

**Proposed**  
**Revision to ALLEGHENY COUNTY'S portion of the**  
**PENNSYLVANIA STATE IMPLEMENTATION PLAN**  
**For the**  
**Attainment and Maintenance of the National**  
**Ambient Air Quality Standards**

**Revision Tracking No. 87**

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

**§2105.21 Coke Ovens and Coke Oven Gas**  
**with**  
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**and**  
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## 1.A

### Proposed Coke Ovens and Coke Oven Gas Regulation Revision

Deletions are shown with strikethroughs.  
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§2101.20 DEFINITIONS {unless specifically indicated, all definitions effective October 20, 1995}

...

“**Charging emissions**” means any emissions occurring during the introduction of coal into the coke oven from the time that the gate(s) on the larry car coal hopper is opened or mechanical feeders start the flow of coal into the oven until the last charging port seal is replaced. Charging emissions include any air contaminant emitted from one or more charging ports, spaces between the charging port rings and the oven refractory, drop sleeves, larry car hoppers, **open standpipes of the oven being charged** and any associated air pollution control equipment, but shall not include emissions occurring during the temporary removal of a charging port seal for the purpose of sweeping excess coal spillage into the oven just charged, after such seal has been firmly seated over the charging port following the removal of the larry car. {effective Feb. 1, 1994}

“**Measured sulfur compounds**” means **hydrogen sulfide (H<sub>2</sub>S), carbon disulfide (CS<sub>2</sub>), carbonyl sulfide (COS), methyl mercaptan, ethyl mercaptan and sulfur dioxide (SO<sub>2</sub>) measured in any gas stream.**

“**Pushing operation**” means the operation by which coke is removed from a coke oven and transported to a quench station, ~~beginning, for the coke oven batteries designated 13, 14, 15, 20, and B at the USX Corporation Clairton Works, at the time the coke mass starts to move and ending at the time the coke transfer car enters the coke quenching system, and for all other coke oven batteries,~~ beginning when the coke side door is first removed from a coke oven and continuing until the quenching operation is commenced. {effective February 1, 1994}

“**Pushing emissions**” means **an air contaminant emitted into the outdoor atmosphere which is generated by or results from the pushing operation.**

“**Soaking emissions from a standpipe cap**” means ~~uncombusted~~ emissions from an open standpipe which has been dampered off in preparation of pushing the coke mass out of the oven and shall end when pushing begins, ~~i.e., when the coke side door is removed.~~ {Added by August 29, 2013 amendment, effective September 23, 2013}

## §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.}*

a. **Charging.** No person shall operate, or allow to be operated:

1. Any battery of coke ovens installed, replaced, or reconstructed, or at which a major modification was made on or after January 1, 1978, in such manner that the aggregate of visible charging emissions exceeds a total of 55 seconds during any five (5) **or fewer** consecutive **valid** charges on such battery; or
2. Any other battery of coke ovens in such manner that the aggregate of visible charging emissions exceeds a total of 75 seconds during any four (4) **or fewer** consecutive **valid** charges on such battery.

**3. Inspection Procedures. The following inspection technique shall be utilized for determining compliance with the coke oven charging standard as defined in this Subsection:**

- A. Observations of visible charging emissions may be made from any point or points on the topside of a coke oven battery from which an observer can view any of the charging emissions;**
- B. Any U-tube system is part of the charging operation when it is connected during the charging of that oven, while any other offtakes are not included;**
- C. The observer will determine and record the total number of seconds that charging emissions are visibly being emitted;**
- D. The observer will time the visible charging emissions with a stopwatch while observing the charging operation. Simultaneous emissions from more than one emission point shall be timed and recorded as one emission and shall not be added separately when calculating the total time;**
- E. Open visible charging emissions shall not include any emissions observed after all the charging port seals have been replaced (i.e., the charging port lid is firmly seated) following the removal of the larry car, such as emissions occurring when a charging port lid is temporarily removed to allow the sweep-in of spilled coal;**
- F. The total number of seconds of visible charging emissions observed, clock time for the initiation and completion of the charging operation for each oven, battery identification and oven number for each charge shall be recorded by the observer;**

**G. In the event that observations of emissions from a charge are interrupted, the data from that charge may be invalidated. If the charge is invalidated, the observer shall note on their observation sheet the reason for invalidating the data and the observer may then resume observation of the next charge or charges;**

**H. Compliance is determined by adding the number of seconds of charging emissions observed during a set of charges of either four or five charges, depending on whether the coke oven charging standards set forth in Paragraphs a.1 or a.2 of this Section apply; and**

**I. An observer may stop observations when the number of seconds of charging emissions observed exceeds the coke oven charging standard set forth in Paragraphs a.1. and a.2. of this Section even if a full set of four or five charges have not been observed. A subsequent inspection may be conducted starting with the next set of charges.**

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 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 ~~on or after~~ **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;

~~2.~~ For any other batteries, other than those subject to Paragraph b.3 of this Section, at any time, there are visible emissions from more than ten percent (10%) 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, 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 battery, ~~excluding the two door areas of the last oven charged and any door areas obstructed from view:~~

SPECIFIC COKE OVEN BATTERIES

<u>Source Name</u> _____	<u>Location</u> _____
--------------------------	-----------------------

- |               |                            |   |
|---------------|----------------------------|---|
| A.            | Coke Battery #1            | <u>U. S. Steel</u> USX Corp. Clairton, PA     |
| B.            | Coke Battery #2            | <u>U. S. Steel</u> USX Corp. Clairton, PA     |
| C.            | Coke Battery #3            | <u>U. S. Steel</u> USX Corp. Clairton, PA     |
| <del>D.</del> | <del>Coke Battery #7</del> | <del>USX Corp. Clairton, PA</del>             |
| <del>E.</del> | <del>Coke Battery #8</del> | <del>USX Corp. Clairton, PA</del>             |
| <del>F.</del> | <del>Coke Battery #9</del> | <del>USX Corp. Clairton, PA</del>             |
| <u>D G.</u>   | Coke Battery #19           | <u>U. S. Steel</u> USX 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.**
- 46. 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.**

57. Unless for any of the following batteries at the U. S. Steel USX Corporation Mon Valley Clairton Coke Works Clairton Plant, Clairton, Pennsylvania, 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>Source Name</u>	<u>Minimum Width</u>	<u>Minimum Depth</u>
A.	Coke Battery #1	18 1/4"	14 1/2"
B.	Coke Battery #2	18 1/4"	14 1/2"
C.	Coke Battery #3	18 1/4"	14 1/2"
<del>D.</del>	<del>Coke Battery #7</del>	<del>17"</del>	<del>16 3/16"</del>
<del>E.</del>	<del>Coke Battery #8</del>	<del>17"</del>	<del>16 3/16"</del>
<del>F.</del>	<del>Coke Battery #9</del>	<del>17"</del>	<del>16 3/16"</del>
<u>D. G.</u>	Coke Battery #19	17"	16 1/4"
<u>E. H.</u>	Coke Battery #20	17"	16 1/4"

**8. Inspection Procedures.**

- A. Compliance with the high opacity limitation as defined in Paragraphs b.4 through b.6 of this Section or source permit for a single door area is determined in accordance with the following method:**
- i. The observer shall place themselves no less than 25 feet from the face of the door in a location where their view of the door area is unobstructed;**
  - ii. The observer's position for high opacity door areas must meet the sun angle requirements of 40 C.F.R. Part 60, Appendix A, Method 9, except that if it is an overcast day or the plume is in a shadow, the reader need not position themselves with their back to the sun;**
  - iii. The observer shall record the opacity of emissions emanating from a point above the top, or at the top of the door, but below the battery top, or at the top of any local door area emission control hood.**

**B. Compliance with the percent door area leakage standard as defined in Paragraphs b.1 through b.3 of this Section is determined in accordance with the following method:**

- i. Each door area should be observed in sequence;**
- ii. The observer shall place themselves no less than 25 feet from the face of the door unless readings are being conducted from the bench area in front of the doors;**
- iii. If the observer’s view of a door area(s) is more than momentarily obstructed by, for example, door machinery, pushing machinery, coke guide, or opaque steam plumes, the observer shall record the oven number (s) or door area (s) obstructed and the nature of the obstruction and continue the observations with the next door area in sequence which is not obstructed;**
- iv. The observer shall continue as per Subparagraphs B.i. through B.iii. above along the entire length of the battery for any battery side and shall record the battery identification, battery side, and oven door identification number of each door area exhibiting visible emissions. Before completing the traverse or immediately thereafter the observer shall attempt to re-observe the obstructed doors;**
- v. For batteries that have sheds on the coke side that are used to control emissions during pushing or if it is unsafe to observe from the yard, the inspection should be conducted from the bench area in front of the doors. A bench correction factor shall be applied to the number of leaks observed from the bench areas to calculate a yard equivalent reading. The following formula shall be used to calculate the yard equivalent reading; and**

$$\text{Yard equivalent reading} = \frac{\text{Number of doors with visible emissions observed from the bench}}{\text{Total number of doors observed from the bench}} \times 0.06$$

- vi. Compliance shall be calculated by application of the following formula rounded to the nearest tenth of one percent. If a bench correction factor was applied under subparagraph B.v, above, the yard-equivalent reading shall be included in the “number of door areas with visible emissions” in the formula below.**

$$\text{Percent leaking} = \frac{\text{number of door areas with visible emissions}}{\left( \begin{array}{l} \text{number of door areas on operating ovens} \\ \text{number of obstructed door areas} \end{array} - \right)} \times 100$$

c. **Charging Ports.** No person shall operate, or allow to be operated:

**1. For Coke Oven Battery C at the U. S. Steel Corporation Mon Valley Works Clairton Plant, in such manner that, at any time, there are visible emissions from more than 0.6% of the charging ports or charging port seals on the operating coke ovens of such battery; or**

~~±~~**2.** Any battery of coke ovens installed, replaced, or reconstructed, or at which a major modification was made ~~on or after~~ **between the dates of** January 1, 1978, **and October 31, 2012,** in such manner that, at any time, there are visible emissions from more than one percent (**1.0%**) of the charging ports or charging port seals on the operating coke ovens of such battery; or

**3.** **Any batteries installed, replaced, or reconstructed, or at which a major modification 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.**

~~±~~**4.** Any ~~other~~ battery of coke ovens, **other than those subject to Paragraphs c.1, c.2 or c.3 of this Section,** in such manner that, at any time, there are visible emissions from more than two percent (**2.0%**) of the charging ports or charging port seals on the operating coke ovens of such battery.

**5. Inspection Procedures. The following inspection technique shall be utilized for determining compliance with the percent charging port leakage standard as defined in this Subsection:**

**A. Observations of any visible emissions from charging ports or charging port seals, other than charging or pushing emissions, shall be made and recorded during the time an observer walks the topside of a battery from one end to the other. Observations of any visible emissions from dampered off or unobservable ovens shall not be recorded.**

**B. Each oven shall be observed in sequence during each of the traverses.**

**C. The observer shall record the battery and lid identification, the oven number, and whether an oven was dampered off or unobservable.**

**D. Compliance is determined by application of the following formula rounded to the nearest tenth of one percent.**

$$\text{Percent leaking} = \frac{\text{number of charging ports with visible emissions}}{\left( \text{number of charging ports on operating ovens} - \text{number of dampered off ovens and unobservable ovens} \right)} \times 100$$

d. **Offtake Piping.** No person shall operate, or allow to be operated:

**1. For Coke Oven Battery C at the U. S. Steel Corporation Mon Valley Works Clairton Plant, in such manner that, at any time, there are visible emissions from more than three percent (3.0%) of the offtake piping on the operating coke ovens of such battery; or**

~~2.~~ Any battery of coke ovens installed, replaced, or reconstructed, or at which a major modification was made ~~on or after~~ **between the dates of** January 1, 1978, **and October 31, 2012,** in such manner that, at any time, there are visible emissions from more than four percent (4.0%) of the offtake piping on the operating coke ovens of such battery; or

**3. 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.**

~~24.~~ Any ~~other~~ battery of coke ovens, **other than those subject to Paragraphs d.1, d.2 or d.3 of this Section,** in such manner that, at any time, there are visible emissions from more than five percent (5.0%) of the offtake piping on the operating coke ovens of such battery.

**5. Inspection Procedures. The following inspection technique shall be utilized for determining compliance with the percent offtake piping leakage standard as defined in this Subsection:**

**A. Observations of any visible emissions from the offtake piping shall be made by traversing the topside of the battery near the centerline. Observations of any visible emissions from dampered off or unobservable ovens shall not be recorded.**

**B. During the traverse, the observer may deviate from near the centerline of the battery and walk as close, or far as possible to the offtake piping to determine whether an observed emission is emanating from the offtake piping. In addition to items specifically listed in the definition for offtake piping in §2101.20 of this Article, the damper used for isolating the oven from the collecting main is also part of the offtake piping.**

**C. The observer shall traverse the battery once per each collector main. Therefore, to observe a battery with two collector mains, one observer may traverse the battery in one direction for one offtake system and traverse the battery in one direction for the second offtake system or two observers can traverse the battery in one direction.**

**D. Each oven should be observed in sequence.**

**E. The observer shall record the battery identification, side of the oven, the oven number for all offtake piping visible emissions and whether an oven was dampered off or unobservable.**

**F. Compliance is determined by application of the following formula rounded to the nearest tenth of one percent.**

$$\text{Percent leaking} = \frac{\text{number of offtake piping with visible emissions}}{\left( \begin{array}{l} \text{number of offtake piping on operating ovens} - \\ \text{number of dampered off ovens and unobserveable ovens} \end{array} \right)} \times 100$$

- 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, nor shall any person operate, or allow to be operated any battery of coke ovens in such manner that:

**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:

$$A = 0.76W^{0.42} \quad \text{where } A = \text{allowable mass emission rate in pounds per hour per battery, and}$$

$W = \text{actual coke pushing rate in tons of coke per hour per battery;}$

2. At any time, the particulate mass emission rate from the pushing emission control device, for 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>U. S. Steel</u> USX Corp. Clairton, PA
B. Coke Battery #2	<u>U. S. Steel</u> USX Corp. Clairton, PA
C. Coke Battery #3	<u>U. S. Steel</u> USX Corp. Clairton, PA
<del>D. Coke Battery #7</del>	<del>USX Corp. Clairton, PA</del>
<del>E. Coke Battery #8</del>	<del>USX Corp. Clairton, PA</del>
<del>F. Coke Battery #9</del>	<del>USX Corp. Clairton, PA</del>
<u>D. G.</u> Coke Battery #19	<u>U. S. Steel</u> USX Corp. Clairton, PA
<del>H. Coke Battery #1</del>	<del>Shenango Inc Neville PA</del>

3. At any time, the particulate mass emission rate from the pushing emission control device, for any of the following batteries Coke Oven Battery B at the U. S. Steel Corporation Mon Valley Works Clairton Plant, exceeds a rate determined by an outlet concentration of 0.040 pounds per ton of coke:

SPECIFIC COKE OVEN BATTERIES

<u>Source Name</u>	<u>Location</u>
<del>A. Coke Battery #13</del>	<del>USX Corp. Clairton, PA</del>
<del>B. Coke Battery #14</del>	<del>USX Corp. Clairton, PA</del>
<del>C. Coke Battery #15</del>	<del>USX Corp. Clairton, PA</del>
<del>D. Coke Battery #20</del>	<del>USX Corp. Clairton, PA</del>
<del>E. Coke Battery B</del>	<del>USX Corp. Clairton, PA</del>

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

<u>Source Name</u> _____	<u>Location</u> _____
A. Coke Battery #1	<u>U. S. Steel</u> USX Corp. Clairton, PA
B. Coke Battery #2	<u>U. S. Steel</u> USX Corp. Clairton, PA
C. Coke Battery #3	<u>U. S. Steel</u> USX Corp. Clairton, PA
<del>D. Coke Battery #7</del>	<del>USX Corp. Clairton, PA</del>
<del>E. Coke Battery #8</del>	<del>USX Corp. Clairton, PA</del>
<del>F. Coke Battery #9</del>	<del>USX Corp. Clairton, PA</del>
<u>D. G.</u> Coke Battery #13	<u>U. S. Steel</u> USX Corp. Clairton, PA
<u>E. H.</u> Coke Battery #14	<u>U. S. Steel</u> USX Corp. Clairton, PA
<u>F. I.</u> Coke Battery #15	<u>U. S. Steel</u> USX Corp. Clairton, PA
<u>G. J.</u> Coke Battery #19	<u>U. S. Steel</u> USX Corp. Clairton, PA
<u>H. K.</u> Coke Battery #20	<u>U. S. Steel</u> USX 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.

**7. Inspection Procedures. Compliance with the visible emission standards for pushing under this Subsection shall be determined in accordance with the following methods:**

- A. Visible emission observers shall be certified in accordance with the procedures specified in 40 C.F.R. Part 60, Appendix A, Method 9;**
- B. In making observations the observer shall be positioned in accordance with the provisions of Section 2.1 of Method 9 except that if it is an overcast day or if the plume is in a shadow, the reader need not position themselves with their back to the sun;**
- C. The provisions of Section 2.2 of Method 9 shall apply based on the observer's initial position;**

- D. The provisions of Section 2.3 of Method 9 do not apply in that observers are not required to take readings at fifteen second intervals. Observers may take readings as often as the observer deems necessary, up to and including continuously;
- E. The provisions of Sections 2.4 and 2.5 of Method 9 do not apply except that opacity observations shall be recorded to the nearest 5 percent;
- F. In viewing the pushing operation, the observer shall stand where a clear view of the push can be obtained. The reader may change locations during a single oven reading but shall not take readings while in transit;
- G. During the pushing operation, the reader shall observe all the pushing emissions. Pushing operation, as defined in §2101.20 of this Article, begins when the coke side door is first removed from a coke oven and continuing until the quenching operation is commenced. Pushing emissions include all fugitive emissions leaving an oven during a push, emissions from the pushing emission control device outlet and, evaluated separately, emissions from open quench cars during the transport of hot coke in the open atmosphere;
- H. Except as provided in Subparagraph I below, compliance is determined by observing any visible emissions with opacity equal to or greater than the opacity limit defined in §2105.21.e.4 or applicable source permit, as determined against any contrasting background. The reader shall independently observe emissions from the pushing emission control device gas cleaning outlet and fugitive emissions from the pushing operation; and
- I. Pushing emissions during the transport of hot coke in the open atmosphere to the quench tower shall be evaluated separately. In this case, the reader shall be positioned in accordance with Subparagraph B above using the opacity limit defined in §2105.21.e.5 or applicable source permit.

f. **Combustion Stacks.** No person shall operate, or allow to be operated, any battery of coke ovens in such manner that, at any time, emissions from the combustion stack serving such battery:

1. For Coke Oven Battery C at the U. S. Steel Corporation Mon Valley Works Clairton Plant, exceed a total particulate concentration of 0.010 grains per dry standard cubic foot;

~~2.~~ For any battery of coke ovens installed, replaced, or reconstructed, or at which a major modification was ~~on or after~~ between the dates of January 1, 1978, and October 31, 2012, exceed a total particulate concentration of 0.015 grains per dry standard cubic foot;

3. **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.**
24. For any battery other than those subject to Paragraphs f.1, f.2 or f.3 of this Section, exceed a particulate concentration of 0.030 grains per dry standard cubic foot;
35. Equal or exceed an opacity of 20% for a period or periods aggregating in excess of three (3) minutes in any 60 minute period; or
46. Equal or exceed an opacity of 60% at any time.
7. Measurements of opacity **visible emissions** shall be performed according to the ~~methods for visible emissions established by §2107.11 of this Article.~~ **in either of the following two ways:**
- A. **Using any continuous opacity monitoring system (COMS) required by regulation, permit, consent agreement, consent decree, or enforcement order. Chapter 2 of the Allegheny County Source Testing Manual, entitled “Continuous Emission Monitoring,” provides requirements for certification and ongoing verification of continuous opacity monitoring systems; or**
- B. **In determining compliance with the visible emission standards, 40 C.F.R. Part 60, Appendix A, Method 9, shall be used with the following modifications:**
- i. **Provisions of Section 2.5 of Method 9 do not apply. Rather than applying the provisions of Section 2.5 of Method 9, each observation that is recorded to be equal to or greater than the opacity standard in §2104.01.a.1 or applicable source permit shall be counted in determining the hourly aggregated period.**
- ii. **In making visible emissions observations the observer shall be positioned in accordance with the provisions of Section 2.1 of Method 9 except that if it is an overcast day the reader need not position themselves with their back to the sun.**

g. **Quenching.** No person shall quench, or allow the quenching of, coke unless the emissions from such quenching are vented through a baffled quench tower and the water used for such quenching is equivalent to, or better than, the water quality standards established for the nearest stream or river by regulations promulgated by the DEP under the Pennsylvania Clean Streams Law, Act of June 22, 1937, PL. 1987, as amended, 35 P.S. 691.1 et seq., except that water from the nearest stream or river may be used for the quenching of coke. The nearest stream or river to the U. S. Steel ~~USX~~ Corporation Mon Valley Works Clairton Plant facility in Clairton, PA, shall be the Monongahela River. Measurements of water quality shall be performed according to procedures established or approved by the Commonwealth.

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 measured sulfur compounds, expressed ~~measured as~~ equivalent hydrogen sulfide, in such gas is less than or equal to the following concentrations:

1. ~~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 grains per hundred dry standard cubic feet of coke oven gas 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;~~

12. 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, other than those subject to Paragraph h.3 of this Section,~~ a concentration of ten (10) grains per hundred dry standard cubic feet of coke oven gas;

3. ~~For the following battery, on and before December 31, 1996, a concentration of 45 grains per hundred dry cubic feet of coke oven gas, and after December 31, 1996, a concentration of 34 grains per hundred dry cubic feet of coke oven gas:~~

~~SPECIFIC COKE OVEN BATTERIES~~

<del>Source Name</del>	<del>Location</del>
A. <del>Coke Battery #1</del>	<del>Shenango Inc Neville PA</del>

25. 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.12 of this Section,~~ a concentration of fifty (50) grains per hundred dry standard cubic feet of coke oven

gas.

**34. Coke oven gas concentration at the U. S. Steel Mon Valley Works Clairton Plant.**

**A. Except as provided in Subparagraph B below, the standard set forth in Paragraphs h.1 and h.2 of this Section for the following coke oven batteries designated 13, 14, 15, 20, and B at the U. S. Steel USX 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 Works coke oven gas desulfurization system in existence as of June 24, 1993, has the following a concentration of measured sulfur compounds concentration, expressed measured as equivalent H<sub>2</sub>S, of no greater than 40 grains per hundred dry standard cubic feet of coke oven gas 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 H<sub>2</sub>S, are added to the measured H<sub>2</sub>S:**

**i. Through December 31, 2024, a concentration of thirty-five (35) grains per hundred dry standard cubic feet of coke oven gas;**

**ii. Beginning on January 1, 2025, the concentration shall be the lesser of either:**

**(a) Twenty-three (23) grains per hundred dry standard cubic feet of coke oven gas; or**

**(b) The concentration calculated from the weighted design capacity for the coke oven batteries in operation on January 1, 2025 based on the emissions limits under Paragraphs h.1 and h.2 of this Section. After January 1, 2025, the concentration shall be recalculated if any of the following conditions are met:**

**(1) U. S. Steel Corporation Mon Valley Works Clairton Plant retires, shuts down, or cold idles any of the coke oven batteries in operation as of the effective date of this Subparagraph; or**

**(2) U. S. Steel Corporation Mon Valley Works Clairton Plant installs, replaces, reconstructs, or performs a major modification of a coke oven battery on or after the effective date of this Subparagraph.**

**B. For determining compliance with the applicable measured sulfur compounds concentration specified by this Paragraph, all sulfur emissions from the Claus Sulfur Recovery Plant and the tail gas cleaning equipment thereon, expressed as equivalent H<sub>2</sub>S, shall be added to the**

**measured sulfur compounds in the coke oven gas, expressed as equivalent H<sub>2</sub>S.**

~~SPECIFIC COKE OVEN BATTERIES~~

<del>Source Name</del>	<del>Location</del>
<del>A. Coke Battery #1</del>	<del>USX Corp. Clairton, PA</del>
<del>B. Coke Battery #2</del>	<del>USX Corp. Clairton, PA</del>
<del>C. Coke Battery #3</del>	<del>USX Corp. Clairton, PA</del>
<del>D. Coke Battery #7</del>	<del>USX Corp. Clairton, PA</del>
<del>E. Coke Battery #8</del>	<del>USX Corp. Clairton, PA</del>
<del>F. Coke Battery #9</del>	<del>USX Corp. Clairton, PA</del>
<del>G. Coke Battery #13</del>	<del>USX Corp. Clairton, PA</del>
<del>H. Coke Battery #14</del>	<del>USX Corp. Clairton, PA</del>
<del>I. Coke Battery #15</del>	<del>USX Corp. Clairton, PA</del>
<del>J. Coke Battery #19</del>	<del>USX Corp. Clairton, PA</del>
<del>K. Coke Battery #20</del>	<del>USX Corp. Clairton, PA</del>
<del>L. Coke Battery B</del>	<del>USX Corp. Clairton, PA</del>

- 4.** The concentration of sulfur compounds specified by this Subsection shall include tail- gas sulfur, **expressed** measured-as **equivalent** hydrogen sulfide, emitted from sulfur removal equipment.
- 5.** **For determining compliance with the standards in this Subsection, the measured sulfur compounds concentration, expressed as equivalent H<sub>2</sub>S, shall be monitored and recorded on an hourly basis.**
- i. **Soaking. 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 no time shall soaking emissions from a standpipe cap opening exceed ten percent (10%) opacity.**
  - 2. 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.**
  - 3. For any batteries, other than those subject to Paragraphs i.1 or i.2 of this Section, A**at no time shall soaking emissions from a standpipe cap opening exceed twenty percent (20%) opacity.

An exclusion from this opacity limit shall be allowed for two (2) minutes after a standpipe cap is opened. ~~Compliance with this standard shall be determined through observing the standpipe from a position where the observer can note the time the oven is dampered off and, following the two minute exclusion, read the soaking emissions from the open standpipe in accordance with Method 9.~~ **During the two (2) minute exclusion, all air pollution control equipment and control techniques shall be operated consistent with good air pollution control practices. For purposes of this Subsection, good air pollution control practices may include, but are not limited to, lighting or attempting to light the standpipe immediately following the opening of the standpipe.**

**4. Inspection Procedures. Compliance with the visible emission standard for soaking shall be determined in accordance with the following method:**

- A. The observer records the time the standpipe cap is initially opened or observed open and note if the observer did not observe the opening of the standpipe cap;**
- B. The observer shall read the soaking emissions from the open standpipe in accordance with 40 C.F.R. Part 60, Appendix A, Method 9;**
- C. The observer continues to conduct readings per Method 9 except the provisions of Method 9 Sections 2.4 and 2.5 shall not apply in that observers need not record a minimum of 24 observations; and**
- D. For determining compliance with this Subsection, a two (2) minute exclusion from the opacity limit shall be allowed after the time the standpipe cap is initially opened. If the observer did not observe the opening of the standpipe cap, the observer may presume that the standpipe cap has been open for more than two (2) minutes unless the operator provides the time the standpipe cap was opened.**

**j. Miscellaneous Topside Emissions**

- 1. At no time may there be topside emissions from any point on the topside other than allowed emissions from charging port seals under Subsection c, offtake piping under Subsection d and soaking under Subsection i.**
- 2. At no time may there be visible emissions from the coke oven gas collector main.**

## 1.B

### §2109.01 INSPECTIONS

{Subsection d added by May 7, 1998 amendment, effective May 15, 1998}

...

- e. During an inspection by the Department, a source shall operate in a manner consistent with its normal air pollution control practices unless an alternative method or procedure is requested by the Department or if necessary for the protection of worker or public safety. It shall be a violation of this Article for any person to alter or modify a source's normal air pollution control practices during a Department inspection for the purpose of improving compliance with the requirements under this Article or any Department permit. Any person who deviates from a source's normal air pollution control practices during a Department inspection shall have the burden of demonstrating why the alternative or modified practices were required.

## 2.

### Technical Support Document

#### Coke Ovens and Coke Oven Gas

This submittal affects the Allegheny County Health Department Air Pollution Control Regulations, Article XXI, related to coke ovens and coke oven gas.

The current regulations set forth in Article XXI, Section 2105.21, only address the emissions standards for coke ovens and coke oven gas. The test methods and inspection procedures for coke ovens are provided in the ACHD's Source Testing Manual. As part of a settlement agreement with U.S. Steel Corp. relating to violations of its coke oven batteries, the ACHD agreed to amend Article XXI to include the test methods and inspection procedures for coke ovens in the Section 2105.21 regulations. Accordingly, the ACHD Air Quality Program is proposing to amend its regulations to include the test methods and inspection procedures that are appropriate for determining compliance with the ACHD's coke oven standards in Article XXI, § 2105.21.

The ACHD Air Quality Program is also proposing to amend its regulations based on issues of stringency with federal and Pennsylvania regulations. The Pennsylvania Air Pollution Control Act states that the ACHD may enact "ordinances with respect to air pollution which will not be less stringent than the provisions of this act, the Clean Air Act or the rules and regulations promulgated under either this act or the Clean Air Act." 35 P.S. § 4012(a). During this regulatory review process, the ACHD determined that there were provisions in the Article XXI regulations pertaining to coke ovens and coke oven gas which were less stringent than the regulations promulgated under the Clean Air Act and Pennsylvania Air Pollution Control Act. As a result, the ACHD Air Quality Program is proposing to amend the applicable provisions to be at least as stringent as the Pennsylvania and federal regulations.

The ACHD Air Quality Program is further proposing to amend the standards for coke oven gas set forth in Article XXI, Section 2105.21.h. The ACHD determined that during the previous promulgation of the coke oven gas standards, there was an error with regard to how the plant wide coke oven gas standard was calculated for the U.S. Steel Corporation Mon Valley Works Clairton Plant. The ACHD calculated that the standard under Section 2105.21.h.3 should be 23 grains per hundred dry standard cubic feet of coke oven gas and not 40 grains. The ACHD is also adding language which will explain the process for revising the emission limit in the event that the U. S. Steel Plant retires, shuts down, cold idles, installs, replaces, reconstructs, or performs a major modification of any of the coke oven batteries.

Finally, the ACHD Air Quality Program is proposing to amend its regulations relating to coke ovens and coke gas to clarify regulatory language.

The following sections of Article XXI will be submitted as a SIP Revision:  
§2101.20 ("Definitions")  
§2105.21.a-h, j ("Coke Ovens and Coke Oven Gas")

The following sections of Article XXI will not be submitted as a SIP Revision:

§2105.21.i (“Coke Ovens and Coke Oven Gas”)

The following is table provides further explanation for the proposed amendments to Article XXI, Sections 2101.20 and 2105.21:

Section*	Explanation for Change
<p><b>§2101.20 (Definition of “Charging emissions”)</b></p>	<p>The Pennsylvania Air Pollution Control Act states that the ACHD may enact “ordinances with respect to air pollution which will not be <u>less stringent</u> than the provisions of this act, the Clean Air Act or the rules and regulations promulgated under either this act or the Clean Air Act.” 35 P.S. § 4012(a). The U.S. Environmental Protection Agency’s regulations on visible emissions from by-product coke oven batteries states in a note that “[visible emissions] from open standpipes of an oven being charged count as charging emissions.” 40 C.F.R. Part 63, Appendix A, Method 303, Section 11.1.4. The ACHD determined that because its definition of “charging emissions” is “less stringent” because it does not include the language in the federal regulation. Therefore, the ACHD is proposing to amend the definition for “Charging emissions” to include the language “open standpipes of the oven being charge.”</p>
<p><b>§2101.20 (Definition of “Measured sulfur compounds”)</b></p>	<p>See the notes for §2105.21.h, h.3, below.</p>
<p><b>§2101.20 (Definition of “Pushing operation”)</b></p>	<p>As discussed above, the ACHD regulations cannot be “less stringent” than the regulations promulgated under the Pennsylvania Air Pollution Control Act. 35 P.S. § 4012(a). The Pennsylvania “Air Resources” regulations provide that “pushing operations” begin “when the coke side door is first removed from a coke oven.” 25 Pa.Code § 121.1. Under the current Article XXI regulation, for coke oven batteries 13, 14, 15, 20, and B at the U.S. Steel Corporation Mon Valley Works Clairton Plant, the push does not start until after the coke side door is first removed <u>and</u> the coke mass starts to move. For these batteries, the emissions between the time the coke side door is first removed and when the coke mass starts to move is not included in determining compliance with the pushing emissions standard. Because the ACHD regulation is less stringent, the ACHD is proposing to amend the definition of “Pushing” so that it is identical to the definition of “Pushing operation” in the Pennsylvania “Air Resources” regulations. 25 Pa.Code § 121.1.</p>
<p><b>§2101.20 (Definition of “Pushing emissions”)</b></p>	<p>The ACHD added a definition of “Pushing emissions.” This definition is identical to the definition of “Pushing emissions” in the Pennsylvania “Air Resources” regulations. 25 Pa.Code § 121.1.</p>
<p><b>§2101.20 (Definition of “Soaking emissions”)</b></p>	<p>During soaking, the coke oven is dampered off from the collecting main and the emissions are vented through open standpipes into the atmosphere. Operators of the coke oven battery are required to light the standpipe immediately following the opening of the standpipe in order to combust the emissions. Article XXI, § 2105.21.i, provides for an opacity limit on the “soaking emissions” from the standpipes. Article XXI currently provides that “uncombusted” emissions from the standpipe are considered “soaking emissions.” There are times when visible emissions from the</p>

	standpipe are observed after a flame which indicates the soaking emissions are partially combusted. The ACHD is proposing to delete the word “uncombusted” to clarify that any emissions, including partially combusted, observed after a flame are considered “soaking emissions.”
<b>§2105.21.a.1-2</b>	The ACHD is proposing to add the language “or fewer” to these sections. Currently, the ACHD inspectors are required to observe all 4 or 5 consecutive charges even if there is an exceedance of the coke oven charging standards after less than 4 or 5 charges. The proposed change will allow the inspectors to stop observations and proceed with another inspection when the number of seconds of charging emissions observed exceeds the coke oven charging standard.
<b>§2105.21.a.3; §2105.21.b.8; §2105.21.c.5; §2105.21.d.5; §2105.21.e.7; §2105.21.i.4</b>	Currently, the test methods for the inspection of coke oven batteries is set forth in the ACHD’s Source Testing Manual. The Settlement Agreement and Order dated June 27, 2019 between the ACHD and U.S. Steel Corp. provides that the ACHD will promulgate regulations to include the test methods for coke batteries in Article XXI. The proposed regulations are amended to include the test methods and inspection procedures that are appropriate for determining compliance with the ACHD’s coke oven standards in Article XXI, § 2105.21.
<b>§2105.21.b.1; §2105.21.b.4; §2105.21.c.1; §2105.21.d.1; §2105.21.f.1; §2105.21.i.1</b>	In 2012, U.S. Steel Corp. installed Coke Oven Battery C. The ACHD is amending the regulations to incorporate the requirements set forth in the installation permit for Battery C. The following is a reference to the applicable sections of the installation permit and the corresponding sections of the regulations: §2105.21.b.1 (IP-11 § V.A.1.c); §2105.21.b.4 (IP-11 § V.A.1.d); §2105.21.c.1 (IP-11 § V.A.1.e); §2105.21.d.1 (IP-11 § V.A.1.f); §2105.21.f.1 (IP-11 § V.A.1.i.1); §2105.21.i.1 (IP-11 § V.A.1.g)
<b>§2105.21.b.2; §2105.21.c.2; §2105.21.d.2; §2105.21.f.2;</b>	Article XXI, § 2105.21, currently includes standards for batteries installed, replaced, or reconstructed, or at which a major modification was made on or after January 1, 1978. These standards were considered the Lowest Achievable Emission Rate (LAER) for coke batteries at the time the regulations were promulgated. On November 1, 2012, U.S. Steel’s Battery C was put into operation. During the permitting process, the ACHD determined that LAER for Battery C was lower than what is currently set forth in the regulations. The ACHD is proposing to amend the regulations to indicate that standards previously considered LAER only apply to batteries installed, replaced, or reconstructed, or at which a major modification was made between the dates of January 1, 1978, and October 31, 2012 (i.e., the day prior to when Battery C began operations).
<b>§2105.21.b.5; §2105.21.c.3; §2105.21.d.3; §2105.21.f.3; §2105.21.i.2</b>	As discussed above, the ACHD is amending the regulations to indicate that standards previously considered LAER only applies to batteries installed, replaced, or reconstructed, or at which a major modification was made between the dates of January 1, 1978, and October 31, 2012. The ACHD is also proposing to include language to address the standards for any batteries installed, replaced, or reconstructed, or at which a major modification on or after the effective date of the current proposed regulations. These batteries will be required to meet either Best Available Control Technology (BACT) (for sources is located in an attainment or unclassified area) or LAER (for sources is located in a nonattainment area).
<b>§2105.21.b.1, b.2, b.3; §2105.21.c.2,</b>	The ACHD provides a standard for visible emissions for the door areas, charging ports, and offtake piping sections. In order to clarify the noncompliance limit under these standards, the ACHD is proposing to amend the regulations to specify that the

<b>c.4; §2105.21.d.1, d.2, d.4</b>	standards are to the tenth decimal point (“0”).
<b>§2105.21.b.2, b.3</b>	When determining compliance with the emissions standards for door areas, the regulations currently provide that the ACHD must exclude the “two door areas of the last oven charged and any door areas obstructed from view.” As noted above, any regulations promulgated by the ACHD cannot be less stringent than the EPA regulations promulgated under the Clean Air Act. When calculating the percent of leaking doors, the federal regulations for determination of visible emissions from by-product coke oven batteries does not include a two door exclusion. 40 C.F.R. Part 63, Appendix A, Method 303, Section 12.5.3.1. In order to avoid being less stringent than the federal regulation, the ACHD is proposing to remove the two door exclusion.
<b>§2105.21.b – (current Paragraph b.2)</b>	The ACHD is deleting this language because the standard no longer applies to any operating batteries in Allegheny County.
<b>§2105.21.b.3.D- F, b.7.D-F; §2105.21.e.2.D- F, e.6.D-F</b>	The ACHD is deleting the references to Coke Battery Nos. 7, 8 and 9 because the batteries are no longer in operation.
<b>Numerous sections</b>	The regulations identified the batteries as the “USX Clairton Coke Works, Clairton, Pennsylvania.” This language was changed to “U.S. Steel Corporation Mon Valley Works Clairton Plant.” The ACHD is also replacing “USX” with “U.S. Steel.”
<b>§2105.21.e</b>	The Pennsylvania Air Pollution Control Act states that the ACHD may enact “ordinances with respect to air pollution which will not be less stringent than the provisions of this act, the Clean Air Act or the rules and regulations promulgated under either this act or the Clean Air Act.” 35 P.S. § 4012(a). Section 129.15 (“Coke pushing operations”) of the Pennsylvania “Air Resources” regulations states: “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 subsections (c) and (e).” 25 Pa.Code 129.15(a). The ACHD’s current regulations for pushing do not include this requirement. In order to avoid being less stringent than the Pennsylvania regulations, that ACHD is proposing to add this language to its regulations.
<b>§2105.21.e.2.H; §2105.21.h (current h.3)</b>	The ACHD is deleting the references to the coke battery at Shenango Inc. because the facility is no longer in operation.
<b>§2105.21.e.3</b>	After reviewing the permits for the coke batteries identified in §2105.21.e.3, the ACHD determined that only Battery B is required to meet the particulate mass emission rate set forth in this Paragraph. The ACHD deleted the other coke batteries listed.
<b>§2105.21.f.7</b>	The current version of the regulations for combustion stacks provides that the measurement for opacity shall be performed according to the methods in Article XXI, § 2107.11. Section 2107.11 required that for measuring visible emissions, the source must follow the methods in the Allegheny County Source Testing Manual or continuous opacity monitoring system. In order to clarify the regulations, the ACHD moved the methods set forth in Section 2107.11 and the Allegheny County Source

	Testing Manual into Section 2105.21.f.7.
<b>§2105.21.g</b>	Article XXI, § 2107.07, pertains to test methods for coke oven emissions and includes the following requirement with regard to coke ovens: “Measurements of water quality shall be performed according to procedures established or approved by the Commonwealth.” The ACHD is deleting Section 2107.07 and is proposing to move the quoted language to Section 2105.21.g.
<b>§2105.21.h, h.3</b>	As discussed above, the ACHD regulations cannot be “less stringent” than the regulations promulgated under the Pennsylvania Air Pollution Control Act. 35 P.S. § 4012(a). Under Section 123.23 (“Byproduct coke oven gas”) of the Pennsylvania “Air Resources” regulations, compliance with the emission standards for coke oven gas is determined by measuring sulfur compounds “expressed as equivalent hydrogen sulfide.” 25 Pa.Code § 123.23(b). The current version of the ACHD regulations are less stringent because it does not include this language. The ACHD is proposing to revise its regulations to state “expressed as equivalent hydrogen sulfide” which is consistent with the Pennsylvania regulations.
<b>§2105.21.h, h.3; §2101.20 (Definition of “Measured sulfur compounds”)</b>	As noted above, the ACHD is proposing to amend the regulations to require a facility to measure “sulfur compounds, expressed as equivalent hydrogen sulfide.” This language may cause confusion for the source because it does not specify which sulfur compounds need to be tested. The ACHD reviewed test data from the U. S. Steel Corporation Mon Valley Works Clairton Plant for the past several years and determined that the following sulfur compounds comprised an appreciable amount of the total sulfur compounds in the coke oven gas: hydrogen sulfide (H <sub>2</sub> S), carbon disulfide (CS <sub>2</sub> ), carbonyl sulfide (COS), methyl mercaptan, ethyl mercaptan and sulfur dioxide (SO <sub>2</sub> ). Based on this analysis, the ACHD is proposing to amend the regulation to require the source to determine the “measured sulfur compounds” in the coke oven gas and not all sulfur compounds. The ACHD includes in §2101.20 a definition of “measured sulfur compounds” which are the sulfur compounds listed above.
<b>§2105.21.h (current h.1)</b>	The ACHD is deleting this Paragraph because there are no coke batteries in Allegheny County that have the rated production capacity of less than 70 million standard cubic feet of coke oven gas per day. Similar language in the subsequent Paragraph is also being deleted.
<b>§2105.21.h.3</b>	Section 2105.21.h.1 requires that coke batteries installed, replaced, or reconstructed, or at which a major modification was made on or after January 1, 1978, operate at less than or equal to a concentration of 10 grains per hundred dry standard cubic feet of coke oven gas. The 10 grains standard is considered the Lowest Achievable Emission Rate (LAER) for coke batteries. Section 2105.21.h.2 requires that all other coke batteries operate at less than or equal to a concentration of 50 grains per hundred dry standard cubic feet of coke oven gas. Batteries 13, 14, 15, 20, B and C at the U.S. Steel Corporation Mon Valley Works Clairton Plant meet the requirements for the 10 grains standard under Section 2105.21.h.1. Batteries 1, 2, 3 and 19 at the facility meet the requirements of the 50 grains standard under Section 2105.21.h.2.  Due to design limitations, U.S. Steel is unable to test the individual batteries to determine compliance with the standards set forth in Paragraphs h.1 and h.2. In lieu of testing each individual battery, the ACHD agreed to allow the U.S. Steel facility to test the coke oven gas stream which comes from all of the batteries. Rather than having to meet the 10 or 50 grains standard, U.S. Steel was only required to meet a 40 grains

standard. This concession by the ACHD alleviated the U.S. Steel facility from having to perform costly changes to its facility to allow it to test each individual battery. It is important to note that the 40 grains standard was promulgated prior to the installation of Battery C. During the permitting process for the installation of Battery C, the grains standard was reduced to 35 grains based on Battery C being required to meet the 10 grains standard for LAER. (IP #0052-I011, Condition V.A.1.j)

During the current regulatory review process, the ACHD determined that there was an error in how the 40 grains standard was calculated. The ACHD recalculated the grains standard by taking the weighted design capacity for the coke oven batteries in operation and using the emissions limits under Paragraphs h.1 (10 grains) and h.2 (50 grains). The ACHD also included Battery C in the recalculation. The ACHD calculated that the grains standard under Paragraph h.3 should be 23 grains per hundred dry standard cubic feet of coke oven gas. The following table details the ACHD's calculation of the grains standard:

Batteries	Capacity of Annual Coal Charge (tons)	Coke Oven Gas Concentration Standard (gr/100 dscf)	Weighted Capacity	Weighted Gas Concentration (gr/100 dscf)
Nos. 1 - 3	1,553,805	50	77,690,250	
Nos. 13-15	1,637,025	10	16,370,250	
Nos. 19	1,002,290	50	50,114,500	
Nos. 20	1,002,290	10	10,022,900	
B	1,491,025	10	14,910,250	
C	1,379,059	10	13,790,590	
<b>Total</b>	<b>8,065,494</b>		<b>182,898,740</b>	<b>22.68</b>

The ACHD believes that it is necessary to correct the error in the calculation of the grains standard considering that the U.S. Steel facility is currently benefiting by not having to test each of its batteries. It is not appropriate for U.S. Steel to further benefit by having a higher grains standard than it would have to meet if each battery was tested individually. In order to allow time for U.S. Steel to adjust to the corrected concentration standard, the ACHD is allowing U.S. Steel until January 1, 2025, to meet a concentration of 23 grains per hundred dry standard cubic feet of coke oven gas. Prior to January 1, 2025, U.S. Steel is required to meet a concentration of 35 grains, which is the standard set forth in the Battery C installation permit.

The ACHD is also adding language which will explain the process for revising the emission limit in the event that the U. S. Steel Corporation Mon Valley Works Clairton Plant retires, shuts down, cold idles, installs, replaces, reconstructs, or performs a major modification of any of the coke oven batteries.

**§2105.21.h.5**

The current Article XXI regulations do not provide for the frequency of monitoring and recording of the coke oven gas concentrations. The ACHD is adding language specifying that for determining compliance with the standards in §2105.21.h, the measured sulfur compounds concentration, expressed as equivalent H<sub>2</sub>S, shall be monitored and recorded on an hourly basis.

<b>§2105.21.i.3</b>	The ACHD regulations allow for a two minute exclusion from the opacity limit for soaking emissions. Article XXI, § 2105.03, and Condition IV.4 of U.S. Steel Clairton Plant’s Operating Permit requires that all air pollution control equipment be properly installed, maintained, and operated consistent with good air pollution control practice. The ACHD is proposing to add language based on this requirement which provides that during the two minute exclusion, all air pollution control equipment and control techniques shall be operated consistent with good air pollution control practices. The proposed regulation further clarifies that good air pollution control practices may include, but are not limited to, lighting or attempting to light the standpipe immediately following the opening of the standpipe.
<b>§2105.21.j</b>	The ACHD is proposing adding a new section titled “Miscellaneous Topside Emissions.” The requirements under this section are from the Pennsylvania “Air Resources” regulations, 25 Pa.Code §123.44(a)(6),(7). The ACHD is required to include these requirements so that the Article XXI regulations are not less stringent than the Pennsylvania regulations. 35 P.S. § 4012(a).

\* Unless otherwise indicated, the citations to the Article XXI regulations under the “Section” column are for the proposed amended sections of the regulations and are not the citations to the current version of the regulations.

## **Inspections**

This portion of the submittal affects the ACHD Air Pollution Control Regulations, Article XXI, related to inspections by the ACHD Air Quality Program.

The ACHD Air Quality Program is proposing to amend its regulations to include requirements that during an inspection, a source is required to operate in a manner consistent with its normal air pollution control practices. The regulation provides that it is a violation for any person to alter or modify a source's normal air pollution control practices during an ACHD inspection for the purpose of improving compliance with the requirements under Article XXI or any ACHD permit.

§2109.01.e ("Inspections") will be submitted as a SIP Revision.

### 3.

#### **Documentation of Public Hearing and Certifications**

Notice of Public Hearing (later)  
Transmittals of hearing notice to EPA & PA DEP (later)  
Proof of publication of notice of hearing (later)  
Certification of hearing (later)  
Summary of Comments and responses (later)  
Certification of approval and adoption (later)