

15.23 Scope:

This guideline shall address operations which involve the location, disentanglement and removal of victims from a body of water. These guidelines are also designed to provide guidance to the Cumru Township Fire Department personnel who may be involved in a water rescue operation.

15.2301 Definition:

For the purpose of emergency response, a water rescue shall be defined as any incident that involves the removal of victim(s) from any body of water other than a swimming pool. This shall include rivers, creeks, lakes, washes, storm drains, or any body of water, whether still or moving.

15.2302 First Arriving Unit:

The first arriving officer shall establish command and begin a size-up. Command shall then assess the situation and if not already dispatched, shall request assistance from a mutual-aid department. The request for mutual-aid will enable assistance with their water or ice rescue teams.

15.2303 Size up:

Command shall make a careful size-up before deciding on a commitment. In any case the Incident Commander should begin a size-up which shall include the following:

- A. **Secure any witnesses:** This will help in identifying and locating the problem.
- B. **Assess the need for additional resources:** Whether it be personnel or equipment. If additional resources are necessary, the Incident Commander shall put a request out early in the incident. Don't delay as it could hamper operations and produce negative results.
- C. **Assess the hazards:** The Incident Commander shall assign an individual as the Safety Officer. The Safety Officer shall be responsible for identifying the hazards present and have them secured if possible. If it is not possible to secure hazards, they will notify all personnel of the hazards and notify the Incident Commander so that an action plan can be established. Some hazards associated with water rescue operations would be:
 1. Volume, velocity, and temperature of water;
 2. Floating debris;
 3. Unusual drop-offs;
 4. Hydraulic effects;
 5. Depth of water.

In the case of an Ice Rescue, a survey of the ice conditions should be completed. The formula $(\text{Thickness of ice})^2 \times 50 = \text{weight bearing capacity}$ (i.e.: 2"thickness = 200 lbs. capacity). A simple rule of thumb is:

1. 1 inch = Stay Off!!
 2. 2 inches = One person
 3. 5 inches = One snowmobile
 4. 7 inches = Group activities
 5. 8 inches = One automobile
 6. 9 inches = Several snowmobiles
 7. 10+ inches = Light truck
- D. **Decide on Rescue or Recovery:** Based on the conditions present and the hazards to rescuers, the Incident Commander will have the decision to operate in the rescue or recovery mode. If the IC determines that the operation will be run in the rescue mode, rescue shall begin quickly.
 - E. **Decide on an action plan:** IC should establish an action plan as soon as possible. The step by step plan should be communicated to all personnel involved in the rescue.

15.2304 Pre-Rescue Operations:

- A. **Make the general area safe:** The IC or his/her designee should begin to make the general area safe. On water rescue operations, this would include securing the area and not allowing civilian personnel in to the water. In swift-water rescue incidents, the IC should assign an Upstream Division to spot floating debris and notify command or Extrication Section. The IC may also want to assign a helicopter the task of aerial recon for spotting hazards.
- B. **Make the rescue area safe:** The IC should secure the immediate rescue area. He/she may want to assign an Accountability Officer to account for all personnel working within the rescue area. Personnel working in the rescue area (waters edge) shall have personal protective equipment (PPE), including personal floatation device (PFD) and water rescue helmet, or appropriate SCUBA gear during dive rescue/recovery operations. If at all possible, the hazards in the rescue area should be secured. If it is not possible, the IC or his/her designee shall notify all rescuers in the area of the possible hazards.
- C. **Pre-rescue/Recovery:** Depending on the action plan established, the IC may need to establish an Extrication Section. Extrication Section shall be responsible for gathering all equipment and personnel necessary to operate according to the action plan. Extrication Section shall assign rescue personnel to conduct the rescue, and support personnel to support the rescuers, during the actual rescue phase. Extrication Section should have an alternative action plan that should be communicated to all personnel operating in the rescue area.

15.2305 Rescue Operations:

After pre-rescue operations are complete, the Extrication Section shall put forth the action plan for the removal of the victim(s). Rescue operations should be conducted from low risk to high risk order; Rescues should be conducted with the least amount of risk to the rescuer necessary to rescue the victim. Low risk operations are not always possible by means of a high risk operation; Extrication Section shall communicate with the IC the risk/benefit of the operation. The IC should assign downstream personnel, with throw bags, and an opposite water-side/bank-side division for incidents involving swift-water rescue. The order of water rescue from low risk to high risk shall be:

- A. **TALK:** the victim into self-rescue. If possible, the victim may be talked into swimming to shore or assisting the rescuers with his/her own rescue. If a victim is stranded in the middle of a flash flood, this shall not be prudent.
- B. **REACH:** if possible, the rescuer should extend his/her hand or some other object, such as a pike pole, to remove the victim from the water.
- C. **THROW:** If the victim is too far out in the water to reach, rescuer(s) should attempt to throw the victim a throw bag or some piece of positive flotation (i.e. PFD, rescue ring). Downstream personnel should be in position during the actual rescue operation. If the victim is able to grab the throw bag, the rescuer can pendulums belays or haul the victim to the nearest bank. Care should be taken to assure the victim will be belayed to a safe downstream position.

Fire Department personnel that have had operational level water rescue training should be able to conduct the above rescues. If the victim cannot be reached by either of these methods, the IC shall want the experience of a Water Rescue Team. After the Water Rescue Team arrives, the IC shall discuss with them the action plan. The IC should consider re-assigning the Extrication Section to a company officer for the Water Rescue Team.

The next order of water rescue from low risk to high risk would be:

- A. **ROW:** If it is determined that a boat based operation shall be run, the IC should assign a company on the opposite bank to assist the Extrication Section in establishing an anchor for a rope system. The company on the opposite bank shall be made aware of the action plan. Extrication Section shall be responsible for seeing that the rope system used for the boat based operation is built safe and proper. A minimum of a 2 point tether should be built for swift-water operations.

Extrication should consider personal protective equipment (PPE) for victim(s).

- B. **GO:** If it is not possible to ROW (boat based operation) to the victim, the Extrication Section should consider putting a rescuer in the water to reach the victim. This is a very high risk operation. Only rescuers with the proper training and equipment should be allowed to enter the water. Prior to the rescuer actually proceeding into the water, he/she shall discuss the action plan, including specific tasks and objectives, hazards and alternate plans. The rescuer shall never be attached to a life line without the benefit of a quick-release mechanism. The rescuer should take PPE of at least a PFD to the victim(s). Members shall not do a breath-hold surface dive in an attempt to locate a victim beneath the surface of the water.
- C. **HELO:** At times the use of a helicopter is the most reasonable method of reaching the victim. Helicopter operations over water are considered high-risk operations. The IC should consult with the Extrication Section and pilot to determine the risk/benefit of the use of a helo. If the pilot says he/she can do the operation, the IC shall consider it. Extrication should assign rescuers to the helicopter and discuss with the pilot and the rescuers to specific action plan. Extrication Section or his /her designee should address the weight and balance considerations. The IC shall have the final say on the use of a helicopter for water rescue operations. The pilot will have the final say on how the helicopter will be used.
- D. **Assessing the Victim:** Once the rescuer(s) have reached the victim, they should do an immediate assessment of the victim; a quick assessment of the ABC's and the exact method of entrapment. If the victim is conscious, the rescuer should determine if the victim can assist in his/her own rescue. If the victim is unconscious, the rescue must be quick. If it has been determined to be an underwater or recovery operation, Extrication should proceed with a dive operation. Depending on the length of submersion, the Extrication Section shall decide on a dive rescue or recovery operation. If the victim can assist in his/her own rescue, the rescuers should proceed with the rescue action plan. The victim should be brought to shore as soon as possible.
- E. **Treatment:** As soon as the victim is brought to safety, an assessment should be done by EMS personnel.

15.2306 Rescue or Recovery:

If the victim has gone under and the water is below 70 degrees Fahrenheit, rescue attempts should not exceed 90 minutes from time of disappearance or time of dispatch if victim was missing prior to arrival. A recovery effort shall begin.

If the victim has gone under and the water is above 70 degrees Fahrenheit, rescue attempts should not exceed a period of 60 minutes from the time of disappearance or dispatch if victim is missing prior to arrival. A recovery effort shall begin.

15.2307 Safety:

The following are considerations to watch for on a Water Rescue incident:

- A. Safe for rescuers to work;
- B. Experience of personnel;
- C. Sufficient Personnel;
- D. Sufficient Equipment;
- E. Weather conditions (Temperture,Precipitation,etc);
- F. Backup team and shore support.

EMERGENCY OPERATIONS

Cumru Township Fire Department
Standard Operating Guidelines
Section 15.23

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15.1708 Post-Incident Analysis:

All personnel that participated in the emergency shall be required to attend the post incident analysis.