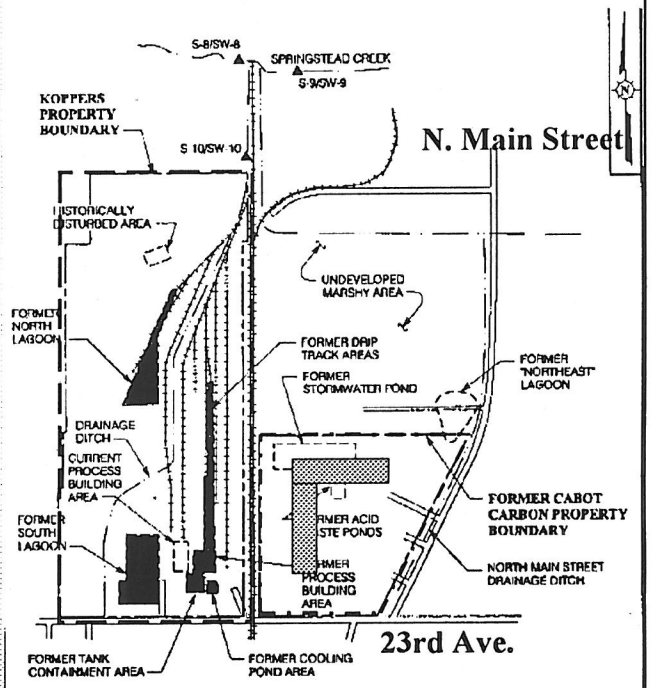
Cabot Carbon-Koppers Superfund Site,

Gainesville, FL

USEPA - Region 4

Atlanta, GA

Site Layout



Definitions

- PAHs - Polynuclear Aromatic Hydrocarbons: a group of chemicals commonly found at wood treating and other industrial facilities
- DNAPLs - Dense Non-Aqueous Phase Liquids: Oils That are Heavier Than Water; like Creosote.

Site History (1900 - 1990)

- Listed on the National Priority List in 1983
- 1988 Order Signed Between EPA, Cabot, and Beazer to Complete Remedial Investigation (RI) and the Feasibility Study (FS).
- RI Was Approved Feb., 1990
- FS Was Approved May, 1990
- Public Meeting Was Held August 14, 1990.
- Record of Decision Issued September 1990.

Record of Decision (ROD)
September 1990

- CABOT:
  - Institutional Controls
  - Extraction of Groundwater, discharge to the Gainesville Treatment Utility
  - Lining the North Main Street Ditch
- KOPPERS:
  - Excavation of Contaminated Soil in the Two Ponds, soil treatment and backfill
  - In-situ Bioremediation and institutional controls of process areas
- Confirmatory Sampling of Springstead Creek

What Happened Since 1990?

- 1991 EPA issued an Order to Koppers and Beazer directing them to develop a Design for the Remedies Selected in the 1990 Record of Decision
- 1992 Cabot Signed an Agreed Order to Develop the Design and Implement the Remedial Action on the Cabot Potion of the Site.
- 1994 EPA Amended the Order to Beazer and Koppers to Perform Additional Work Including A Supplemental feasibility Study (SFS).
- 1995 Beazer Installed a Groundwater Recovery and Treatment System.

What Happened Since 1990?

- Cabot Completed Design and Construction of the ROD Remedy by 1995.
- Beazer Completed Sampling the Springstead Creek
- Beazer has Operated the Perimeter Recovery Wells, and Treatment System.
- 1997 Beazer Submitted a SFS Including Results of Additional Investigation
- EPA did not Find it Satisfactory
- 1999 Beazer Submitted a Revised SFS
- EPA Reviewed and Amended the the 1999 SFS.
- Proposed Plan May 2001.

Test Pits at Koppers

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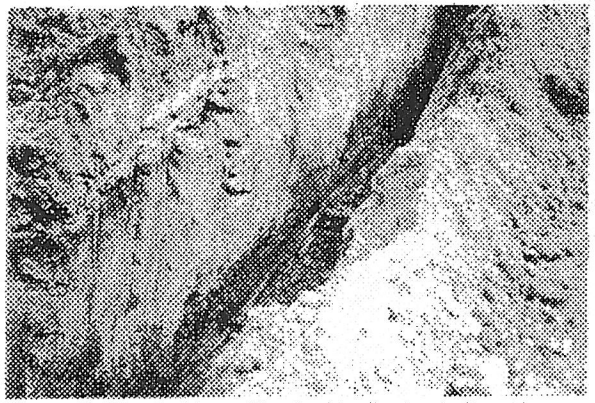
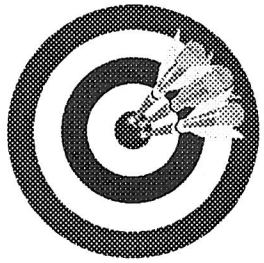


Historically Disturbed Area, TP-6, Looking Southwest, November

Proposed Plan Objectives

- **Amend the Record of Decision to Select a Remedy for the Koppers Site That Meets the Cleanup Criteria**



How Does EPA Evaluate Cleanup Alternatives?

NINE (9) Criteria Are Used:

- Protection of Human Health and The Environment
- Compliance with Laws (ARARs)
- Long-Term Effectiveness
- Reduction in Toxicity, Mobility, or Volume Through Treatment
- Implementability
- Short-Term Effectiveness
- Cost
- Community Acceptance
- State Acceptance

Risk Evaluation

- Evaluates *Who* could be exposed
- Selects *What* Chemicals are a Concern
- Determines *How* Clean is Clean (Cleanup Levels)

Cleanup Alternatives

- Alternative 1 - Continue GW Extraction & Treatment
- Alternative 2 - Continue GW Extraction & Treatment + Institutional Controls
- Alternative 3 - Continue GW Extraction & Treatment + Institutional Controls +
  3A - Wearing Cover
  3B - Impermeable Cap

Cleanup Alternatives

- Alternative 4 - Containment By a Wearing Surface Cover + a Biotreatment Wall + Institutional Controls
- Alternative 5 - Containment By a Low Permeability Cap + a Continuous Barrier + Groundwater Extraction + Institutional Controls

Cleanup Alternatives

- **Alternative 6 - Removal of Surface Soils + Containment with a Biotreatment Wall + Institutional Control**
- **Alternative 7 - Removal of Surface Soil + Containment with Physical Barrier + Institutional Controls**
- **Alternative 8 - Removal of Surface Soils + Stream Extraction +In-Situ Bioremediation + Institutional Controls**

Cleanup Alternatives

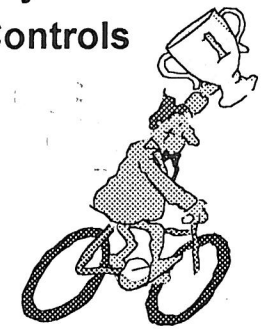
- **Alternative 9 - Removal to the Hawthorn Clay + Ex-Situ Treatment + Biotreatment where Removal is not Feasible + Institutional Controls**
- **Alternative 10 - Removal to the Hawthorn Clay + Ex-Situ Treatment + Containment of Biotreatment Wall Where Removal is not Feasible + Institutional Controls**

Surface Soil Sub-Alternatives

- A - On-Site Landfill
- B - On-Site Incineration
- C - On-Site Thermal Desorption
- D - Bioremediation, Soil Washing, Stabilization, and Backfill
- E - Off-Site Incineration
- F - Stabilization, backfill, and Impermeable Cap

EPA's Preferred Alternative

- Alternative 7 F
  - Removal of Surface Soil, Treatment, Backfill On-Site
  - Impermeable Cap
  - Continuous Physical Barrier
  - Institutional Controls



Why Alternative 7F

- Meet Threahold Criteria
- Meets More Balancing Criteria Than Other Alternatives
- Contains Source and Prevents Further Groundwater Contamination
- Proven Effective Technology
- Implementable
- Restores Most of the Site for Unrestricted Use

What Happens Next?

- Select Remedy Based on Public Comments
- EPA Issues a Record of Decision Amendment
- Responsible Parties Will Start Remedial Design
- Public Meeting to Introduce Specific Design to the Community

Questions / Comments?