Memorandum

To: Regional Directors
From: Acting Associate Director, Business Services

Subject: Requirements for Reducing the Potential for Carbon Monoxide Poisoning from Concessioner Boat Rental and Marina Operations

This memorandum outlines new requirements for concession boat rental and marina operations to help control the potential for carbon monoxide (CO) poisoning.

The National Park Service (NPS) Division of Risk Management recently conducted a comprehensive risk assessment evaluating potential CO hazards associated with recreational boating activities in parks. The assessment included a study of NPS accident and fatality data, U.S. Coast Guard investigation reports, current NPS policies and procedures, and industry best practices. The assessment found that while parks and concessioners have conscientiously taken various safety education and engineering measures to help mitigate CO exposure for park visitors and employees, CO poisoning continues to be a risk in boating and a more comprehensive Servicewide approach is appropriate.

While CO is a risk in all recreational boating environments, the NPS desires to be a leader nationwide both in identifying CO as a risk and in taking actions to address CO. The NPS Commercial Services Program and Risk Management Division have collaborated with parks, concessioners and industry associations to identify ways to improve visitor and employee safety in concession operations.

The following actions were identified and should be incorporated as contract requirements for applicable concession operations:

1. For concessions contracts to be awarded after March 2012, all concessions rental vessels with gasoline-powered generators must, within 12 months of contract award, be retrofitted with vertical stack exhaust systems that extend at least nine feet above the upper deck of the vessel, in compliance with the American Boat and Yacht Council (ABYC) ABYC Standard P-1, Installation of Exhaust Systems for Propulsion and Auxiliary Machinery Standard, or have installed other technology that reduces CO exposure and is approved by NPS (e.g., installation of low CO emitting generators installed in compliance with ABYC Standard P-1).
2. For concessions contracts to be awarded after March 2012, boat rental concessioners must provide NPS with a phase-in plan to convert by 2015:
   a. outboards to either direct injected two-stroke or four-stroke low emission outboards;
   b. stemdrive/inboards to catalyzed low CO emitting engines; and
   c. generators to catalyzed low CO emitting units.

All newly purchased boats must have this equipment at the time they are put in service. These engines (outboards, stemdrive/inboards, and generators) must be installed in compliance with the ABYC Standard P-1.

3. For existing contracts, concessioners should be urged to voluntarily take actions to reduce CO exposure on their rental vessels as aggressively as possible. This includes installation of vertical stack exhaust systems and/or installation of low CO emitting systems as outlined above and as appropriate.

4. For new and existing concessions contracts, rental vessels must be equipped with a CO detection system that complies with ABYC Standard A-24 if they have an enclosed accommodation compartment, and either a gasoline-powered generator or an inboard gasoline propulsion engine.

5. For new and existing contracts involving motor boat rental or marina operations, the concessioner must provide signs about the dangers of CO and how to prevent poisoning on vessels and around the marina. Rental vessel signage must comply with ABYC Standard T-5, *Safety Signs and Labels*, ABYC Technical Information Report TH-23, *Design, Construction, and Testing of Boats in Consideration of Carbon Monoxide: Labels and Warnings*. Information must be placed according to the guidance included in ABYC Technical Information Report in TH-22, *Educational Information About Carbon Monoxide: Safety and Warning Labels*. This includes posting CO safety signs at the helm of the vessels, cabin and on the transom. Signage placed around the marina should be professionally prepared and strategically located to enhance education such as at the head of the dock, boat rental office, boat store and restroom areas.

6. For new and existing contracts involving motor boat rental operations, CO poisoning must be addressed in all motor boat safety briefings and Vessel Operating Manuals for customers. Concessioners must use park-approved language in these information materials. At minimum this should include the National Marine Manufacturers Association (NMMA) *Know More About It*, brochure on carbon monoxide poisoning, or equivalent U.S. Coast Guard approved documentation.

7. For all new and existing contracts for marinas with motor boats, concessioners must provide CO hazard information to slip holders (e.g., annual slip rental packages). This should consist of, at a minimum, the NMMA *Know More About It*, brochure on carbon monoxide poisoning or equivalent U.S. Coast Guard approved documentation.
Vessels Operated by Concession Employees

Concessioners with boat rental or marina operations often have work boats operated by employees. Concessioners are responsible for assessing, understanding and taking actions to protect the health and safety of their employees as part of their Risk Management Program. Concessioners should be urged to review the CO mitigation requirements for rental vessels outlined in this memorandum and consider whether these may be appropriate to implement in their employee-operated boat fleet.

Resources

Information has been collected to assist boat rental and marina concessioners to educate and warn visitors on the dangers of carbon monoxide in gasoline powered boats using standardized language and to help identify sources of both low CO generating engines and CO detectors. These resources will be posted on the commercial services external web page so that concessioners have direct access to the information. These resources will also be available on the commercial services SharePoint site under concession specialist toolkit, contract management tools.

Distribution

Please forward this memorandum to all parks with concessioners that provide boat rental and/or marina operations so that they can take applicable action and share this information with their operators.

Further Information

For information on implementing these requirements in commercial service operations, please contact Kurt Rausch, Branch Chief, Contract Management, Commercial Services Program, at 202-513-7202. For general boating safety or other public risk management information, please contact Sara Newman, Public Risk Management Program Director, at 202-513-7225.