

Emergency Services - Fire Department

Standard Operating Guideline

SOG # Draft		Page 1 of 4
Section: Member Health & Assistance Programs – Facility Safety		
Subject: Chemical Decontamination Unit		
Created: Aug 17, 2017	Reviewed: Revised:	Rev. No.

1.0 PURPOSE

Provide staff with a guideline for the Chemical Decon Unit. This chemical decon chamber is designed to remove toxins from our bodies that may have been absorbed during firefighting and fire investigation duties. The chamber contains "...infrared medical grade heaters (which combined) with mild exercise...will coax a quick and profuse sweat without raising the core body temperature".

2.0 DEFINITIONS

"Reserved"

3.0 SCOPE

Guideline is to be followed by ALL members of the Fire Department.

4.0 GENERAL REQUIREMENTS

- 4.1 It is recommended that fire department staff (suppression and fire prevention) involved in a fire incident (structure, vehicle, garbage, grass, etc) utilize the Chemical Decon Unit to help remove any absorbed toxins as soon as practical after the Firefighter has returned to station and has fully recovered from the physiological stresses of the event.
- 4.2 The Chemical Decon Unit is located (state location).
- 4.3 It is Mandatory that staff shower prior to using the Chemical Decon Unit. If entering after attending a fire, shower in tepid to cool temperature water to assure core body temperature is normalized prior to entering Chemical Decon Unit.
- 4.4 It is recommended that you wear loose fitting fitness gear (shorts and muscle style or T-shirt) and clean sports shoes in the Decon Unit. Have available shower toiletries and a towel for after your session. Work boots and fatigue clothing (firefighting clothing) will not be worn in the Decon Unit.
- 4.5 While the recommendation is for all FD members to use the unit "daily" as part of a health and wellness protocol, prioritization for use of the device will be granted

Emergency Services - Fire Department

Standard Operating Guideline

to firefighters who were involved in a recent interior firefight or similar toxic environment.

- 4.6 The FD members will have the opportunity to rotate through and take advantage of this wellness initiative.
- 4.7 A Station Officer and/or PC should coordinate a schedule to use the Decon unit with involved staff.
- 4.8 When FD members (on or off shift) are utilizing the decon unit, please advise the station captain(s) and/or the PC. Use the buddy system for time in and time out safety.
- 4.9 Only FD staff is permitted to use the Decon Unit.
- 4.10 Read and understand warning labels and user manuals (located on the side of the Unit) prior to exercise. Obtain instruction prior to use.
- 4.11 **Only** the cycle bikes that came with the Decon Unit are to be used inside. They are specially designed and modified so they will not off gas. Other mats, exercise equipment, and personal equipment may off gas in the heated environment.
- 4.12 When finished, **leave the chamber cleaner than you found it!** Clean and sanitize all equipment using a damp towel (with a very mild soap solution if desired). Do not use harsh chemicals inside the decon unit.
- 4.13 Turn the unit off once finished.
- 4.14 FD members are required to sign the “Chemical Decon Unit Sign In” sheet
- 4.15 All FD members are encouraged to frequently use the Decon Unit to help decontaminate from acute and chronic/repeated exposures from smoke. The objective of the Far-infrared Unit is to remove the harmful chemicals (pyrolized plastics, metals and brominated fire retardants) from the body via sweat and in turn, help mitigate the disease process that Firefighters are prone to, due to on the job exposure.
- 4.16 The small face/hand and larger drying towels that are provided are strictly for FD staff using the Decon Unit. These towels shall not be used for any other purpose. All users will wash any towels that are used and will place those towels back in the designated location (Unit). FD staff are permitted to use their own towels.

5.0 GUIDELINES

5.1 Turning It On

- 5.1.1 Ensure that the power cable is firmly plugged into the wall outlet.
- 5.1.2 Press power button to the “ON” position. It is pre-set for 60 minutes and 131 Fahrenheit.
- 5.1.3 The **SaunaRay** Timer has a built-in safety function and will always time down to Zero and shut off automatically.
- 5.1.4 *****Timer Must Be On For Heaters to Start*****

5.2 Setting the Temperature

Emergency Services - Fire Department

Standard Operating Guideline

- 5.2.1 Your temperature panel has a factory setting that sets a limit for the heat inside at 131 degrees Fahrenheit. **This is not the intended setting for the Fire service. The panel is to be re-set for a max temperature setting of 100 – 104 degrees MAXIMUM.** Once it is at 80-82 degrees Fahrenheit it is warm enough to enter. The temperature setting will ensure it doesn't get too hot to breathe.
- 5.2.2 Press the **down arrow** on the **right side of the control panel** to set the temperature limit you desire. For Fire Department purposes, the maximum setting to be used is 100 -104 Degrees Fahrenheit maximum with the user being exposed to between 80 – 99 degrees on average. The goal is to provoke sweat at low temperature and very low movement to ensure core temperature does not increase.
- 5.2.3 Set timer to approximately 25 minutes allowing for a 10 min Unit warm up period. Leaving a 12 - 15 minute personal decon time in unit.
- 5.2.4 Wait the 10 minutes until Decon Unit is warm enough to be comfortable inside.
- 5.2.5 Enter unit while the temperature is still rising to benefit from a range of Far Infrared Rays.
- 5.2.6 The temperature setting will act as a ceiling for the heat. After a few sessions you will know your own comfort level.
- 5.2.7 The Decon Unit needs only to be warm enough for you to be comfortable inside, usually about 80-82 degrees Fahrenheit. Going into the unit as it warms up or staying in as it cools down provides a wide range of far infrared in the healing spectrum. The lower the temperature you can sweat well at, the better. The objective is to use the bikes for a very low level of movement and exercise as more of a metabolic cool down activity. It cannot be stressed enough that after an exposure to smoke at a fire fight that the objective is to simply sweat at a low temperature and relax the body without increasing the core temperature. This is not intended as a work-out protocol.

5.3 Using the Window

- 5.3.1. Every Decon Unit has a sliding window which allows you to let in cool air. Breathing cool air will keep your core body temperature normal while you continue to sweat. You should open and close the window to your own comfort level during every session.
- 5.3.2. Open the window 1 inch to allow a continuous inward breeze of room temperature air.
- 5.3.3. Open the window more every five minutes if you want an occasional breath of cooler air.

5.4 Keeping It Clean

Emergency Services - Fire Department

Standard Operating Guideline

- 5.4.1** Always use towels inside your Decon Unit. Sweat has contaminants in it and will stain the wood.
- 5.4.2** Place a towel on the floor under the bike and on top of the aluminum mat to catch the dripping sweat.
- 5.4.3** Bring 4-5 small hand towels into your Decon Unit each time and use them to wipe away your sweat as it comes. Use a fresh towel each time and wash all of them afterward. After using the Decon unit, wash and wipe dry all wet surfaces. Open all windows to allow release of excess moisture in the unit.
- 5.4.4** Clean the surface of yellow sweat-stains with a mild 3% -5% Hydrogen Peroxide spray solution (located on the top of the unit).

5.5 Sweating

- 5.5.1.** If you do not easily sweat then do not exceed 12 minutes on your first session.
- 5.5.2.** Do not exceed 12 minutes on subsequent sessions until you break a sweat.
- 5.5.3.** Do not exceed 15 minutes to ensure your core body temperature does not elevate, so as to remain “In service” and “Call ready” during your Decon session. The objective is to create a quick profuse sweat then rinse in the shower, not to increase the core body temperature like in most traditional sauna sessions.
- 5.5.4.** Once you break a sweat wipe it off with a small hand towel.
- 5.5.5.** Continue to wipe off your perspiration as you sweat using several dry hand towels.
- 5.5.6.** Always shower immediately afterward so you don’t re-absorb the sweat into your skin.

5.6 Drinking Water

- 5.6.1.** Always drink water before, during and after Decon Unit usage.
- 5.6.2.** Drink from glass, not plastic.
- 5.6.3.** Place your glass on the floor or in the bottle holder of the bike, not on cage above elements.

Caution

The Fire Department Chemical Decontamination Unit will make you feel great as you eliminate toxins. However, during consistent use, you also may sweat out nutrients. If you feel tired, you may be releasing toxins too quickly. Do shorter sessions and check your baseline nutrient levels. They may be too low.

An information package describing the benefits of this device has been placed by the unit. Please refer to this for more information.

WARNING

Emergency Services - Fire Department

Standard Operating Guideline

Reduce the Risk of Overheating

- Exit immediately if you feel uncomfortable, dizzy, develop a headache, become sleepy and/or become fatigued. **Immediately notify the On Duty Officer.**
- Staying too long in a heated area is capable of causing overheating. Open the Unit window regularly to allow fresh cooler air inside.
- **HYDRATE** with plenty of water prior to using the “Chemical Decon Unit”.
- Do not use the unit if you are pregnant. Overheating the core body temperature at any time during the first trimester of pregnancy can severely harm an unborn child.
- Do not use the unit if you are breast-feeding an infant. Detoxification during this period can increase the infants` toxic load.
- **DO NOT** use if you have cardiac or medical issues without getting clearance from a Medical Practitioner (i.e.; COPD, untreated high blood pressure, angina, SOB, etc.).
- Hydrate before, during and after each session with water. Profuse sweating may cause dizziness due to mineral loss.
- Bodily implants should be covered with a double-thick towel to avoid overheating the prosthetic device.

6.0 REFERENCES

6.1 SaunaRay Chemical Decon Unit manufacturer’s recommendation and user guide

SOG #

Approved On:Draft

Sig.
