


SHELBYVILLE FIRE & RESCUE STANDARD OPERATING PROCEDURES

	SECTION: Operations SUBJECT: Swift Water Rescue	S.O.P: 109.24
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	Approved By:	Effective Date: December 1, 2012
		Revision Date:

Purpose:

The purpose of this SOP is to provide a guideline for conducting water rescue/recovery operations involving swift water. Swift water rescue is a subset of technical rescue that involves the use of specially trained personnel, ropes, mechanical advantage systems and river rafting equipment. All members of the Shelbyville Fire Department shall adhere to this procedure.

General:


A water rescue incident is best organized into four phases. The first phase involves fire personnel arriving on scene, initiating command, and performing a size up. The second phase includes pre-rescue operations to prepare fire personnel for victim removal. The third phase includes rescue operations and victim removal. The fourth phase involves termination of the incident.

Size Up:

The first phase involves fire personnel arriving on scene, initiating command, and performing a size up. The following procedures should be followed when performing phase one of a water rescue.

1. **Command.** First arriving company officer should take Command and begin an immediate size-up of the situation.
2. **Secure responsible party or witness.** Command should secure a witness as soon as possible after arriving on scene. This will help in identifying the problem and locating the victim.
3. **Risk Benefit.** If victim is submerged, command should consider the risk-benefit of rescue attempts. If victim is visible on the surface, command shall assign a member to make contact with the victim without entering the water. This member shall let the victim know that help is on the way and encourage them to stay where they are if this is the safest course of action.
4. **Assess the hazards.** Command should do an immediate assessment of the present hazards. Command may want to assign an individual the **Safety Officer**. **Safety Officer** will be responsible for identifying the hazards present and to have them secured if possible. If it is not possible to secure hazards, **Safety Officer** will notify all personnel of the hazards and notify Command so that an action plan can be established. Some hazards associated with water rescue operations would be: volume, velocity, and temperature of water, floating debris, unusual drop-offs, hydraulic effects, and depth of water.
5. **Decide on rescue or recovery.** Based on the conditions present and the hazards to rescuers, Command will have to make the decision to operate in the rescue or recovery mode. If Command determines that the operation will be run in the rescue mode, rescue should begin quickly.
6. **Decide on an action plan.** Command should establish an action plan as soon as possible. The step-by-step plan should be communicated to all personnel involved in the rescue.

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Pre-Rescue

The second phase involves fire personnel preparing to conduct the rescue. Phase two includes making the general area safe, making the rescue area safe, and establishing a Rescue Group. The following procedures should be followed when performing phase two of a water rescue.

1. Make the general area safe. Command 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, Command should assign an **Upstream Lookout** to spot floating debris and notify Command or **Rescue Group**. Command may also want to assign a helicopter the task of aerial recon for spotting hazards.
 - Hot zone shall be the body of water;
 - Warm zone shall be 25ft from the edge of the water;
 - Cold zone shall be the area beyond the 25ft mark;
 - A minimum perimeter of 50ft shall be established.
2. Make the rescue area safe. Command should secure the immediate rescue area and assign Accountability for all personnel working within the rescue area. Personnel working in the rescue area (waters edge) shall have personal protective equipment (PPE), including personal flotation device (PFD) and water rescue helmet, **at no time should turn-out gear or fire helmets be worn around the waters edge**. If at all possible, the hazards in the rescue area should be secured. If it is not possible, Command or his/her designee shall notify all rescuers in the area of the possible hazards
3. Decide if it is a pre-rescue or recovery situation. Depending on the action plan established, Command may want to establish a **Rescue Group**. **Rescue Group** will be responsible for gathering all equipment and personnel necessary to operate according to the action plan. **Rescue Group** will assign rescue personnel to conduct the rescue, and support personnel to support the rescuers, during the actual rescue phase. **Rescue Group** should have an alternative action plan should the first choice plan fail. This alternate plan should be communicated to all personnel operating in the rescue area.
4. Consider ambient conditions. Extreme heat or cold will require more rescuers.
5. Consider the affects of rain or snow on the hazard profile. Plan for sufficient lighting for operations extending into the night.
6. Consider the affect on family and friends. Keep the family informed of operations.
7. Assign a Public Information Officer to handle the news media.

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Rescue Operations.

1. After pre-rescue operations are complete, Rescue shall implement the action plan for the removal of the victim(s). Rescue operations should be conducted from low risk to high-risk order, and with the least amount of risk to the rescuer necessary to rescue the victim. The Rescue Group Supervisor shall discuss the risk/benefit of the operation with Command.
2. Rescue should assign downstream (near shore) personnel, with throw bags, and a far shore (opposite bank) for incidents involving swift-water rescue.
3. The order of water rescue from low risk to high risk will be:

TALK- The victim into self-rescue. If possible, the victim can 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 will not be prudent.

REACH - If possible, the rescuer should extend his/her hand or another object, such as a pike pole, to remove the victim from the water.

THROW - If the victim is too far out in the water to reach, rescuers 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 pendulum belay or haul the victim to the nearest bank. Care should be taken to assure the victim will be belayed to a safe downstream position.


First Responders that have had operational level water rescue training should be able to conduct the above rescues. If the victim cannot be reached by any of these methods, command should consider stopping the operation until a water rescue team arrives.

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

ROW - If it is determined that a boat-based operation shall be run, Command should assign a company on the opposite bank to assist Rescue Group in establishing an anchor for a rope system. The company on the opposite bank will be made aware of the action plan. Rescue Group will be responsible to assure that the rope system used for the boat-based operation is built safely and proper. A minimum of two-point tether should be built for swift-water operations. Rescue should consider personal protective equipment (PPE) for the victim(s).

GO - If it is not possible to ROW (boat base operation) to the victim, Rescue 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. Before the rescuer actually enters the water, they shall discuss the action plan, including specific tasks and objectives, hazards and alternate plans. The rescuer shall never be attached to a lifeline without the benefit of a quick-release mechanism. The rescuer should take PPE of at least a PFD to the victim. Members shall not do a breath-hold surface dive in an attempt to locate a victim beneath the surface of the water.

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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. Command should consult with Rescue and the pilot to determine the risk/benefit of the use of a helo. If the pilot says he/she can do the operation, Command should consider it. Rescue should assign rescuers to the helicopter and discuss with the pilot and the rescuers the specific action plan and should address the weight and balance considerations. Command will have the approval of the use of a helicopter for water rescue operations. The pilot will make the final determination how the helicopter will be used.

Assessing the Victim

Once the rescuers 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 the incident has been determined to be an underwater or recovery operation, Rescue should proceed with a dive operation. Depending on the length of submersion, Rescue Group will 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.

Treatment

When the victim is brought to safety, an assessment should be done by ALS personnel. Treatment shall be administered according to local protocol. If necessary, the victim shall be transported to the appropriate facility.

Termination

Command should begin termination as soon as possible after the victim has been removed from the water. This shall include securing all the equipment used for the rescue and personnel accountability. This may also include witnesses, photos, victim's personal effects or equipment used in the rescue. Personnel should not participate in a towing or vehicle removal operation from the water. Command should consider activating the C.I.S.D. for extraordinary or extended operations.

Prepare for termination:

1. Personnel accountability.
2. Equipment accountability. If there has been a fatality, Rescue Group may consider leaving equipment in place for investigative purposes.
3. Re-stock vehicles.
4. Consider debriefing.
5. Secure the scene; return to service.

Additional Considerations:

1. HEAT. Consider rotation of crews.
2. COLD. Consider the affects of hypothermia on victim and rescuers.
3. RAIN/SNOW. Consider the affects of rain or snow on the hazard profile.
4. TIME OF DAY. Is there sufficient lighting for operations extending into the night?
5. Consider the affect on family and friends; keep family informed.
6. Consider news media; assign a P.I.O.