

Matthew Mehalik, Ph.D.  
Executive Director  
Breathe Project  
Energy Innovation Center  
1435 Bedford Ave. Suite 140  
Pittsburgh, PA 15219  
412-514-5008  
[mmehalik@breatheproject.org](mailto:mmehalik@breatheproject.org)  
[breatheproject.org](http://breatheproject.org)

May 11, 2022

**Remarks for Public Comment**

Allegheny County Health Department  
Air Quality Program  
Re: Regulation Comment  
301 39th Street, Bldg. 7  
Pittsburgh, PA 15201-1811

Submitted via email to: [aqcomments@alleghenycounty.us](mailto:aqcomments@alleghenycounty.us)

Ref: Proposed Modifications to ACHD Article XXI and County Ordinance 16782, §2105.21, “Coke Ovens and Coke Oven Gas;” §2101.20, “Definitions; and §2109.01, “Inspections”

Dear ACHD Board of Health Members and Staff:

Thank you for holding this hearing. The Breathe Project wants to thank ACHD for its efforts to share our assessment of the proposed coke oven regulation modifications.<sup>1</sup> In Allegheny County, we should feel confident knowing that the air we breathe will not make us sick or cause cancer, asthma, or other diseases. We have the right to live and work in clean, safe-and healthy environments. Everyone knows that air pollution is bad for your health. No one wants to breathe dirty air, get sick, or to see our children, our parents, our friends, neighbors, or our colleagues get sick or die before their time.

The Breathe Project supports ACHD’s assertion of its authority to establish strident coke oven regulations. ACHD should not pre-emptively limit its legal authority to propose regulations and enforce compliance with the Clean Air Act. The Breathe Project asserts that the proposed ACHD regulations must be as strident as possible to protect the health of residents of the Mon Valley and all of Allegheny County from ongoing poor air quality from the Clairton Coke Works.

**Clairton Coke Works has been causing air pollution problems for a long period of time.**

Yesterday, UPMC and the University of Pittsburgh released a study that showed has that the Air Quality Index (AQI) was linked with asthma-related hospital visits among children in Allegheny County. Even AQI “moderate” days sends some kids to the hospital. The association between

---

<sup>1</sup> Coke Oven Regulations (§2105.21 & §2101.20) and Inspections (§2109.01), as published on ACHD website:

[https://www.alleghenycounty.us/uploadedFiles/Allegheny\\_Home/Health\\_Department/Programs/Air\\_Quality/proposed%20coke%20oven%20regulations.pdf](https://www.alleghenycounty.us/uploadedFiles/Allegheny_Home/Health_Department/Programs/Air_Quality/proposed%20coke%20oven%20regulations.pdf).

air quality and asthma-related hospitalizations was strongest among children aged 6 through 11 and Black children.<sup>2</sup>

The Clairton Coke Works is a large emitter of H<sub>2</sub>S, SO<sub>2</sub>, PM<sub>2.5</sub>, and VOCs, such as benzene and other air toxics. The facility has been the source of many violations of the Clean Air Act and its own Title V permit provisions; enforcement orders; 60-day notices of citizens intents to sue; settlement agreements; financial penalties; ongoing court cases; explosions; fires; broken promises about repairs and investments;<sup>3</sup> and community anguish spanning decades. The operator has received at least 14 enforcement orders and paid \$9.03 million in penalties going back to April 2019, about \$375,000/quarter.<sup>4</sup> This is in addition to the \$2.7 million US Steel paid as part of the June 2019 settlement agreement for violations stemming from 2017 and 2018.<sup>5</sup>

The Clairton Coke Works is the largest coke plant in the U.S. and has been a major source of air pollution in our region for decades. Nearly 90% of the point source cancer risk estimated in Allegheny County is attributable to coke oven emissions, with 90% of those emissions coming from the Clairton facility ([Cancer Risk in Allegheny County, Pa., May 2021](#))<sup>6</sup>.

Our county regularly sees exceedances of the state's 24-hour H<sub>2</sub>S standard specifically at the liberty monitor and the North Braddock monitor in proximity to the integrated Mon Valley Works facilities, all of which use coke oven gas generated at the Clairton Coke Works. According to ACHD's own report, our region has experienced over 50 days per year on average over the past 24 years (1999 – 2021) where Mon Valley monitors recorded exceedances of the 24-hour H<sub>2</sub>S standard. There have been no noticeable improvements in meeting this standard over this 20-year period, and the problem got significantly worse in 2021. In 2021 there were over 140 violations of this standard. The average number of times with exceedances over the past five years is 64 days. The range spans between 35 and 140 times per year over this five-year period. This is worse than the range over the past 24 years.<sup>7</sup> This alone tells us that something about the existing

---

<sup>2</sup> Franziska Rosser; Yueh-Ying Han; Scott D Rothenberger; Erick Forno; Christina Mair; and Juan C. Celedón, "Air Quality Index and Emergency Department Visits and Hospitalizations for Childhood Asthma," *Annals of the American Thoracic Society*, 2022. DOI: <https://doi.org/10.1513/AnnalsATS.202105-539OC>, viewed May 11, 2022.

<sup>3</sup> Reid Frazier, "U.S. Steel Cancellation Leaves Western Pa. With Questions Over Steel's Future," *Allegheny Front*, May 17, 2021. Available online: <https://www.alleghenyfront.org/u-s-steel-cancellation-leaves-western-pa-with-questions-over-steels-future/>, accessed May 11, 2022.

<sup>4</sup> See "ACHD Air Quality Enforcement Actions 2020 – 2022," online: <https://www.alleghenycounty.us/Health-Department/Programs/Air-Quality/Enforcement-Actions.aspx>, accessed May 11, 2022.

<sup>5</sup> See "ACHD Settlement Agreement and Order #19060," online: [https://www.alleghenycounty.us/uploadedFiles/Allegheny\\_Home/Health\\_Department/Resources/Legal/Docket/USS-ACHD-Settlement-Agreement-and-Order-190604.pdf](https://www.alleghenycounty.us/uploadedFiles/Allegheny_Home/Health_Department/Resources/Legal/Docket/USS-ACHD-Settlement-Agreement-and-Order-190604.pdf), accessed May 11, 2022.

<sup>6</sup> "Cancer Risk in Southwestern Pennsylvania," *Cancer and Environment Network*, Available Online: <https://censwpa.org/wp-content/uploads/2021/07/NATA-Factsheet.pdf>, viewed May 11, 2022.

<sup>7</sup> ACHD, "2019 Air Quality Annual Report. Available Online: [https://www.alleghenycounty.us/uploadedFiles/Allegheny\\_Home/Health\\_Department/Resources/Data\\_and\\_Reporting/Air\\_Quality\\_Reports/2019-Air-Quality-Annual-Report.pdf](https://www.alleghenycounty.us/uploadedFiles/Allegheny_Home/Health_Department/Resources/Data_and_Reporting/Air_Quality_Reports/2019-Air-Quality-Annual-Report.pdf), accessed January 20, 2021 and ACHD, "2021 Air Quality Annual Data Summary. Available Online: [https://www.alleghenycounty.us/uploadedFiles/Allegheny\\_Home/Health\\_Department/Resources/Data\\_and\\_Reporting/Air\\_Quality\\_Reports/2021-data-summary.pdf](https://www.alleghenycounty.us/uploadedFiles/Allegheny_Home/Health_Department/Resources/Data_and_Reporting/Air_Quality_Reports/2021-data-summary.pdf), accessed May 11, 2022.

regulatory, enforcement, and inspection framework is not working. This alone justifies more strident requirements and updates to coke oven regulations.

The SmellPGH app has recorded over 74,000 smell complaints since June 1 of 2016, over 4200 complaints in 2022 to date, and over 12,600 in 2021. Most of these complaints attach the descriptors, “rotten egg,” “sulfur,” and “industrial,” all indicative of H<sub>2</sub>S and coke oven gas emissions.<sup>8</sup>

Coke oven regulations, inspections, and enforcement all need to become more robust, strident, and effective. For these reasons the Breathe Project encourages ACHD to maximize its efforts to protect the health of Mon Valley and Allegheny County residents by finalizing updated coke oven regulations that clearly reduce emissions and eliminate the possibility of exceedances of the state’s 24-hour H<sub>2</sub>S standard.

**The impacts of effective coke oven regulations can be beneficially significant.**

Pollution from the Clairton Coke Works affects many people, particularly many low-income, elderly, and African American people. According to environmental justice statistics from the US EPA’s EJ Screen tool (<https://ejscreen.epa.gov/mapper/>):

- Approximately 130,000 people live within a 5-mile radius of the Clairton Coke Works property (5-mile Ring Centered at 40.318641, -79.897794)
- People in this area have air that is worse than 96 percent of everyone in Pennsylvania and worse than 84 percent of the entire country for particulate matter PM 2.5.
- People in this area are in the worst 1 percent in the state and worst 5th percentile for NATA Cancer Risk from air pollution.
- 1/3 of the people living in this area have low income.
- 1/5 of people in this area are People of Color.
- 1/5 of the people living in this area are older than 64 years old

**The Clairton Coke Works’ air pollution problems add to our region’s existing burden of air pollution problems.**

Our region suffers from some of the worst air pollution in the United States. According to an analysis of our region’s pollution sources from the National Emissions Inventory, particle pollution from stationary industrial point sources is the largest contributor to our region’s pollution, accounting for approximately two-thirds of our region’s pollution.<sup>9</sup> Air quality ranks “not good” between half to two thirds of all days in our region from the EPA Air Quality Index ratings for at least the past 5 years.<sup>10</sup>

During the first 131 days of 2022 our region's air ranked among the top 10 worst places in the country for at least a portion of the day 59 times (45% of all days) and was ranked as #1 worst air 19 of these times (15% of all days) ([EPA Highest NowCast AQI Locations](#)).

---

<sup>8</sup> See <https://smellpgh.org/data>, accessed May 11, 2022.

<sup>9</sup> Breathe Project, “Air Pollution Sources,” Available Online, <https://breatheproject.org/resources/air-pollution-sources/>, accessed May 11, 2022.

<sup>10</sup> US EPA Air Data, Available Online, <https://www.epa.gov/air-data>, accessed May 11, 2022.

The Liberty PM 2.5 monitor, the monitor most impacted by emissions from the Clairton Coke Works ranked in the worst 10 percent nationally of all monitored locations using the latest qualified EPA data.

The American Lung Association's (ALA) annual "State of the Air" (SOTA) report for 2022 showed Allegheny County once again received Fs for daily particulate matter levels and ozone and barely passed, for the first time, for 3-year average particles, due to the 2020 pandemic shutdown.<sup>11</sup>

A recent study of 1,200 children in schools in proximity to point source pollution sources in Allegheny County, 70% were exposed to PM 2.5 fine particle pollution at an annual mean level greater than 10 ug/m<sup>3</sup>, which is the World Health Organization's recommended upper limit of annual average exposure. This compares with 3.1% rate of exposure nationally at this same level. This rate of exposure is alarmingly high. Additionally, children exposed to pollution levels above this 10ug/m<sup>3</sup> threshold increased their odds of having asthma by 58% as compared with children exposed to pollution below this WHO recommended limit. Of this same sample, 38.9% of the participating children were exposed to PM 2.5 fine particle pollution at an annual mean level greater than 12 ug/m<sup>3</sup>, which is the U.S. EPA's compliance limit (averaged over three years) prescribed in the Clean Air Act and enforced locally by the Allegheny County Health Department (ACHD). Many of the children lived in environmental justice communities with a high percentage of low income and African American families. The overall prevalence of asthma in the study was highest among African Americans (26.8%) and those 10-12 years of age (26.7%) on public health insurance.<sup>12</sup>

Moreover, a review of science literature affirms PM 2.5 exposure levels and chronic health effects with no apparent lower bound<sup>13</sup> and acute health effects with no apparent lower bound.<sup>14</sup> This means that it is critical to reduce pollution exposures to reduce negative health effects.

Our county's 1.3 million people are at risk until pollution levels can be reduced. This includes vulnerable populations who bear disproportionate risks from current levels of air pollution: 26,000 children with pediatric asthma; 101,000 people with adult asthma; 71,000 people with COPD; 100,000 people with cardiovascular disease; 123,000 people living in poverty; and 269,000 people of color.<sup>15</sup> The environmental justice concerns are clear, substantial, and should not be ignored. Ignoring the risks to vulnerable people will be a shame on our region and state.

The Breathe Project encourages ACHD to move forward aggressively to reduce coke oven pollution through effective regulations, operational procedural requirements, inspections, and

---

<sup>11</sup> ALA SOTA 2022, Available Online, <https://www.lung.org/research/sota/city-rankings/states/pennsylvania/allegheny>, accessed May 11, 2022.

<sup>12</sup> Deborah A. Gentile, Tricia Morphew, Jennifer Elliott, Albert A. Presto & David P. Skoner (2020), "Asthma prevalence and control among schoolchildren residing near outdoor air pollution sites," Journal of Asthma, DOI: [10.1080/02770903.2020.1840584](https://doi.org/10.1080/02770903.2020.1840584).

<sup>13</sup> Cohen, Brauer, et al, "Estimates and 25-year trends of the global burden of disease attributable to ambient air pollution: an analysis of data from the Global Burden of Diseases Study 2015," Lancet 2017; 389: 1907–18.

<sup>14</sup> Schwartz et al, "The Concentration Response Relation between PM 2.5 and Daily Deaths," Environ Health Perspect. 2002 Oct; 110(10): 1025–1029.

<sup>15</sup> ALA SOTA 2022, Available online: <https://www.lung.org/research/sota/city-rankings/states/pennsylvania/allegheny>, accessed May 11, 2022.

enforcement. Let's save lives, reduce burdens on vulnerable people, preserve future generations' rights to clean air and a healthy climate, and take action that makes everyone proud.

Thank you for your time and consideration.

Sincerely,

Matthew M. Mehalik, Ph.D.  
Executive Director  
Breathe Project