

US EPA ARCHIVE DOCUMENT

EPA Tests Soil in Neighborhood; Results Due in April

Former Koppers Wood-Treatment Site
Carbondale, IL

April 2005

Want to learn more?

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Read site information

The site's information repository is at:
Carbondale Public Library
405 W. Main St.
Carbondale

A team from U.S. Environmental Protection Agency and Illinois EPA collected soil for testing the week of Feb. 28 outside the southern property line of the old Koppers Wood-Treating plant in northeastern Carbondale. EPA wants to make sure neighborhood soil hasn't been polluted by wood-treatment chemicals from Koppers' former operations.

Residents that lived in the area when the plant operated walked the neighborhood with the team and pointed out places where flood water may have carried pollution from the Koppers property towards residential properties next to the site. The team collected samples from these areas:

- vacant land between the dead end at Allman Street and the Koppers property line;
- empty lot along Knight Street between Stalls and Pierce streets; and
- an old farm field south of the site, northeast of Wall Street.

A total of 14 soil samples were taken to the EPA lab in Chicago for testing. Consultants for Beazer East Inc. – the company that purchased Koppers – also collected samples. Results from the soil testing will be available in April. EPA will mail results to residents and then hold a neighborhood meeting this spring to discuss them.



A member of the sampling team collects soil for lab analyses. Results are due back in April.

Health concerns

At an open house held at Thomas Elementary School last October, some people expressed concerns that the Koppers plant may have harmed their health or the health of family members. Former workers told the project team they thought working so close to chemicals might have caused chronic health problems, and neighbors worried that air, drinking water, fish, game and soil in yards might have been affected. Some asked for a health study.

A public health assessment prepared in March 2001 by Illinois Department of Health with the federal Agency for Toxic Substances and Disease Registry summarized possible past and current exposures. It stated that in the past people may have been exposed to air pollution, and residents of several homes north of the site were exposed to pollution through residential wells (these homes have been connected to a public water supply for about 35 years). The 2001 health report concluded that current conditions do not threaten the health of nearby residents. The assessment is available for review at the library and at

http://www.atsdr.cdc.gov/HAC/PHA/region_5.html#illinois.

It is important to note that it is difficult to know at what levels chemicals existed in the past, and whether these levels were high enough to be harmful. That is because no tests (air, water, soil) were done until the plant had operated for almost 80 years.

EPA knows residents are concerned about a possible link between pollution from Koppers and health problems. Although EPA is charged with overseeing the cleanup and ensuring that current conditions and the cleanup itself is safe to nearby residents and construction workers, we are talking with other federal and state agencies to see what help might be available. We will update community members as we learn more.

About the pollution

To learn more about chemicals in soil, water, air and creek mud (sediment) at Koppers, EPA and Illinois EPA have been supervising the company's environmental tests since 1986. Chemicals found at levels high enough to be unsafe include those associated with wood treatment. They include polycyclic aromatic hydrocarbons (polycyclic aromatic hydrocarbons) from creosote (CREE-oh-sote) and pentachlorophenol (penta-clor-oh-FEE-nawl). Other chemicals were found too, but at lower levels.

Some chemicals by their nature can cause cancer or other health effects. It is very important to keep in mind that to become sick from a chemical, a person must come in *direct* contact with a chemical by breathing it in, touching it, or eating or drinking polluted material. Typically, the contact must also take place over time. We don't know if people were in contact with high enough levels of chemicals to become sick.

Where the pollution was found

Past tests of soil and water have revealed pollution in a number of areas on the Koppers property:

- former process area where railroad ties were treated;
- eastern side of the property near Glade Creek where an old storage lagoon was located and where a tank spilled in 1939;
- mud in Glade Creek, Piles Fork Creek, Smith Ditch, Crab Orchard Creek and a small unnamed pond;
- water in Glade Creek;
- ground water underneath the site; and
- piles of polluted soil.

More information can be found in the 1991 remedial investigation report and other documents in the Carbondale Public Library.

EPA's role is to make sure the Koppers site does not pose harm to people and the environment, now or in the future. Because environmental tests on the property show high levels of pollution, the site is being cleaned up. Past tests show that most pollution remains on the Koppers property. It does not appear to have moved, or *migrated*, into the neighborhood next door. Based on testing that shows pollution has remained on the Koppers property, EPA, Illinois EPA and Illinois Department of Public Health believe that residential areas are safe from the chemicals. The additional soil tests conducted the week of Feb. 28 will help to confirm this.

Exceptions include Glade Creek, Piles Fork Creek, Smith Ditch and Crab Orchard Creek. Mud is polluted and may be releasing chemicals to the water. Water in these creeks, however, flows away from, or *downstream* of, the neighborhood.

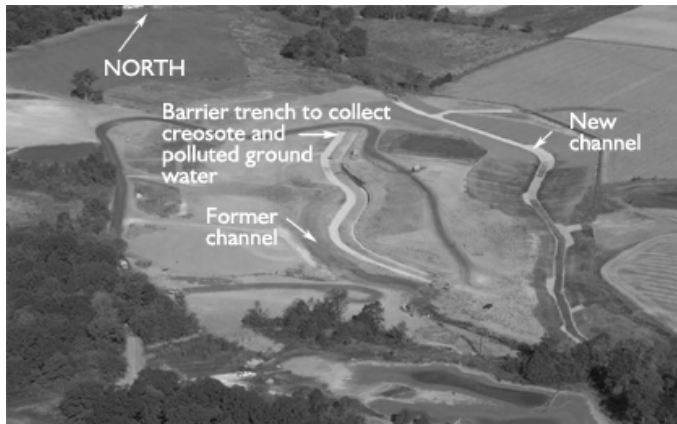
As described below, Beazer East Inc., will be cleaning up polluted sediment in Glade Creek this spring and summer. Pollution is low in the other streams, so the cleanup team plans to rely on natural processes such as dilution to clean the polluted mud. The streams will be sampled regularly to be sure that safe levels are reached over time.

Cleanup work

In June 2004, contractors for Beazer East Inc. began to clean up pollution left from the old Koppers plant. Beazer East, which purchased Koppers in 1988, is responsible for the cleanup. The purpose of the cleanup is to prevent people, animals and plants from coming in contact with dangerous levels of pollution. Most of the construction work stopped for the winter due to rainy conditions but will start up again in May. The cleanup plan includes:

- building a small landfill on the property to safely store polluted soil, creek mud and other waste on the property. The type of landfill is what EPA calls a *corrective action management unit*, or CAMU. Already under construction, it has been designed to keep rainwater out and pollution in. Beazer East will check the CAMU regularly to make sure pollution doesn't flow out onto surrounding land or into ground water beneath the site. An alarm system will sound to alert the company if the CAMU is about to leak. Construction started last year. When finished, the CAMU will likely be about 3 acres, about the size of three football fields. It will be finished in Dec. 2005.

- emptying a small polluted pond west of Glade Creek and filling it in with clean soil. This was done last summer.
- replacing a 1,500-foot polluted stretch of Glade Creek with a new creek in a clean area 450 feet east of where it was. The old stretch, located on the Koppers property, is where creosote spilled. The creek has been taking in this creosote and polluted water from ground water beneath the site. The new channel was dug last fall and now has clean water flowing into it. The old channel was cut off from the new channel, polluted soil was removed and it was buried. Next to it, a deep trench was dug, which is being used to collect and remove creosote. Hundreds of trees will be planted nearby to help reduce possible flooding. Construction work is almost done. Finishing touches will be put on this summer.



A view of the former and new Glade Creek channels from an airplane. Note the buried trench where spilled creosote is being collected and removed. Photo courtesy of Beazer East Inc.

- digging up polluted mud from Glade Creek downstream of where the new channel connects, and putting the mud into the CAMU. This will be done this spring and summer.
- covering 27 acres of the former process area where soil contains unsafe levels of pollution. At a minimum, the cover will consist of a thick layer of clean soil. A thick plastic membrane will be used within a portion of the cover. Just like the CAMU, the cover will serve as a barrier to keep rainwater out and pollution in. In addition, an underground drainage system that has allowed polluted water to flow into Smith Ditch will be plugged. Work in the former process area will be finished this summer.

- collecting creosote and some polluted water from beneath the site in the former process area. The creosote will be either sold for reuse or disposed of in a hazardous waste landfill. Any collected water will be disposed of safely in the company's on-site wastewater treatment plant, then sent to the city's treatment plant as allowed by a permit. The well that collects the creosote, called a recovery well, will be installed this summer and will operate until no more creosote collects in the well.
- testing ground water for 30 or more years to ensure that polluted ground water does not threaten nearby properties.
- putting legal restrictions in place to prevent certain activities on the property. For example, land users will not be able to drill new drinking water wells. And, they probably will not be allowed to dig basements in the process area. The site will likely be available only for industrial or commercial use, and construction workers would be required to follow special instructions to prevent damage to the CAMU or soil cover over the former process area. These restrictions will be planned and put in place when all the cleanup work is done.

Detailed information about the cleanup plan is available in a report titled *Final Decision and Response to Comments* (June 2004). The report is in the Carbondale library.

Next steps

EPA expects to have soil tests back from the lab in April. Staff will study the results and decide whether or not more samples are needed. EPA then will have a community meeting to present the results and answer questions. Also, Beazer East, under EPA supervision, will resume cleanup work in May.

Know someone who wants to receive mailings about Koppers? Or, would you like to be taken off EPA's mailing list? Please contact Bri Bill at EPA, using the information on the front page.

Look inside to learn more!

Beazer East Inc. – the current owner of the property – has conducted numerous studies of the site to learn more about the location, amount and type of contamination. This work was done under the supervision of first the Illinois Environmental Protection Agency, then U.S. Environmental Protection Agency. The federal EPA issued a cleanup proposal – called a statement of basis – for public review in August 2003, and issued a final cleanup decision in June 2004. Beazer began the cleanup in summer 2003 and will continue through Dec. 2005. The site will be monitored for at least 30 more years.

The former Koppers Wood-Treating site, located in the northeast corner of Carbondale, dates back to 1902 when the Koppers Co. treated railroad cross ties, utility poles and other wood products. Until the plant closed in 1991, wood products were treated with chemical preservatives, including creosote. Pentachlorophenol, or PCP, was also used until Koppers stopped using it in the mid-1980s. While the plant operated, handling and storage of chemicals caused spills, resulting in the pollution of soil, ground water (large reservoirs of water underground), creek mud and water within Glade Creek, Piles Fork Creek, Smith Ditch, Crab Orchard Creek and a small pond on the site.

About the Former Koppers Wood-Treating Site . . .



FORMER KOPPERS WOOD-TREATING SITE:
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