

Big oil companies and billionaire industrialists want you to believe that the environmental and health impact of petroleum coke (also known as "petcoke") is negligible. Yet the appearance of black mounds of petroleum coke in U.S. cities like Detroit<sup>1</sup> and Chicago<sup>2</sup> is causing a national outcry. Some are calling it "one of the dirtiest, most carbon intensive fuels on the planet".<sup>3</sup>

### WHAT EXACTLY IS PETCOKE?

 Petcoke is a byproduct of an oil refining process called coking. Petcoke visually resembles coal. It is over 90% carbon, and each ton of petcoke emits 30-80% more CO2 than coal.<sup>4</sup>

# WHAT ARE THE HUMAN AND ENVIRONMENTAL HEALTH EFFECTS?

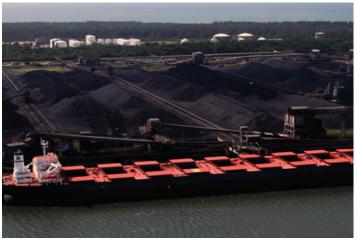
- Petcoke contains heavy metals such as arsenic, mercury, lead, and vanadium, as well as PAHs that are carcinogenic.<sup>5</sup> Health experts say that petcoke is equivalent to coal for lung disease potential.<sup>6</sup>
- Inhaling petcoke can cause serious respiratory problems, particularly for individuals suffering from heart and lung disease and asthma-7
- Aquatic areas adjacent to petcoke piles show reduced species diversity and abundance, and fish in the area have an increased number of tumors.<sup>8</sup>
- Samples collected near the Levin-Richmond petcoke pile in Richmond, CA showed concentrations of heavy metals and other pollutants.<sup>9</sup>
- Chicago's Attorney General and City Mayor filed a lawsuit last November against KCBX Terminals Company for air and water pollution violations caused by growing piles of petroleum coke and coal along the Calumet River in Chicago.<sup>10</sup>

## WHERE IS THE PETCOKE COMING FROM?

 Petcoke is a byproduct of refining any kind of oil. More petcoke is produced from refining tar sands and heavy crude than from refining conventional oil.<sup>11</sup>  A large volume of petcoke currently originates from Canadian tarsands oil, some of which is refined in the U.S. There are over 79.8 million tons of petcoke stockpiled in Canada,<sup>12</sup> and such waste piles are accumulating in the U.S. as well.

## IF IT IS SO DIRTY, WHO IN THE WORLD WOULD WANT IT?

• It is clear that Americans do not want petcoke in their cities. Following the city's lawsuit against petcoke pollution, Chicago Mayor Rahm Emanuel instituted a city ordinance banning new petcoke export facilities and stopping the growth of existing facilities.<sup>13</sup> In addition, Mayor Emanuel instituted regulations that require facilities storing coal, petcoke, and other forms of coke to fully enclose their storage piles and provide



PETCOKE PILES IN RICHMOND, COURTESY OF BAYKEEPER

- monthly monitoring reports to ensure public health and safety.14
- As a waste byproduct, petcoke costs nothing to produce. However, it is very costly and inefficient to store. With a mind for profit over environment, wealthy industrialists are selling the dirty waste material on the global market.15
- The US Environmental Protection Agency (EPA) is no longer issuing new licenses to burn petcoke in the U.S., but in some countries petcoke is considered a cheap alternative to coal.16
- Over 60% of petcoke produced in the U.S. was exported in 2011.17
- China is currently the primary export market of U.S. petcoke. As an alternative to low-grade coal, cheap petcoke is primarily used to generate electricity, at the cost of horrible air-quality conditions and a weakened ozone layer. Other export markets include Japan, India, Brazil, Turkey, and Mexico.<sup>18</sup>

#### WHY IS CALIFORNIA INVOLVED IN THIS MESS?

 The low cost of Canadian tar sands are attractive to California refineries. Refineries in the Bay that currently produce petcoke include the Port of Benicia, the Martinez refinery, the Chevron Richmond refinery, and the Rodeo facility. In addition there are also several proposed refineries in the Bay including the

- WesPac Pittsburg Energy Project and the Golden Eagle Refinery.19
- Tarsands are transported by train or by ship from Washington in order to be refined in California.
- Despite strict emissions laws within the state. California exports 128,000 barrels of petcoke a day, primarily to China.20
- We need to urge Governor Brown to stop exporting waste materials like petcoke that endanger local health and safety and our climate.

### PROPOSALS TO BRING MORE DIRTY CRUDE AND PETROLEUM COKE TO THE BAY AREA BY TRAIN SHOULD BE REJECTED BECAUSE:

- These proposals put the health and safety of California residents at risk because they have to breathe in the dust from the petcoke mounds.
- Its high-carbon composition makes petcoke one of the dirtiest fossil fuels in the world, so exporting the waste to another country still has significant effects on the global climate.
- We should protect our communities and follow Chicago's lead<sup>21</sup> by imposing heavy regulations on existing petcoke facilities and banning additional petcoke from poisoning our cities.

#### **ENDNOTES**

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