

## **Toxic chemicals at Hyde Park A Fact Sheet on Human Health Hazards**

*“Is Hyde Park contaminated? The answer is yes.”\**

### **Brownfields Study Area, Augusta, Georgia**

The following compounds have been found at elevated levels both on the old plant sites and in the residential neighborhood near the former Southern Wood Piedmont Company and several metal scrap yards in the Hyde Park community.

#### **Arsenic**

Arsenic and many of its compounds are especially potent poisons. Elemental arsenic and arsenic compounds are classified as "toxic" and "dangerous for the environment" in the European Union under directive 67/548/EEC. The IARC recognizes arsenic and arsenic compounds as group 1 carcinogens, and the EU lists arsenic trioxide, arsenic pentoxide and arsenate salts as category 1 carcinogens

#### **Benzene**

Benzene exposure has serious health effects. Breathing high levels of benzene can result in death, while low levels can cause drowsiness, dizziness, rapid heart rate, headaches, tremors, confusion, and unconsciousness. Eating or drinking foods containing high levels of benzene can cause vomiting, irritation of the stomach, dizziness, sleepiness, convulsions, rapid heart rate, and death. The major effect of benzene from chronic (long-term) exposure is to the blood. Benzene damages the bone marrow and can cause a decrease in red blood cells, leading to anemia. It can also cause excessive bleeding and depress the immune system, increasing the chance of infection.

#### **Cresol**

Most exposures to cresols are at very low levels that are not harmful. When cresols are breathed, ingested, or applied to the skin at very high levels, they can be very harmful. Effects observed in people include irritation and burning of skin, eyes, mouth, and throat; abdominal pain and vomiting; heart damage; anemia; liver and kidney damage; facial paralysis; coma; and death.  
Carbazole

#### **Pentachlorophenol (PCP)**

Short-term exposure to large amounts of PCP can cause harmful effects on the liver, kidneys, blood, lungs, nervous system, immune system, and gastrointestinal tract. Further, elevated temperature, profuse sweating, uncoordinated movement, muscle twitching, and coma are additional side effects. Contact with PCP (particularly in the form of vapor) can irritate the skin, eyes, and mouth. Long-term exposure to low levels such as those that occur in the workplace can cause damage to the liver, kidneys, blood, and nervous system. Finally exposure to PCP is also associated with carcinogenic, renal, and neurological effects. The EPA classifies PCP in group B2 (probable human carcinogen).

\* Mark Smith, Georgia Environmental Protection Division, TV-26, NBC Augusta News, March 20, 2007

## **Polycyclic Aromatic Hydrocarbons (PAH)**

These compounds can be point source pollutants (e.g. oil spill) or non-point source (e.g. atmospheric deposition) and are one of the most widespread organic pollutants. Some of them are known or suspected carcinogens, and are linked to other health problems. They are primarily formed by incomplete combustion of carbon-containing fuels such as wood, coal, diesel, Dioxin and Furan

## **Beryllium**

Beryllium and its salts are toxic substances and potentially carcinogenic. Beryllium can be harmful if inhaled and the effects depend on period of exposure. If beryllium air levels are high enough (greater than 100  $\mu\text{g}/\text{m}^3$ ), an acute condition can result, called acute beryllium disease, which resembles pneumonia.

## **Cadmium**

Cadmium is an occupational hazard associated with industrial processes such as metal plating and the production of nickel-cadmium batteries, pigments, plastics and other synthetics. The primary route of exposure in industrial settings is inhalation. Inhalation of cadmium-containing fumes can result initially in metal fume fever but may progress to chemical pneumonitis, pulmonary edema, and death. Cadmium is also a potential environmental hazard. Human exposures to environmental cadmium are primarily the result of the burning of fossil fuels and municipal wastes.[3] However, there have been notable instances of toxicity as the result of long-term exposure to cadmium in contaminated food and water.

## **Lead**

The symptoms of chronic lead poisoning include neurological problems, such as reduced IQ, or nausea, abdominal pain, irritability, insomnia, metal taste in oral cavity, excess lethargy or hyperactivity, headache and, in extreme cases, seizure and coma. There are also associated gastrointestinal problems, such as constipation, diarrhea, vomiting, poor appetite, weight loss, which are common in acute poisoning. Other associated effects are anemia, kidney problems, and reproductive problems.

---

Louis Zeller  
Blue Ridge Environmental Defense League  
May 15, 2007

*The source for the information on this factsheet is Wikipedia, the on-line encyclopedia*