

April 28, 2014

Via Registered Mail, Return Receipt Requested, to:

Michael Estadt, Operations Manager
or Current Operations Manager
KCBX Terminals Co. – South
10730 S. Burley Avenue
Chicago, IL 60617

Jim Simmons, Terminal Manager
or Current Terminal Manager
KCBX Terminals Co. – North
3259 E. 100th Street
Chicago, IL 60617

KCBX Terminals Co.
3259 E. 100th Street
Chicago, IL 60617
and
4111 E. 37th Street North
Wichita, KS 67220
and
C T Corporation System
298 S. LaSalle St., Ste. 814
Chicago, IL 60604

KM Railways, LLC
4111 E. 37th Street North
Wichita, KS 67220
and
C T Corporation System
298 S. LaSalle St., Ste. 814
Chicago, IL 60604

KM Strategic Investments, LLC
4111 E. 37th Street North
Wichita, KS 67220

Koch Mineral Services, LLC
4111 E. 37th Street North
Wichita, KS 67220

Koch Minerals, LLC
4111 E. 37th Street North
Wichita, KS 67220

Koch Industries, Inc.
4111 E. 37th Street North
Wichita, KS 67220
and
C T Corporation System
298 S. LaSalle St., Ste. 814
Chicago, IL 60604

Koch Chemical Technology Group,
LLC
4111 E. 37th Street North
Wichita, KS 67220

KG Holding, LLC
4111 E. 37th Street North
Wichita, KS 67220

Koch Resources, LLC
4111 E. 37th Street North
Wichita, KS 67220

Koch Carbon, LLC
4111 E. 37th Street North
Wichita, KS 67220
and
C T Corporation System
298 S. LaSalle St., Ste. 814
Chicago, IL 60604

Charles and David Koch
c/o Koch Industries, Inc.
4111 E. 37th Street North
Wichita, KS 67220

Re: Notice of Intent to Sue the Koch Brothers and Companies Under Section 7002(a)(1)(B) of the Resource Conservation and Recovery Act for Contributing to Petroleum Coke and Coal Pollution that May Present an Imminent and Substantial Endangerment to Health or the Environment

We write on behalf of the Southeast Environmental Task Force and the Natural Resources Defense Council, Inc., two not-for-profit citizens' groups organized to protect public health and the environment. These groups intend to sue Charles and David Koch; KCBX Terminals Company; KM Railways, LLC; KM Strategic Investments, LLC; Koch Carbon, LLC; Koch Minerals, LLC; Koch Mineral Services, LLC; Koch Industries, Inc.; Koch Chemical Technology Group, LLC; KG Holding, LLC; and Koch Resources, LLC (collectively, "Koch") under section 7002(a)(1)(B) of the Resource Conservation and Recovery Act, in order to remedy conditions arising from the handling, storage, treatment, transportation and/or disposal of petroleum coke and coal on Chicago's Southeast Side that may present an imminent and substantial endangerment to health or the environment. Koch has contributed and contributes to these conditions through its ownership, operation, and control of the bulk solid materials terminals located at 3259 East 100th Street (the "North site") and 10730 South Burley Avenue (the "South site"), Chicago, Illinois, and associated vehicles and infrastructure used to move bulk materials to, from, and within those sites.

I. Koch's Ownership, Operation, and Control of the North and South Sites and Associated Vehicles and Infrastructure for the Handling, Storage, Treatment, Transportation, and/or Disposal of Petroleum Coke and Coal

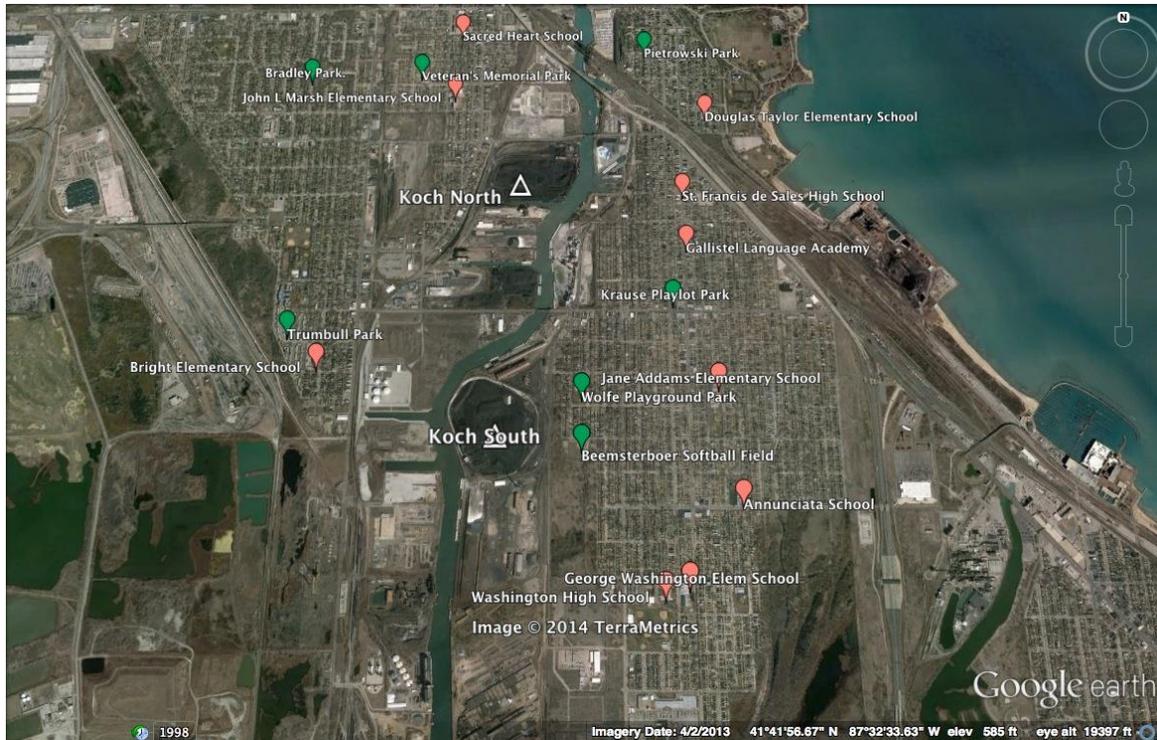
A. Setting

The North and South sites are surrounded by residential neighborhoods and stretches of the Calumet River and collectively occupy more than one hundred football fields' worth of land.

Koch's North site is approximately forty-seven acres. It borders the River to the east; residential neighborhoods lie to the north, west, and south. It sits less than one mile southeast of John L. Marsh Elementary School and Sacred Heart School and a mile west of Douglas Taylor Elementary School, St. Francis de Sales High School, and Gallistel Language Academy.

Koch's South site is approximately ninety acres and borders the River to the north, west, and south and residential neighborhoods to the east. It sits next to a community baseball diamond, less than a quarter mile west of Wolfe Playground Park; just over a half mile west of Jane Addams Elementary School; less than a mile northwest of George Washington Elementary School, George Washington High School, and Annunciata School; and approximately a mile east of Orville T. Bright Elementary School and Trumbull Park.

The following graphic is based on publicly available aerial footage.



B. Koch's North and South Sites and Associated Vehicles and Infrastructure

Koch receives shipments of, stockpiles, and ships bulk solid materials, primarily petroleum coke and coal, at its North and South sites.

On information and belief, petroleum coke is the sole bulk material that has been delivered to the South site since Koch bought that property in 2012. Koch holds a permit that provides for it to handle, store, and ship up to eleven million tons of petroleum coke at and from the South site each year, and as of fall 2013 had stockpiled approximately three hundred and fifty thousand tons of petroleum coke at the site. Petroleum coke is a waste product of crude oil refining. The heavier the crude, the more coke its refining produces. The British Petroleum, Inc.'s oil refinery in Whiting, Indiana, several miles southeast of the Koch sites, recently completed an expansion that is projected to increase its capacity to refine heavier crude oils, including oils from the Canadian tar sands, and to triple its output of petroleum coke to more than 2.2 million tons per year. On information and belief, Koch holds an exclusive contract to store this petroleum coke at its South site, and that contract requires Koch to accept all of the petroleum coke the refinery generates.

Koch stockpiles both petroleum coke and coal at its North site. In recent years, on information and belief, Koch has accepted annual deliveries of 2.5 to 3 million tons of coal and 850,000 to 1.7 million tons of petroleum coke to the North site, and has stockpiled approximately 100,000 tons of petroleum coke at a time on

that site. On information and belief, the North site is designed to stockpile up to 700,000 tons of bulk material at a time.

Petroleum coke is delivered to the North site by barges, railcars, and trucks, and to the South site by rail and truck. On information and belief, the South site also receives or is planning to receive barge deliveries of petroleum coke. Petroleum coke is shipped from the North site in marine vessels and railcars, and from the South site in marine vessels. Coal is brought to the North site in railcars and shipped from that site in marine vessels, trucks, and railcars. Koch uses heavy equipment, including conveyors, front-end loaders and/or loaders, clamshell shovels, and railcar loading and unloading structures, to move petroleum coke and coal off and onto vehicles and to transport it within the North and South sites.

C. The Koch Companies and Other Persons Who Own, Operate and/or Control the North and South Sites and Associated Vehicles and Infrastructure

KCBX Terminals Company owns and operates the North site and operates the South site. KCBX Terminals Company also owns and operates some of the associated vehicles and infrastructure, including a Barge Unloading Slip at Mile 331.3, west bank, Calumet River, slip number two, in Chicago, Illinois.

KCBX Terminals Company is an indirect, wholly-owned subsidiary of Koch Industries, Inc.

KM Railways, LLC owns the South site. KM Railways, LLC also owns and operates associated vehicles and infrastructure, including rail track purchased to support bulk materials shipments to the South site. KM Railways, LLC is a subsidiary of KM Strategic Investments, LLC and an indirect, wholly-owned subsidiary of Koch Industries, Inc.

On information and belief, Koch Carbon, LLC is also involved in operations at the North site. On information and belief, Koch Carbon, LLC is a wholly-owned subsidiary of Koch Minerals, LLC and/or Koch Mineral Services, LLC. Koch Minerals, LLC is owned by Koch Resources, LLC. On information and belief, Koch Industries' corporate parents or subsidiaries include Koch Resources, LLC; Koch Chemical Technology Group, LLC; and KG Holding, LLC.

Each of the companies described above is owned and/or controlled by Charles and David Koch. Charles Koch, David Koch, and all of the companies described above are "persons" for purposes of the Resource Conservation and Recovery Act (RCRA). 42 U.S.C. § 6903(15) (defining "person" to include any "individual, trust, firm, joint stock company, corporation ... partnership, [or] association").

II. Chicago's Southeast Side Communities, the Southeast Environmental Task Force, and the Natural Resources Defense Council

A. The People of Chicago's Southeast Side

The neighborhoods of Chicago's Southeast Side are working-class and poor communities of color with a long history of organizing against industrial pollution.

Koch's North and South sites are located in South Deering. The residents of South Deering and many of the surrounding Chicago community areas, including South Chicago, Calumet Heights and Burnside (to the north) and Pullman and Riverdale (to the west and southwest), are predominantly African-American and black. The residents of Chicago's East Side community area, to the east of South Deering, are predominantly Hispanic/Latino. Roughly one-fifth of the people who share a zip code with Koch's sites (residents of South Deering, East Side, Calumet Heights, Avalon Park, South Chicago, and the eastern part of Hegewisch) are sixty or older. More than a quarter of them are children. Most employed residents of this area hold blue-collar and service jobs in fields including healthcare, firefighting, law enforcement, and food preparation; cleaning and personal care; retail sales; construction; and transportation. The median annual income for area families is approximately forty-five thousand dollars. Many of these families, including a third of families with children, have incomes below the poverty level.

For more than a half century, the people of the Southeast Side have organized and fought to protect themselves from industrial pollution that threatens their quality of life. In 1960, East Side residents marched on Chicago Mayor Daley's office to voice concerns about fallout from local steel mills. In the late 1970s, Hazel Johnson, a resident of Altgeld Gardens (southwest of and across Lake Calumet from the Koch sites) founded People for Community Recovery. The group brought many of the Southeast Side's residents together in environmental justice campaigns, and the *Chicago Tribune* has called Johnson, who died in 2011, the mother of the environmental justice movement. In the 1980s, residents of the area just west of the Koch sites conducted a door-to-door health survey in an effort to better inform themselves about, and persuade Chicago officials to respond to, local environmental hazards. That same decade, a coalition of citizens' groups including the Developing Communities Project (for which President Barack Obama served as inaugural executive director) gathered more than seven hundred residents in a South Deering church to discuss concerns about a proposed landfill near the T.J. O'Brien Lock and Dam, a few miles south of the Koch sites. In 2011, eight citizens' groups formed the Environmental Justice Alliance of Greater South Chicago to oppose construction of a coal-to-gas plant just south of the Koch sites.

B. The Southeast Environmental Task Force and the Natural Resources Defense Council

The Southeast Environmental Task Force (Task Force) and the Natural Resources Defense Council, Inc. (NRDC) are not-for-profit citizens' groups that use

science, policy analysis, legal and legislative advocacy, and public education to promote and safeguard their members' interests in a clean and healthy environment.

The Task Force is a Chicago-based organization formed in 1989; its offices are at 13300 South Baltimore Avenue, Chicago, Illinois, 60633, and its phone number is (773) 646-0436. The Task Force is dedicated to informing local residents, businesses, and leaders about environmental issues and encouraging environmentally friendly business practices. The Task Force works to protect the Southeast Side's residents from new and expanded industrial development that threatens their health and reduces their quality of life.

NRDC is a national membership organization formed in 1970. NRDC's Chicago office is at 20 North Wacker Drive, Suite 1600, Chicago, Illinois, 60606, (312) 663-9900, and its headquarters are at 40 West 20th Street, New York, New York, 10011, (212) 727-2700. NRDC's mission is to safeguard the earth; its people; its plants and animals; and the natural systems on which all life depends. NRDC works to educate our nation's citizens and leaders about the health, environmental, and social consequences of continuing to rely on polluting fossil fuels to meet our energy needs, and to promote a transition to cleaner and more equitable alternatives.

The Task Force, NRDC, and members of these organizations are "persons" for purposes of RCRA. 42 U.S.C. § 6903(15) (defining "person" to include any "individual," "corporation," or "association").

III. Congress's Authorization of Citizen Suits to Abate Conditions that May Present an Imminent and Substantial Endangerment to Health or the Environment

Section 7002(a)(1)(B) of the federal Resource Conservation and Recovery Act (RCRA), commonly known as RCRA's citizen suit provision, authorizes affected persons to sue:

any person, . . . including any past or present generator, past or present transporter, or past or present owner or operator of a treatment, storage, or disposal facility, who has contributed or who is contributing to the past or present handling, storage, treatment, transportation, or disposal of any solid or hazardous waste which may present an imminent and substantial endangerment to health or the environment.

42 U.S.C. § 6972(a)(1)(B).

Liability under this provision is joint, several, and absolute. *Me. People's Alliance v. Mallinckrodt, Inc.*, 471 F.3d 277, 298 (1st Cir. 2006). Congress intended section 7002(a)(1)(B) to provide courts with "the authority to grant affirmative equitable relief to the extent necessary to eliminate *any risk* posed by toxic wastes."

Dague v. City of Burlington, 935 F.2d 1343, 1355 (2d Cir. 1991) (internal quotation marks omitted, emphasis in original), *rev'd in part on other grounds*, 505 U.S. 557 (1992). It empowers citizens to appeal directly to our federal courts for protection from serious and imminent threats to health or the environment that other provisions of law, and government regulation and enforcement efforts, have failed to remedy. See *Cox v. City of Dallas*, 256 F.3d 281, 295 n.24 (5th Cir. 2001).

IV. Koch's Contributions to the Handling, Storage, Treatment, Transportation, and/or Disposal of Petroleum Coke and Coal Wastes on Chicago's Southeast Side that May Present an Imminent and Substantial Endangerment to Health or the Environment

On information and belief, Koch, through its past and present handling, storage, treatment, transportation and/or disposal of petroleum coke and coal at the North and South sites and associated vehicles and infrastructure, has contributed and is contributing to conditions that may present an imminent and substantial endangerment to health or the environment on Chicago's Southeast Side. On information and belief, Koch's violations of section 7002(a)(1)(B) of RCRA began on or about the earliest date that Koch contributed to the storage, handling, transportation, treatment and/or disposal of bulk materials including coal or petroleum coke at the North site; continue through the date of this letter; and will continue until a court orders Koch to remedy those conditions in response to the lawsuit that the Task Force and NRDC intend to file under section 7002(a)(1)(B) of RCRA.

A. Koch's Contributions to Conditions that Allow Petroleum Coke and Coal to Pollute Air, Land, and Water and to Invade the Community Gathering Spaces, Homes, and Bodies of its Neighbors on Chicago's Southeast Side

Koch stores petroleum coke and coal in large piles. In recent months, some storage piles at the North and South sites have reached heights of more than fifty feet (four to five stories), much taller than most neighboring homes. At least some of Koch's storage piles, including piles of petroleum coke, are left uncovered and open to the environment. On information and belief, the piles also sit on open ground. On information and belief, Koch has also deposited and allowed petroleum coke, coal, and/or dusts of these materials to accumulate on the ground and other surfaces outside the footprints of its storage piles, including but not limited to parking lots and paved and unpaved roads. Koch has allowed some of the bulk materials stockpiled at its sites to accumulate for two or more months at a time, and has allowed stockpiled materials including petroleum coke to accumulate long enough for vegetation to grow on pile surfaces. Koch has also allowed water to pool on site surfaces and failed to maintain barriers designed to limit the amount of water that can run off of or soak into the land underlying its sites.

Koch, through the bulk materials storage and handling practices described above, has allowed and continues to allow petroleum coke, coal, and/or dusts of

these materials to become exposed to the elements, including wind, air currents, rain, snow, sleet, and ice. Koch has thus contributed and continues to contribute to conditions under which petroleum coke, coal, and/or dusts of these materials may be released into the air, onto land, and on and into water, both within and outside the boundaries of its North and South sites.

Koch's movement of bulk materials to, from, and within its North and South sites has also contributed to and continues to contribute to conditions under which petroleum coke, coal, and/or dusts of these materials may be released into the air, onto land, and on and into water within and beyond site boundaries.

For example, the trucks, barges, railcars, and marine vessels that carry bulk materials to and from Koch's North and South sites can spill petroleum coke, coal, and/or dusts of these materials onto land and water as they pass over public and private roads and parking lots and along rail corridors and public waterways. Materials exposed during transit can also be carried away by wind, air currents, and precipitation and released into and onto air, land, and water. Citizen complaints about the Koch sites describe bulk materials being brought to and from the sites in uncovered trucks, and government inspectors have documented dust escaping from trucks and dust deposits on public roads near site entrances.

Koch also uses heavy mobile equipment (such as trucks, front-end loaders, bulldozers, clamshell buckets, portable conveyors, and box hoppers) and fixed equipment (such as fixed conveyors and railcar loading and unloading structures) to unload and load bulk materials including petroleum coke and coal and to move this material within its sites. This equipment can spill petroleum coke and coal and release dusts of these materials as it operates; the mobile equipment may also re-suspend petroleum coke and coal dusts that have been deposited on roads, parking lots, stockpiles and other surfaces as the equipment travels over those surfaces. Koch also sometimes uses water cannons and trucks to wet its piles and roads within and near its sites; on information and belief, periodic overwatering of these surfaces can contribute to conditions that allow petroleum coke, coal, and/or dusts of these materials to enter local storm drains and waterways.

Residents of the neighborhoods around Koch's North and South sites have testified before the Chicago Department of Public Health and complained to the Illinois Environmental Protection Agency about dust from the sites invading their bodies, their houses and yards, and public spaces and waterways. They have watched large clouds of black dust swirl over Koch property; drift and fall into their neighborhoods and onto local waterways; and wash into the Calumet River and storm drains. They have tasted dust in their mouths and seen dust settle on their skin and discolor their clothes. They have watched dust settle on backyard grass, patios, grills, and vegetable gardens; darken the bricks and siding of their houses; clog their window and door screens; sift inside their homes through doorways and windows; and collect on their floors, furniture, and kitchen counters. A local second-grade teacher has testified that black soot collects on the desks and windowsills of his classroom.

Koch's neighbors have kept the windows and doors of their homes closed in an effort to limit their exposure to dust, only to discover that some still finds its way inside. They have been forced repeatedly to repaint their houses; hose down sidewalks; sweep their floors; and wipe their counters to remove dust deposits. They have been unable to gather for barbecues and outdoor markets without having black dust fall on their faces and clothes and contaminate their food. They have been forced to suspend outdoor games by storms that fill the air with swirling black dust. They have worried about letting children play outside. They have smelled foul odors that leave them feeling nauseous and exhausted. They have struggled to breathe.

This noxious pollution is part of daily life for Koch's neighbors. It worsens each time the wind blows.

On information and belief, Koch has contributed to and continues to contribute to this pollution, and to the serious and imminent hazards it may present to health or the environment, through its handling, storage, transportation, treatment, and/or disposal of petroleum coke and coal at the North and South sites. Citizen testimony at a recent Chicago Department of Public Health hearing on new regulations for bulk storage sites focused overwhelmingly on the hazards that these two sites may present to health and the environment on the Southeast Side. Petroleum coke and coal are the predominant bulk materials that Koch stockpiles at the North and South sites. These materials are black to grayish-black solids composed of numerous particles. Both materials contain some fine particles that are more readily eroded by the wind and suspended and carried in air and water currents; studies indicate that petroleum coke can contain a relatively high proportion of these finer and more mobile particles.

Publicly available aerial photographs of the sites show that they are largely covered in black or very dark grey material. A recent government inspection report for the North site describes areas that are "covered in black particulate matter" and odors "similar to asphalt." Industry literature on petroleum coke notes that it can smell like asphalt or hydrocarbons, a class of substances that includes petroleum.

Recent citizen complaints about pollution from the Koch sites include repeated references to "oily" and "petroleum" smells and to black dust that forms clouds over the sites and that dissipates over and accumulates on land, water, buildings and other surfaces outside of Koch's property lines. The complaints also describe how the pollution in their neighborhoods worsens as the wind picks up and Koch's storage piles grow taller.

Local and state agencies have also characterized the sites as sources of petroleum coke and coal pollution that enters the environment and surrounding neighborhoods and waterways. In November 2013, the State of Illinois filed a lawsuit against KCBX Terminals Company (KCBX) in which it alleges that black dust from the petroleum coke and coal stored at Koch's South site has blown into surrounding residential areas and that KCBX "is causing, threatening, or allowing the discharge or emission of petroleum coke and coal into the environment so as to

cause air pollution.” In March 2014, the State filed a second suit in which it alleges that KCBX has failed to maintain barriers between petroleum coke and coal piles at its North site and the Calumet River and is “threatening, causing, or allowing the discharge of stormwater or other water containing petroleum coke and/or coal from the North site into the Calumet River in precipitation events, including rain storms and snow melts, and from water cannon usage, so as to cause or tend to cause water pollution.”

The following site images are drawn from government records.

Aerial photograph of portion of Koch’s South site showing Calumet River frontage, barge and other heavy equipment, storage piles, and other deposits of dark solid material on land



Bulldozer moving petroleum coke and releasing petroleum coke particles at Koch’s South site



Truck dumping petroleum coke and releasing petroleum coke particles at Koch’s South site



Aerial photograph of portion of Koch's North site showing rail line, roads, storage piles and unpaved surfaces, railcars, portable conveyors, trucks, clamshell shovel, and front-end loaders and/or bulldozers



Conveyor dropping coal onto storage pile and releasing coal particles at Koch's North site



Storage piles, conveyors, vehicles, water cannons, and pooled water at Koch's North site



B. Koch's Contributions to the Handling, Storage, Treatment, Transportation and/or Disposal of Petroleum Coke and Coal Solid and Hazardous Wastes

Koch, through the operations and activities described above, is contributing to the handling, storage, treatment, transportation, and/or disposal of petroleum coke and coal solid and hazardous wastes. "Solid waste," as used in section 7002(a)(1)(B) of RCRA, includes "any . . . discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial . . . activities." 42 U.S.C. § 6903(27). "Hazardous waste," for purposes of section 7002(a)(1)(B), "means a solid waste, or combination of solid wastes, which because of its quantity, concentration,

or physical, chemical or infectious characteristics may—(A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.” *Id.* § 6903(5).

1. Solid Waste

Petroleum coke and coal are solids. On information and belief, based on the information presented above, solid particles of petroleum coke and/or coal are escaping Koch’s bulk storage piles and vehicles and infrastructure used to move these materials to and from those piles; entering the air above and around Koch’s North and South sites; falling and accumulating on land and water within and around the sites; and being re-released from land into air and water as air and water pass over soil and other surfaces on which coal and petroleum coke particles have been deposited. These escaped particles are not reasonably available for reuse and constitute “discarded material . . . resulting from industrial activities” for purposes of section 7002(a)(1)(B) of RCRA. On information and belief, based on the information presented above, some or all of the petroleum coke and coal in Koch’s storage piles is also solid waste, because that material has been stored on open ground, exposed to the elements, and allowed to accumulate for long enough that it is also effectively “discarded” for purposes of section 7002(a)(1)(B) of RCRA. In November 2013, Illinois EPA issued Koch a violation notice for maintaining a storage pile at the South site that the State found was solid waste under Illinois law.

2. Hazardous Waste

On information and belief, based on the information presented below, the solid petroleum coke and coal wastes identified at Part IV.B.1 above are also hazardous wastes for purposes of section 7002(a)(1)(B) of RCRA. Solid wastes are classified as hazardous where they cause or significantly contribute to increases in mortality; serious irreversible illness; or incapacitating illness. *See* 42 U.S.C. § 6903(5)(A). As discussed below, petroleum coke and coal form fine particulates that may threaten lung and heart function when inhaled. As discussed below, available research on prolonged exposures to large amounts of coal dust shows that these exposures may cause fatal, serious, irreversible, and/or incapacitating illnesses in humans. Prolonged exposures to petroleum coke dust may, based on research conducted on other mammals, cause irreversible lung damage. Coal and petroleum coke particles are also likely to contain toxic substances, including some known neurotoxins and human carcinogens. Solid wastes are also classified as hazardous, for purposes of section 7002(a)(1)(B) of RCRA, where they “pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.” 42 U.S.C. § 6903(5)(B). The State of Illinois sued Koch in November 2013 for releasing petroleum coke and coal dusts from its South site into the surrounding neighborhoods, and sued Koch in March 2014 for storing petroleum coke and coal at

its North site in a manner that does not prevent water polluted with those materials from flowing into the Calumet River.

3. Koch's Past, Present, and Threatened Future Contributions to the Handling, Storage, Treatment, Transportation, and/or Disposal of Petroleum Coke and Coal Wastes

On information and belief, Koch has contributed and will continue to contribute to the handling, storage, treatment, transportation and/or disposal of petroleum coke and coal wastes. As discussed at Parts I.B-C, IV.A, and IV.B.1-2 above, Koch owns and operates the North and South sites and stores bulk quantities of petroleum coke and coal in open piles that expose and allow petroleum coke and coal wastes to escape into surrounding air, land, and water. Koch also owns, operates, and/or controls associated vehicles and infrastructure used to move petroleum coke and coal to and from Koch's storage piles and that release petroleum coke and coal wastes into surrounding air, land, and water. On information and belief, although Koch follows certain practices (such as periodic application of water and surfactants to its storage piles) that may limit the release of petroleum coke and coal wastes into air, land, and water, those practices have been inadequate to stop the release and threatened release of these materials. In these ways, Koch has contributed and continues to contribute to the handling, storage, treatment, transportation, and/or disposal of petroleum coke and coal wastes. *See* 42 U.S.C. § 6903(3) ("disposal" means "the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water such that any solid or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters"); EPA, *Guidance on the Use of Section 7003 of RCRA* (Oct. 1997), at 12-13 (discussing appropriate construction of the statutory terms "handling," "storage," "treatment," and "transportation" for purposes of EPA's parallel enforcement authority under section 7003 of RCRA).

C. Koch's Contributions to the Health Hazards Associated with Exposure to Petroleum Coke and Coal Wastes

Petroleum coke and coal can cause serious harm to health. On information and belief, Koch is contributing to conditions that may present an imminent and substantial endangerment to health through its handling, storage, treatment, transportation and/or disposal of petroleum coke and coal wastes at the North and South sites and associated vehicles and infrastructure.

1. Breathing Hazards

Petroleum coke and coal contain and form dust particles that may become airborne as petroleum coke and coal are moved and stored in ways that expose these materials to wind and air currents. These particles can be small enough to pass through the throat and nose and enter the lungs when they are inhaled. The finest particles can travel deep into the respiratory tract and can become embedded within

the lungs. People who breathe particles can experience coughing, wheezing, or shortness of breath, as well as serious health problems such as increased risks of asthma, irregular heartbeat, decreased lung function, and, for people with heart and lung diseases, premature death. The populations most vulnerable to these problems include children and the elderly, as well as lower-income people of all ages, who are more likely to be in poor health and to have poor access to health care.

Exposure studies have shown that people who breathe large amounts of coal dust over long periods of time may suffer from decreased lung function, emphysema, and black lung, an incurable disease that can lead to lung cancer and respiratory failure. Long-term exposure to lower levels of coal dust may also seriously harm human health. For example, some recent studies have found that people who live in regions of the country where coal mining is common and who are likely to be exposed to particulate and toxic pollution from coal mining are more likely to die from chronic heart, respiratory, or kidney disease or from lung cancer, even after accounting for occupational and other factors associated with these health problems. A study of elementary school children who live near a coal terminal in England found that those children were more likely to suffer from respiratory problems including wheezing and coughing than elementary school children who lived in other areas with lower dust levels, after accounting for factors such as parental employment levels and smoking habits. Although there has been less research on petroleum coke's effects on human respiratory health, toxicity tests conducted on mammals and summarized in government reports show that long-term inhalation of petroleum coke dust can cause irreversible changes to the lungs such as significantly increased lung weight, lung discoloration, and chronic lung inflammation.

Some of the particles that make up petroleum coke and coal dusts are small enough to be classified as PM10 and as PM2.5. PM10 refers to particles that are 10 micrometers or smaller in diameter (PM10), and PM 2.5 refers to particles that are 2.5 micrometers or smaller in diameter (PM2.5). EPA and the Illinois EPA regulate PM10 and PM2.5 as air pollutants under the Clean Air Act, and have issued regulations that limit the levels of PM10 and PM2.5 that may lawfully be present in our ambient air. *See* Ill. Admin. Code § 243.120(d); 40 C.F.R. pt. 50.

There is mounting evidence that these standards (even where met) do not adequately protect humans from the health hazards of breathing particles, particularly finer particles. In a 2013 survey of recent studies on the health impacts of exposure to PM2.5, for example, the World Health Organization found that the available evidence “strongly suggests” that there is no threshold level of exposure below which exposure causes no human health effects. The survey also noted that daily exposures to particulate matter (particularly PM2.5) are associated with immediate increases in mortality and morbidity, and that recent studies have linked exposures to PM2.5 in annual concentrations less than 10 micrograms per cubic meter of air to increases in mortality. The national ambient air quality standards for PM2.5 use higher thresholds: 12 micrograms per cubic meter of air on an annual average basis, and 35 micrograms per cubic meter of air on a 24-hour average basis

(with compliance measured based on the 98th percentile concentration over a three-year period). *See* Ill. Admin. Code § 243.120(d); 40 C.F.R. pt. 50.

Current and public information on particle levels in the air at and immediately around the Koch sites is limited, but the available information suggests that area particle pollution levels are already dangerously high. Although EPA has classified the region that includes the sites as in “attainment” of national ambient air quality standards for particulate matter, based on data from a regional monitor at George Washington High School, particle pollution near the sites may already exceed or seriously threaten to exceed the numeric thresholds on which federal or state ambient air quality standards for particulate matter are based. Data published by the Illinois EPA show that at least once during each of the past two years, PM_{2.5} levels at the George Washington High School monitor exceeded the state’s 24-hour standard of 35 micrograms per cubic meter of PM_{2.5}. In 2012, that same monitor registered the highest 24-hour average level of PM₁₀ reported statewide. In December 2013, the Illinois EPA recommended that EPA designate Cook County, where the Koch sites are located, a “nonattainment area” for the PM_{2.5} standard.

The limited available information also suggests that the Koch sites may contribute substantially to particle pollution, including PM_{2.5} pollution, in surrounding air. For example, a draft of a new study the City of Chicago commissioned to help it characterize the air pollution hazards posed by bulk petroleum coke and coal storage sites on the Southeast Side concludes that “the potential impacts of bulk material facilities may be substantial” and that “it may be difficult for bulk material facilities to avoid localized exceedances of [the national ambient] air quality standards even if diligent mitigation measures are employed.”

2. Ingestion Hazards

Petroleum coke and coal particles may also contribute to soil and dust contamination that presents ingestion hazards, particularly to infants and children, although this exposure route has not been adequately characterized. These particles may carry toxic elements, including mercury, lead, arsenic, chromium, selenium, and (particularly for petroleum coke) nickel and/or vanadium. Arsenic, chromium, lead, mercury, selenium, and nickel are classified as hazardous air pollutants under the Clean Air Act; as toxic pollutants under the Clean Water Act; and as hazardous under the Comprehensive Environmental Response, Compensation, and Liability Act. *See* 42 U.S.C. § 7412(11)(b)(1); 40 C.F.R. § 401.15; 42 U.S.C. § 9601(14). Exposure to the elements listed above may, depending on the element and exposure level, cause a range of human health problems, including skin damage and irritation, circulatory and peripheral nervous disorders, lung damage, abnormal heart rhythms, tremors, decreased blood cell production, and permanent brain damage. Arsenic and some chromium and nickel compounds are known human carcinogens. Petroleum coke particles are also likely to carry polycyclic aromatic hydrocarbons (PAHs). PAHs are toxic compounds that have been associated with cancer and other health impacts, including IQ loss in young children who were exposed in the uterus.

Toxic substances carried on petroleum coke and coal particles may endanger humans who are exposed to soils and dusts contaminated with these particles. A peer-reviewed study of a bulk-shipping terminal for coal in Norfolk, Virginia, for example, found that “substantial amounts” of coal particulate matter from the terminal had been deposited on surrounding soils and were a significant source of arsenic contamination in those soils. Infants and children are especially vulnerable to soil and dust contamination resulting from the deposit of particles that carry toxic substances on open ground and other surfaces. Infants and children often play on the ground, so they are more likely to get contaminated soils and dusts on their hands. Infants and younger children commonly explore objects by putting them in their mouths and frequently put their hands in their mouths; this puts them at greater risk of ingesting toxic substances in soils and dusts, including household dusts. Infants and children may also absorb toxic substances at a faster rate than adults and may remove harmful substances from their bodies at a slower rate than adults. The rapid growth and development that infants and children experience may also increase their vulnerability to toxic substances.

D. Koch’s Contributions to the Environmental Hazards Associated with Exposure to Petroleum Coke and Coal Wastes

In addition to addressing health hazards, RCRA’s citizen suit provision allows courts to address and remedy serious potential environmental harms, including contamination of soil, surface waters, groundwater, and ambient air, to which a defendant’s handling, storage, treatment, transportation, and/or disposal of solid or hazardous waste contributes. *See, e.g., United States v. Apex Oil Co.*, No. 05-CV-242-DRH, 2008 WL 2945402, at *79-80 (S.D. Ill. July 28, 2008), *aff’d*, 579 F.3d 734 (7th Cir. 2009); *Raymond K. Hoxsie Real Estate Trust v. Exxon Educ. Found.*, 81 F. Supp. 2d 359, 367 (D.R.I. 2000).

Petroleum coke and coal can cause serious harm to the environment. On information and belief, Koch is contributing to conditions that may present an imminent and substantial endangerment to the environment—including air, water, land, and aquatic and terrestrial species—at the North and South sites and associated vehicles and infrastructure.

1. Air

As discussed at Part IV.A, Koch contributes to pollution and threatened pollution of air with petroleum coke and coal wastes through its ownership, operation, and control of the North and South sites and associated vehicles and infrastructure. On information and belief, these conditions may present an imminent and substantial endangerment to the environment.

Petroleum coke and coal dusts generated at and released from the sites may create or exacerbate visible air pollution. As discussed above, these dusts may also contain, and contribute to violations of, national ambient air quality standards for

PM10 and PM2.5. EPA adopted those standards in response to findings that these pollutants threaten not only public health but also the environment and public welfare.

2. Water and Aquatic Life

As discussed at Parts IV.A-B above, Koch contributes to pollution and threatened pollution of water with petroleum coke and coal wastes through its ownership, operation, and control of the North and South sites and associated vehicles and infrastructure. On information and belief, these conditions may present an imminent and substantial endangerment to the environment.

In a legal complaint filed in March 2014, the State of Illinois states that some petroleum coke and coal storage piles on Koch's North site are separated from the Calumet River by only a five-foot-wide, cracked concrete walkway and a broken line of sandbags, and that Koch has caused, threatened, or allowed stormwater and/or other water polluted with petroleum coke and/or coal to enter the River. Citizen complaints about the Koch sites report that petroleum coke and/or coal wash from storage piles into storm drains and the River when it rains, and that Koch's street sweeping operations around the sites wash petroleum coke and/or coal dust into storm drains, which may release this pollution into local waterways. Releases of petroleum coke and coal dusts into the air may also contribute to water pollution: citizen complaints about the Koch sites, for example, describe clouds of black dust from the sites falling onto and dissipating above water. Deposits of petroleum coke, coal, and/or dusts of these materials on land may also contribute to water pollution, as water contaminated with those deposits runs into surface streams or sinks into groundwater. A study of long-term coal bulk-storage piles at an Indiana electric plant, for example, found that acid drainage and trace metals from above-ground coal storage piles in certain terrain may pollute underlying groundwater.

Particulate matter pollution can damage water and aquatic life by altering the acidity, nutrient balance, and ecological diversity of water systems. Petroleum coke, coal, and/or dusts of these materials that reach waterways may either float on the water surface or sink to the bottom and become incorporated into sediments. The resulting higher concentrations of suspended solids and/or modified sediment layers at the bottom of the water may cause additional harm. The State of Illinois's March 2014 complaint, for example, states that discharges of petroleum coke and coal-contaminated water from Koch's North site to the Calumet River "render the waters harmful, detrimental and injurious to fish and other aquatic life." As explained at Part IV.C.2 above, petroleum coke and coal particles may contain toxic metals and other toxic substances such as polycyclic aromatic hydrocarbons. These toxins may, in some environmental conditions, leach into water polluted with the particles and further threaten water quality and aquatic life. For example, long-term exposure to petroleum coke in water has been shown to limit the growth of some algae species. Toxicity tests on other organisms have shown that exposure to aqueous extracts of petroleum coke can change genetic material.

3. Land and Terrestrial Life

As discussed at Parts IV.A-B, Koch contributes to pollution and threatened pollution of land with petroleum coke and coal wastes through its ownership, operation, and control of the North and South sites and associated infrastructure. On information and belief, these conditions may present an imminent and substantial endangerment to the environment.

Once petroleum coke, coal, and dusts of these materials are deposited onto land, they can enter water, contributing to the water pollution and associated environmental hazards described at Part IV.D.2 above, or become re-suspended in the air, contributing to the air pollution and associated environmental hazards described at Part IV.D.1 above.

Although the hazards that bulk storage of petroleum coke and coal present to land have not been adequately characterized, available evidence shows that the bulk handling, storage, treatment, transportation, and/or disposal of petroleum coke and coal may contribute substantially to harmful soil pollution. As noted above, a peer-reviewed study of a coal bulk-shipping terminal in Virginia found that coal particulate matter from the terminal had been deposited on surrounding soils in “substantial amounts” and was a significant source of arsenic contamination in those soils. EPA has found that the pollution of soil with particulate matter generally can increase the metals present in soil, which in turn can cause harmful changes in soil biogeochemistry and microbiology and affect plant and animal growth and reproduction. Particulate matter soil pollution can also change ecological nutrient and energy cycles and hamper plants’ absorption of soil nutrients.

V. Government Officials’ Failure to Remedy the Serious and Imminent Hazards Associated with the Handling, Storage, Treatment, Transportation and/or Disposal of Petroleum Coke and Coal Wastes and Koch’s Contributions to Those Hazards

On information and belief, Koch’s contributions to the serious health and environmental hazards described above are likely to continue until a court orders appropriate relief under section 7002(a)(1)(B) of RCRA. Although local, state, and federal officials have taken some limited steps towards better characterizing and controlling the hazards associated with the handling, storage, treatment, transportation, and/or disposal of petroleum coke and coal wastes on Chicago’s Southeast Side, those steps have not remedied the hazards described above or Koch’s contributions to those hazards. The Task Force and NRDC therefore plan to invoke provisions of federal law that empower concerned citizens to appeal directly to federal courts for protection.

VI. Intent to Sue

The Southeast Environmental Task Force and Natural Resources Defense Council, Inc. plan to sue Koch in federal district court. These citizens' groups will ask the court, among other things, to declare Koch liable for contributing to the handling, storage, treatment, transportation, and/or disposal of petroleum coke and coal wastes on Chicago's Southeast Side that may present an imminent and substantial endangerment to health or the environment, and to order that Koch (1) fund thorough, independent, and scientific studies to better characterize the precise scope of the endangerment, and (2) fund and carry out appropriate monitoring, abatement, and cleanup measures.

If you have information that you think contradicts the information presented here, or that you think otherwise suggests that Koch is not violating section 7002(a)(1)(B) of RCRA, please contact us.

Sincerely,



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