



FIREFIGHTER REHABILITATION – REHAB

Policy/Procedure

Purpose:

The purpose of this procedure is to ensure the physical and psychological condition of T.F.R.D members operating at all emergency incidents and training exercises do not deteriorate to a point that affects the safety of each member and/or the safety and integrity of the operation. Proper implementation of this policy will ensure that members who may be suffering the effects of metabolic heat build-up, dehydration, physical or psychological exhaustion and/or injury, and/or extreme weather (hot or cold) receive evaluation and rehabilitation during all emergency incidents and training exercises.

Scope:

This procedure identifies situations where the establishment of a Rehab Group/Sector (R.G.S.) is appropriate. It provides information on the operation of a R.G.S., the tasks and procedures that are to be followed by those managing and those using a R.G.S., and the equipment and staffing needs of these operations. Rehab assists the Incident Commander (I.C.) with monitoring the health of firefighters and controlling the work/rest cycle to prevent environmental injuries.

The R.G.S. provides fluids, shelter from the elements and a medical evaluation for the member to assure that they are ready to return to work in a safe and managed manner.

Policy:

Ultimately, the establishment of the R.G.S. rests with the I.C. Other Command System positions, such as the Incident Safety Officer (I.S.O.), may assist the I.C. with early recognition of the necessity for rehab. Given the time needed to assemble and deploy the needed resources, the I.C. should establish the R.G.S. early.

The R.G.S. shall be staffed by at least one (1) Life Squad and any other support personnel as deemed necessary by the I.C. or R.G.S. Officer *Note-The I.C. retains the ability to assign resources as they deem appropriate.

On smaller, typical incidents (i.e. house fires), the R.G.S. may be accomplished with one Life Squad and a protected area. Larger incidents may require the commitment of additional resources (i.e. T.A.R.T.A. bus for shelter, etc.) to accomplish the Rehab Group/Sector tasks.

At incidents involving large life loss, or extended rescue operations (i.e., plane or train crash, M.C.I.'s, etc.), the Employee Assistance Program (E.A.P.) Coordinator (or his/her designee), including T.F.R.D. Chaplains should be dispatched and assigned to the R.G.S.

It is the policy of the T.F.R.D. that no member will be permitted to continue emergency operations beyond safe levels of psychological or physical endurance.



FIREFIGHTER REHABILITATION – REHAB

Rehab Functions:

The R.G.S. (radio designation “Rehab”), will be used at all emergency incidents and training exercises to evaluate and assist personnel who could be suffering from the effects of sustained physiological or psychological exertion. The R.G.S. will provide a specific area where personnel will assemble to receive:

- A physical assessment
- Revitalization-rest
- oral hydration
- Medical evaluation
- Continual monitoring of physical condition
- Transportation for those requiring treatment at medical facilities
- Initial E.A.P./FD Chaplain exposure/evaluation
- Re-assignment

The R.G.S. along with all necessary equipment and vehicles should be located close to the Command Post (C.P.) whenever possible. The R.G.S. area boundaries should be clearly defined and have only one entry/exit point to facilitate accurate tracking and accountability of personnel.

Other considerations for selecting the exact location of the Rehab site include:

- Ability to accommodate the number of personnel (fire, law enforcement, other) expected, and accommodate a separate area to remove personal protective equipment (P.P.E.).
- Accessibility for a Life Squad should medical treatment and transport be needed.
- Ability to be removed from hazardous atmospheres including apparatus exhaust, smoke, and other toxins.
- Ability to provide shade in summer and protection from inclement weather at other times.
- Accessibility to a water supply (bottled or running) to provide for oral hydration and active cooling (i.e. Misting Fans, cool, wet towels, etc).
- Location away from spectators and media whenever possible.



FIREFIGHTER REHABILITATION – REHAB

The I.C.'s best judgment of the overall situation at hand, including, but not limited to, weather conditions at the time, amount of work cycles, number of SCBA cylinders expended per member, and the general physical and psychological needs of the members shall guide the decision between implementing informal or formal rehab. The following bullet points represent a basic framework to reference in making this decision:

Informal (Self) Rehab.:

- Following the use of one 30- minute S. C. B. A. cylinder
- After 30 minutes of intense physical labor with or without S. C. B. A
- When feeling the need to do so.
- Perform self-rehab as follows: Remove PPE if not already done, rest, and self-hydrate.

Formal Rehab/ Medical Evaluation:

- Following the use of two 30-minute S.C.B.A. cylinders or one 45-or -60 minute S.C.B.A. cylinder
- After 30 minutes of intense physical labor with or without S.C.B.A.
- When performing duties in hazardous materials encapsulating suits;
- When directed by any officer to do so;
- When feeling the need to do so.

Rehab Entry Point:

This is the initial entry point and decontamination area. Assigned R.G.S. personnel (one of the two Life Squad paramedics) shall “check-in” and “check-out” all personnel reporting to rehab on the prescribed rehab check-in/check-out form. During warm/hot weather conditions, all personnel in this area must remove their P. P. E. (in warm/hot weather conditions) allowing R.G.S. personnel to obtain an initial pulse rate and blood pressure and document same on the “Rehabilitation Form”. *Note: any member deemed, by assigned paramedic, to be experiencing any type of potential medical emergency, based on their initial impressions and assessment, shall report directly to Medical Treatment and Transport where they shall be further evaluated and treated in accordance with appropriate medical protocol(s). Members that do not require immediate medical attention will then report to Hydration and Replenishment.



FIREFIGHTER REHABILITATION – REHAB

Hydration and Replenishment:

This area shall serve as the first area of rest and oral hydration for members after they have been released from the Rehab Entry Point.

- Air conditioned areas for high heat index weather conditions
- E. A. P./Chaplains (if deemed necessary) provided in this area

The following shall take place in this area:

- P.P.E. should be removed if not already done
- Rest – 20 minutes minimum

Hydration – water or approved beverage

Medical Treatment and Transport:

This area shall be the Life Squad assigned to rehab, and be staffed by at least one (1) Life Squad Paramedic (more A.L.S. staff can be assigned by the I.C. as deemed necessary). Personnel will report here, and shall be treated one-at-a-time (to ensure medical privacy). Members who are transported to a medical facility should be accompanied by a department representative. All medical evaluation & treatments shall be documented on, a standard LCEMS electronic patient care report (EPCR).

*Note:

Please see the vital signs guidelines section below to assist in member disposition decisions:

A baseline heart rate should not exceed 120 beats per minute.

1. Any member with a heart rate greater than 120 beats per minute shall remain in Rehab until their heart rate decreases. If, after 40 minutes it does not decrease, the member shall be transported for evaluation by a physician.

Blood Pressure guidelines are as follows:

1. A member who, after 40 minutes of rest, maintains a blood pressure between 160/100 mmHg and 170/110 mmHg without symptoms, should be seen by a physician of their choice as soon as they can obtain an appointment. A sustained blood pressure in this range can be effectively treated, possibly preventing a cardiac event. Med Control should be consulted for recommended disposition.
2. A member who, after 40 minutes of rest, maintains a blood pressure between 171/111 mmHg to 190/115 mmHg and is asymptomatic, but who has other risk factors including a family history of heart disease, diabetes, or who smokes greater than a pack of cigarettes a day shall be transported to the closest Emergency Room.



FIREFIGHTER REHABILITATION – REHAB

3. A member who, after 40 minutes of rest, maintains a blood pressure greater than 191/115 mmHg or any symptoms that include chest pain, shortness of breath, dizziness, headache, vomiting, or other symptoms shall be transported to the closest Emergency Room.

Carbon Monoxide (CO) Level guidelines are as follows:

1. CO reading on Life Pak 3% or less, and member is asymptomatic, no further treatment required.
2. CO reading 4-9% or less with mild headache only, administer 100% oxygen via non-re-breather mask and arrange continued rest and monitoring in rehab for additional 20 minutes before re-evaluation of this parameter.
3. CO reading 10-19%, administer 100% oxygen via non-re-breather mask and arrange transport to the nearest appropriate hospital via B.L.S. medic unit.
4. CO reading 19% or above, administer 100% oxygen via non-re-breather mask and transport member via Life Squad or comparable A.L.S. unit to the nearest hyperbaric facility.

*Note: Smokers may have a baseline CO level as high as 5-6%.

*Note: Consult with Medical Control for any firefighter that presents with signs & symptoms of potential CO poisoning, or any other potential medical emergency for assistance with deciding most appropriate patient disposition. Keep Command informed.

After appropriate rehabilitation, medical monitoring and cool down period, the above listed items shall be re-evaluated and members triaged into one of the following dispositions:

- Returned to duty – adequately rehabed and medically sound;
- Removed from duty – evidence of illness or injury, transported to an appropriate medical facility for further evaluation, and treatment of illness or injury.

Upon the member being released from rehab or if member is transported, the R.G.S. Supervisor (designated Company or Chief Officer) shall “sign-out” each member from the area and list their disposition.

Re-assignment:

Diligent efforts and face-to-face communication with the R.G.S. Supervisor and I.C. are required to ensure crews/members released from rehab are effectively accounted for. Once released from rehab, the future status of the crew/member is left to the needs of the I.C.

Should any member be separated from their crew due to the need to remain in rehab or for transport to an emergency room, the disposition of the balance of the released crew members will be decided by the I.C. It is the responsibility of the company officer to report to the I.C. if crew is depleted.



FIREFIGHTER REHABILITATION – REHAB

The R.G.S. Supervisor will update Command throughout the operation with pertinent information including identities of companies in rehab, the companies available for re-assignment, and the status of ill/injured personnel. Company Officers (C.O.'s) must keep crews intact and report to rehab as appropriate and whenever possible The R.G.S. Supervisor will direct the crew once in rehab, however, it is the C.O.'s responsibility to ensure crew members receive hydration, rest, and a medical clearance. All completed rehab forms shall be protected as a medical document and submitted to the on-scene Battalion Chief, and ultimately submitted to the Health and Wellness Officer @ H.Q. Note: Formal Rehab provides medical evaluation and therefore falls under HIPPA guidelines and protection. Medical findings (including vital signs) are not to be discussed with others both on and off the scene. The only information that should be relayed to the IC or designee is "They meet the criteria/protocol for transport and/or further evaluation". Anyone who violates this is subject to disciplinary action.

References:

- N.F.P.A. 1500; *Standard on Fire Department Occupational Safety & Health Program.*
- N.F.P.A. 1583; *Standard on Health Related Fitness Programs for Firefighters.*
- N.F.P.A. 1584; *Establishment of Firefighter Rehab Policy.*
- Fire Service Joint Labor-Management Wellness/Fitness Initiative; Sponsored by I.A.F.F. & I.A.F.C.
- United States Fire Administration (F.E.M.A.) Emergency Incident Rehabilitation Manual; February 2008 Edition.
- I.A.F.F. Thermal Heat Stress Protocol for Firefighters and Hazmat Responders.
- Fire and Rescue Departments of Northern Virginia Firefighting and Emergency Operations Manual; Emergency Incident Rehabilitation Manual; Second Edition; Revised October 2012.
- TFRD BLS Protocol, Tab 900, CO Triage Algorithm

Appendix A: N.O.A.A./National Weather Service Wind Chill Chart

Appendix B: N.O.A.A./National Weather Service Heat Index Chart

Appendix C: Rehabilitation Group Check In/Checkout Form

Appendix D: Individual Rehabilitation Form (Front Side)

Appendix E: Individual Rehabilitation Form (Back Side)

Approved by:

Signature on File 2/16/2018
Luis Santiago, Chief Date
Toledo Fire and Rescue Department

Signature on File 2/16/2018
Rick Syroka, Deputy Chief of Operations Date
Toledo Fire and Rescue Department

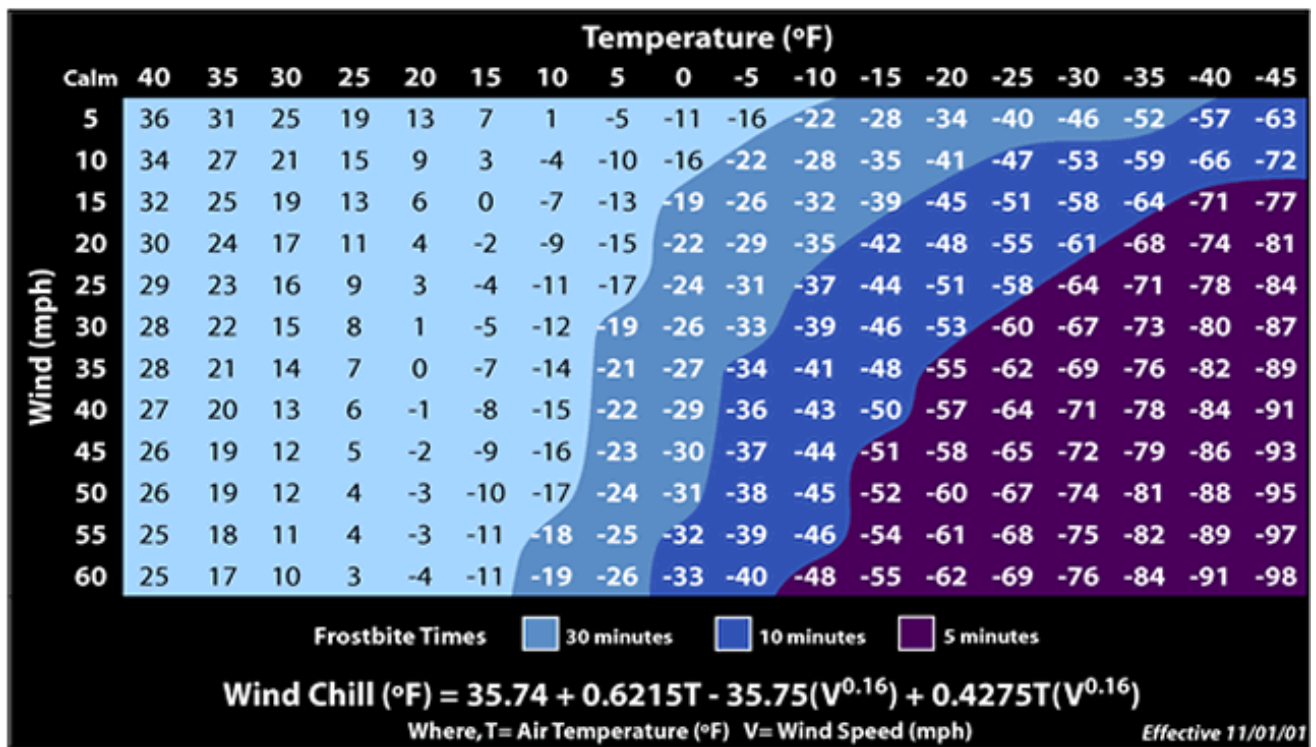


FIREFIGHTER REHABILITATION – REHAB

Appendix A



Wind Chill Chart





FIREFIGHTER REHABILITATION – REHAB

Appendix B



National Weather Service
Heat Index Chart



Temperature (°F)

	80	82	84	86	88	90	92	94	96	98	100	102	104	106	108	110
40	80	81	83	85	88	91	94	97	101	105	109	114	119	124	130	136
45	80	82	84	87	89	93	96	100	104	109	114	119	124	130	137	
50	81	83	85	88	91	95	99	103	108	113	118	124	131	137		
55	81	84	86	89	93	97	101	106	112	117	124	130	137			
60	82	84	88	91	95	100	105	110	116	123	129	137				
65	82	85	89	93	98	103	108	114	121	128	136					
70	83	86	90	95	100	105	112	119	126	134						
75	84	88	92	97	103	109	116	124	132							
80	84	89	94	100	106	113	121	129								
85	85	90	96	102	110	117	126	135								
90	86	91	98	105	113	122	131									
95	86	93	100	108	117	127										
100	87	95	103	112	121	132										

Likelihood of Heat Disorders with Prolonged Exposure and/or Strenuous Activity

- Caution
- Extreme Caution
- Danger
- Extreme Danger



FIREFIGHTER REHABILITATION – REHAB

Appendix E

Guidelines for Establishing and Managing the Rehabilitation Group	
Set Up:	
	<ul style="list-style-type: none"> Set up the Rehabilitation Group in an area large enough to accommodate several firefighters comfortably. It should have clearly defined entry and exit points. Consider time of day and weather conditions. Provide suitable protection from the prevailing environmental conditions. During hot weather, it should be in a cool, shaded area. During cold weather I should be a warm and dry area. Ensure space for support unit set-up (i.e. Red Cross Canteen Unit, etc..) Having these units in close proximity will decrease the likelihood of personnel migrating out of the rehabilitation area before being released. Advise Command of the location for the Rehabilitation Group. Additional supplies: Water, cups towel, buckets, ice trash bags.
Procedure:	
	<ul style="list-style-type: none"> Check-in with the Rehabilitation Group Supervisor (R.G.S.) Upon entering the Rehab area, direct all personnel to remove any unnecessary protective clothing and initiate fluid replacement at a minimum of 8 fluid ounces for every SCBA bottle used. During heat stress the, member should consume at least one quart of water per hour to include a commercially prepared "activity" beverage and administered at about 40 degrees Fahrenheit. DO NOT DILUTE. Perform initial assessment on all members ASAP and document their arrival and initial assessment time on the front of the Rehabilitation Form. Personnel in Rehab are to rest for at least 15 to 20 minutes prior to being reassigned. The O.I.C. will direct/ supervise with the R.G.S. officer the release of crews back to staging or the I.C. as appropriate. Consult with the I.C./ I.S.O. on any transport recommendation Consideration should be given to having a department representative accompany any
Parameters:	
	Personnel shall be released to Staging or to the I.C. for reassignment only if their vital signs are within acceptable limits and overall assessment is negative AND hydration/rest has occurred.
Unacceptable Vital Signs:	
	PULSE: > 120 beats per Minute
	B/P: Systolic > 160 mmHg and /or Diastolic > 100 mmHg
	RESPIRATIONS: Greater than 20 per Minute
	SPO ₂ : Less than 95% (Smokers may be normal down to 90%)
	SPCO: Greater than 5% (Smokers may be 'normal' up to 10%)
	TEMPERATURE: Less than 98.6 F or grater than 100.6 F
	Personnel exhibiting any of the following after cool down shall be recommended for immediate transport to medical facility for evaluation:
	<ul style="list-style-type: none"> Weak/fatigued with pale, clammy skin Low blood pressure Nausea or vomiting Headache, dizziness or chest pain Shortness of breath Systolic BP > 200 after cool down Diastolic BP > 120 at any time, Pulse > 150 bpm at any time, or Pulse > 120 bpm after cool down Oral temperature > 100.6 degrees