinks without caffeine are mandatory in cold operation situations.

ON SCENE MEDICAL TREATMENT

Anyone symptomatic will be treated based on symptoms, not on CO level interpretation.

Those with temperature or vital sign abnormalities are likely to have heat related illness. Follow Rock County EMS Protocols for treatment. If they recover quickly and symptoms are mild, return to duty is possible. Use same parameters as above. Many will be restricted from return to duty. Medical Officer will determine safety of person returning to duty and will also determine if transport to the hospital is needed.

Burns, injuries, heat related emergencies shall be treated according to established Rock County EMS Protocols. Working fires with ALS support should have at least one Cyano-Kit available on scene.

TRANSPORTATION TO HOSPITAL

If the patient shows signs or symptoms of:

Persistent abnormal vital signs despite adequate rehabilitation times

Shortness of breath that does not clear with 10 minutes rest or requires a breathing treatment

Chest pain

Injuries requiring treatment

If ALS is available, IV's should be used to re-hydrate those who are symptomatic. Anyone requiring IV fluids must be transported to hospital

Persistent headache, abdominal pain, dizziness, blurred vision, mental status changes, gait instability, nausea, vomiting, or general illness, any concerning clinical situation of rehab/medical officer

REFUSAL OF REHAB CARE OR TRANSPORTATION TO HOSPITAL

If the department member refuses medical care or transportation, they will be required to sign a medical release waiver. The most Senior Fire Official/Incident Commander on scene should be made immediately aware of this situation, and the member must leave the fireground. The department member should be encouraged to seek medical care. Online medical direction or MD-1 can be consulted immediately for any health concerns.

Serious injuries

If one or more of team members suffer a serious or fatal injury during an incident, all members of the team shall be removed from service as soon as possible. Critical Incident Stress Debriefing or other mental health services shall be made available.

Documentation

- A. Any non-emergent injuries (sprain, strain, laceration etc.) treated in rehab other than fluids, food, and/or rest shall be documented on an appropriate rehab form. The firefighter will fill out a Fire District injury report upon returning to quarters.
- B. All rehab evaluations shall be documented on an appropriate rehab form
- C. Any/all rehab reports involving mutual aid or automatic aid personnel shall be made available to their respective departments

DEBRIEFING

All rehab operations should have a full de-briefing within 24 hours per Department Policies

Hydration

- A. Personnel should rehydrate with at least 16 ounces of water during each SCBA cylinder change
- B. For scheduled events, personnel should pre-hydrate with at least 16 ounces of water within two hours of the event
- C. During heat stress, personnel should attempt to replace at least one (1) quart of water per hour. Plain water or commercially prepared beverages which replenish electrolytes are the preferred beverages for rehydration during rehab. Caffeinated beverages such as coffee or tea to aid warming during cold weather may be consumed, but these should be used sparingly and are not to be considered as rehydration.

Medical evaluation

- A. EMS personnel assigned to rehab shall have the authority to use their professional judgment to keep members in rehab or to transport them for further medical evaluation or treatment. EMS personnel shall be alert for the following:
 - 1. Complaints of chest pain, dizziness, shortness of breath, weakness, nausea, or headache
 - 2. General complaints such as cramps, aches, and pains
 - 3. Symptoms of heat or cold related stress
 - 4. Changes in gait, speech, or behavior
 - 5. Changes in alertness and orientation to person, place, time
 - 6. Vital signs considered abnormal based on local EMS protocols
- B. Personnel who are symptomatic or with abnormal findings shall receive additional monitoring during rehabilitation

Accountability

- A. Teams shall report to rehab using the department's accountability system. Assignment to rehab is to be considered an order similar to any other incident scene assignment.
- B. Personnel assigned to rehab shall enter and exit the rehab area as a company. The team designation, number of personnel, and the times of entry/exit shall be documented by the Rehab Manager.
- C. Teams shall not leave the rehab area unless released by the Rehab Officer and shall then report to staging, Operations, or the IC

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ROCK COUNTY FIREGROUND REHABILITATION GUIDELINES ADOPTED BY THE EVANSVILLE FIRE DISTRICT



This policy was developed as a template to be used as desired by Rock County Fire Departments. It is written using the FEMA Document as a guideline, with additional health and medical care guidelines that have since become understood. As this policy has been written by the Rock County Medical Advisory Board, each Department is encouraged to add their own expertise regarding fireground operations, in order to develop a full and working document for their respective Fire Department.

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