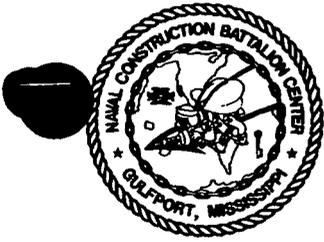


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FACT SHEET 18 REGARDING ENGINEERING EXCELLENCE AWARD FOR 28TH STREET
DIOXIN REMOVAL NCBC GULFPORT MS
4/1/1997
NCBC GULFPORT



NAVAL CONSTRUCTION BATTALION CENTER

Gulfport, Mississippi
Installation Restoration Program

This fact sheet is one in a series informing interested citizens of the environmental investigations and remedial actions at Naval Construction Battalion Center (NCBC) Gulfport. Fact sheets will be produced at program milestones and in response to other items of public interest. Distribution is coordinated through the Public Affairs Office at NCBC Gulfport, (601) 871-2393.

FACT SHEET 18: Engineering Excellence Award for 28th Street Dioxin Removal

Introduction

Each year the Consulting Engineers of Tennessee holds an Engineering Excellence Awards Competition. Entries are judged on creativeness, client focus, and complexity. This year, ABB Environmental Services submitted the 28th Street dioxin removal project at NCBC Gulfport and won the grand prize. The project will now be entered in the competition for the national award along with the other state winners. This fact sheet describes the award-winning approach to the removal of the contaminated sediments along 28th Street.

Fact Sheet 17 provides additional information about the 28th Street dioxin removal completed in July 1995.

Background

Typically, environmental actions for removing dioxin from sediment are time consuming and expensive. Usually a large number of samples must be collected while the sediment is removed in several steps. The traditional method involves a lot of time and money. In this case, however, both time and money were limited. The budget for the cleanup was \$200,000, and it had to be completed in 4 months so a construction project to widen 28th Street would not be delayed. A traditional method would have required close to a year and \$1.5 million. The award-winning design allowed the construction project to be completed quickly and with minimal impact on local traffic and the community.

Creative Cleanup Methods

First, the sediment that was contaminated had to be identified. Normally this would be done by taking many samples and analyzing them for dioxin. At \$1,000 per sample, this is a very expensive process. Instead, scientists had to find a different way to locate the dioxin. They found that dioxin is more likely to be found in ditches where water flows slowly and organic materials collect. They were then able to look for dioxin only in areas with a high organic content.

Once the contaminated sediment had been found, it had to be removed. Normally it would be shipped to a landfill at a cost of nearly \$1 million. Instead, the team constructed a temporary handling area on the military base. They lined the area with a plastic liner to prevent contamination and moved all of the sediment into the area. Then, to reduce the volume of sediment, the water was removed. Because dioxin is not soluble in water, the water was clean. After the water was tested to make sure it was free of dioxin, it was disposed of. The dry sediment is being stored temporarily while long-term measures are being evaluated.

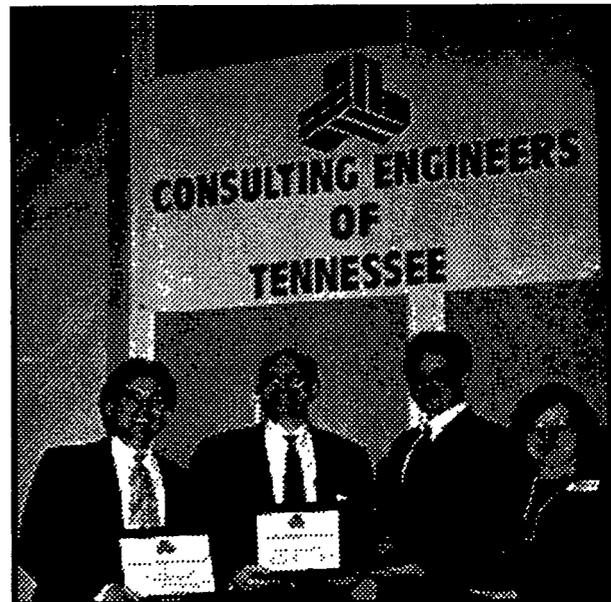


Figure 1. Project engineers Rick Ryan, Kurt Sichelstiel, Robert Fisher, and Penny Baxter displaying the award.

For More Information

For more information please contact Nancy Brooks at the Seabee Center's Public Affairs Office, (601) 871-2393, or Gordon Crane, NCBC Gulfport Installation Restoration Program Manager, at (601) 871-2485.