

Utah Carbon Monoxide Deaths Teach Painful Lessons

Two of Utah's brightest lights are no longer shining because of the odorless, sightless and tasteless killer known as carbon monoxide.

Chad Ethington, 18, from Centerville and Kathryn Reese, 21, from Salt Lake City are just two of the many people who have lost their lives and their futures as a result of carbon monoxide (CO) poisoning from engine exhaust as confirmed by their autopsies.



Chad Ethington had just graduated from high school and was the embodiment of everything that is right about young people today. Chad was a National Honor Society student, accomplished musician, multi-sport athlete, homecoming king, and had earned his Eagle Scout award from the Boy Scouts. He was on his way to Brigham Young University when a 2001 summer vacation at Lake Powell turned tragic. Chad was overcome in a matter of seconds by deadly carbon monoxide fumes while in the water behind the boat.

Kathryn Reese was a student at Bridgerland College with a smile that could light up a room. She was a beautiful young lady who loved her family and friends and enjoyed helping people. Kathryn was planning for a life of service to others as she was studying to become an emergency medical technician. Like Chad, she was taken from her family and friends in an instant. Kathryn was spending a beautiful 2006 summer day boating on Utah Lake with a group of friends. After a friend wakeboarded and with the boat idling in the middle of the lake, she took a quick swim behind the boat. It was during these few fateful seconds that Kathryn was killed by carbon monoxide from the boat's exhaust.



The sad fact is that a very small percentage of boaters are aware this fatal potential even exists. Like so many of the boat-related carbon monoxide deaths across this country, Chad and Kathryn were killed in a matter of seconds while in the water behind the back of their boats. Neither boat had stickers onboard warning of the fatal dangers of carbon monoxide emitted from boat engine exhaust.

Had one person onboard with Chad and Kathryn been aware of carbon monoxide dangers, these wonderful two young people would be alive today.

Carbon Monoxide Deaths Prompt New Utah Rules

In the past few years, Utah and nationwide awareness of carbon monoxide (CO) danger aboard boats has been growing significantly. In response to the danger and the many confirmed deaths in Utah and nationally, a new state rule has been passed. This new Utah State Rule, R651-224, prohibits activities that cause CO poisonings.

Utah State Rule 651-224:

- ⦿ Prohibits persons from operating a motorboat or having the engine of a motorboat run idle:
 1. while a person is occupying or holding onto the swim platform, swim deck, swim step or swim ladder of the motorboat,
 2. while a person is being towed in a non-standing position within 20 feet of the vessel.
- ⦿ Restrictions do not apply when a person is occupying the swim platform, swim deck, swim step or swim ladder:
 1. while assisting with the docking or departure of the motorboat,
 2. while exiting or entering the motorboat,
 3. when a motorboat is engaged in law enforcement activity.

It is the goal of this rule to assist in eliminating these tragic carbon monoxide poisoning accidents.

Information

To find out more about making boating safer - including how you can prevent carbon monoxide poisoning on recreational boats - contact:

Utah State Parks and Recreation
1594 West North Temple, Suite 116
P.O. Box 146001
Salt Lake City, UT 84114-6001
www.stateparks.utah.gov
(801) 538-7220

National Marine Manufacturers Association
200 East Randolph Drive, Suite 5100
Chicago, IL 60601-6528
www.nmma.org
(312) 946-6200

United States Coast Guard
Office of Boating Safety
CG Headquarters (G-OPB-3)
2100 Second Street SW
Washington, DC 20593
www.uscgboating.org
(202) 267-0984

American Boat & Yacht Council, Inc.
613 Third Street, Suite 10
Annapolis, MD 21403
www.abyc.com
(410) 956-1050 Phone
(410) 990-4466 Fax

U.S. Department of the Interior
Office of Managing Risk and Public Safety
755 Parfet Street, Suite 364
Lakewood, CO 80215
safetynet.smis.doi.gov/cohouseboats.htm
(303) 236-7128, ext. 236
(303) 236-7336 Fax



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Boaters Protect Yourself from this Silent Killer!

CO

Carbon Monoxide

Carbon monoxide can collect within, alongside or behind a boat in minutes and in a variety of ways.



TRAGIC UTAH DEATHS
INSPIRE NEW
CO RULES

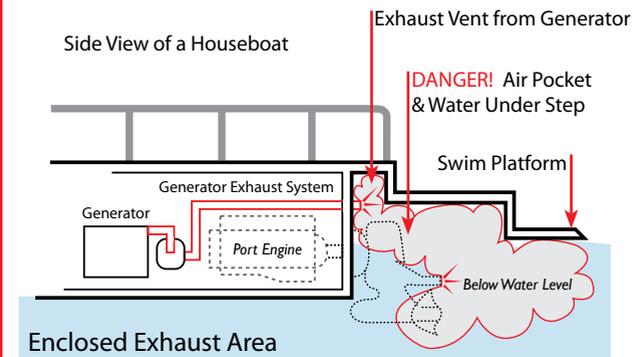
AVOID THESE DEATH ZONES!

Swimming near or under the back deck or swim platform.

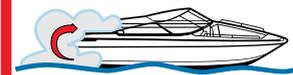
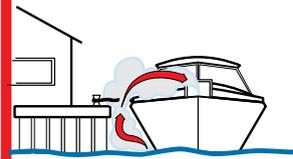
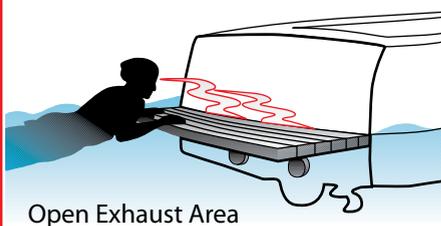
Carbon monoxide from exhaust pipes of inboard engines, outboard engines and generators builds up inside and outside the boat in areas near exhaust vents. Teak surfing (also known as "platform dragging"), sitting on the swim platform or swimming directly behind the boat when the engines are operating can be deadly within minutes.

NEVER enter an enclosed or partly enclosed area under a swim deck or platform where exhaust is vented, not even for a second, even if the engines/generators are off and have been off for a long time. Exhaust lingers in such areas, and it only takes one or two breaths of contaminated air in this "death chamber" to kill a swimmer.

STAY AWAY from open exhaust vent areas. **DO NOT** swim, sit, or stand in these areas when the motor or generator is operating. On calm days, wait at least 15 minutes after the motor or generator has been shut off before occupying open areas near exhaust vents.



Teak surfing, dragging and water skiing within 20 feet of a moving watercraft can be fatal.



Facts

- Carbon monoxide (CO) is a deadly gas which is emitted with the exhaust through the exhaust ports at the rear of the boats.
- CO is colorless, odorless and tasteless and can kill in a matter of seconds. It enters the bloodstream through the lungs and displaces the oxygen your body needs to breathe.
- Early symptoms of CO poisoning include: irritated eyes, headache, nausea and dizziness. These symptoms are often confused with seasickness or intoxication.
- Prolonged exposure to low CO concentrations or very short exposure to high concentration levels can lead to death.
- Every year boaters are injured or killed by CO poisoning in a variety of ways. Boaters can be exposed to CO within the cabin area or other enclosed areas of the boat. Also, at the rear of the boat, on and around the swim platform is the area where high levels of CO have killed many boaters, often children.
- Any boat with an engine and/or generator can endanger those on board under certain circumstances.

What You Can Do

- Educate everyone you care about regarding the dangers of carbon monoxide poisoning, including the danger zones in and around the boat and the early poisoning signs.
- Make sure your boat has the enclosed carbon monoxide warning decals placed at the helm and the swim platform area as a reminder.
- If your boat is stopped in the water, never have the engine running.
- Assign an adult to watch when anyone is swimming or playing in the water, even with the engine off.
- Schedule annual engine and exhaust system maintenance inspections by experienced and trained technicians.
- For boats with cabins or enclosed areas, keep the forward-facing hatches open, even when the boat is moving, to allow fresh air circulation in these areas.
- Do not confuse CO poisoning with seasickness, intoxication or heat stress. If anyone on board complains of any of the CO poisoning symptoms, move them to fresh air, investigate the cause and seek medical attention, if necessary.
- Install a CO detector in each accommodation space on your boat. Check detectors before each trip to be sure they are functioning properly.
- Ask your boat dealer about your boat's exhaust systems and where the danger zones are.

Checklist: Each trip

- Educate all passengers about carbon monoxide poisoning
- Make sure all exhaust clamps are in place and secure
- Regularly inspect your exhaust system for corrosion, water leaks or cracked fittings
- Inspect all exhaust hoses for cracks or burns. All hoses should be pliable and free of kinks
- Confirm water flows from the exhaust outlet when engine and generator is started
- Listen for change in exhaust sound which could indicate exhaust component failure
- Test each CO detector before each trip

Checklist: At least annually

- Replace exhaust hoses if cracked, charred or deteriorated
- Have cooling systems inspected, including water pump and housing
- Have exhaust system and components inspected for cracks, rust, leaks or loosening
- Have generator cooling water anti-siphon valve inspected

Annual checklist must be performed by a qualified marine technician.