POLYCHLORINATED BIPHENYL AMBIENT

JUNE 2000

INTRODUCTION

An ambient air sampling investigation has been requested by Karen Knight, United States Environmental Protection Agency, Region 4 (USEPA), Waste Management Division, Emergency Response and Removal Branch, Removal Operations Section. Tim Slagle and staff, USEPA Region IV, Science and Ecosystem Support Division (SESD) will conduct the sampling. The investigation is scheduled for the week of June 26, (weather permitting) the proposed two air sampling events, are scheduled for June 27th thru 28th and June 28th thru June 29th around the Solutia facility located in Anniston, Alabama.

STUDY DESIGN

The purpose of the study is to study is designed to assess PCB (polychlorinated biphenyl) and congener concentrations in ambient air around the Solutia facility. The data collected will be used to provide data for HRS (Hazard Ranking System) for package submittal for possible CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) NPL (National Priority Listing). Core air monitoring sites have been located within 1/4 mile rings around the suspected primary source. A background air monitoring site will be established upwind of the facility. Each sampling site is described below:

<table>
<thead>
<tr>
<th>SITE</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>A</td>
<td>Wellborn High School, 135 Pinson Road (Background Site)</td>
</tr>
<tr>
<td>B</td>
<td>Emmanuel Baptist Church, 2212 West C Street</td>
</tr>
<tr>
<td>C</td>
<td>Former Toxic Pond Site, Parcel # 22112301059</td>
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<tr>
<td>D</td>
<td>West Anniston Baptist Church, 901 Carter Street</td>
</tr>
<tr>
<td>E</td>
<td>IPC Warehouse, 1127 Clydesdale Avenue</td>
</tr>
<tr>
<td>F</td>
<td>Head Start School, 1000 West 12th Street</td>
</tr>
<tr>
<td>G</td>
<td>Lincoln Park, Zinn Parkway</td>
</tr>
<tr>
<td>G-Duplicate</td>
<td>Lincoln Park, Zinn Parkway</td>
</tr>
<tr>
<td>H</td>
<td>EPA Community Relations Center, 1313 Nobel Street</td>
</tr>
</tbody>
</table>

SITING OBJECTIVES

Core air monitoring sites B through G are located throughout the community near the Solutia facility in the city of Anniston, Alabama. The site selection is based on U.S. EPA Region IV requirements. Site A will be established at the Wellborn High School as a background location for this sampling event. It will be used to collect ambient air samples that ascertain the PCB concentrations of the general area, but is not immediately affected by the Solutia facility. Site H will be located in downtown Anniston approximately 1.5 miles east of the facility.
A meteorological station will be established in the study area, to measure wind speed and direction.

METHODOLOGY

All samples will be collected in accordance with the *Environmental Investigations Standard Operation Procedures and Quality Assurance Manual (EISOPQAM)*, May 1996. All samples will be analyzed at the SESD laboratory in Athens, GA. in accordance with the Analytical Support Branch *Laboratory Operations and Quality Control Manual*, September 1990.

Two 24 hour high volume air samples will be collected and analyzed for the presence of Polychlorinated Biphenyls (PCBs) and congeners in accordance with Method TO-4 as described in the EPA *Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air*. Air samples will be collected at a nominal flow rate of 220-liters per minute over an 24-hour interval.

SAMPLE IDENTIFICATION

Station and Sample Identification

Sample identification numbers will be assigned using the following format:

PD - HV-* #

PD Two letter code to identify phase 4 PCB sampling event

HV High Volume air sampling

* Letter code used to identify sampling site

# numerical code used to identify sampling day

Quality Assurance Sample identification numbers will be assigned using the following format:

QA - FA - ###

QA Quality Assurance

FA Field Blank Air

### A three digit numerical code used to identify sampling day
QUALITY ASSURANCE

The following additional quality assurance steps will be employed for the air samples:

1. A representative polyurethane foam and XAD (PUF-XAD) cartridge from each batch will be analyzed after initial cleanup and prior to sampling to verify the cleanup efficiency.

2. Samples from one of the sampling locations will be collected in duplicate to determine the precision of the sampling procedure.

3. Air sampling flow rates will be checked at the beginning and end of each sampling run.

4. A PUF-XAD cartridge (field blank) will be carried to the field and handled like an ordinary sample but not exposed to check for operator induced contamination.

SAFETY

All field operations will be conducted in accordance with a site specific safety plan prepared in accordance with the office of Safety and Health Administration (29 CFR 1910.120). This plan is supplemented by the USEPA/SESD Environmental Compliance Branch Hazardous Waste Section Manual.

DATA MANAGEMENT / SCHEDULE

A normal 35 day laboratory turnaround time has been requested for the PCB and congener analysis. A final report will be written after project completion in accordance with the EISOPQAM. All environmental and quality control data will be evaluated and data sheets will be attached to the report. Project files will be maintained in accordance to the EISOPQAM. The project leader will review the file at the conclusion of the project to ensure completeness.

The schedule for sample collection, sample analysis/data review is as follows:

- Sample collection (week of June 26, 2000)
- PCBs, congeners analytical results available (week of August 28, 2000)
- Report completed (week of October 2, 2000)