

Kerr-McGee/Tronox Columbus, MS

Public Health Assessment Air Exposure Fact Sheet

September 2008

Environmental Health

Background

The Kerr-McGee (now Tronox) Corporation operated as a wood-preserving plant in Columbus, Mississippi, until 2003. The facility, which is now closed, covered about 90 acres and was surrounded by homes and industrial properties. Kerr-McGee used two ways of treating wood products that exposed people to chemicals in the air: the creosote treatment and the pentachlorophenol treatment.

The Agency for Toxic Substance and Disease Registry (ATSDR) received a request from members of the community to find out if people living near the Kerr-McGee site were exposed to chemicals at levels that could cause health problems. ATSDR conducted a Public Health Assessment (PHA) on air exposures. The PHA is a report on how we evaluated chemicals in the air at this site. Our conclusions and recommendations have been summarized in this fact sheet.

Were people exposed to chemicals in the air from the creosote treatment used by Kerr-McGee?

ATSDR found that:

- Yes, people were exposed to low levels of chemicals in the air from the creosote treatment used by Kerr-McGee.
- The creosote treatment exposed people to Polycyclic Aromatic Hydrocarbons (PAHs).
- PAHs are a group of chemicals made when coal, oil and gases are burned together.

What is creosote?

Creosote is mixture of chemicals mainly used to preserve wood. It is also used as a pesticide.



Will exposure to creosote and PAHs cause me to get sick?

Whether a person exposed to creosote gets sick or not will depend on several things including:

- The amount you were exposed,
- The length of time of your exposure,
- The number of times you were exposed.

Community members were exposed to low levels of creosote and PAHs. Low levels of exposure to creosote and PAHs is not known to cause long term health problems.

Were people exposed to chemicals in the air from the pentachlorophenol treatment used by Kerr- McGee?

Yes, people were exposed to chemicals in the air from the pentachlorophenol treatment used by Kerr-McGee.

- The pentachlorophenol treatment also exposed people to small amount of dioxins.
- Dioxins are a group of chemicals made when chlorine, carbon, and oxygen are combined together.

What is pentachlorophenol?

Pentachlorophenol is a man made chemical used as a pesticide and to treat wood.

Will exposure to pentachlorophenol and dioxins cause me to get sick?

Whether a person exposed to pentachlorophenol and dioxins gets sick or not will depend on several things including:

- The amount you were exposed,
- The length of time of your exposure,
- The number of times you were exposed.

Community members were exposed to low levels of pentachlorophenol and dioxins. No health problems are expected from the past exposure to pentachlorophenol or dioxins from the air.

Will exposure to chemicals harm my child?

There do not appear to be any hazards at this time. Note that many factors determine if chemicals will harm your child.

A child's body does not respond to chemicals the same as an adult. If your child is exposed to chemicals or you have questions about your child's health, ATSDR encourages you to seek medical advice.

Why did I get sick?

Often the health complaints of people living near operational wood treatment facilities can not be explained. This usually occurs when contaminants are found at low levels not known to cause health problems.

Naphthalene is released into the air during the creosote treatment. It smells a little like mothballs. People living near wood treatment facilities often smell this odor especially when it rains. Rainwater pushes small amounts of the gas out of the soil.

Naphthalene may cause respiratory irritation. Also, it may cause stress induced illness and/or make existing illness worse. Symptoms may include:

- Rapid heart beats
- Dizziness
- Nausea
- Sweating
- Anxiety

These effects should go away after the odors subside.

What were the uncertainties and limitations of ATSDR evaluation?

There is not much information available on community airborne exposure to wood treatment operations. However, we do know about two other communities who lived near wood treatment operations and we do know about people who lived in treated wood homes.

What information did ATSDR evaluate for the PHA?

ATSDR used new scientific information learned about exposures from the air. We also look at information from:

- Air data at the fence line of the Kerr McGee facility
- Community information from other operational facilities at the fence line of the facility
- The Environmental Protection Agency database on toxic chemicals used by Kerr McGee.
- The Environmental Protection Agency (EPA) database on toxic chemicals used at other operational facilities
- Blood samples from community members
- Soil and dust samples
- Worker exposure information
- Various other exposure studies

What should I do?

ATSDR recommends that you:

- Remove any treated wood that may be in the home.
- Contact EPA regarding soil that has strong odors.

ATSDR concludes that the low levels of creosote chemicals and pentachlorophenol chemicals from the past will not result in any health effects now. Past effects were mostly irritation.

How do I get more information on ATSDR activities at the Kerr-McGee site?

For information on the Kerr-McGee Air Exposure PHA:

- Contact ATSDR at 1-800-CDC-INFO (232-4636) and ask for Greg Zarus, Environmental Health Scientist at 770-488-0778 or
- Visit ATSDR Kerr-McGee webpage at:
www.atsdr.cdc.gov/sites/KerrMcGee/index.html

To learn more about ATSDR, visit our website at: www.atsdr.cdc.gov

*The Agency for Toxic Substances and Disease Registry (ATSDR)
is a federal public health agency of the
U.S. Department of Health and Human Services.*