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NCBC GULFPORT  
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FACT SHEET REGARDING FEASIBILITY STUDY FOR THE EVALUATION OF POSSIBLE  
CLEANUP REMEDIES FOR DIOXIN CONTAMINATED SOIL NCBC GULFPORT MS  
11/1/2001  
NCBC GULFPORT

39501 - GENERAL  
13.06.00.0038



# **Feasibility Study**

## **Evaluation of Possible Cleanup Remedies for Dioxin-Containing Soils**

### **NCBC Gulfport, Mississippi**

## **What is a Feasibility Study?**

A **Feasibility Study**, or FS, is an engineering study that evaluates possible cleanup remedies, called **Alternatives**, for sites where environmental contamination has been found.

Four different alternatives were evaluated in the Seabee Center's FS for dioxin contamination that resulted from the storage of Herbicide Orange at the base.

## **What Questions Did the Engineers Ask When Evaluating the Cleanup Alternatives?**

### **1. Overall Protection of Human Health and the Environment**

Will the alternative protect people and the environment?

### **2. Compliance with State and Federal Regulations**

Will it meet Mississippi and Federal requirements?

### **3. Long-term effectiveness**

After cleanup is completed, will there be risks remaining at the site?

### **4. Reduction of contaminant toxicity, mobility, and volume**

Will it reduce the harmful qualities of dioxin, reduce the amount of contamination that is present, or keep it from moving?

### **5. Short-term effectiveness**

How long will it take to complete the cleanup? Will there be any health risks during the cleanup?

### **6. Implementability**

Will it be possible to make it work?

### **7. Cost**

How much will it cost?

### **8. MSDEQ Acceptance**

Will the MSDEQ agree with the recommended alternative?

### **9. Community Acceptance**

Will the community agree with the recommended alternative?



## **What's Next?**

A **Proposed Plan** will be developed from the FS and engineering tests. This plan will recommend a preferred cleanup remedy for the site.

The Proposed Plan will be available for public review and comment in early 2002 during a public meeting and a 30-day public comment period.

We encourage you to participate during this important decision-making process.

## **Alternative 1**

### **No Action**

- A required alternative to be considered in the Feasibility Study
- Does not address contamination issues.

**Cost: \$0**

## **Alternative 3**

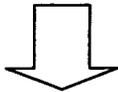
### **Excavation Surface Water Controls Dewatering Chemical Stabilization & On-Base Landfilling Capping Institutional Controls Monitoring**

- Would remove soil, ash, and sediment (the muddy soil found in ditches and swamps) from their present locations.
- The contaminated materials would be placed on the former Herbicide Orange Storage Area (Site 8) and mixed with cement to create a "cap."
- The cap would be able to withstand as much weight as an interstate highway.

**Cost: \$8,735,000**

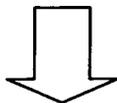
### **Excavation**

Contaminated soil would be removed with a backhoe.



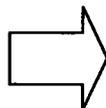
### **Surface Water Controls**

Contaminants in ditches would be stopped with Sediment Recovery Traps.



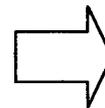
### **Dewater Sediment**

Water would be removed from muddy soil.



### **Chemical Stabilization and On-Base Landfilling**

Contaminated soil and ash would be blended with cement, moved to Site 8, leveled with a bulldozer, and compacted.



### **Monitoring**

Samples would be collected yearly to ensure that dioxin stays on the site.



### **Institutional Controls**

Land use controls and fences would be used to limit access to the site.



### **Capping**

Compacted soil would be capped with a cover system designed to meet interstate highway specifications.

**Alternative 2**  
**Institutional Controls**  
**Monitoring**

- The former Herbicide Orange storage area would be fenced in and posted.
- Land use controls would restrict future use of the site.
- Annual sampling would be performed to confirm that dioxin is not moving from the site.

**Cost: \$309,000**

**Institutional Controls**

Land use controls and fences would be used to limit access to the site.



**Monitoring**

Samples would be collected yearly to ensure that dioxin stays on the site.

**Alternative 4**

**Excavation**  
**Surface Water Controls**  
**Dewatering**  
**Off-base Incineration**

- Would remove contaminated soil, ash, and sediment from its present locations.
- Water would be removed from the sediment.
- The contaminated material would be transported by truck to an off-base incinerator.

**Cost: \$61,516,000**

**Excavation**

Contaminated soil would be removed with a backhoe.



**Surface Water Controls**

Contaminants in ditches would be stopped with Sediment Recovery Traps.

**Incineration**

Contaminants would be destroyed by burning the soil in a furnace.



**Dewater Sediment**

Water would be removed from muddy soil.

