

Hazard Headache At Padre Island

Editor's Note: Another hazardous waste problem – one with a slightly different twist – surfaced at Padre Island National Seashore in 1985. Superintendent Lukens reports on an ongoing problem with 30- and 55-gallon drums washing ashore, especially near Big Shell Beach, within the park.

By William M. Lukens, Superintendent
Padre Island National Seashore

It has been well documented that Gulf currents move both surface and subsurface debris toward Padre Island with north-south convergence at 27°N 97°S. No other area in the Gulf of Mexico experiences this situation on such a broad scale.

The drums pose a hazard based on the following information:

1. Labeling on some drums indicate that hazardous substances had been contained therein at one time and might still be present;

2. Probable sources for the drums (OCS platforms, crew boats, cargo ships, etc.) are known to carry or use hazardous materials; and

3. Some drums have distorted shapes, indicating a reaction inside.

NPS concern for the visitor and the environment was supported by the following observations:

1. Substances were noted leaking into the beach sand from damaged and rusted drums;

2. Bullet holes in drums indicated visitors had been using them for target practice and substances had leaked from the bullet holes; and

3. Drums were being used by visitors as wind breaks and campfire reflectors.

A plan for regularly removing the drums was devised for the heavy-use public areas, and a less frequent, periodic removal schedule was set up for the low-use (4-wheel drive) area. It was not until 1981, when the plan was implemented, that the magnitude of the problem became apparent.

In 1981, the park recovered 170 55-gallon drums within a distance of 60 miles at a cost of about \$10,000. In August 1982, 40 drums were counted on the 10-mile, 4-wheel drive stretch of beach; in August 1983, 60 drums; in April 1984, 80 drums – all on the same beach stretch. In '83 and '84 the park recovered and stored 26 drums containing substances from the same 10-mile stretch. Funds for this action came from the park's operating accounts.

Under 16 USC 1, the NPS is mandated the responsibility for visitor safety and health within designated park boundaries. A drum containing hazardous substances may be viewed as analogous to a bear coming into a park campground. The NPS has both a legal and a moral responsibility to remove such hazards "in a timely manner."

The Clean Water Act aspects of the Padre Island situation are much the same as that of Mount Rainier, except that oil is considered "non-hazardous" at Padre Island but not so at Mount Rainier. And whereas the Mount Rainier situation is a one-time occurrence with little chance of affecting visitor safety, the Padre Island problem is on-going, with results that at any time could range from non-hazardous to lethal.

In compliance with the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) and with the Regional Contingency Plan, the Marine Safety Officer, US Coast Guard, Corpus

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Christi, Texas, was designated On-Scene Coordinator (OSC).

Current data indicate that approximately 150 drums per year (one every two days) come ashore on 66 miles of park beach. Of these, 30 to 50 percent contain substances. Drums are in various stages of deterioration from almost new to rusted through.

Analysis of drums indicated they contain such substances as: trichloroethene, xylene, quinoline, flammable liquids, heavy metals exceeding minimum levels for As, Ba, Cd, Cr, Pb, Se, Ag. No PCBs or pesticides above minimum levels were detected.

Because of heavy visitor use, drum removal from North, South, or Closed Beach should take place within two hours of discovery. Where public use is lighter, drum removal should take place twice monthly. Delayed removal increases container deterioration and potential for leakage or rupture.

All drums whether empty or not must be removed. Otherwise, any drum left must continue to be treated as suspect. All drums whether empty or not require minimum Level B personal protection for handling and Level C protection for upwind approach for identification and recording (non-handling).

All drums presently in the holding area have been sampled and analyzed and will be removed as soon as a permitted facility can be located. Such a facility willing to accept the materials has not been found to date. The OSC continues to search.

This article was condensed from a Report, complete with tables and figures, dated July 25, 1985, and available from Lukens at Padre Island NS, 9405 S. Padre Island Dr., Corpus Christi, TX 78418.

Meanwhile, as of Dec. 31, 1985, 450 drums constituted one full year's accumulation, collected on the Padre Island NS shores. Of these, one-fourth contained substances that met criteria for hazardous wastes and have been shipped to the nearest approved disposal site — in South Carolina. The nonhazardous substance containers were disposed of at approved sites within the Region.

Cost of the disposal effort for calendar year 1985 was half a million dollars, according to Superintendent Lukens. The NPS contributed \$65,000; EPA's Superfund provided \$350,000; the remainder came from monies available under the Clean Water Act. National attention was called to the overall problem by Cable News Network in an hour-long special, "Crisis in Our Oceans," of which approximately 8 minutes was devoted to Padre Island NS.