

Kerr-McGee Chemical Corporation (Tronox) Fact Sheet

The Agency for Toxic Substances and Disease Registry (ATSDR) is releasing the final public health assessment for the Kerr-McGee Chemical Corporation (Tronox) site in Columbus, Mississippi. This fact sheet will give you information about possible exposure to chemicals from the Kerr-McGee plant.

Were people exposed to chemicals from the Kerr-McGee plant?

Yes, ATSDR found that wood treatment chemicals moved from the plant to the nearby community. Some of the chemicals contaminated the groundwater, soil, and sediment.

How did people come into contact with chemicals?

People were exposed to chemicals in yards and drainage ditches by:



- touching contaminated soil or sediment,
- accidentally swallowing (ingesting) contaminants in soil or sediment, or
- breathing in (inhaling) the contaminants in the air.

What major chemicals were people exposed to?

- Dioxins in soil
- Polycyclic aromatic hydrocarbons (PAHs) in sediment in ditches

Can exposures to dioxins in soil affect a person's health?

Yes, exposure to dioxins in the soil can affect one's health.

What are the levels of dioxin in the soil? Dioxin levels in soil are high enough to harm one's health if exposed to the soil for many years.

How? These levels are more likely to be harmful to children, especially to their **reproductive organs** and **nervous systems** (brain and nerves). Reproductive effects might include problems having children. Nervous system effects might include problems with attention and memory.

Can exposures to PAHs in sediment affect a person's health?

Yes, exposure to PAHs in sediment can affect one's health.

How? PAH levels in sediment are high enough to cause an increased risk of skin cancer and stomach cancer.

Who can be affected? People with frequent, past contact could experience harmful health effects.

What should I do if I was exposed?

ATSDR recommends that you contact your local health care provider if you or someone in your family was exposed to creosote or creosote waste products from the Kerr-McGee Chemical Corporation.

How can I avoid contact with dioxins and PAHs in my community?

ATSDR recommends that you:

- stay current on all reports that may give updates on site conditions
 - <http://www.atsdr.cdc.gov/sites/KerrMcGee/>
 - <http://www.epa.gov/region4/superfund/sites/npl/mississippi/kermcgms.html>
- stay away from areas with contaminated soil or sediments in ditches and residential yards,
- wash your hands or body if you come into contact with contaminated soil or sediments, and
- do not dig in areas where creosote contamination is known or is likely.



ATSDR recommends that actions be taken to:

- reduce or eliminate human exposures to contaminants in soil and sediment,
- ensure on-site contamination does not move into nearby ditches, and
- collect additional environmental samples to determine the nature and extent of current contaminant levels in soil and sediment.

Background of Kerr-McGee Site

The Kerr-McGee Chemical Corporation (now known as Tronox, Inc.) operated a wood-preserving plant in Columbus, Mississippi, from 1928 to 2003. The plant treated wood for products such as railroad ties. Wood-treatment processes at the plant used creosote, creosote coal tar solutions, and pentachlorophenol. Some of the chemicals from the plant were released into the environment where people came into contact with them. The EPA placed the Kerr-McGee Chemical Corporation on the National Priorities List (NPL) in 2011 so that the site could be cleaned up.

What are the major chemicals at the Kerr-McGee site?

Creosote and creosote coal tar solution are mixtures of chemicals used to preserve wood.

Polycyclic aromatic hydrocarbons (PAHs) are chemicals found in creosote and creosote coal tar solutions. They form when substances like gas and oil, coal, garbage, tobacco and charbroiled meat burn, but do not burn completely. PAHs may occur in nature or may be created during manufacturing.

Pentachlorophenol (PCP) is a manufactured chemical that does not occur naturally. It is used to preserve wood for utility poles, railroad ties, and wharf pilings. Kerr-McGee used PCP, but it is no longer available for use by the general public. Levels of PCP at the Kerr-McGee site were too low to harm your health.

Dioxins are a common name for a group of chemicals that share a chemical structure. Dioxins are created during manufacturing processes or when products are burned. The dioxin 2, 3, 7, 8-TCDD is considered the most toxic. Dioxins are found in very small amounts almost everywhere in the environment.

What did ATSDR do at the Kerr-McGee site?

A local citizen asked ATSDR to investigate chemical exposure at the site. ATSDR:

- gathered information (data) from national and state environmental agencies, departments of health and other sources,
- evaluated the data to find out whether people in the community came into contact with the chemicals and if the levels of those chemicals were high enough to cause health problems, and
- prepared a report called a public health assessment (PHA) to answer this question.

When did ATSDR release the public health assessment?

- ATSDR released the public comment version of this PHA in September 2008 and received many comments during the comment period September 23 through November 24, 2008. The public comment period for this document is closed.
- This PHA is the final document. ATSDR responded to all comments received during the public comment period in the appendix of this document.
- Data collected since 2008 is included in the final PHA.
- The full reports are available at <http://www.atsdr.cdc.gov/sites/KerrMcGee/>.



What else did ATSDR investigate in the community?

Tap water

- In April 2008, ATSDR conducted an exposure investigation after some residents reported that their tap water contained black residue or produced an odor. ATSDR collected and analyzed tap water samples from homes near the Kerr-McGee plant. The tap water did not contain harmful levels of contaminants.
- EPA found dioxins in groundwater. However, residents near the Kerr-McGee plant get their drinking water from the public water supplier, not from groundwater wells. Dioxin was not found in the public water system.

Fish – In June 2008, ATSDR conducted an exposure investigation to find out if chemicals from the site contaminated fish in the Luxapalila Creek. ATSDR collected fish and tested the fish for contamination. The fish did not contain harmful levels of contaminants.

Air – In October 2009, ATSDR released a PHA that evaluated air exposures coming from the Kerr-McGee Chemical plant. ATSDR found that people were exposed to low levels of chemicals in the air from the creosote treatment used by Kerr-McGee. The levels of PAHs and dioxins in air were too low to harm people's health.

Other pathways – ATSDR investigated other harmful substances and ways people could come into contact with them. Go to our website to learn about all of these chemicals and pathways.

How can I get more information about ATSDR activities at the Kerr-McGee site?

For more information, you can visit our website at <http://www.atsdr.cdc.gov/sites/KerrMcGee/> or call us toll free at 1-800-CDC-INFO (1-800-232-4636).

You can find copies of the PHA and this fact sheet at the repository at the Columbus-Lowndes Library, 314 North Seventh Street, Columbus, MS 39701.

