Standard Operating Procedures

40.04.01 INCIDENT SUPPORT/ REHAB



Adopted: 12/20/16
Reviewed: 11/18/21
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Approved:

Purpose: To ensure physical and mental condition of personnel on-scene of an incident or training exercise by providing rest, re-hydration, and medical evaluation of employees involved in strenuous physical activity or exposed to heat or cold.

References: WAC 296-305-05004

Spokane County Field Operations Guide Chapter 18

Procedure:

- 1. Rehab may take many forms depending on the size of the incident and the conditions under which it occurs. In a small-scale incident may be as simple as having a company sit under a tree for a few minutes to rest and recuperate before resuming fire suppression activities again. In a large-scale incident a special rehab function may be established and supplied with massive amounts of resources. The rest camps set up for forest fire fighting personnel are good examples of large-scale rehabilitation efforts. In general, rehabilitation is intended to accomplish the following objectives:
 - a) Provide physical rest by allowing the body to recuperate from the demands of emergency operations.
 - b) Provide mental rest by allowing personnel to escape the hectic, highpressure atmosphere of the emergency scene.
 - c) Revitalize personnel by providing fluid replacement and food as necessary.
 - d) Provide medical assessment and monitoring as needed, including the treatment of injuries and a check of vital signs to determine if and when personnel may safely return to action.
- 2. Personnel sitting on the tailboard of the apparatus breathing diesel exhaust while people hustle past them to gather needed equipment is not considered rehabilitation. The locations chosen for the rest and rehabilitation division is very important. It should be away from the scene so that personnel may safely remove their turnout gear and SCBA. They should also be removed from the immediate urgency of the emergency scene.
- 3. If the weather is cold, there should be a place for personnel to warm up and thaw out. Likewise, if it is hot and humid, every effort should be made to provide a cool shaded area.
- 4. Rehab is an important part of our safety program. When a firefighter is fatigued, miscues are easy. A momentary loss of balance, an extra second required to react

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to a dangerous situation, or a minor lapse in thinking, can all have serious or fatal consequences.

5. Enforcement.

- a) It shall be the responsibility of the Incident Commander to institute appropriate rehabilitation efforts when conditions dictate. This determination shall be made based on the length of the operation, the level of physical exertion, and the environmental conditions, such as the temperature and humidity level.
- b) Each company officer has the responsibility to continuously monitor the condition of all members of the company and advise the Incident Commander when rest and rehabilitation are needed.
- 6. Establishment of rehab function.
 - a) A rehab function should be established by the Incident Commander when conditions dictate that rest and rehabilitation are needed for personnel operating at an emergency scene. A rehab manager officer shall be placed in charge of the function. It shall be set up according to the following procedures:
 - b) Location.
 - i. The locations for the rehab function will normally be designated by the Incident Commander. If a specific location has not been designated, the rehab manager shall choose a suitable location with the following characteristics:
 - 1. It should be far enough away from the emergency scene that personnel may safely remove their turnout gear and SCBA.
 - 2. It should be far enough away from the scene that emergency personnel are removed from the urgency of the emergency scene.
 - 3. It should provide suitable protection from the prevailing environmental conditions. During hot weather it should be in a cool, shaded area. During cool weather it should be in a warm dry area.
 - 4. It should be easily accessible by EMS units.
 - c) Resources.
 - i. The rehab manager should secure all necessary resources required to properly supply the rehab area, as needs dictate.
- 7. Assignment to the rehab function.

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- a) Assignment of companies to the rehab function will be made by the Incident Commander. Company officers should advise when their personnel are in need of assignment to the division. Whenever possible, the entire company will be assigned to the division as a group. Assignment will be according to the following procedures:
 - i. The names of all personnel entering the division shall be recorded along with the time of entrance.
 - ii. The rehab manager may designate that certain personnel be evaluated by on-scene EMS personnel. If any individual requires transport to a medical facility, the division officer shall notify the Incident Commander of the name of the individual, the medical problem, and the receiving medical facility. This information should be relayed by a messenger. This information should not be broadcast over the radio.
 - iii. Personnel assigned to the rehab function shall not leave the area until directed by the rehab manager.
 - iv. The rehab manager shall not be released from the rehab area until they have been provided with an assignment by the Incident Commander.
- 8. Support Unit 80 (SU80) is the Fire District's rehab unit.
- 9. SU80 provides shelter, hydration and nutrition supplies, restroom facilities, and Self-Contained Breathing Apparatus (SCBA) cylinder filling for on-scene personnel.
- 10. SU80 will report to the Incident Commander (IC), or other designated location as directed.
- 11. When the lead SU80 staff person has been established from the IC, they will be designated as the Rehab Officer and don a rehab vest.
- 12. All supervisors will have their crew re-hydrate and have a mental evaluation after working through the first SCBA bottle.
- 13. After 45 minutes of work or working through their second SCBA bottle, firefighters will have a mandatory rest period and their heart rate taken.

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- 14. After a ten minute rest period someone, other than the firefighter, will take the firefighters heart rate and if it is not less than 120 bpm the following Basic Life Support (BLS) evaluation will be taken. If the firefighter is outside of the BLS evaluation limits, the firefighter will be sent for an Advanced Life Support (ALS) evaluation.
- 15. ALS evaluations will be required for the following medical reasons:
 - a) Pulse irregularities.
 - b) Failure of neurological exam or decreased orientation.
 - c) Nausea.
 - d) Shortness of breath or chest pains/tightness in the chest.

Documentation:

- 1. Personnel that were given rehab will document in the Apparatus Remarks portion of the run report noting that their members were rehabbed.
- Personnel that were given BLS evaluations will document all required information on the Incident Rehab Sheet and also include the same information in their apparatus remarks.
- 3. The Incident Rehab Sheet will be collected and retained by the IC for each incident.
- 4. The Incident Safety Officer will document in their incident report that the Rehab Guidelines were followed.

Responsibilities:

- 1. Incident Commander The Incident Commander shall consider the circumstances of each incident and make adequate provisions, where necessary, for rehabilitation and other logistical support for all members operating at the incident scene. These provisions may include medical evaluation, treatment and monitoring, food and fluid replenishment, mental rest, and relief from extreme climatic conditions and other environmental parameters of the incident. The rehabilitation may include the provision of Emergency Medical Services (EMS) at the Basic Life Support (BLS) level or higher.
- 2. Supervisors, Company Officers and Team Leaders All supervisors shall maintain an awareness of the condition of each employee under their supervision and ensure that adequate steps are taken to provide for each employee's safety and health.

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a) The supervisor will ensure that the employees under their supervision follow this guideline and complete all documentation required.

All Personnel:

1. During any emergency incident or training evolution, all employees are responsible to advise their supervisors when they believe that their level of fatigue or exposure to heat or cold is approaching a level that is beginning to affect them or the operation in which they are involved.

Training Division:

1. The Training Division Chief or his/her designee shall consider the circumstances of each training event and make adequate provisions, where necessary, for rehabilitation and other logistical support for all employees or others involved. These provisions may include medical evaluation, treatment and monitoring, food and fluid replenishment, mental rest, and relief from extreme climatic conditions and other environmental parameters of the training event. The rehabilitation may include the provision of Emergency Medical Services (EMS) at both the Basic Life Support (BLS) level or higher.

BLS Evaluation Limits:

1. Blood pressure: - Systolic - Less than 100 or greater than 160.

- Diastolic - Greater than 90

2. Temperature: - Less than 97, greater than 101 degrees.

- 3. If the temperature and blood pressure are within limits and the heart rate is less than 120bpm after another 10 minute rest period back to unlimited work.
- 4. If the temperature and blood pressure are within limits and the heart rate is greater than 120bpm after another 10 minute rest period the firefighter may be assigned limited work by the IC.

Resources:

- 1. Support Unit 80.
- 2. If rehab requires more than Support Unit 80 is capable of doing, then appropriate rehab units need to be called to the scene.
 - a) These include, but are not limited to:
 - i. STA bus.

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ii. D.E.M. bus.

iii.

3. AMR may be utilized for Rehab / Medical Evaluation.

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Appendix A - Rehab Flow Chart

After 1st SCBA bottle Re-hydrate/Recycle (8 ounces), Mental Evaluation, return to work. (An individual may be sent to Staging/Rehab for evaluation if needed).

After 2nd SCBA bottle or 45 minutes of work and report to formal Staging/Rehab. (On-site for wildland fire*).

Rest (10 minutes) Re-hydration (8+ ounces) Mental Evaluation.

Rest period completed - Take pulses of crew members.

Heart rate is <u>under 120 bpm</u> Return to unlimited work.

Heart rate is <u>over 120 bpm</u>

BLS evaluation and extended Rehab.

Log info onto Incident Rehab Sheet.

BLS Evaluation = Temperature and Blood Pressure.

Temp. Less than 97, greater than 101 degrees.

BP Systolic - less than 100, greater than 160. Diastolic - Greater than 90. ALS Evaluation (see below)

NFIRS-FF casualty report is to be filled out and a PCR.

Temp. greater than 101 degrees - Use Passive cooling techniques.

Temp. and BP within limits.

Heart Rate less than 120 bpm after another ten min. rest back to unlimited work.

Temp. and BP within limits.

Heart Rate greater than 120 after another ten min. rest limited or no work as assigned by the IC.

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ALS Evaluation

ALS evaluations should also be required for the following medical reasons:

- a. Pulse irregularities.
- b. Decreased level of consciousness or orientation.
- c. Nausea.
- d. Shortness of breath or difficulty breathing or painful breathing.
- e. Chest pain, "tightness" in the chest, radiating jaw or arm pain or other symptom of cardiac related chest pain.
- f. Hypertension = Systolic greater than 160 or Diastolic greater than 90.
- g. Hypotension = Diastolic less than 60.

Personnel evaluated by ALS or who receive any ALS treatment should be treated as a patient with appropriate medical forms. If transport is necessary appropriate insurance forms should also be completed.

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Appendix B - Relative Humidity and Wind Chill

	Relati	ve Humic	lity							
		10%	20%	30%	40%	50%	60%	70%	80%	90%
	104	98	104	110	120	132				
	102	97	101	108	117	125				
	100	95	99	105	110	120	132			
	98	93	97	101	106	110	125			
	96	91	95	98	104	108	120	128	ı	
	94	89	93	95	100	105	1111	122		
	92	87	90	92	96	100	106	115	122	
<u>F</u>	90	85	88	90	92	96	100	106	114	122
	88	82	86	87	89	93	95	100	106	115
I	86	80	84	85	87	90	92	96	100	109
2	84	78	81	83	85	86	89	91	95	99
ra	82	77	79	80	81	84	86	89	91	95
Temperature	80	75	77	78	79	81	83	85	86	89
	78	72	75	77	78	79	80	81	83	85
	76	70	72	75	76	77	77	77	78	79
	74	68	70	73	74	75	75	75	76	77

NOTE: Add 10°F when protective clothing is worn and 10°F when in direct sunlight

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	Tem	peratu	re °F											
		45	40	35	30	25	20	15	10	5	0	-5	-10	-15
(MPH)	5	43	37	32	27	22	16	11	6	0	-5	-10	-15	-21
	10	34	28	22	16	10	3	-3	-9	-15	-22	-27	-34	-40
	15	29	23	16	9	2	-5	-11	-18	-25	-31	-38	-45	-51
	20	26	19	12	4	-3	-10	-17	-24	-31	-39	-46	-53	-60
g	25	23	16	8	1	-7	-15	-22	-29	-36	-44	-51	-59	-66
Speed	30	21	13	6	-2	-10	-18	-25	-33	-41	-49	-56	-64	-71
5	35	20	12	4	-4	-12	-20	-27	-35	-43	-52	-58	-67	-75
Wind	40	19	11	3	-5	-13	-21	-29	-37	-45	-53	-60	-69	-76
	45	18	10	2	-6	-14	-22	-30	-38	-46	-54	-62	-70	-78
				Α							В			C

1	nd Chill nperature	Danger
Α	Above –25° F	Little Danger for Properly Clothed Person
В	-25° F / -75° F	Increasing Danger, Flesh may Freeze
C	Below –75° F	Great Danger, Flesh may Freeze in 30 Seconds