

TOWNSHIP FIRE DEPARTMENT

CHAPTER 2: STANDARD OPERATING GUIDELINES

Part 1: Response Guidelines

Subject: Water-Related Incidents

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Section: 2-1-27

Effective Date: 01-22-01

Reviewed/Revised Date: 03-17-10

27.01 Purpose. These procedures will establish guidelines to be used at water related incidents.

27.02 Goal. The procedures will be in effect for all members of Township Fire Department operating at a water-related incident. This Standard Operating Guideline covers the basic steps to be achieved at water-related incidents. It should be realized that many different situations could exist at a water-related incident. At all times, the safety of the rescue team, patient(s) and bystanders must be foremost in everyone's mind and actions.

27.03 Definitions.

Rescue – The saving of a living person from a hazardous situation in/on/under ice or water.

Recovery – The removal of a pulse less, non-breathing (PNB) person from the water and/or ice who has no chance of being revived. Also can apply to the retrieval of anything other than a live victim (i.e. vehicle, pet, machinery, equipment, etc.)

Submersion Time – Length of time that a victim has been underneath the water. Unless time of submersion can be well documented, the time period begins when the first Township Fire Department unit arrives on the rescue scene.

Risk/Benefit – Does the risk involved to perform the rescue outweigh the expected outcome (benefit) of the mission.

Salvage – The removal of personal property from the water.

Seven Person Rescue Team – Shall consist of one each – operations, primary rescuer, secondary rescuer, primary backup, secondary backup, primary boat operator, and secondary boat operator.

Divemaster – The person who holds operational control over the divers and shore support personnel on the scene of a dive incident.

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Cold Water – Water temperature of 70 degrees Fahrenheit or less.

Swiftwater – Water moving at a rate greater than one knot (1.15 mph).

Hypothermia – The cooling of a person's core temperature to below 90 degrees Fahrenheit.

Trained Team Member – Is certified in swiftwater rescue, river rescue or Township Fire Department's introduction to water rescue class. Awareness, operations and technician training levels achieved by these training programs shall determine which role the team member may participate in while at an actual rescue.

27.04 **Guideline.** In all cases of water-related incidents, the primary concern is life safety to rescuers and the patient(s). Personnel involved in rescue operations will follow these safety guidelines.

- Coordinate operations through the on-scene incident commander.
- All personnel either on shore outside the staging area or on the water shall wear a personal flotation device (PFD) equipped with a whistle and cutting device. On or near moving water, the PDF shall be classified for swiftwater use. Additional safety equipment shall include a water rescue helmet and appropriate thermal protection.
- Above water rescuers will maintain communications with on-shore personnel through pre-established hand signals and/or two-way radio communication.
- There will be a minimum of seven trained rescue personnel at the scene of any water rescue/recovery incident to fulfill the requirements of the 7-person rescue team.
- There shall be two boats on the scene of any water rescue. A backup boat shall be readied prior to the rescue boat leaving the shore.
- The incident commander shall assign a safety officer with the specific knowledge and responsibility for the identification, the evaluation and when possible the correction of hazardous conditions and unsafe practices.

27.05 It is recognized that the patient may need medical assistance. Depending on the injuries to the patient, time may be critical.

27.06 Knowing that time may be of great importance, the incident commander and rescue personnel on scene must carefully and efficiently accomplish the following in a timely manner:

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- A) Assign an operations coordinator who is a trained team member.
- B) Survey the scene for potential hazards.
- C) Determine the type of rescue (i.e. land based, on the water, divers, and ice).
- D) Interview the complainant and/or witnesses to determine the following:
 - 1. Last known location of the patient.
 - 2. Clothing description.
 - 3. Description of watercraft involved (if any).
 - 4. Suspected injuries.
- E) Secure the scene:
 - 1. From bystanders.
 - 2. From the press.
 - 3. Provide an area for friends and family.
 - 4. Provide a liaison (i.e. chaplain, if available) to the friends and family of the patient.
 - 5. Provide a media contact who is a trained team member.
- F) Once the need for rescue/recovery has been established, command will assure that proper equipment is on the scene or in route. They must also determine what additional resources, if any, are needed and notify BASE. When making this resource determination, command should consider, among other things, dive team, medical needs, manpower, special equipment and special hazards on the scene.
- G) Establish a staging area for fire department personnel and equipment.
- H) Remove the patient(s) with due care to the c-spine, airway, fractures and/or bleeding.

27.07 Command procedures must include establishment, transfer, sectorization, and staging. Sectorization may be assigned, but not limited to, safety, crowd control, dive team, rope team and boat operations. All personnel working outside of the staging area shall wear Personal Flotation Devices. See Appendix A.

27.08 The Incident Commander must understand the five-step progression (the rescue sequence) for water rescue attempts. The steps that place the rescuers in the least danger shall be attempted first. The five-step progression is as follows:

- 1. **Self-Rescue** – Give directions to the patient on how to perform a self-rescue, including giving the patient a personal flotation device for assistance.
- 2. **Shore Based Rescue** – Patients who are not too far offshore can be reached using a pole, ladder, inflated fire hose or a throw bag. These methods do not require rescuers to enter the water.
- 3. **Boat Assisted Rescue** – Using a boat to deploy other means to conduct a rescue.

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4. **Boat Based Rescue** – Rescuers enter the water and use a boat to retrieve the patient. This method is particularly risky in swiftwater conditions.
5. **Go Rescue** – Rescuers may have to physically enter the water and swim to the patient or let the current carry them to the patient and then tow the patient to safety. This is a much more dangerous type of rescue, especially in swiftwater, because of the potential for the rescuers to be overpowered by the force of the water and currents. Only personnel who have received specialized training in Go Rescues shall attempt this type of rescue.

27.09 All water rescues shall follow the rescue sequence as listed in 27.08

27.10 The operational mode (Rescue or Recovery) will be chosen by the Incident Commander with input from Operations. This decision and the decision to transition from a Rescue to a Recovery shall be in consideration of any or all of the following:

- Submersion time
- Scene safety
- Risk/Benefit Factor
- Time of day
- Weather
- Victim injuries
- Team training
- Available personnel

27.11 The dive team shall perform underwater rescue/recovery. See Appendix B for Dive Related Incidents.

1. Personnel who are not members of the dive team shall assist the dive team as directed by the Divemaster.
2. The Divemaster will be in charge of the entire dive operation.
3. Trained non-diving personnel will assist the dive team with dive equipment transportation, witness interviews, dive record keeping, line tending, and scene security.
4. A minimum of one boat will patrol the dive area perimeter and ensure that other watercraft does not threaten the safety of the divers.
5. The patrol boat shall not enter the dive area unless directed to do so by the Divemaster

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- 27.12 The requirements for the water-related incident team are as follows:
1. Certification in swiftwater, river rescue or Township Fire Department's introduction to water rescue, boat handling or swiftwater rescue class.
 2. Each team member's activity shall be limited to performing within the scope of his or her training.
 3. Involvement is at the discretion of the incident commander based on the individual's participation in training.
 4. The operations coordinator shall be a "trained team member".
- 27.13 Brush 13 and Township Fire Department Boat 1, Brush 33 and Township Fire Department Boat 3, Squad 55 and Squad 15 shall respond to all water-related incidents.
- 27.14 A minimum of one water-related incident training session will be conducted per year.
- 27.15 All units will respond Code 3 unless directed differently by the first arriving trained team member.
- 27.16 There will be a minimum of one ambulance on scene to provide emergency treatment and transportation for swiftwater, ice and dive team members. At least one additional ambulance will be required for the patient(s).
- 27.17 Fire Department vehicles (engines, tankers, squads, and brush units) shall not drive into the water for any reason. This includes flooded roads.
- 27.18 Submerged vehicles with trapped patients should be removed from the water (if possible) prior to beginning the extrication process.
- 27.19 Township Fire Department may assist the Eau Claire Sheriff Department in the recovery of vehicles from the water/ice.
- 27.20 Recovery of property for private individuals shall be limited to the following:
- Operations shall take place above water
 - Assistance from Township Fire Department shall not exceed two hours
 - The Incident commander may decline this form of assistance

Appendix A

Site Plan for Water-Related Incidents

1. A command post is to be established as soon as possible.
2. Barrier tape shall secure the scene from onlookers. Within that tape barrier:
 - A. Establish a staging area for all fire department and associated rescue personnel.
 - B. Establish an area for the family and friends of the person(s) being rescued.
3. All personnel are to report to the staging officer for assignment. All personnel outside of the staging area shall wear a Personal Flotation Device (PFD). Upon completion of the assigned duty, all personnel shall return to the staging area and return the PFD to the staging officer.
4. Incident Command Structure (using appropriately trained personnel):
 - A. Incident Commander
 - B. Operations
 - C. Primary Rescuer
 - D. Secondary Rescuer
 - E. Primary Backup
 - F. Secondary Backup
 - G. Primary Boat Operator
 - H. Secondary Boat Operator
 - I. Staging Officer
 - J. Safety Officer
5. The following must be considered for all water-related incidents:
 - A. Witness interviews: interviewers should be designated to interview and secure any and all witnesses to the incident. Information should be provided to Operations as soon as possible in order to assist Operations in determining the type of operational strategy.
 - B. Last-Seen-Point: through proper witness interviews and use of a reference object in the water, the last-seen-point of the person/object should be determined as soon as possible.

- C. All water rescue operations shall not commence until it is determined that an adequate level of rescue personnel are on the scene, an evaluation of the scene has been completed, and all appropriate safety measures are in place.

Appendix B

Dive Related Incidents

1. The following list of requirements will apply to all diving members of the TFD Dive Team.
 - A. Any member or associate member of Township Fire Department may apply to become a member of the Dive Team.
 - B. The Dive Team Member shall attain or be working toward Advanced Open Water Diver, Search and Recovery Diver, and Ice Diver.
 - C. The Dive Team Member is encouraged to maintain CPR Certification.
 - D. The Dive Team Member shall attend regular team training and meetings.
 - E. The Dive Team Member shall maintain proficiency with basic scuba and dive tendering skills (through regular training).

Note: Failure to comply with items B, C, D, and E may result in the removal from the dive team.

 - F. The Dive Team Member shall provide certain personal gear to be used for both training and incidents. This gear would likely include wetsuit (including hood, gloves, and boots), mask, fins, snorkel, and dive knife.
 - G. Student firefighters will be allowed to participate in all training exercises, but are not allowed on the scene of actual incidents.
 - H. The Dive Team Member will be required to pass a yearly physical fitness test.
2. TFD personnel serving as dive tenders and other shore support personnel will be expected to have completed specific training in other areas.

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2. Personnel involved in dive operations will follow these safety guidelines:
 - A. Coordinate operations through the on-scene Operations Officer (Divemaster).
 - B. Continually monitor the environment prior to and during dive operations.
 - C. Divers will be continuously monitored and accounted for during dive operations.
 - D. All personnel outside of the staging area who are not diving must wear a PFD.
 - E. Rescue harnesses shall be worn by all divers performing underwater searches.
3. The following TFD equipment will respond to all dive incidents:
 - A. Squad 15.
 - B. Brush 13 with Boat 1.
 - C. Brush 33 with Boat 3.
 - D. Squad 55
4. Additional resources required:
 - A. One ambulance will be required on scene for the dive team.
 - B. At least one additional ambulance will be required for any patient(s) in the water.
 - C. Dive teams from the Eau Claire Fire Department and Chippewa Fire Protection District shall be requested as soon as the need is determined.
 - D. Closest available ATV's to assist with transporting gear and personnel
5. Dive Operation Command Structure:
 - A. Incident Commander works directly with the Divemaster and is responsible for overall control of the scene.

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1. Assist the Divemaster in determining rescue vs. recovery operation and weighing the Risk/Benefit Factor.
 2. Assist the Divemaster in coordinating the rescue or recovery effort.
 3. Advise incoming units as to equipment deployment.
 4. Determine the need for additional resources.
- B. Divemaster: supervises and directs diver operations while consulting with Incident Commander.
1. In charge of dive team operations.
 2. Will jointly make the decision with Incident Commander whether to place divers in the water, whether to initiate rescue vs. recovery operations, and weighing the Risk/Benefit Factor.
 3. In charge of setup and safety at the scene.
 4. Select proper search techniques for situation at hand.
 5. Confirm dive conditions before operations begin.
 6. May terminate the dive at any time when the safety of the dive team and department personnel is determined to be at an unacceptable level.
- C. Diver(s) conduct physical search and rescue/recovery of patient(s):
1. Directly responsible to and work under the supervision of the Divemaster.
 2. Make operational recommendations based on conditions encountered.
 3. Conduct physical dive operations and relay information to dive tender.
- D. Safety Diver(s): Backup Divers(s):
1. Directly responsible to and work under the supervision of the Divemaster.
 2. Make operational recommendations based on conditions encountered.

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3. Stays fully equipped and ready to dive at a moments notice.
 4. Acts as backup to primary diver(s).
 5. Is familiar with dive signals and responds to diver's needs.
 6. Must be in place, ready to dive, during entire dive operation.
- E. Dive Tender(s): assist diver(s) and direct diver during search:
1. Directly responsible to and work under the supervision of the Divemaster.
 2. Make operational recommendations based on conditions encountered.
 3. Assist diver(s) while donning equipment.
 4. Tend search lines to diver performing search and directs diver through the search as determined by the Divemaster.
 5. Is familiar with dive signals and responds to diver's needs.
 6. Monitors diver condition, location and safety.
 7. Maintains communication with diver during search through use of line signals or voice via the dive intercom system.