



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590  
**JUL 25 2016**

REPLY TO THE ATTENTION OF:

Sara Lewison  
Concerned Citizens of Carbondale  
1039 Wall Street  
Carbondale, IL 62901

Re: Koppers Wood-Treating Site, Carbondale, Illinois  
ILD 000 819 946  
Letter to EPA Office of Civil Rights

Dear Ms. Lewison:

The United States Environmental Protection Agency's (EPA's) Office of Civil Rights has forwarded to me a copy of your April 11, 2016 letter, claiming racial discrimination against your organization and residents living near the former Koppers wood-treating facility in Carbondale, Illinois. The Office of Civil Rights has separately informed you that it lacks jurisdiction over your claims. This letter reviews EPA's actions at this facility, including how we have followed the environmental justice principles of fair treatment and meaningful involvement.<sup>1</sup> I am committed to making sure that these principles are reflected in all of our work; and to fully considering concerns about environmental injustice such as those you have raised.

As detailed below, EPA Region 5's efforts and actions with regard to the Koppers facility were undertaken consistent with EPA authority and policy in order to equitably address existing environmental hazards and ensure that the clean-up protects people and the environment from potential current and future exposures to unsafe levels of chemicals. The cleanup decisions were based on environmental law, EPA's guidance for RCRA cleanup, and scientific information about conditions at the facility. In addition, EPA Region 5 took extra steps to communicate with and provide information to the community near the Koppers facility in order to address concerns when significant decisions were being proposed.

At Illinois EPA's request, the Illinois Department of Public Health completed a Public Health Assessment and Consultation for the Koppers facility in 2001.<sup>2</sup> This assessment concluded that nearby residents were most likely exposed to airborne contaminants during past wood-treating operations, but found no historic environmental data to assess that exposure. The assessment

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<sup>1</sup> See <https://www.epa.gov/environmentaljustice/learn-about-environmental-justice>

<sup>2</sup> <http://www.atsdr.cdc.gov/hac/pha/pha.asp?docid=563&pg=0>

also identified exposure to chemicals by on-site workers during the period of operation. It also concluded that the conditions at that time did not threaten the health of nearby residents.

EPA was asked to conduct a further public health study of the Koppers facility at various times over the past decade, as you point out in your letter. EPA shared these requests with the health agencies responsible for this type of work. In 2005, the Illinois Department of Public Health and the Agency for Toxic Substances and Disease Registry (ATSDR) met with the local community during a public meeting. At that meeting, and in later discussions with EPA, these health agencies concluded that a health study for the community near the Koppers facility would not be informative. One reason was that an initial review of overall cancer incidence for Jackson County and the Carbondale area did not identify differences from the cancer rates across Illinois. Another reason was the lack of environmental data to evaluate exposure during the time of operation, particularly levels of contaminants in the air. For these reasons, it is unlikely that a health study would be able to establish a causal relationship between exposure to contaminants from Koppers and the occurrence of disease in the community.

EPA oversaw extensive remediation at the facility from 2004 to 2010. Based on analyzing topographic conditions and groundwater monitoring results, we have concluded that there are no current migration pathways for contaminants from the facility into the neighborhood. Residential soil samples tested since 2005 show that the soil is not contaminated with wood-treatment chemicals. These sampling events include: (1) sampling by EPA and Illinois EPA in 2005; (2) samples taken by the City of Carbondale's contractor in 2006 in response to citizen request; and (3) samples taken by Beazer East, Inc. in 2012, under EPA oversight. The results of the 2005 and 2012 sampling events were shared with the public at public meetings held in 2005 and 2013 and were included in Fact Sheets. These results are posted on the EPA Koppers web page,<sup>3</sup> are available at the Carbondale Public Library, and were also discussed in previous letters to your organization. The City shared the results of the 2006 sampling work with the public separately.

As EPA has explained in previous letters and at public meetings, contaminated groundwater plumes have not formed at the Koppers facility due to the nature of the clay in the subsurface. Monitoring wells close to creosote source areas (near fissures in the clay) show elevated levels of chemicals, but due to the tight nature of the clay, chemicals do not form a dissolved-phase plume. This is confirmed by the pattern of measured concentrations in the wells reported in the several years of groundwater monitoring. Groundwater monitoring reports are available at the Carbondale Public Library, the EPA Records Center in Chicago, and on the EPA Koppers web page (see footnote 3). With respect to your request that we also sample private drinking water wells, please note that the City of Carbondale has long been on a public water supply that comes from Cedar Lake. A City ordinance prohibits the use of groundwater wells as potable water supplies, so in any case residents should not be using private groundwater wells.

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<sup>3</sup> <https://www3.epa.gov/region5/cleanup/rcra/koppers/>

Despite EPA's conclusion that there were no groundwater plumes migrating from the facility into the neighborhood, EPA responded to community concerns by asking Beazer East to install new wells along the southern boundary close to the residential area, to sample the soil during well drilling, and to sample these wells for dioxins and furans. At these locations, wells would provide information about conditions in soil and groundwater just upgradient of the residential area. The sample results collected during 2015-16 show that the soil at depth and groundwater are not contaminated in this area. Please refer to the enclosed letter to Dr. Brian Klubek of your organization for more detail on the sampling results. In addition, the reports *Groundwater Network Modifications Report*, dated Feb 12, 2016, and *February 2016 Groundwater Sampling Data Submittal*, dated May 17, 2016, are available for review on the EPA clean-up page for the Site and at the Carbondale Public Library.

Further information is in EPA's extensive, detailed responses to letters from Dr. Klubek, written on behalf of the Concerned Citizens of Carbondale, on July 29, 2014 and February 23, 2015. The June 8, 2015 letter you cite raised the same issues to which EPA had responded in earlier correspondence, so EPA did not prepare an additional response to that letter.

You ask whether the cleanup would have been different if EPA had decided to apply the Superfund statute (Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), also known as Superfund, 42 U.S.C. § 9601) instead of RCRA (the Resource Conservation and Recovery Act, 42 U.S.C. § 6901). Under both RCRA and CERCLA, protective remedial measures are based on exposure assessments, the remedial options considered do not vary significantly, and the public is consulted before a remedy is selected. EPA has a longstanding "deferral" policy, under which financially viable responsible parties clean up their properties and nearby areas that they have contaminated. Using RCRA instead of CERCLA is particularly appropriate where the responsible party is still in business, as is the case with the Koppers facility. By contrast, CERCLA is used primarily when the responsible party cannot be located, where the contaminated area has been closed or abandoned, or when there are multiple responsible parties. When EPA issued its RCRA administrative order to Koppers, the site was still an operating business, and it continues to have the resources to conduct the cleanup under EPA's oversight.

At the Koppers facility, the surrounding neighborhood's racial composition was not a factor in the substance or timing of EPA's decisions regarding cleanup. In fact, in an effort to be responsive to the community's concerns, EPA engaged in extensive public outreach, including maintaining a public records repository near the facility as well as on-line information so that interested persons have access to analytical results and other information regarding the cleanup's progress. EPA hosted its first public meetings in 2004 and 2005 in Thompson School to discuss the selected remedies, and has hosted or participated in numerous meetings since 2013. One purpose of the latter meetings was to discuss and share information about the solar energy farm proposed to be installed on 80 acres of the Koppers facility.

In response to community feedback received during the 2004 public meeting, EPA arranged for a health topics panel for the 2005 public meeting. The panel included Dr. Ellen Ruben of Stroger

Hospital (aka Cook County Hospital), an occupational health specialist, who offered health consultation services to persons who thought they might be experiencing health effects from contaminant exposure. The proposed consultations could either have been in-person, or by phone for those participants who wished to use their personal physician's office.

Additional public meetings were held to discuss the proposed redevelopment of the facility as a solar energy farm and other topics. At these meetings, EPA toxicologists explained the off-site (residential) testing results and how EPA evaluates risk to human health. EPA also explained the health and safety measures required when a remedial site is redeveloped; and that industrial properties, nearly all of which have residual contamination that is managed to prevent exposure, are frequently redeveloped for other industrial uses. Because a solar energy farm generally releases no contaminants to air, soil, groundwater, or surface water, it would appear to be an ideal re-use of the facility and preferable to some other project that would require emissions permits.

I hope the information in this letter helps to show how EPA has fulfilled its commitment to environmental justice in this matter. If you or anyone from your organization has remaining concerns, I would welcome a meeting to discuss them. If you have any questions or would like to set up a meeting, please reply to me by letter or at [walts.alan@epa.gov](mailto:walts.alan@epa.gov).

Sincerely,



Alan Walts, Director  
Office of Enforcement and Compliance Assurance, Region 5

Enclosure

cc: EPA Office of Civil Rights  
OCIR-ORO - Office of Regional Operations



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 5  
77 WEST JACKSON BOULEVARD  
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

LU-9J

June 23, 2016

Dr. Brian Klubek  
Concerned Citizens of Carbondale  
Emeritus Professor of Soil Microbiology  
Department of Plant, Soil and Agricultural Systems  
Southern Illinois University

Dear Dr. Klubek,

EPA has previously discussed your concern about groundwater and soil conditions in the neighborhood south of the former Koppers Wood-Treating facility ("Site") in Carbondale, Illinois, in correspondence and at public meetings. You have been writing to EPA on behalf of the Concerned Citizens of Carbondale. I understand and appreciate your concerns that a dioxin/furan groundwater plume could migrate into the neighborhood south of the Site and that the surface soil samples (at a six-inch depth) collected in the residential area in the past may not provide an adequate basis for concluding that soil at depth was not contaminated with dioxin/furan or creosote.

EPA has responded previously to these concerns in detailed letters to you dated July 29, 2014, and February 23, 2015. Our position regarding plume formation at the Site is based on several years of groundwater monitoring. Dioxin/furan chemicals have not been part of the routine groundwater-monitoring program because they are tightly bound to soil particles and do not readily partition into groundwater, as has been explained in previous correspondence. To verify this general premise at the Site, for the 2008 and 2009 monitoring events, EPA asked Beazer East, Inc. ("Beazer") to analyze groundwater for these chemicals from specific wells. The sampling data verified that the groundwater was not contaminated with elevated levels of dioxin/furan chemicals (the concentrations were below drinking water standards).

In further response to your concerns, EPA agreed that it would ask Beazer to drill new wells on its property along the southern boundary close to the residential area and to sample soil at depth during the drilling. We asked Beazer to sample the wells for dioxin/furan chemicals (in addition to the other chemicals that are routinely analyzed in the groundwater-monitoring network for the Site). The rationale for installing wells and sampling at these locations is that they represent conditions just upgradient of the residential area.

Last year, EPA worked with Beazer to revise Beazer's groundwater monitoring program for the Site. At EPA's request, Beazer installed three pairs of nested wells and a piezometer near its southern property boundary and sampled soil borings from the drilling operation. Soil samples at depth were analyzed for dioxin/furan chemicals at OW-210B, OW-211B and Piezometer P-11A, along the southern property boundary. Borings from all the wells being drilled were inspected for evidence of creosote. Beazer sampled groundwater for dioxin/furan chemicals at the new wells along the southern property and at other wells along the southern property boundary farther east. Under the revised groundwater-monitoring program, Beazer will periodically sample selected wells for dioxin/furan chemicals. Should data indicate a need for more frequent monitoring, groundwater will be analyzed for these chemicals routinely.

Two EPA employees were present to observe the drilling being performed by a Beazer contractor, and to look for visible signs of creosote. No creosote or evidence of creosote was observed by EPA or by Beazer during the drilling.

#### Soil

Observations and analytical results in soil from drilling the new wells near the southern property boundary (at OW-210B, OW-211B and Piezometer P-11A) are summarized below (see *Groundwater Network Modifications Report*, Feb 12, 2016 at the web link, below):

- No creosote was observed in the soil borings.
- Soil borings from the well drilling were sampled at two-foot intervals down to ten feet. Another sample was taken at the mid-point between 10 ft bgs and the bottom of the unit, at around 15 feet (the bottom of the unit at these locations ranged from 26-30 feet bgs).
- Analytical results reported low levels of dioxin/furan TEQ in all the soil samples. Of the 17 intervals sampled, only two samples were slightly higher than the residential screening value of 50 parts per trillion (ppt) dioxin TEQ: at location OW-211B, the 0 to 2 ft bgs sample measured 97.2 ppt; at location P-11A, the 0 to 2 ft bgs duplicate sample measured 127 ppt. Concentrations in the remaining intervals ranged from 46.7 ppt dioxin TEQ to 0.0332 ppt dioxin TEQ. (See the summary table on page 4 in the *Groundwater Network Modifications Report*). Note that in the table, pg/g represents parts per trillion and that the residential soil screening value is 50 ppt).

#### Groundwater

The analytical results from sampling groundwater at the new wells near the southern property boundary (at OW-209A/B, OW-210A/B, and OW-211A/B) show that the groundwater in this area is not contaminated. (See *February 2016 Groundwater Sampling Data Submittal*, May 17, 2016 at the web link, below).

Please note that the City of Carbondale is on a public water supply and there is a City ordinance prohibiting the use of groundwater for potable water supplies. Nonetheless, measured concentrations of dioxin/furan chemicals were compared to EPA Maximum

Contaminant Levels (MCLs) for drinking water as a point of reference for understanding the significance of the concentrations. All concentrations were significantly below the MCL. The safety thresholds for the inhalation exposure route were relevant for evaluating the concentrations of volatile organic chemicals (VOCs). No VOCs were detected. Groundwater was not contaminated above relevant comparison standards/thresholds at the wells along the southern property boundary.

- Volatile and semi-volatile (naphthalene) chemical concentrations were to be compared to Illinois TACO groundwater indoor inhalation exposure route criteria. However, these chemicals were not detected in the groundwater samples (see Table 1 of the *Groundwater Sampling Data Submittal*).
- Dioxin/furan chemical concentrations in the samples were compared to drinking water MCLs. Measurements of these chemicals were significantly below the 2,3,7,8-TCDD TEQ MCL of 0.000003 ug/L (parts per billion) (see Table 2 of the *Groundwater Sampling Data Submittal*).

Based on the data discussed above, the residential area soil sampling results, and the conceptual site model discussed with you in earlier correspondence, EPA's position is that soil and groundwater in the residential area south of the former Koppers Site is not contaminated with wood-treating chemicals.

For more details about the results, please refer to the EPA clean-up web page and links to the two reports identified above at <https://www3.epa.gov/region5/cleanup/rcra/koppers/>

Sincerely,



Carolyn Bury  
Project Manager

cc: James Moore, IEPA