

## Responding to An Electric Shock Drowning Incident

*This is important and useful information for law enforcement officers, firefighters, emergency medical technicians, marina staff, boaters, lake property owners, and the general public.*

*The combination of humans (or pets), water and electricity can be deadly. An in-the-water shock hazard can exist wherever shore-powered AC electrical equipment is located in the water, over the water, or near the water. See links at bottom of page for additional information.*

### **Typical Electric Shock Drowning Scenario**

- The victim enters electrically charged water (i.e. swims, wades, jumps, paddles or falls)
- The victim may feel a tingling sensation; or may become partially or totally disabled
- The victim may or may not remain conscious
- The victim may or may not remain on the surface
- The victim may or may not call for help or make sounds indicating distress (screams, etc.)
- The victim's situation may worsen when seeking a "safe haven" if they move toward rather than away from the source of the electrical current

### **Recommended Actions for ESD Victims**

- The victim **should**, if able, keep their arms and legs close to their body (this action will reduce exposure to the voltage gradients in the water)
- The victim **should**, if able, move back in the direction from which they came; or otherwise move away from the presumed source of the electrical current (the source may not be obvious)

### **Recommended Actions for Persons Witnessing or Responding to an ESD Incident**

#### **First responders / Rescuers / Bystanders ...**

- **must remember always** to **REACH ... THROW ... ROW ...** But **DON'T GO** (into the water)
- **must fight the instinct to enter the water** to assist the victim — many well-meaning rescuers have died while trying to rescue humans and animals from electrically charged waters
- **should** disconnect (switch OFF or unplug) all dock and shoreline electrical power as close as possible to the electrical power source
- **should**, where applicable, disconnect the boat's shore power cord at the pedestal receptacle
- **should** throw life ring or other flotation device to a conscious and able victim
- **should** push the victim away from the presumed current source with an insulated pole
- **should** call for help immediately — Dial 911 or call on VHF Channel 16 as appropriate
- **should** attempt first aid/CPR where the victim can be safely removed from the water
- **must not** throw a line to the victim and then pull the victim closer to the current source
- **must not** grab onto metal dock hardware while reaching for a nearby victim

There is portable test equipment that will detect a hazardous electrical condition in the water in some cases. Typically, this equipment is not readily available, and its correct use requires special knowledge and training — Disconnecting the electrical power is always the recommended action



**Remember:** An in-the-water shock hazard can exist, or occur suddenly, wherever shore-powered AC electrical equipment of any kind is located in the water, over the water, or near the water.

*Additional resources including supporting information may be found at: [www.electricschockdrowning.org](http://www.electricschockdrowning.org); [www.electricschockdrowningmn.com](http://www.electricschockdrowningmn.com); [www.qualitymarineservices.net](http://www.qualitymarineservices.net); and [www.boatus.com/seaworthy/ESD.asp](http://www.boatus.com/seaworthy/ESD.asp).*

*Read purpose and disclaimer on reverse side of page.*

## **PURPOSE**

This document prepared by Ed Lethert is intended for publication and distribution far and wide as a set of recommendations for the rescue of human beings (and pets) where electrical equipment and wiring is in use in, on, or near the water. No copyright claimed by the author.

It is neither assured nor implied that compliance with these recommendations will guarantee the safety or survival any individual. Compliance with these recommendations is intended to minimize the risk for those individuals that enter the water accidentally, inadvertently, or without regard for their personal safety; and especially for those that may attempt to rescue them.

## **DISCLAIMER**

These materials are for informational purposes only and not for the purpose of providing professional advice or instruction. The information expressed in these materials is not an exhaustive list of precautions. The author and LMCD do not guarantee the accuracy or reliability of the information provided herein. Users of this information are fully responsible for any consequences resulting from their use of the information.