

Name: Cornell-Dubilier Electronics  
LOG #: 96-4046

### ATSDR Record of Activity

ROUTING:  
E. Skowronski  
CS FILE

UID #: syk5 Date: 9-17-96 Time: \_\_\_\_\_ am \_ pm \_

Site Name: Cornell-Dubilier Electronics City: South Plainfield  
Cnty: Middlesex State: NJ

CERCLIS #: \_\_\_\_\_ Cost Recovery #: 20GZ Region: 2

Site Status: (1)  NPL  Non-NPL  RCRA  Non-Site specific  Federal  
(2)  Emergency Response  Remedial  Removal  Other:

#### Activities

Incoming Call  Public Meeting  Health Consult  Site Visit  
 Outgoing Call  Other Meeting  Health Referral  Info Provided  
 Conference Call  Data Review  Written Response  Training  
 Incoming Mail  Other

Requestor and Affiliation: (1) Nick Magriples  
Phone: \_\_\_\_\_ Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip Code: \_\_\_\_\_

#### Contacts and Affiliation

(31) Steve Jones ( ) \_\_\_\_\_  
( ) \_\_\_\_\_ ( ) \_\_\_\_\_

- |               |               |                 |               |               |              |
|---------------|---------------|-----------------|---------------|---------------|--------------|
| 1-EPA         | 2-USCG        | 3-OTHER FED     | 4-STATE ENV   | 5-STATE HLT   | 6-COUNTY HLT |
| 7-CITY HLTH   | 8-HOSPITAL    | 9-LAW ENFORCE   | 10-FIRE DEPT  | 11-POISON CTR |              |
| 12-PRIV CITZ  | 13-OTHER      | 14-UNKNOWN      | 15-DOD        | 16-DOE        |              |
| 17-NOAA       | 18-OTHR STATE | 19-OTHR CNTY    | 20-OTHR CITY  | 21-INFL       |              |
| 22-CITZ GROUP | 23-ELECT. OFF | 24-PRIV. CO     | 25-NEWS MEDIA | 26-ARMY       |              |
| 27-NAVY       | 28-AIR FORCE  | 29-DEF LOG AGCY | 30-NRC        | 31-ATSDR      |              |

#### Program Areas

Health Assessment  Health Studies  Tox Info-profile  
 Worker Health  Petition Assessment  Health Surveillnc  
 Tox Info-Nonprofile  Admin  Emergency Response  
 Disease Registry  Subst-Spec Research  Other (Technical Assist)  
 Health Consultation  Exposure Registry  Health Education

#### Background and Statement of Issues:

The Region 2 U.S. Environmental Protection Agency (EPA) has requested that the Agency for Toxic Substances and Disease Registry (ATSDR) review analytical data from a fenced area at the Cornell-Dubilier Electronics Site in South Plainfield, New Jersey, and determine if polychlorinated biphenyls (PCBs) in soil are at levels of public health concern.

The fenced area, which covers 1.5 acres, is the location of a truck

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driving school. The school has reportedly been in operation since February 1996, 8 hours per day, 6 days per week. Tractor trailers maneuver in the fenced area, while instructors outside of the vehicles guide the drivers through their training. An office trailer, parking area, and 2 canopied rest areas with benches are in the fenced area. A barbecue is located near the office trailer.

Although the composition of the ground surface within the fenced area varies, it generally consists of a compacted mixture of soil, rock, and crushed brick. When weather conditions are dry, dust is airborne within the fenced area during truck maneuvers; this may result in significant exposure to PCB containing dust via inhalation, and may result in offsite migration of PCBs.

A number of surface soil and subsurface soil samples were collected from the fenced area and adjacent areas. Four surface soil (0 - 3 inches or 0 - 6 inches) were collected and analyzed for PCBs (exposure to soil contamination usually occurs in the top 3 to 6 inches, so subsurface soil analytical data are not evaluated for potential public health threats). Aroclor 1254 was detected at the following concentrations in surface soil samples.

Sampling Point	Concentration of Aroclor 1254 (mg/kg)
S23 (0 - 6 inches)	270
S25 (0 - 3 inches)	4,700
S24 (0 - 6 inches)	98
S29 (0 - 6 inches)	51,000

#### Discussion:

PCBs can be absorbed into the body via ingestion, inhalation, or dermal exposure following ingestion of dust or soil, inhalation of PCB laden dust, or direct dermal contact with PCBs in soil or dust.

In humans, long-term exposure to PCBs can affect the skin and liver: reproductive, endocrine, immunosuppressive, and carcinogenic effects have been observed in animal studies [1,2].

Based on an immunosuppressive effect seen in monkeys chronically exposed to PCBs, ATSDR has derived a chronic oral Minimal Risk Level (MRL) for PCBs of 2.0E-05 mg/kg/day; an MRL is defined as an estimate of daily human exposure to a dose of a chemical that is likely to be without an appreciable risk of adverse noncancerous effects over a specified duration of exposure.

Using standard default values (70 kg adult ingesting 50 milligrams of soil per day), an adult ingesting soil containing 51,000 ppm PCBs will receive a dose 3 orders of magnitude greater than the MRL. At a soil concentration of 4,700 mg/kg PCBs, the dose would exceed the MRL by 2 orders of magnitude. Additional exposure to PCBs by potential

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inhalation of dust and dermal absorption would potentially increase the received dose.

**Conclusions:**

Based on review of the data, ATSDR concludes:

PCBs are present in surface soil in the fenced area at levels of public health concern.

PCBs may be migrating off-site during dry conditions when dust is generated during truck maneuvers.

The extent of PCB contamination in soil in the fenced area has not been adequately defined.

**Recommendations:**

1. Immediately stop exposure to PCBs in soil in the fenced area.
2. Prevent off-site migration of PCBs in dust or soil.
3. Characterize the extent of contamination in the fenced area.

If further clarification is required, or additional information becomes available, please do not hesitate to contact this office at 404/639-0616.

  
 \_\_\_\_\_ Date: September 19, 1996  
 Steven Kinsler, Ph.D.

  
 \_\_\_\_\_ Date: 9-19-96  
 Concurrence:

**References**

1. Toxicological Profile for Polychlorinated Biphenyls, U.S. Department of Health and Human Services, Agency for Toxic Substances and Disease Registry, April 1993.
2. ATSDR Case Studies in Environmental Medicine, Polychlorinated Biphenyl Toxicity, U.S. Department of Health and Human Services, Public Health Service, Agency for Toxic Substances and Disease Registry, June 1990.

cc:  
 PERIS  
 Ed Skowronski, Acting Chief, EICB  
 Steven Kinsler, Toxicologist, CS  
 Steve Jones, Region 2 ATSDR Regional Representative