



## Public Health Update

Tuesday, August 24, 2004

### Highlighting the Indirect Services of the NPS Public Health Program

#### Environmental Public Health

The Concession Environmental Audit System (CEAS) is the Service-wide program administered by the NPS Concession Program, Concession Environmental Management Program (CoEMP) to conduct multi-media environmental audits of NPS concessioners.



The CEAS is managed by two Public Health Service Officers assigned to the Concession Program Center in Denver, Colorado. These two officers are responsible for the management and oversight of environmental audits of approximately 590 concessioners operating in 130 national parks. Over the past three years, these officers have focused on assisting parks and concessioners in identifying concessioner environmental compliance issues and making recommendations and providing solutions to improving environmental management and stewardship.

The goals of the CoEMP CEAS include;

- Achieving and maintaining environmental compliance as a minimum performance level for concessioners in national parks.

- Promoting environmental management and advancing sound environmental strategies for all concessioners in national parks.
- Increasing NPS staff and concessioner awareness and knowledge of environmental topics and programs.
- Leading by example and promulgating recognition of commercial visitor services that demonstrate environmental excellence.

BY: CAPT Rebecca West,  
Concession Environmental Audit System  
Coordinator  
(303) 987-6911

### The NPS Public Health Program: A Network of Diverse Activities

The NPS Public Health Program is a collection of public health related activities, some of which are carried out directly by the Office of Public Health, while others occur under the day-to-day supervision of specific parks, NPS units, or regions.

The Public Health Program activities can best be described when grouped into the following six categories.

#### Administration

The Office of Public Health is located in the Visitor and Resource Protection Directorate and is headed by the Director, Public Health Program. This office is responsible for the direct delivery of some public health services, provides leadership and guidance for all NPS public health-related efforts, serves as a personnel office for all of the PHS officers, advocates for public health issues service wide, and coordinates with other units and all PHS officers to unify NPS public health related activities.

#### Visitor Public Health Consultation

Providing the core of the NPS Public Health Program, this group of officers, located in the field and assigned geographic areas of responsibility, consult broadly with parks, NPS units and regions about public health issues that affect visitors. Directly supervised by the Office of Public Health, this group actively seeks to understand and evaluate the public health hazards and potential hazards existing within each park service unit and consults with each Superintendent about ways in which visitor protection might be strengthened.

#### Park Environmental Health Officers

Hired and supervised by individual parks, these public health professionals cover public health issues in a single park. These positions may assist with other program areas, help out other parks, etc., as time and resources allow.

#### Occupational Environmental Health

Assigned to and supervised by the Risk Management function at a park, region or national level, these PHS officers assist with the evaluation and control of workplace safety and health issues. With backgrounds in Industrial Hygiene or Safety, these officers help to protect employees of the park system. One officer is located at the Department of the Interior, but detailed there through the NPS/PHS agreement.

#### Public Health Infrastructure

Many of our structures, including buildings, roads, waste water treatment facilities, drinking water treatment facilities, etc. have either a direct or an indirect affect on the health of visitors and/or employees. PHS officers with various engineering backgrounds and expertise are assigned to and supervised by specific NPS park units, projects, programs or regions to assist NPS with infrastructure issues.



## Environmental Public Health

Our environment, including air, land and water, can be either supportive of or detrimental to human health. Some PHS officers assist the NPS with environmental issues including hazardous waste and hazardous materials, concession efforts to protect the environment, and evaluating new land acquisitions for environmental concerns. One officer is assigned to the Fish and Wildlife Service through the NPS/PHS agreement and works on air quality issues affecting both the FWS and NPS.

BY: CAPT Chuck Higgins,  
Director, Office of Public Health  
(202) 513-7217

## **New Officer Joins the NPS Public Health Program**

We are very pleased to welcome Lieutenant Junior Grade (LTJG) Michael Garner. LTJG Garner is a newly commissioned U.S. Public Health Service officer who has recently joined the NPS Public Health Program and is assigned to the Concession Program Center, Concession Environmental Management Program in Denver, Colorado. He is responsible for support of the Concession Environmental Audit System.

LTJG Garner graduated from the University of Kansas with a degree in Environmental Studies and holds an MPA degree from Indiana University. In addition to his previous work experience in public and environmental management, he served for two years as Park Management Advisor in the U.S. Peace Corps for the Suriname Foundation for Nature Conservation.

## ***Carbon Monoxide Poisoning: an Invisible Danger on Houseboats***

*Note: Public Health Service Officers assigned to DOI and NPS have been involved over the last several years in investigating carbon monoxide problems associated with houseboats. The following article from the Centers for Disease Control and Prevention draws from that work and from the work of others.*

Summertime: houseboats, fresh air, and cool water. Invisible but dangerous carbon monoxide couldn't possibly be a threat here--or could it?

You probably know that carbon monoxide poisoning is a danger when gasoline-powered

engines are run in enclosed spaces. What many people don't know is that severe carbon monoxide poisoning can also occur outdoors and has been linked with houseboats.

### **The Problem**

Since 1994, there have been at least nine carbon monoxide-related deaths on houseboats, and more than 100 non-fatal poisonings in the U.S. Studies indicate that houseboats with on-board electricity generators that vent toward the rear of the boat can pose a danger of carbon monoxide poisoning to people on the rear swim deck or water platform. Carbon monoxide poisonings have also occurred inside houseboats.



Gasoline-powered engines on houseboats, including the houseboat's onboard generator, produce carbon monoxide, a colorless and odorless gas that can poison or kill someone who breathes in too much of it. Carbon monoxide tends to build up above the water near the water platform. The amount of carbon monoxide that can build up in the air space beneath the stern deck on houseboats can be deadly within seconds to minutes and can also reach life-threatening concentrations on and near the swim deck.

### **The Effects**

The most common symptoms of carbon monoxide poisoning are headache, dizziness, weakness, nausea, vomiting, chest pain, and confusion. High levels of carbon monoxide can cause loss of consciousness and death, or can cause someone to pass out and fall into the water and drown. Unless suspected, carbon monoxide poisoning can be difficult to diagnose because the symptoms seem like other illnesses. People who are sleeping or intoxicated can die from carbon monoxide poisoning before ever experiencing symptoms.

If you think someone on your houseboat has carbon monoxide poisoning, move him or her to fresh air quickly and contact your nearest emergency services.

### **Prevention**

How can you prevent carbon monoxide poisoning on or around your houseboat?

- Install and maintain a working carbon monoxide detector inside the houseboat (remember, this won't alert people to dangerous levels of carbon monoxide at locations outside the houseboat cabin, such as the swim deck).
- Make sure that all fuel-burning engines and appliances are properly installed, maintained, and operated.
- Educate all passengers about the signs, symptoms, and treatment of carbon monoxide poisoning, especially if the houseboat has a rear swim deck or water platform.
- Watch children closely when they are playing on rear swim decks or water platforms for signs of carbon monoxide poisoning.
- Swim and enjoy other activities away from areas where gasoline-powered engines vent their exhaust.

Carbon monoxide from exhaust pipes of inboard engines, outboard engines, and generators builds up inside and outside any boat in areas near the exhaust vents. Since 1994, 31 deaths have been reported to the U.S. Coast Guard involving all types of recreational boats. The Coast Guard reminds boaters to be aware of the following:

- Blocking exhaust outlets can cause carbon monoxide to build up in the cabin and cockpit areas – even when hatches, windows, portholes, and doors are closed.
- Exhaust from another vessel that is docked, beached, or anchored beside your boat can send carbon monoxide into the cabin and cockpit of your boat. Your boat should always be at least 20 feet from the nearest boat that is running a generator or engine.
- Slow speeds or idling in the water can cause carbon monoxide to build up in the cabin, cockpit, bridge, and aft deck, even in an open area. Wind entering from the aft section of the boat can also increase this build up of carbon monoxide.
- The “station wagon effect,” or back drafting can cause carbon monoxide to build up inside the cabin, cockpit, and bridge when operating the boat

