

No. _____

AN ORDINANCE

An Ordinance of the Council of the County of Allegheny ratifying amendments to §2105.21, “Coke Ovens and Coke Oven Gas,” of the Allegheny County Health Department Rules and Regulations, Article XXI, “Air Pollution Control.”

Whereas, Allegheny County, pursuant to the Pennsylvania Local Health Administration Law, 16 P.S. §§ 12001 – 12028, created the Allegheny County Health Department, and the Allegheny County Board of Health; and

Whereas, the Allegheny County Health Department regulates air quality under authority granted to it via the Pennsylvania Air Pollution Control Act, 35 P.S. §§ 4001 – 4106, and its implementing regulations; and

Whereas, Section 12011 of the Local Health Administration Law provides for the Board of Health to adopt regulations and submit such regulations to Allegheny County for approval or rejection; and

Whereas, on November 19, 2025, during its regularly scheduled public meeting, the Allegheny County Board of Health adopted by affirmative vote the attached amendments to §2105.10, “Coke Ovens and Coke Oven Gas,” of the Allegheny County Health Department Rules and Regulations, Article XXI, “Air Pollution Control;” and

Whereas, it is the desire of Council to ratify the Allegheny County Health Department regulation amendments as approved by the Board of Health.

The Council of the County of Allegheny hereby resolves as follows:

SECTION 1. Incorporation of Preamble.

The provisions set forth in the preamble to this Ordinance are incorporated by reference in their entirety herein.

SECTION 2. Ratification of Regulations.

Acting pursuant to the Pennsylvania Local Health Administration Law and the Allegheny County Home Rule Charter, County Council hereby ratifies the amendments to the Allegheny County Health Department Rules and Regulations, Article XXI, “Air Pollution Control”, attached hereto as Exhibit “A.”

SECTION 3. Severability.

If any provision of this Ordinance shall be determined to be unlawful, invalid, void or unenforceable, then that provision shall be considered severable from the remaining provisions of this Resolution which shall be in full force and effect.

SECTION 4. Repealer.

Any Resolution or Ordinance or part thereof conflicting with the provisions of this Ordinance is hereby repealed so far as the same affects this Ordinance.

Enacted in Council, this _____ day of _____, 2025.

Council Agenda No. _____.

Patrick Catena
President of Council

Attest: _____
Jared Barker
Chief Clerk of Council

Chief Executive Office _____, 2025

Approved: _____
Sara Innamorato
Chief Executive

Attest: _____
John Fournier
County Manager

EXHIBIT "A"

PROPOSED REVISION

Allegheny County Health Department Rules and Regulations Article XXI, Air Pollution Control

§2105.21, Coke Ovens and Coke Oven Gas

(Note: These regulation revisions will also be submitted to the Pennsylvania Department of Environmental Protection (DEP) and to the United States Environmental Protection Agency (U.S. EPA) as a revision to the Allegheny County Portion of the Pennsylvania State Implementation Plan. Revision Tracking No. 106.)

{Document Date: 11/24/2025}

Proposed Article XXI Revisions

Deletions are shown with strikethroughs.
Additions are shown in **larger font, bolded, and underlined**.

§2105.21 COKE OVENS AND COKE OVEN GAS

*{Portions effective August 15, 1997, the remainder effective February 1, 1994; Paragraph e.6 added June 22, 1995, effective July 11, 1995 and amended May 14, 2010 effective May 24, 2010; §2105.21.b, e, and h amended effective August 15, 1997; Subsection f amended February 12, 2007 effective April 1, 2007. Subsection i added August 29, 2013, effective September 23, 2013. Paragraph e.6 amended November 13, 2014, effective January 1, 2015. Subsections a through i amended and Subsection j added October 26, 2022, effective November 5, 2022. **Subsections b, e, and h amended mm/dd/2025, effective mm/dd/2025.**}*

- b. **Door Areas.** No person shall operate, or allow to be operated, any battery of coke ovens in such manner that:
1. For Coke Oven Battery C at the U. S. Steel Corporation Mon Valley Works Clairton Plant, at any time, there are visible emissions from more than three percent (3.0%) of the door areas of the operating coke ovens in such battery, excluding the two door areas of the last oven charged and any door areas obstructed from view as calculated in Subparagraph 8.B of this Subsection;
 2. For any batteries installed, replaced, or reconstructed, or at which a major modification was made between the dates of January 1, 1978, and October 31, 2012, at any time, there are visible emissions from more than five percent (5.0%) of the door areas of the operating coke ovens in such battery, excluding the two door areas of the last oven charged and any door areas obstructed from view;
 3. For ~~any of the following batteries~~ **Coke Oven Battery 19 at the U. S. Steel Corporation Mon Valley Works Clairton Plant**, at any time, there are visible emissions from more than eight percent (8.0%) of the door areas of the operating coke ovens in such ~~the~~ battery, excluding the two door areas of the last oven charged and any door areas obstructed from view;

SPECIFIC COKE OVEN BATTERIES

	Source Name	Location
A.	Coke Battery #1	U. S. Steel Corp. Clairton, PA
B.	Coke Battery #2	U. S. Steel Corp. Clairton, PA
C.	Coke Battery #3	U. S. Steel Corp. Clairton, PA
D.	Coke Battery #19	U. S. Steel Corp. Clairton, PA; or

4. For Coke Oven Battery C at the U. S. Steel Corporation Mon Valley Works Clairton Plant, emissions from the door areas of any coke oven exceed an opacity of 30% at any time 15 or more minutes after such oven has been charged;
5. Any batteries installed, replaced, or reconstructed, or at which a major modification was made on or after the effective date of this paragraph shall be subject to the applicable requirements under either Section 2102.06 (relating to installation permits for major sources locating in or impacting a nonattainment area) or Section 2102.07 (relating to installation permits for major sources locating in an attainment or unclassified area) of this Article;
6. For any batteries, other than those subject to Paragraphs b.4 or b.5 of this Section, emissions from the door areas of any coke oven exceed an opacity of 40% at any time 15 or more minutes after such oven has been charged.
7. Unless for any of the following batteries at the U. S. Steel Corporation Mon Valley Works Clairton Plant, there is installed big plug doors, or better, on the coke side of each oven by January 1, 2000. Any replacement doors on these batteries, replaced after January 1, 2000, will also be big plug doors. A big plug door is a door that, when installed, contains a plug with minimum dimensions as listed below:

SPECIFIC COKE OVEN BATTERIES		
<u>Depth</u>	<u>Source Name</u>	<u>Minimum Width</u>
		<u>Minimum</u>
A.	Coke Battery #1	18 1/4"
B.	Coke Battery #2	18 1/4"
C.	Coke Battery #3	18 1/4"
D A.	Coke Battery #19	17"
E B.	Coke Battery #20	17"

- e. **Pushing.** No person shall operate, or allow to be operated, any battery of coke ovens unless there is installed on such battery a pushing emission control device which is designed to reduce fugitive emissions from pushing to the minimum attainable through the use of BACT.

No person may permit the pushing of coke from a coke oven unless the pushing operation is enclosed during the removal of coke from a coke oven and pushing emissions are contained, except for the fugitive pushing emissions, that are allowed by Paragraphs 4 and 5 of this Subsection, nor shall any person operate or allow to be operated any battery of coke ovens in such manner that:

1. At any time, the particulate mass emission rate from the pushing emission control device, for any battery other than those subject to Paragraph e.2 or e.3 of this Section, exceeds a rate determined by an outlet concentration of 0.020 grains per dry standard cubic foot, or the rate determined by the following formula, whichever is greater:

$A = 0.76W^{0.42}$ where A = allowable mass emission rate in pounds per hour per battery,
and W = actual coke pushing rate in tons of coke per hour per battery;

2. At any time, the particulate mass emission rate from the pushing emission control device, for **Coke Oven Battery #19 at the U. S. Steel Corporation Mon Valley Works Clairton Plant** any of the following batteries exceeds a rate determined by an outlet concentration of 0.010 grains per dry standard cubic foot;

SPECIFIC COKE OVEN BATTERIES

<u>Source Name</u>	<u>Location</u>
A. Coke Battery #1	U. S. Steel Corp. Clairton, PA
B. Coke Battery #2	U. S. Steel Corp. Clairton, PA
C. Coke Battery #3	U. S. Steel Corp. Clairton, PA
D. Coke Battery #19	U. S. Steel Corp. Clairton, PA

3. At any time, the particulate mass emission rate from the pushing emission control device for Coke Oven Battery B at the U. S. Steel Corporation Mon Valley Works Clairton Plant exceeds a rate of 0.040 pounds per ton of coke;
4. Fugitive pushing emissions or emissions from the pushing emission control device outlet equal or exceed an opacity of 20% at any time, except if the Department determines in writing, upon written application from the person responsible for the coke ovens setting forth all information needed to make such determination, that such emissions are of only minor significance with respect to causing air pollution and do not prevent or interfere with the attainment or maintenance of any ambient air quality standard (any such determination shall be submitted as a proposed revision to Allegheny County's portion of the SIP);
5. Visible emissions from the transport of hot coke in the open atmosphere exceed ten percent (10%) opacity at any time; or
6. For any of the following batteries, at any time, the hot coke fails to be held under the hood of the pushing emission control (PEC) device for at least 67 seconds immediately after the pusher ram begins to move and the damper to the PEC device is opened or for at least 15 seconds immediately following the fall of the last of the coke into the hot car, whichever is longer:

SPECIFIC COKE OVEN BATTERIES

Source Name	Location
A. Coke Battery #1	U. S. Steel Corp. Clairton, PA
B. Coke Battery #2	U. S. Steel Corp. Clairton, PA
C. Coke Battery #3	U. S. Steel Corp. Clairton, PA
D. Coke Battery #13	U. S. Steel Corp. Clairton, PA
E. Coke Battery #14	U. S. Steel Corp. Clairton, PA
F. Coke Battery #15	U. S. Steel Corp. Clairton, PA
G. Coke Battery #19	U. S. Steel Corp. Clairton, PA
H. Coke Battery #20	U. S. Steel Corp. Clairton, PA

except that this Paragraph shall only be effective during the period from 30 days following the issuance of a written notice by the Department to the owner or operator of such battery that EPA has required the implementation of the contingency measures under the portion of the PM-10 SIP for the Liberty Borough/Clairton area, until issuance of a written notice by the Department that such measures are no longer required.

- h. **Coke oven gas.** Except as provided for in this Section, no person shall operate, or allow to be operated, any source in such manner that unburned coke oven gas is emitted into the open air. In addition, no person shall flare, mix, or combust coke oven gas, or allow such gas to be flared, mixed, or combusted, unless the concentration of sulfur compounds, measured as hydrogen sulfide, in such gas is less than or equal to the following concentrations:

1. **For purposes of this Subsection 2105.21.h, "24-hour average" means the arithmetic average of hourly average concentrations of hydrogen sulfide in COG, represented in units of grains per hundred dry standard cubic feet of COG, over a calendar day, where a "calendar day" means the period of elapsed time that begins at midnight on a certain date and ends 24 hours later at midnight of the next day;**

2. Where the rated production capacity of the coke plant producing such gas is less than 70 million standard cubic feet of coke oven gas per day, a concentration of ~~70~~ **25** grains per hundred dry standard cubic feet of coke oven gas, **based on a 24-hour average as defined in Paragraph h.1 above,** or the concentration determined by the following formula whichever is less:

$A = 156E^{-0.27}$ where A = allowable hydrogen sulfide content in grains per
 hundred dry
 standard cubic feet of coke oven gas, and
 E = maximum coke oven gas production rate in millions
 of cubic feet per day

32. For all coke batteries installed, replaced, or reconstructed, or at which a major modification was made on or after January 1, 1978, where the rated production capacity of the coke plant producing such gas is equal to or more than 70 million standard cubic feet of coke oven gas per day, a concentration of ten (10) grains per hundred dry standard cubic feet of coke oven gas;
43. The standard set forth in Paragraph ~~h.2~~ **h.3** of this Section for the following coke oven batteries designated 13, 14, ~~15~~, 20, and B at the U. S. Steel Corporation Mon Valley Works Clairton Plant shall be deemed satisfied for such batteries if the coke oven gas from the following batteries and treated by the Clairton Plant coke oven gas desulfurization system in existence as of June 24, 1993, has a sulfur compound concentration, measured as H₂S, of no greater than ~~35~~ **25** grains per hundred dry standard cubic feet of coke oven gas, **based on a 24-hour average as defined in Paragraph h.1 above,** produced by the Clairton Works, when all sulfur emissions from its Claus Sulfur Recovery Plant and the tail gas cleaning equipment thereon, expressed as equivalent H₂S, are added to the measured H₂S:

SPECIFIC COKE OVEN BATTERIES

Source Name	Location
A. Coke Battery #1	U. S. Steel Corp. Clairton, PA
B. Coke Battery #2	U. S. Steel Corp. Clairton, PA
C. Coke Battery #3	U. S. Steel Corp. Clairton, PA
D. <u>DA.</u> Coke Battery #13	U. S. Steel Corp. Clairton, PA
E. <u>EB.</u> Coke Battery #14	U. S. Steel Corp. Clairton, PA
F. Coke Battery #15	U. S. Steel Corp. Clairton, PA
G. <u>GC.</u> Coke Battery #19	U. S. Steel Corp. Clairton, PA
H. <u>HD.</u> Coke Battery #20	U. S. Steel Corp. Clairton, PA
<u>IE.</u> Coke Battery B	U. S. Steel Corp. Clairton,

PA

and

54. For all other coke batteries, where the rated production capacity of the coke plant producing such gas is equal to or more than 70 million standard cubic feet of coke oven gas per day, other than those subject to Paragraph ~~h.2~~ **h.3** of this

Subsection, a concentration of ~~fifty~~ twenty-five (50) (25) grains per hundred dry standard cubic feet of coke oven gas, based on a 24-hour average as defined in Paragraph h.1 above.

The concentration of sulfur compounds specified by this Subsection shall include ~~tail-gas~~ **tail gas** sulfur, measured as hydrogen sulfide, emitted from sulfur removal equipment.

End of Regulation Changes

LEGISLATIVE SUMMARY

The Allegheny County Health Department (ACHD) Air Quality Program is proposing to amend its Air Pollution Control Regulations, Article XXI, §2105.21, “Coke Ovens and Coke Oven Gas,” in particular, Subsection “h,” as it addresses the concentration of sulfur compounds measured as hydrogen sulfide in coke oven gas at various coke oven gas production rates and for various coke oven batteries or groupings of batteries.

As part of a 2024 Consent Decree and Order in the case of *PennEnvironment, Inc., and Clean Air Council, and Allegheny County Health Department v. United States Steel Corporation*, Civil Action No. 2:19-cv-00484, in the United States District Court for the Western District of Pennsylvania, the Parties thereto agreed in Section 13 of the Consent Decree and Order, titled “COG Hydrogen Sulfide Limit,” to the following:

- a. As of the effective date of the decree, all COG flared, mixed, or combusted at the Facilities [(defined as the Clairton, Edgar Thomson and Irvin Plants)] shall contain concentrations of sulfur compounds, measured as hydrogen sulfide...of no more than 25 grains of hydrogen sulfide per hundred dscf COG on a 24-Hour Average (the “25 Grains Limit”).
- b. . . . *ACHD agrees to undertake rulemaking and promulgate revisions to its Article XXI Rules and Regulations to establish the 25 Grains Limit in lieu of higher hydrogen sulfide concentration limits for COG applicable Facilities. {Italics and bold face added.}*

Given the agreement described above in italics from Section 13.b of the Consent Decree, the ACHD proposes the revisions to Article XXI, §2105.21.h denoted in Part 1 of this SIP Revision submittal. Most notably, a new paragraph “h.1” is being proposed to be added as follows:

1. *For purposes of this Subsection 2105.21.h, “24-hour average” means the arithmetic average of hourly average concentrations of hydrogen sulfide in COG, represented in units of grains per hundred dry standard cubic feet of COG, over a calendar day, where a “calendar day” means the period of elapsed time that begins at midnight on a certain date and ends 24 hours later at midnight of the next day;*

In addition to the changes described above, the ACHD Air Quality Program is amending §2105.21 by removing references to coke oven batteries Numbers 1, 2, 3 and 15, because they have been permanently idled. Finally, ACHD is making minor, non-substantive grammatical edits.

The following portions of Article XXI will be submitted as a SIP Revision:

§2105.21.b, e, and h (“Coke Ovens and Coke Oven Gas”)

See Exhibit "A" and the related Ordinance documentation.

The proposed regulation revisions were the subject of a 30-day public comment period, and a public hearing held on April 23, 2025. The Board of Health granted final approval to the regulation changes on November 19, 2025.

Upon approval of the proposed regulations by County Council and the Chief Executive, and after the rules are made effective, the revisions to Article XXI will be submitted to PA DEP and the U.S. EPA as a revision to the Allegheny County portion of the Pennsylvania State Implementation Plan.