City of Greencastle Fire Department	Training Division

Instruction Page:

January 2015

Fire Suppression: SCBA Drills	Review the outline and complete the skills
EMS: CPR/AED	Schedule with Asst. Chief Burgess
Safety: Fit Testing	Schedule with Safety Officer Christy Glass
Specialized: Ice Rescue Review	Review the outline and complete the skills
Misc.: Cold Weather Ops.	Review the outline
Hazmat: Site Management & Control DVD	Each member needs to watch Site Management & Control DVD
Officer: Situational Awareness for Fireground Survival	Situational Awareness for Fireground Survival Webcast Link: http://www.firehouse.com/webinar/11706991/firefighter-training-situational-awareness-for-fireground-survival-webcast

SCBA

Objectives:

1) All shifts need to watch all 6 videos in the GFDTraining Youtube SCBA channel. https://www.youtube.com/playlist?list=PL68225DC4F95F2299
2) All shifts shall have each member conduct Over the Head Method, Coat Method and Seated Method with-in 60 seconds. See skill sheet below. MUST BE done by everyone on your shift and attach completed skill sheets with roster.
3) All shifts shall have each member wear Full PPE and SCBA mask Blacked OUT and have their Air Pack messed up drill and have them fix the pack and Redon the SCBA.
4) All shifts shall have each member wear Full PPE and SCBA mask and practice the Reilly breathing technique.
5) All shifts shall have each member fill SCBA bottle using the cascade system

Greencastle Fire Department
Training Division
SCBA Certification Checklist

Student Name:_____ Date:_____

SCBA

Time starts when student hears instructor say GO
Approved Methods of Donning, Coat, Seat, or Overhead
Firefighter must have full turn out gear on to complete test.

Test will be redone until a time of 60 sec or less can be achieved.

1. Prepares SCBA for donning: YES or NO
2. Turns on SCBA, Activates PASS YES or NO
3. Dons SCBA properly, using 1 of 3 methods YES or NO
4. Tightens and fastens all straps (Chest Optional) YES or NO
5. Dons Mask properly YES or NO
6. Dons Nomex Hood YES or NO
7. Dons Helmet YES or NO
8. Goes "ON AIR" YES or NO
9. Dons Gloves (Timing Stops) YES or NO
10. Did firefighter demonstrate complete competency with SCBA? YES or NO
11. Set up SCBA for next firefighter
12. Total SCBA Time_____ (Time must be under 60secs)
13. Number of Attempts_____

COMMENTS:_____
_____
_____
_____
_____
_____
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_____

Instructor Giving Test:_____

Ice Rescue Operations

It is the goal of this training to familiarize all of our member's ice rescue incidents and to explain the capabilities, limitations when responding to, and operating at these incidents. This will hopefully be instrumental in saving lives and keeping our members safe.

It should be emphasized that any entry into the water be considered as a **LAST RESORT**. The safety of our members is of prime concern. The Incident Commander will have to weigh the risk vs. benefits in order to decide whether or not to attempt an ice/ cold water rescue.

Greencastle Fire Department doesn't have an ice suit or responders training to technician level so this training will deal with **SURFACE** rescue.

Ice Rescue Basics:

Ice Formations and Characteristics

The safest way to ensure personal safety is to stay off the ice
• Frazil ice – initial ice crystals
• Clear ice – strongest! Requires a long, hard freeze
• Snow ice – milky or opaque, weak
- Anchor ice – ice around obstructions
- Drift ice – floating ice

Water Temperature and Time:

• **Cold water immersions**
If water temperature is 70 degrees Fahrenheit or lower, carry out rescue efforts for 90 minutes from the time of the 911 call.
• **Warm water immersions**
If water temperature is above 70 degrees Fahrenheit, carry out rescue efforts for 60 minutes from the time of the 911 call
• **After these time frames, switch operations to RECOVERY**

INITIAL ON SCENE ACTIONS BY RESPONDERS

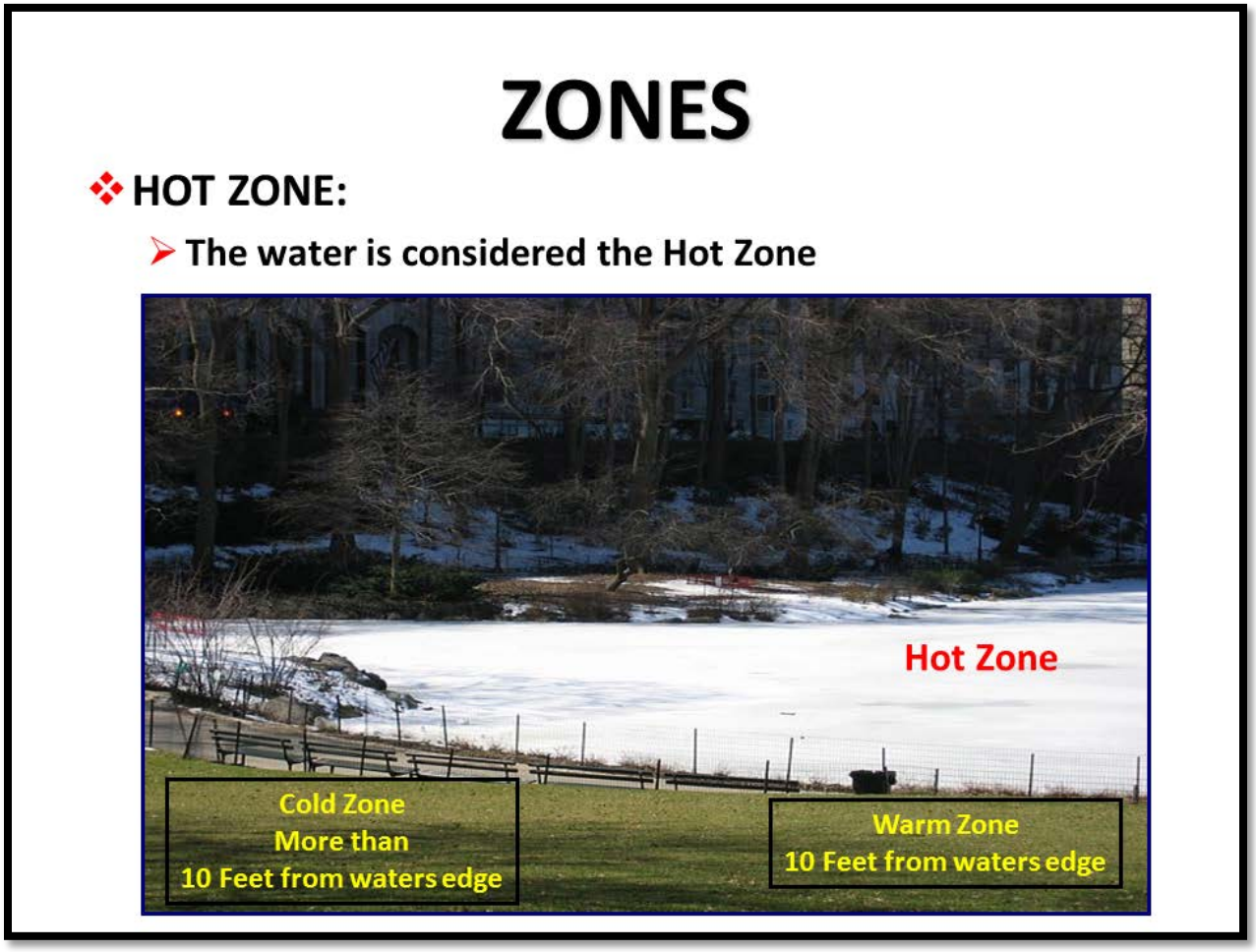
- Make a hazard evaluation of the scene, to determine proper action required
- Establish warm zone & restrict access (warm zone requires PFD & NO Fire Gear)

- Make verbal contact with victim
- Establish victim location by spotting
- Attempt to provide flotation device
- Attempt a shore based rescue

- Determining the location of the victim is critical before victim submersion or before ice breaks apart. (Last Point Seen)
- Usually victim falls through an isolated weak spot (small area)

Ice Rescue Operations

- The identity of this spot is critical, once victim submerses (enhance ability to locate)
- **Last Point Seen**
- Create line of site markers using fixed objects
- Interview witnesses
- (to improve accuracy interview separately)
- Ask to describe accident from location they observed
- How many victims
- Did anyone make it to shore
- Do they know the victim (name, age, address)
- Make verbal contact with victim.
- Mark the victims location utilizing shore objects IE: tree, apparatus etc. before submersion**.**



Ice Rescue Operations

Generally, there are three methods used for cold water/ice victim rescue.

Reach

Throw

Go

The **reach** method is used when a victim is conscious and can assist in their own rescue. For this method the rescuer uses a hook, pole or other device extended to the victim. When the victim has gained a hold on the object, rescuers can pull the victim to safety.

The **throw** method is used when the reach method is not feasible. Using a throw rope, the rescuer hurls the rope to the victim. The victim should wrap the rope around there arm to be pulled to safety.

The **go** method is used if the victim can't hold a pole or a rope or is too far from shore. Victims exposed to cold water will have problems with their motor skills and manual dexterity. This should be the last method tried since it is the most dangerous.

Care should be taken when removing victims across icy edges, these edges maybe sharp and can cause injuries.

PATIENT CARE:

Hypothermia

The loss of body heat occurs 25 times faster in cold water than in air. Hypothermia (subnormal body temperature) begins when the body's core (brain, spinal chord, lungs and vital organs) temperature falls below the level of 98.6 degrees Fahrenheit. Cold water cools the body's skin and outer tissues very quickly. In approximately 7 to 15 minutes, core body temperature begins to drop significantly, affecting utilization of the arms and legs. Blood pressure, pulse and respiration rates all decrease. Muscles tense and shiver. Irrational behavior (resisting help) is a good indicator of hypothermia.

When the body's core temperature begins to drop below 90 degrees Fahrenheit, the victim transgresses from semi-conscious into unconsciousness. Low core temperature, in conjunction with stress and shock, can cause cardiac and respiratory failure. It is estimated that half of all drowning victims die from the effects of hypothermia.

The chart below is a guideline for the average adult and shows the rapid onset of hypothermia as water temperature decreases.

Water temperature in Degrees Fahrenheit.	Expected time before exhaustion/unconsciousness.	Expected time of survival.
32.5	Fewer than 15 minutes	45 minutes
32.5 to 40	15 to 30 minutes	30 to 90 minutes
40 to 50	30 to 60 minutes	1 to 3 hours
50 to 60	1 to 2 hours	1 to 6 hours
60 to 70	2 to 7 hours	2 to 40 hours

70 to 80	3 to 12 hours	3 hours to indefinite
More than 80	Indefinite	Indefinite

Mammalian Diving Reflex

There are a considerable number of authenticated cases of drowning victims who were submerged in cold water for 30 to 60 minutes and then resuscitated with no brain damage or other serious health effects. Sudden face contact with cold water (below 70 degrees Fahrenheit) initiates a body reflex known as the Mammalian Diving Reflex (MDR). This oxygen conserving mechanism is common to whales, porpoises and seals and allows these mammals to stay underwater for long periods of time.

It reduces the heart rate (bradycardia), increases blood pressure and shuts down blood circulation to all the body's core, resulting in a lower metabolism. MDR also protects the victim from the rapid inhalation of water into the stomach and lungs.

MDR is more pronounced in young people and, therefore, they are the best candidates for resuscitation. The colder the water and the younger the victim, the better chance he/she has of survival.

First Aid

Cold water exposure symptoms include intense shivering, loss of coordination, mental confusion, cyanotic (cold/blue) skin, low pulse rate; irregular heart beat and fixed dilated pupils.

Remove the victim to a warm shelter to prevent further body cooling. The victim should be transported carefully to avoid heart fibrillation and stress. **Do not** massage or rub the victim because rough handling could cause cardiac arrest.

Remove wet clothing and wrap the person in warm blankets. Check for breathing and heartbeat. Start CPR, if necessary.

Remember: Cold water victims look dead. However, people have been submerged in cold water for long periods of time and made complete recoveries.

Summary:

What can you do?

- You can attempt a rescue using Shore Based Methods
- Deploy spotters whose line of sight to the victim are at 90 degree angles to each other
- Ensure that everyone going onto the ice is in proper PPE (ice rescue suits)
- Ensure that preparations have been made to treat the victim for Hypothermia
- **NO ICE IS SAFE ICE**

Ice Rescue Operations

- ***DON'T BECOME A VICTIM!!!***
- If it didn't hold the victim, it won't hold you!!!
- NO BUNKER GEAR ON ICE or NEAR WATER
- NOTE: GFD doesn't have ICE Suits and the closest is Cloverdale Twp.

All shifts should get out throw bags and practicing throwing the bag the most common choice for Greencastle firefighters.

Sources:

FDNY training division

State of Maryland rescue training division

Cold Weather Operations

Winter Driving

- Identify streets/roads that are susceptible to icing up more frequently than others
- ALWAYS leave lots of room between you and the car in front, on average about 10 seconds following distance. That may seem like a lot of space, but when you apply the brakes on slippery/icy roads, that space will close up real fast
- Bridges and overpasses will freeze before the main road surface
- Reduce your speed.
- Take special precautions at intersections because although an oncoming vehicle might attempt to stop, a slide can put them in the intersection right in front of you.
- Turn off retarders during slippery road conditions.
- Keep wheels off low or soft shoulders.
- Give careful consideration to areas with steep or sloping terrain.
- Make sure to turn the wheels into the curb when you park and don't forget to chock the wheels.
- Keep the heat and defrosters on in the apparatus

Personal Equipment

- Encourage your personnel to carry a personal bag that contains additional cold weather and essential equipment such as: Spare t-shirt, pants, socks, underwear
- Extra set of fire gloves (it is not fun working with wet gloves in freezing conditions)

Apparatus Reminders

- Keep pumps drained to ensure that they don't freeze if exposed outside for a long time
- If pumps are wet on scene, make sure you circulate water in the pumps
- Avoid washing apparatus in extremely cold weather; this could lead to locks or compartments freezing
- Pay attention to outside attention to equipment such as ladders. The moving parts/pieces of the ladder can freeze and become inoperable
- Make sure pump discharge fittings are not frozen shut. This can be prevented by a small amount of Vaseline which helps to keep the water away
- All moving parts should be operated on a regular basis

Misc. Safety

- Be careful when stepping out of the apparatus as the ground below can be icy.
- The area around the pumping apparatus can be especially dangerous. Use caution when walking around this area as excess water can freeze creating a hazardous area.
- During nighttime operations, an icy surface might not be apparent so use extra caution
- During prolonged exposure frostbite and hypothermia can occur so say something if you need to go to rehab to warm up

Water Supply

- Make sure all hydrants are accessible and ready for use if needed. During the winter months, fire hydrants can get buried quickly and they are of no use to us if we are unable to find them.
- If you find a buried hydrant while you are out driving or EMS run, etc. DIG IT OUT!
- If you know the location of a hydrant but it is buried, a pike pole is an excellent tool used to poke through the snow to find a hydrant.

BEWARE of additional snow load weight on roofs!