

Illinois AG and neighbors sue over humongous heaps of ‘petcoke’

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Along the banks of Chicago’s Calumet River, growing piles of black dust up to five stories high – a byproduct of oil refining called “petcoke” – have sparked two lawsuits that allege the towering mounds pose grave threats to the environment and people of the city’s Southeast side.

“When the wind picks up and there’s a little breeze you’re getting black dust everywhere -- you can’t even open your back windows,” said Lilly Martin, 50, a plaintiff in one of the suits who lives just blocks from one of the piles.

Martin said the dust turns her pool water black and forces her to power wash her house weekly. But her real concern is for the health of her 21-year-old daughter, who suffers from asthma. “She can’t even go out and breathe the fresh air,” she said. “Where do we go if it’s all in the area here?”

The granular, coal-like material -- a carbon-rich residue from crude oil refining called petroleum coke, but often referred to as “petcoke” -- is used as an industrial fuel and has long been stored in open lots in Midwestern cities. There is little U.S. market for petcoke because it burns “dirty,” producing more emissions than coal. But as refineries across the country have begun processing more heavy, carbon-rich crude oil from Canada’s “oil sands” fields, they have likewise been producing more petcoke. And though American entrepreneurs, led by the Koch brothers, have discovered a booming market for petcoke in China, the piles have grown larger.

Now residents of Chicago fear a repeat of what happened this summer in Detroit, when a high wind caught a mountain of petcoke on the lakefront and created a swirling tornado-shaped black cloud that stretched to the sky and blew into Ontario. The cloud made the national news in Canada.

The mountain that unleashed the cloud was owned by Koch Carbon, a subsidiary of Koch Industries. The resulting outcry reportedly led the company to relocate the pile to Ohio.

The mountains in Chicago are owned by a different Koch Industries subsidiary, KCBX, which now faces lawsuits from the Illinois attorney general, who is alleging violations of the state’s Environmental Protection Act, and neighbors of the petcoke piles. The residents of the South Deering and East Side neighborhoods are seeking damages in a class-action lawsuit for alleged harm to property and health. Both lawsuits also seek force the companies involved in storage and moving the petcoke to put in measures to control the dust that residents say has become a constant nuisance.

“There will be a growing amount of petcoke that is coming to these areas,” said Illinois Attorney General Lisa Madigan. “To the extent that there is already a problem, there is grave concern that there will be a much larger problem very soon.”

The AG's suit, filed this week, alleges that the company failed to control dust on its storage site, which it said at times held as much as 350,000 tons of petcoke in piles up to 60 feet high. When the dust blows into the nearby neighborhoods, including two schools and a park within a mile, it "gets into people's eyes, is inhaled and coats people's homes...threatening human health," the complaint states. Inhaling petcoke dust could potentially cause "serious health problems," it adds, including asthma and other respiratory problems.

The suit is seeking civil penalties of \$50,000 for each violation of the state environmental law, and \$10,000 for each day of the violation.

KCBX has not responded to the lawsuits and did not reply to an NBC News request for comment on them.

The clashes over the petcoke piles in the Midwest are the latest example of the wide-reaching consequences of the North American energy boom, which can impact municipalities in unexpected ways.

While the U.S. is now producing more domestic high quality, "sweet light" crude oil than at any time in the past 20 years, several large Midwest refineries have recently switched to processing lower-grade, "heavy" crude from Canada's oil sand fields. Transportation bottlenecks that crimp the movement of Canadian crude from the oil sands to refineries have created a glut of the tarry crude, pushing down prices.

To take advantage of the supply, refineries on the Gulf Coast and in the Midwest have altered their operations – increasing the size of "coker" units that break carbon away from lighter materials used in gas and diesel --- to process the Canadian crude, which produces more petcoke than almost any other type of oil.

"More and more heavy crude is available in their neighborhood," Rob Smith, a managing director at PFC Energy, a consulting group that specializes in the oil and gas industry, said of the refineries. "The more coking capacity you have, the more petcoke there will be."

While petcoke can also be used as industrial fuel, along with or instead of coal, there is little domestic demand for it because it produces increased greenhouse gas emissions when burned. That means most of it is exported, but only after being collected in massive piles and then transported to ports.

The U.S. Environmental Protection Agency has set rules that apply to controlling dust from petcoke, but it has not sought to regulate it as a hazardous substance.

Petroleum industry safety guidelines recommend that it be stored to "avoid generating heavy concentrations of airborne, finely-ground petroleum coke dust (and) ... accumulations of finely ground dust on surfaces of equipment or buildings."

Last winter, Marathon Oil completed a \$2.2 billion upgrade to its Detroit refinery, which included a near doubling of its coking capacity. By spring, Detroiters were protesting the mountains of black pebbly material rising up along the waterfront.

In August the city cited the company that owns the storage facility for violating city regulations and barred storage of petcoke at the riverside site. Koch Industries later reportedly moved the pile to a site in Toledo, Ohio, according to the Detroit Free Press. A spokesman for the Koch Companies Public Sector did not respond to NBC News' requests for comment about the move. Koch Industries is also the parent company of KCBX, which owns the controversial petcoke piles in Chicago. The Koch family is known for its generous financial support for conservative and libertarian causes and active opposition to environmental regulations.

Chicago's petcoke comes from a refinery in Whiting, Ind., which is poised to bring on what owner BP (formerly British Petroleum) says is the country's second-largest coker by the end of the year. The refinery has long processed some heavy crude, but will now devote itself to refining product from the Canadian oil sands. The \$3.8 million expansion will increase petcoke production from 600,000 tons per year to 2.2 million, according to a company spokesman.

Petcoke is used by some U.S. industries, notably in making steel and aluminum. But most of the fuel-grade product being produced by the Midwest refineries is eventually exported to China and other Asian countries. Data from the U.S. Energy Information Administration show petcoke exports to China have hit record levels since 2011.

Some environmental groups worry that rock-bottom prices for petcoke will prompt power plants here to make use of it despite the higher emissions.

"They have to dump it in the market cheap," said Lorne Stockman, author of a critical report on petcoke for the environmental group Oil Change International. "Not all of the U.S. production could be used here, but all of BP Whiting and Marathon's production could be soaked up in the Midwest."

DTE Energy, a Detroit-based energy company, has experimented with using petcoke in an industrial fuel mix to reduce energy costs, according to its website. A power plant in Nova Scotia, Canada, has also made use of some of the coke once piled in Detroit, the New York Times reported last summer.

For Chicago residents, broader concerns about petcoke take a backseat to those close to home. Terms of BP's Clean Air Act permit and a federal legal settlement require the oil company keep the petcoke walled in while on the refinery property, but no such regulations exist for areas where it is stored before being moved to market.

Complaints to the Illinois EPA about the massive mounds of petcoke along the Calumet River increased markedly in December, when KCBX, the Koch subsidiary, acquired the riverfront terminal from DTE Energy, which previously held the contract to move the petcoke from BP's Whiting refinery, according to the lawsuit filed by the state attorney general.

KCBX is in the process of upgrading the terminal, Paul Baltzer, spokesman for its parent company, Koch Companies Public Sector, said in an email statement. “We are in the final stages of constructing more than \$10 million in upgrades, including improvements to the site’s dust suppression capabilities,” said Baltzer.

In an emailed statement, a spokesman for BP said the company has “been told by KCBX that they are in compliance with Illinois regulations.”

Methods of controlling dust with water sprayers have long been in place in California and the Gulf coasts, but rules in Midwestern states are generally less strict. That puts neighbors of the petcoke mounds at risk, said Tom Zimmerman, a lawyer representing residents in the Chicago class-action lawsuit.

“This dust is blowing all throughout the neighborhood,” he said of his clients. “There’s nowhere to go, unless they want to be prisoners within their own homes.”

