



**Public Health  
Assessment  
for**

**KOPPERS INDUSTRIES, INCORPORATED  
(a/k/a KOPPERS COMPANY, INCORPORATED)  
NORTH LITTLE ROCK, PULASKI COUNTY, ARKANSAS  
EPA FACILITY ID: ARD006344824  
JANUARY 27, 2005**

**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES  
PUBLIC HEALTH SERVICE  
Agency for Toxic Substances and Disease Registry**

THE ATSDR PUBLIC HEALTH ASSESSMENT: A NOTE OF EXPLANATION

This Public Health Assessment was prepared by ATSDR pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA or Superfund) section 104 (i)(6) (42 U.S.C. 9604 (i)(6)), and in accordance with our implementing regulations (42 C.F.R. Part 90). In preparing this document, ATSDR has collected relevant health data, environmental data, and community health concerns from the Environmental Protection Agency (EPA), state and local health and environmental agencies, the community, and potentially responsible parties, where appropriate.

In addition, this document has previously been provided to EPA and the affected states in an initial release, as required by CERCLA section 104 (i)(6)(H) for their information and review. The revised document was released for a 30-day public comment period. Subsequent to the public comment period, ATSDR addressed all public comments and revised or appended the document as appropriate. The public health assessment has now been reissued. This concludes the public health assessment process for this site, unless additional information is obtained by ATSDR which, in the agency's opinion, indicates a need to revise or append the conclusions previously issued.

Agency for Toxic Substances & Disease Registry..... Julie L. Gerberding, M.D., M.P.H., Administrator  
Henry Falk, M.D., M.P.H., Director

Division of Health Assessment and Consultation..... William Cibulas, Jr., Ph.D., Director  
Sharon Williams-Fleetwood, Ph.D., Deputy Director

Community Involvement Branch..... Germano E. Pereira, M.P.A., Chief

Exposure Investigations and Consultation Branch..... Donald Joe, M.S., Deputy Branch Chief

Federal Facilities Assessment Branch..... Sandra G. Isaacs, B.S., Chief

Superfund Site Assessment Branch..... Richard E. Gillig, M.C.P., Chief

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**Koppers Industries, Incorporated**  
**(a/k/a Koppers Company, Incorporated)**

**Final Release**

**PETITIONED PUBLIC HEALTH ASSESSMENT**

**KOPPERS INDUSTRIES, INCORPORATED**  
**(a/k/a KOPPERS COMPANY, INCORPORATED)**

**NORTH LITTLE ROCK, PULASKI COUNTY, ARKANSAS**

**EPA FACILITY ID: ARD006344824**

**Prepared by**  
**Arkansas Department of Health**  
**Little Rock, Arkansas**

**Under Cooperative Agreement with**  
**The U.S. Department of Health and Human Services**  
**Agency for Toxic Substances and Disease Registry**  
**Atlanta, Georgia**

## FOREWORD

The Agency for Toxic Substances and Disease Registry, ATSDR, was established by Congress in 1980 under the Comprehensive Environmental Response, Compensation, and Liability Act, also known as the *Superfund law*. This law set up a fund to identify and clean up our country's hazardous waste sites. The Environmental Protection Agency, EPA, and the individual states regulate the investigation and clean up of the sites.

Since 1986, ATSDR has been required by law to conduct a public health assessment at each of the sites on the EPA National Priorities List. The aim of these evaluations is to find out if people are being exposed to hazardous substances and, if so, whether that exposure is harmful and should be stopped or reduced. (The legal definition of a health assessment is included on the inside front cover.) If appropriate, ATSDR also conducts public health assessments when petitioned by concerned individuals. Public health assessments are carried out by environmental and health scientists from ATSDR and from the states with which ATSDR has cooperative agreements. The public health assessment program allows the scientists flexibility in the format or structure of their response to the public health issues at hazardous waste sites. For example, a public health assessment could be one document or it could be a compilation of several health consultations - the structure may vary from site to site. Nevertheless, the public health assessment process is not considered complete until the public health issues at the site are addressed.

**Exposure:** As the first step in the evaluation, ATSDR scientists review environmental data to see how much contamination is at a site, where it is, and how people might come into contact with it. Generally, ATSDR does not collect its own environmental sampling data but reviews information provided by EPA, other government agencies, businesses, and the public. When there is not enough environmental information available, the report will indicate what further sampling data is needed.

**Health Effects:** If the review of the environmental data shows that people have or could come into contact with hazardous substances, ATSDR scientists evaluate whether or not these contacts may result in harmful effects. ATSDR recognizes that children, because of their play activities and their growing bodies, may be more vulnerable to these effects. As a policy, unless data are available to suggest otherwise, ATSDR considers children to be more sensitive and vulnerable to hazardous substances. Thus, the health impact to the children is considered first when evaluating the health threat to a community. The health impacts to other high risk groups within the community (such as the elderly, chronically ill, and people engaging in high risk practices) also receive special attention during the evaluation.

ATSDR uses existing scientific information, which can include the results of medical, toxicologic and epidemiologic studies and the data collected in disease registries, to determine the health effects that may result from exposures. The science of environmental health is still developing, and sometimes scientific information on the health effects of certain substances is not available. When this is so, the report will suggest what further public health actions are needed.

**Conclusions:** The report presents conclusions about the public health threat, if any, posed by a site. When health threats have been determined for high risk groups (such as children, elderly, chronically ill, and people engaging in high risk practices), they will be summarized in the conclusion section of the report. Ways to stop or reduce exposure will then be recommended in the public health action plan.

ATSDR is primarily an advisory agency, so usually these reports identify what actions are appropriate to be undertaken by EPA, other responsible parties, or the research or education divisions of ATSDR. However, if there is an urgent health threat, ATSDR can issue a public health advisory warning people of the danger. ATSDR can also authorize health education or pilot studies of health effects, full-scale epidemiology studies, disease registries, surveillance studies or research on specific hazardous substances.

**Interactive Process:** The health assessment is an interactive process. ATSDR solicits and evaluates information from numerous city, state and federal agencies, the companies responsible for cleaning up the site, and the community. It then shares its conclusions with them. Agencies are asked to respond to an early version of the report to make sure that the data they have provided is accurate and current. When informed of ATSDR's conclusions and recommendations, sometimes the agencies will begin to act on them before the final release of the report.

**Community:** ATSDR also needs to learn what people in the area know about the site and what concerns they may have about its impact on their health. Consequently, throughout the evaluation process, ATSDR actively gathers information and comments from the people who live or work near a site, including residents of the area, civic leaders, health professionals and community groups. To ensure that the report responds to the community's health concerns, an early version is also distributed to the public for their comments. All the comments received from the public are responded to in the final version of the report.

**Comments:** If, after reading this report, you have questions or comments, we encourage you to send them to us.

Letters should be addressed as follows:

Attention: Division of Health Assessment and Consultation, Agency for Toxic Substances and Disease Registry, 1600 Clifton Road (E-60), Atlanta, GA 30333.

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## SUMMARY

In accordance with a cooperative agreement with the Agency for Toxic Substances and Disease Registry (ATSDR), the Arkansas Department of Health (ADH) prepared this Petitioned Public Health Assessment (PHA) at the request of Glenview and Poe Addition neighborhood associations to address concerns about past, current, and future health hazards and odors associated with Koppers Industries Incorporated (KII) operations. (Note: Appendix A provides a glossary of terms used in this report.)

In preparing this PHA, ADH reviewed available data from the Arkansas Department of Environmental Quality (ADEQ) and the United States Environmental Protection Agency (USEPA). ADH identified several exposure situations for evaluation. These include possible contact with site contaminants in the air, soil, garden vegetables, and groundwater. ADH evaluated potential health effects that could be associated with the identified exposure situations. *On the basis of available information, under the present site conditions, the KII site is considered to present no apparent public health hazard for exposures to site-related chemicals.*

Air monitoring confirmed the presence of site-related chemicals (naphthalene) at levels people could detect, i.e., they could smell a chemical odor. A point has not been established when an individual's response to an unpleasant odor can be considered an adverse health effect. If concentrations of a chemical are below the level expected to produce a health effect, individual sensitivity to the chemical must be considered, as should the presence of an unpleasant odor which may interfere with quality of life. Studies suggest that odors may trigger respiratory effects among sensitive populations, such as people with asthma, children, elderly people, and immune-suppressed people. Odor triggers may be further confounded by other respiratory environmental triggers, such as dust mites, animal dander, tobacco smoke, and other types of outdoor air pollution.

The limited air data available for the site detected small concentrations of polycyclic aromatic hydrocarbons (PAHs) in the air, but those concentrations were below levels that cause adverse health effects. Exposures to contaminated soils have occurred and continue to occur, but the concentrations of the contaminants in the soils are below levels found to cause adverse health effects. Edible portions of garden plants grown in soils containing PAH concentrations that were detected in the community soil samples were not expected to cause adverse health effects. No evidence exists to indicate that contaminated groundwater in the vicinity of the site was used as a source of drinking, bathing, or irrigation water. Currently, the residents in the area use a public water system that obtains its water from a distant source not influenced by the water table in the vicinity of the site. Thus, the residents' potable water source is not adversely impacted by contaminated groundwater. Therefore, even though the site contaminants have adversely impacted the environmental water quality, no apparent exposure points in the contaminated groundwater put people at risk for exposure.

## BACKGROUND

### Site Description and History

KII is an active wood-treatment facility located at 2201 Edmonds Street, North Little Rock, Pulaski County, Arkansas. An ariel photo and site map of KII can be found in Appendix B, Figures 3 and 4. Wood has been treated at this property since 1907, when it was owned by the Ayer and Lord Tie Company. Koppers Company, Inc., acquired the plant in 1944. BNS Acquisitions, Inc. (a subsidiary of Beazer PLC) acquired the outstanding common stock of Koppers. In December 1988, BNS sold some Koppers assets including the Koppers name to a management-led buyout group known as KII. The plant is currently owned and operated by KII.

The site covers approximately 155 acres of generally flat plain that slopes to the south and southeast toward the Arkansas River. The Arkansas River flows to the east approximately 1 mile south of the plant. West of the facility is an open field and marsh area sometimes used for agriculture. To the north and northwest is an industrial area where operating plants engage in manufacturing, assembly, and fabrication. Two residential neighborhoods are located within a 1-mile radius of the site: the Glenview community is to the east of the facility and the Poe Addition community is to the south. Glenview Elementary School, at 2101 Edmond Street, borders an eastern portion of the site owned by KII. The Glenview Recreation Center also is less than ½ mile east of KII at 4800 East 19<sup>th</sup> Street.

A fence restricts facility access from the residential areas to the east and south and industrial areas to the north and northwest. Access to the site from the undeveloped property to the west is not fence-restricted. However, the area west of the plant is open fields and marsh with limited human use. Either an employee or a security guard attends a gate at the corner of Ira and Van streets from 6:30 a.m. until midnight; from midnight until 6:30 a.m., the gate is locked. Another gate on Edmonds Street is open and unattended from 6:30 a.m. until 4 p.m.; the gate is locked from 4 p.m. until 6:30 a.m.

Railroad tracks run throughout the facility generally in a north-south direction. Railroad gates next to the main gate at Van and Ira streets and at the southern end of the facility remain locked when not used for rail traffic. The facility's main office is in the northeastern area of the plant. The various buildings where the wood is cut, stacked, and prepared for treatment are scattered throughout the southern half of the property.

The tank farm, a bermed area where wood is treated, is in the southernmost end of the property. The area contains eight work tanks used for storing creosote mixtures and six treatment cylinders where wood products are treated with creosote. Also in the southern end of the property are the wastewater-treatment plant and the groundwater-treatment plant. The wastewater plant treats both the water produced from wood during treatment and the rainwater collected from the tank farm area and drip track. A groundwater-treatment plant and a product recovery well building are west of the cylinders.

