

ALLEGHENY COUNTY HEALTH DEPARTMENT
Air Quality Program

SUMMARY OF PUBLIC COMMENTS AND DEPARTMENT RESPONSES
ON THE PROPOSED ISSUANCE OF THE U.S. STEEL CLAIRTON WORKS
TITLE V OPERATING PERMIT NO. 0052

[Notice of the opportunity for public comment appeared in the legal section of the Pittsburgh Post-Gazette on January 13, 2022. The public comment period ended on March 15, 2022.]

1. **COMMENT:** ACHD has not properly provided the specification and reference to the origin of and authority for each term and condition in the draft permit. In some instances, ACHD has provided no such citation or source of authority; and, in others, the Department’s purported citation or source of authority does not authorize ACHD’s proposed action. (1 Commenter)

RESPONSE: §2103.12.a.2.B, “Issuance, Standard Conditions” requires the Department to insure that “The source complies with all applicable emissions limitations established by this Article, or where no such limitations have been established by this Article, RACT has been applied to existing sources with respect to those pollutants regulated by this Article. ” RACT is limitations, controls, monitoring, testing, recording, or reporting requirements that reasonably ensure continuing compliance with the conditions of the permit and should be in place for all existing sources. Where existing applicable regulations are not sufficient to meet this standard of issuance additional language has been added as required.

2. **COMMENT:** ACHD has exceeded its authority on creating new or revising existing limits and conditions. ACHD improperly created new emission limits and conditions (or revised existing limits and conditions) that are not existing applicable requirements. U.S. Steel objects to the Department’s creation or revision of any and all limits and conditions that are not existing applicable requirements. In particular, with no legal basis and based upon an improper and fatally flawed technical analysis, the Department has created approximately 320 new emission limits, with no sound legal or technical justification by ACHD. (See Table 1 regarding PM, PM₁₀, PM_{2.5}, PM condensable, NO_x, CO, VOC, benzene, hexane, H₂S, HCl, and ammonia; Table 2 regarding SO₂; and Table 3 regarding revisions to existing PM limits.) The Title V permit program was designed as a tool to compile all existing applicable permit requirements into one operating permit. (1 Commenter)

Table 1. Emission Units Where Newly Created Unjustified Limits Require Removal.

Page# and Emission Unit	Table	New Emission Limits (lb/hr and tpy)
53 - Battery No. 1 Combustion Stack	Table V-A-1	PM condensable, NO _x , CO, VOC
54 - Battery No. 2 Combustion Stack	Table V-A-2	PM condensable, NO _x , CO, VOC
55 - Battery No. 3 Combustion Stack	Table V-A-3	PM condensable, NO _x , CO, VOC
69 - Batteries 1, 2 & 3 PEC System Baghouse	Table V-B-1	NO _x , CO, VOC
86 - Battery No. 13 Combustion Stack	Table V-C-1	PM condensable, NO _x , CO, VOC
86 - Battery No. 14 Combustion Stack	Table V-C-2	PM condensable, NO _x , CO, VOC
88 - Battery No. 15 Combustion Stack	Table V-C-3	PM condensable, NO _x , CO, VOC
103 - Batteries 13, 14 & 15 PEC System Baghouse	Table V-D-1	NO _x , CO, VOC
121 - Battery No. 19 Combustion Stack	Table V-E-1	NO _x , CO, VOC
122 – Battery No. 20 Combustion Stack	Table V-E-2	NO _x , CO, VOC, benzene, hexane, H ₂ S,

Page# and Emission Unit	Table	New Emission Limits (lb/hr and tpy)
		Ammonia, HCl
137 - Battery 19 & 20 PEC System Baghouse	Table V-F-1	NO _x , CO, VOC
155 - Battery B Combustion Stack	Table V-G-1	NO _x , CO, VOC
170 - Battery B PEC System Baghouse	Table V-H-1	NO _x , CO, VOC
219 - Quench Tower No. 1	Table V-J-1	PM, PM ₁₀ , PM _{2.5} , PM-Condensable, NO _x , VOC
219 - Quench Tower B	Table V-J-2	PM, PM ₁₀ , PM _{2.5} , PM Condensable, NO _x , VOC
225 - Quench Tower 5A	Table V-K-1	NO _x
232 - Quench Tower 7A	Table V-L-1	NO _x
238 - Quench Tower No. 5	Table V-M-1	PM, PM ₁₀ , PM _{2.5} , PM condensable, NO _x , SO ₂ , VOC
238 - Quench Tower No. 7	Table V-M-2	PM, PM ₁₀ , PM _{2.5} , PM condensable, NO _x , SO ₂ , VOC
243 - Quench Tower C	Table V-N-1	Carbon disulfide
251 - SCOT Plant	Table V-O-1	PM, PM ₁₀ , CO, NO _x , VOC, H ₂ S
255 - Keystone Cooling Tower	Table V-P-1	PM, PM ₁₀ , PM _{2.5} , PM condensable
265 - By-Products Area	Table V-Q-1	VOC and benzene lb/hr; methanol, HCl, H ₂ S, phenol, NH ₃
284 - Continuous Barge Unloader 1	Table V-R-1	PM, PM ₁₀ , PM _{2.5}
285 - Continuous Barge Unloader 2	Table V-R-2	PM, PM ₁₀ , PM _{2.5}
287 - Pedestal Crane Unloader	Table V-S-1	PM, PM ₁₀ , PM _{2.5}
289 - Coal Transfer	Table V-T-1	PM, PM ₁₀ , PM _{2.5}
291 - No. 1 Primary and Secondary Pulverizers and No. 2 Primary and Secondary Pulverizers	Table V-U-1	PM tpy limits
293 - Surge Bins and Bunkers	Table V-V-1	PM, PM ₁₀ , PM _{2.5}
295 - Coke Transfer (P032)	Table V-W-1	PM, PM ₁₀ , PM _{2.5}
296 - Coke Transfer (P033)	Table V-W-2	PM, PM ₁₀ , PM _{2.5}
297 - No. 1 Coke Screening	Table V-X-1	PM, PM ₁₀
298 - No. 2 Coke Screening	Table V-X-2	PM, PM ₁₀
299 - Boom Conveyor	Table V-Y-1	PM, PM ₁₀
301 - Coal and Coke Recycle Screening	Table V-Z-1	PM, PM ₁₀
303 - Peters Creek Coke Screening	Table V-AA-1	PM, PM ₁₀
310 - Light Oil Barge Loading facility	Table V-CC-1	VOC
334 - Boiler No. 1	Table V-GG-1	CO, VOC, ammonia, hexane, HCl
338 - Boiler No. 2	Table V-HH-1	CO, VOC, ammonia, hexane, HCl
343 - Boilers R1 or R2	Table V-II-1	CO, VOC, ammonia, hexane, HCl
346 - Boilers T1 or T2	Table V-JJ-1	CO, VOC, ammonia, hexane, HCl
352 - Coal Storage Pile	Table V-NN-1	PM, PM ₁₀
353 - Coke Storage Pile - Peters Creek	Table V-OO-1	PM, PM ₁₀ , PM _{2.5}
354 - Coke Storage Pile - South Yard	Table V-PP-1	PM, PM ₁₀ , PM _{2.5}
355 - Roadways & Vehicular Traffic	Table V-QQ-1	PM, PM ₁₀ , PM _{2.5}

RESPONSE: The emissions limits for Operating Permits that come from Installation Permits are authorized under Article XXI, §2102.04.e. All new sources under an Installation Permit are required to meet Best Available Control Technology (BACT) under §2102.04.b. The authority to include these

conditions in an operating permit is under §2103.12.a.2.D. For limits not from an Installation Permit, Article XXI requires all sources to meet Reasonably Achievable Control Technology (as defined in Article XXI, §2101.20) under §2103.12.a.2.B. Section 2103.12 is included under the Allegheny County Health Department's approved Title V operating permit program as well as the Federally Enforceable State Operating Permit (FESOP) program, which was approved by EPA as a revision to the Pennsylvania State Implementation Plan (SIP). See 68 FR 37973. These emissions limits are established in accordance with §2103.12.a.2.B, are applicable requirements as defined by §2101.20, and are concurrently incorporated into the TVOP.

40 CFR Part §70.1(b) says "... While title V does not impose substantive new requirements, ..." Part 70 §70.1(a) also states "...These regulations define the minimum elements required by the Act for State operating permit programs ..." and §70.1(c) states "Nothing in this part shall prevent a State, or interstate permitting authority, from establishing additional or more stringent requirements not inconsistent with this Act. The EPA will approve State program submittals to the extent that they are not inconsistent with the Act and these regulations..." There is no definition or explanation of substantive new requirements. The EPA has approved the Department's Operating Permit programs for major and minor sources.

Short-term and annual emission limits may be needed as enforceable limits in State Implementation Plan (SIP) submittals. They are needed in modeling for significant impact levels. These limits are needed to determine regulatory applicability (e.g., NSR/PSD, stack testing (§2108.02)).

The commenter also states that the Department created approximately 320 new emission limits, including NO_x, CO & VOC with no sound legal or technical justification. During the 2012 renewal permitting process, the commenter asserted that AP-42 emission factors should not be used to establish limits from a specific source and proposed to remove any new emission limits and all new substantive requirements based upon AP-42 emission factors. Therefore, the Department removed all the AP-42 emission factor-based limits and required the facility to "perform emissions testing and evaluations for NO_x, CO & VOC to develop emission factors that can quantify NO_x, CO & VOC emissions", and results of the stack testing associated with the renewal permit application were used to set the limits for this permit. In addition, these are not new limits, they are maximum potential emissions associated with the maximum capacity and operation of the source(s) and indicate worst case emissions due to normal operation of the source and do not restrict the permittee's operations.

Consequently, hourly and annual emission limits are considered by the ACHD to be effective means by which to assure continuous compliance at facilities. The Department believes that it is both feasible and appropriate to include emission limits in U.S. Steel Clairton Coke Works Operating Permit. This has been ACHD's policy on other EPA-approved Major Source permits, other pre-Article XXI Major Source operating permits, minor source operating permits, and installation permits. ACHD will continue to employ this methodology.

3. **COMMENT:** U.S. Steel disagrees with ACHD's creation of 24 newly created SO₂ tons/year emission limits that were not contained in any existing applicable requirement, including regulations and permits, including SO₂ Installation Permit #0052-I017. The SO₂ Installation Permit did not include tons/year emission limits – as it was not needed for any SIP purposes; and it is inappropriate for ACHD to include a newly created annual limit when U.S. Steel and ACHD agreed upon 30-day rolling average lb/hr SO₂ emission limits – which was approved by U.S. EPA. These 30-day rolling average limits are

also in the approved (and effective) SO₂ State Implementation Plan (SIP). There is no basis for the newly created annual limits. Table 2 identifies the unjustified SO₂ limits that require removal before issuance of a final renewed Title V Permit. (1 Commenter)

Table 2. Emission Units Where Newly Created Unjustified SO₂ Limits Require Removal.

Page# and Emission Unit	Condition from which SO₂ tpy value should be removed
54 - Battery No. 1 Combustion Stack	Table V-A-1a
55 - Battery No. 2 Combustion Stack	Table V-A-2a
56 - Battery No. 3 Combustion Stack	Table V-A-3a
69 - Batteries 1, 2 & 3 PEC System Baghouse	Table V-B-1
70 - Batteries 1-3 Hot Car	Table V-B-2
87 - Battery No. 13 Combustion Stack	Table V-C-1a
88 - Battery No. 14 Combustion Stack	Table V-C-2a
89 - Battery No. 15 Combustion Stack	Table V-C-3a
103 - Batteries 13-15 PEC System Baghouse	Table V-D-1
104 - Batteries 13-15 Hot Car	Table V-D-2
122 - Batteries No. 19, & No. 20 Combustion Stack	Table V-E-3
137 - Batteries 19 & 20 PEC System Baghouse	Table V-F-1
138 - Batteries 19-20 Hot Car	Table V-F-2
152 - Battery B Combustion Stack	Table V-G-2
170 - Battery B PEC System Baghouse	Table V-H-1
190 - C Battery Combustion Stack	Table V-I-2
191 - Battery C PEC System Baghouse	Table V-I-3
191 - C Battery Hot Car	Table V-I-4
219 - Quench Tower 1	Table V-J-1
219 - Quench Tower B	Table V-J-2
225 - Quench Tower 5A	Table V-K-1
232 - Quench Tower 7A	Table V-L-1
243 - C Battery Quench Tower	Table V-N-1
251 - SCOT Plant	Table V-O-1

RESPONSE: The Department has been issuing operating permits with short- and long-term emission limits for over 20 years to have federally enforceable emission limitations for attainment demonstrations. The SO₂ Installation Permit #0052-I017 was issued with lb/hr limit but the operating permit must have both lbs/hr and tons/yr limits. Therefore, the conditions remain unchanged.

4. **COMMENT:** Without waiving its objections to the Department’s proposed action of inappropriately creating new or revising existing limits and conditions during the Title V Permit renewal process, U.S. Steel disagrees with ACHD’s revision to combustions stack PM₁₀ and PM_{2.5} emission limits using outdated particle size distribution data. ACHD notes that they are using “R.J. Lee Group 1990 and Stack Testing specific to Clairton Plant 2006 Particle Size Data” but provides no justification on why the existing PM₁₀ and PM_{2.5} limits were reduced. The particle size distribution varies by Battery/

Battery Group and is based on a data analysis from 16 years ago. ACHD also fails to include any margin for operational variability, i.e., the R.J. Lee study was done for informational purposes only and created a snapshot of data in time using methods not intended or appropriate for the development of limits. U.S. Steel requests that the PM₁₀ and PM_{2.5} limits be revised back to the existing PM₁₀ and PM_{2.5} limits for emission units identified in Table 3. The existing limits are included in existing approved SIPs and have been shown to demonstrate attainment. (1 Commenter)

Table 3. Emission Units Where the Draft Revised PM₁₀ and PM_{2.5} Emission Limits Require Reversion to Existing SIP-Approved Emission Limits.

Page# and Emission Unit	Condition from which SO ₂ tpy value should be removed
53 - Battery No. 1 Combustion Stack	Table V-A-1
54 - Battery No. 2 Combustion Stack	Table V-A-2
55 - Battery No. 3 Combustion Stack	Table V-A-3
86 - Battery No. 13 Combustion Stack	Table V-C-1
86 - Battery No. 14 Combustion Stack	Table V-C-2
88 - Battery No. 15 Combustion Stack	Table V-C-3
121 - Battery No. 19 Combustion Stack	Table V-E-1
155 - Battery B Combustion Stack	Table V-G-1

RESPONSE: The Department agrees that the existing SIP-approved limits are more appropriate and made the requested change.

5. **COMMENT:** U.S. Steel timely submitted the renewal application in 2016 but became aware of the Department’s intent to include new, substantive requirements in the renewed Title V over five years later - only a few days before ACHD submitted the draft for public comment. Sources, especially complex sources, in Allegheny County (and most jurisdictions) are typically provided with more than 3 days to review a draft permit. This customary practice during the preliminary drafting process allows for a more efficient permitting process. This is particularly concerning considering that the draft permit is approximately 350 pages and includes many newly created, unanticipated conditions and limits. (1 Commenter)

RESPONSE: The Department acknowledges the commenter’s concerns and will provide better preliminary draft permit review process in the future. However, the Department also notes that pre-public comment review of draft permits is a courtesy, and is not required under Article XXI or Title V.

6. **COMMENT:** U.S. Steel notes that the revised coke oven regulations will be going out for public comment shortly. The timing of the proposed issuance of a renewed Title V Permit while the new coke rules are pending is problematic and inefficient. As noted above, the primary purpose of the title V program is to enable the source, EPA, States, and the public to better understand the applicable requirements to which the source is subject and whether the source is meeting those requirements. The timing of Department’s proposed action of issuing a renewed permit as the coke rules are being revised is contrary to the intent and goals of the Title V program. (1 Commenter)

RESPONSE: The Department doesn’t see any problem or inefficiency in the revision of the coke oven gas regulation and the renewal Title V operating permit because they are not contingent upon each other. The Title V operating permit will be modified to incorporate the revised coke oven gas regulation

when it is finalized.

7. **COMMENT:** On page 4, U.S. Steel requests that ACHD revise the facility contact information to Mike Dzurinko, Senior Manager Environmental, MDzurinko@uss.com, 412-233-1467. (1 Commenter)

RESPONSE: The Department made the requested change.

8. **COMMENT:** On Table II-1, page 6, Quench Tower No. 5A maximum capacity requires correction from “1,637,025 tons of coal per year” to “1,270,200 tons of coke per year” so that the description matches the underlying 5A and 7A Installation Permit. (1 Commenter)

RESPONSE: The Department made the requested change.

9. **COMMENT:** On Table II-1 page 6, Quench Tower No. 7A maximum capacity requires correction from “2,004,580 tons of coal per year” to “1,555,630 tons of coke per year” so that the description matches the underlying 5A and 7A Installation Permit. (1 Commenter)

RESPONSE: The Department made the requested change.

10. **COMMENT:** On Table II-1, page 8, P049 - #4 Screening Station needs to be added to Table II-1. (1 Commenter)

RESPONSE: The Department made the requested change.

11. **COMMENT:** On page 12, Quench Tower Process Flow Diagram “Summary of Battery Quench Towers” needs to be updated to include 5A, 7A and C QTs. Please update to current information

RESPONSE: The Department made the requested change.

12. **COMMENT:** On page 30, Condition No. III.29, regarding emissions inventory statements, requires revision to state that the reports shall be submitted to the Department by March 15 of each year for the preceding calendar year, *unless an extension has been granted*. U.S. Steel respectfully request this revision because of potential delays caused by the reporting system (as is with reporting year 2021) that are no fault to the permittees. (1 Commenter)

RESPONSE: There is no reason to include the requested sentence in the Title V operating permit. U.S. Steel can request for an extension if it is warranted during the annual emission inventory submittal process.

13. **COMMENT:** On page 35, Condition IV.6 needs to be revised to match the language contained within §2105.50 as follows: (1 Commenter)

"No person shall conduct, or allow to be conducted, the open burning of any material, except where the Department has issued an open burning permit to such person in accordance with Article XXI 2105.50 or where the open burning is conducted solely for the purpose of preparation of food for

human consumption, recreation, light, or ornament, and in a manner, which contributes a negligible amount of air contaminants, and which is in accordance with Subparagraphs A through C of 2105.50."

RESPONSE: Site Level Condition IV.6, as written in the permit, includes the phrase "in accordance with Article XXI §2105.50". As such, facilities are required to follow all of §2105.50, including subparagraphs A through C. The permit remains unchanged.

14. **COMMENT:** On page 41, please revise Condition IV.18(b)(4) under Section IV to state "reserved" since there is no regulatory requirement specified under that citation at this time. (1 Commenter)

RESPONSE: The Department made the requested change.

15. **COMMENT:** On page 48, Condition IV.31, the reference to the 2019 Settlement Agreement needs to be updated as follows: (1 Commenter)

1. Settlement Agreement and Order, June 29, 2019, amended on February 5, 2020, and August 25, 2021.

RESPONSE: The Department made the requested change.

16. **COMMENT:** On page 48, Condition IV.31, U.S. Steel requests that ACHD remove "Consent Order and Agreement (COA), Third Amendment, July 6, 2011" from Site Level Condition 31. This COA is no longer in effect and was replaced by the 2016 Consent Judgment which has since been terminated. References to this COA throughout the proposed Title V need to be deleted. These include Conditions V.A.5.f, V.A.5.g, V.C.5.g, V.C.5.h, V.E.5.g, V.E.5.h, V.E.5.i, V.G.5.g. (1 Commenter)

RESPONSE: The conditions are still applicable to the operation, but the Department agrees that the citations shall be amended.

17. **COMMENT:** On page 48, Site Level Condition IV.32.a, should be revised based on a prior permit application that was submitted to ACHD on December 18, 2020, in order to remove paraphrasing and cite Article XXI. (1 Commenter)

Proposed: 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 except were provided in §2105.21.h. All coke oven gas flared, mixed, or combusted at the Clairton Plant shall meet the applicable requirements of Article XXI §2105.21.h.4. The permittee shall not operate, or allow to be operated, any source in such manner that unburned coke oven gas is emitted into the open air. In addition, the permittee shall not 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 35 grains per hundred dry standard cubic feet of coke oven gas produced by Clairton Plant, when all sulfur emissions from the Claus Sulfur Recovery Plant and the tail gas cleaning equipment thereon, expressed as equivalent H₂S are added to the measured H₂S. The concentration of sulfur compounds specified shall include the tail gas sulfur, measured as hydrogen sulfide, emitted from sulfur removal equipment. [§2105.21.h; §2105.21.h.4; SO₂ SIP IP 0052 I017, Condition VI.25.a]

RESPONSE: The Department disagrees with the proposed change. Condition IV.32.a reflects what is

in Article XXI §2105.21.h and §2105.21.h.4 as well as SO₂ SIP IP #0052-I017. The Department notes that the citation of Condition VI.25.a of IP #0052-I017 is incorrect and has revised it to Condition IV.25.a.

18. **COMMENT:** On page 49, Condition IV.32.f needs to be revised to remove the proposed SO₂ tpy limit and corresponding footnote. The EPA approved SIP SO₂ Installation Permit did not include tons/year values as emission limitations. There is no basis for the annual limit. Furthermore, the lb/hr SO₂ limits are long-term averages (30 day rolling and 24- hr rolling) and it is inappropriate to derive the tpy value by converting the 30-day rolling average. ACHD also inappropriately added newly created SO₂ tpy emission limits for the rest of the sources identified in the SO₂ Installation Permit. As noted in comments No. 2 and 3 above, there is no basis for these newly created limits, the limits require removal before issuance of a renewed Title V Permit. (1 Commenter)

f. SO₂ emissions from B001, B002, B005, B006, B007, and B008 shall not exceed the following limitations (SO₂ SIP IP 0052-I017, Condition V.A.1.b):

SO₂ Emission Limitations for the Boilers

30 day rolling*** average limit (lb/hr)*	Supplementary* ** 24-hr Limit* (lb/hr)	Tons/year***
118.44	134.06	518.77

*Limits are based on a rolling 30-day average of 24-hour (calendar day) averages, with an additional restriction of no more than 3 consecutive days above a supplementary 24-hour limit. These limits are based on ACHD's SO₂ State Implementation Plan (SIP) Permit Revision and USEPA SO₂ Guidance dated September 14, 2017.

***Tons/year value is used to demonstrate the expected tons/year from this unit. The value is derived by converting the 30 day rolling average limit lb/hr to an annual tons per year value. These limits are based on ACHD's SO₂ State Implementation Plan (SIP) Permit Revision and USEPA SO₂ Guidance dated September 14, 2017.

***Emission limits are on an aggregate basis

RESPONSE: Please refer to the Response to Comments No. 2 & 3 above.

19. **COMMENT:** Please revise the following Conditions: V.A.1.d (pg. 51), V.C.1.d (pg. 84), V.E.1.d (pg. 118) and V.G.1.d (pg. 153). Incorporation of 40 CFR 63.307(b)(1) for C Battery needs to be consistent with the Federal citation: (1 Commenter)

Each flare shall be designed for a net heating value of 8.9 MJ/scm (240 Btu/scf) if a flare is steam-assisted or air-assisted, or a net value of 7.45 MJ/scm (200 Btu/scf) if the flare is non-assisted.

RESPONSE: The conditions as written reflect the equipment installed at the facility. Condition V.I.1.p.1) was revised to also reflect the equipment installed.

20. **COMMENT:** The permit needs to include 40 CFR 63.304(b)(3)(ii) under the listed citations for Conditions V.C.1.i. and V.E.1.i and 40 CFR 63.304(b)((3)(i) for Condition V.G.1.i. (1 Commenter)

RESPONSE: The Department made the requested change.

21. **COMMENT:** On page 56, Condition V.A.2.d needs to be removed from the Title V Permit which requires stack testing for NO_x and CO for comparison to a new limit. In the current Title V Permit, the

following was required: (1 Commenter)

Condition V.A.2.c: *The permittee shall perform emissions testing and evaluations for NO_x on each combustion stack of Coke Batteries 1, 2 and 3 to develop emission factors that can be applied to quantify NO_x emissions.*

Condition V.A.2.d: *The permittee shall perform emissions tests and evaluations for CO and VOC on each combustion stack of Coke Batteries 1, 2 and 3 to develop emission factors that can be applied to quantify CO & VOC emissions.*

U.S. Steel complied with these requirements in order to develop emission factors that would be used for air emissions inventory reporting purposes. ACHD has taken only one performance test and inappropriately and unjustly created a new emissions limit without any valid basis and without consideration of the other tests or operational variability – even if there were a basis for the creation of the new limits (which there is not). The emissions testing was not performed to create new Title V Permit limits. The testing was performed to refine quantification of emissions for inventory reporting.

RESPONSE: The requirement to perform emissions testing and evaluation to develop emission factors that can be applied to quantify NO_x, CO and VOC emissions is meant to develop emission limits even if it is for emissions inventory as claimed by the commenter. The Department believes where applicable that the emissions factor used to estimate emissions limit can also estimate the emission inventory and vice versa. In addition, the facility has used emission inventory factor to calculate emissions limit in the past. Therefore, the condition remains unchanged. Also, see response to comment No. 2 above.

22. **COMMENT:** On page 69, Condition V.B.1.g, U.S. Steel requests that the newly created NO_x, CO, and VOC emission limits be removed from Table V-B-1. In addition to comment No. 2 above, the PEC baghouses are designed to control particulate matter, not gaseous pollutants. It is unnecessary to add a gaseous emission limit to a control device that controls particulate matter. If ACHD wants to include approximate total ton values for gaseous pollutants, this process could be included in the review memo for informational purposes. Further, the SO₂ footnote should be revised by removing the statement: “The limits are combined for all the three (3) PEC baghouses.” There is only one baghouse system for 1-3 PEC. (1 Commenter)

RESPONSE: The Department agrees that the baghouse does not control gaseous emissions and made the requested change.

23. **COMMENT:** On page 69, the term “each” needs to be removed from Condition V.B.1.g and the title of Table V-B-1 (“Each PEC Baghouse”). There is only one baghouse for each battery group. (1 Commenter)

RESPONSE: The Department made the requested change.

24. **COMMENT:** The following Conditions need to be removed from the Title V Permit since the requirement is accounted for in Site Level Condition IV.32.a. It is inappropriate and unnecessary to include the 35-grain H₂S loading limit in the emission unit level terms and conditions since the Plant is subject to the requirement on a sitewide basis making these conditions duplicative. (1 Commenter)

Page # and Emission Unit	Condition
84 - Coke Oven Batteries Nos. 13, 14 and 15	V.C.1.g
118 - Coke Oven Batteries Nos. 19 and 20	V.E.1.h
153 - Coke Oven Battery B	V.G.1.h
186 - Coke Oven Battery C	V.I.1.j
251 - Desulfurization Plant	V.O.1.j
333 - Boiler No. 1	V.GG.1.b
337 - Boiler No. 2	V.HH.1.b
342 - Boilers R1 and R2	V.II.1.b
345 - Boilers T1 and T2	V.JJ.1.b

RESPONSE: While the referenced Site Level condition applies to the entire facility, it is specific to coke oven gas produced by the Clairton Plant. The equipment listed in the above table are still restricted to these sulfur limits regardless of where the coke oven gas is from, therefore the restriction is still applicable. The conditions have been amended to reference the limits in the Site Level condition.

25. **COMMENT:** On page 69, ACHD did not include the entirety of compliance options available under 40 CFR 63.7290(b)(3) in Condition V.B.1.e. The condition needs to be revised by adding the following as Condition V.B.1.e.3: (1 Commenter)

For each capture system that does not use a fan driven by an electric motor, you must maintain the daily average static pressure at the inlet to the control device at an equal or greater vacuum than the level established during the initial performance test or maintain the daily average fan revolutions per minute (RPM) at or above the minimum level established during the initial performance test.

Similarly, provisions for this compliance option need to be added from 40 CFR 63.7323(c)(3) under Condition V.B.2.e as follows:

If you elect the operating limit in § 63.7290(b)(3)(ii) for static pressure or fan RPM, measure and record the static pressure at the inlet of the control device or fan RPM during each push sampled for each particulate matter test run. Your operating limit for static pressure is the minimum vacuum recorded during any of the three runs that meets the emission limit. Your operating limit for fan RPM is the lowest fan RPM recorded during any of the three runs that meets the emission limit.

And to Condition V.B.3.q from 40 CFR 63.7333(d)(2) as follows:

If you elect the operating limit for static pressure or fan RPM in § 63.7290(b)(3)(ii):

(i) Maintaining the daily average static pressure at the inlet to the control device at an equal or greater vacuum than established during the initial or subsequent performance test or the daily average fan RPM at or above the minimum level established during the initial or subsequent performance test; and

(ii) Checking the static pressure or fan RPM at least every 8 hours to verify the daily average static pressure at the inlet to the control device is at an equal or greater vacuum than established during

the initial or subsequent performance test or the daily average fan RPM is at or above the minimum level established during the initial or subsequent performance test and recording the results of each check.

Similar language needs to be reflected in each of the following sections: V.D, V.F, V.H and V.I.

RESPONSE: As stated in the permit, the condition reflects the equipment installed at the facility. No changes were made to the permit.

26. **COMMENT:** On page 89, Condition V.C.2.d needs to be removed from the Title V Permit which requires stack testing for NO_x and CO for comparison to a new limit. In the current Title V Permit, the following was required: (1 Commenter)

Condition V.C.2.c: The permittee shall perform emissions testing and evaluations for NO_x on each combustion stack of Coke Batteries 13, 14 and 15 to develop emission factors that can be applied to quantify NO_x emissions.

Condition V.C.2.d: The permittee shall perform emissions tests and evaluations for CO and VOC on each combustion stack of Coke Batteries 13, 14 and 15 to develop emission factors that can be applied to quantify CO & VOC emissions. (1 Commenter)

RESPONSE: Please refer to the Response to Comments No. 2 and 21 above.

27. **COMMENT:** On page 103, the newly created NO_x, CO, and VOC emission limits need to be removed from Table V-D-1. In addition to comment No. 2 above regarding the creation of the new limits, the PEC baghouses are designed to control particulate matter, not gaseous pollutants. It is inappropriate to add a gaseous emission limit to a control device that controls particulate matter but not gaseous pollutants. Further, the footnote should be revised by removing the statement: “The limits are combined for all the three (3) PEC baghouses.” There is only one baghouse system for 13-15 PEC. (1 Commenter)

RESPONSE: The Department made the requested change.

28. **COMMENT:** On page 103, remove “each” from Condition V.D.1.g, as well as “(Each PEC)” in the title of Table V-D-1. There is only one baghouse for each battery group. (1 Commenter)

RESPONSE: The Department made the requested change.

29. **COMMENT:** Correct the references from 2013.12 to 2103.12 throughout the permit (e.g., Conditions V.I.a, b, c and e). The first instance is on page 103. (1 Commenter)

RESPONSE: The Department made the requested change.

30. **COMMENT:** On page 122, Condition V.E.1.bb, remove newly proposed emission limits for benzene, hexane, H₂S, ammonia, and HCl. ACHD has not provided justification on why these new emission limits were added to Battery No. 20 Combustion Stack. The Title V permit program was designed as a tool to compile all existing applicable permit requirements into one operating permit, the Title V Permit, and not to establish new limits and requirements that are not otherwise already included in the existing permits. (1 Commenter)

RESPONSE: The Department made the requested change.

31. **COMMENT:** On page 123, remove Conditions V.E.2.d and V.E.2.e from the Title V Permit which requires stack testing for NO_x, CO, and VOC for comparison to a new limit. In the current Title V Permit, the following was required:

Condition V.E.2.c: The permittee shall perform emissions testing and evaluations for NO_x on each combustion stack of Coke Batteries 19 and 20 to develop emission factors that can be applied to quantify NO_x emissions.

Condition V.E.2.d: The permittee shall perform emissions testing and evaluations for CO and VOC on each combustion stack of Coke Batteries 19 and 20 to develop emission factors that can be applied to quantify CO & VOC emissions.

U.S. Steel complied with these requirements in order to develop emission factors that would be used for air emissions inventory reporting purposes. ACHD has taken only one performance test and inappropriately and unjustly created a new emissions limit without any valid basis and without consideration of the other tests or operational variability – even if there were a basis for the creation of the new limits (which there is not.) The emissions testing was not performed to create new Title V Permit limits. The testing was performed to refine quantification of emissions for inventory reporting. (1 Commenter)

RESPONSE: Please refer to the Response to Comments No. 2 and 21 above.

32. **COMMENT:** On page 134, Condition V.E.7. needs to be removed in its entirety as the 2011 COA is no longer in effect. (1 Commenter)

RESPONSE: The Department made the requested change.

33. **COMMENT:** On page 137, the newly created NO_x, CO, and VOC emission limits need to be removed from Table V-F-1. In addition to comment No. 2 above, the PEC baghouses are designed to control particulate matter, not gaseous pollutants. It is inappropriate and unnecessary to add a gaseous emission limit to a control device that controls particulate matter. Further, the footnote should be revised by removing the statement: “The limits are for both PEC baghouses.” There is only one baghouse system for 19-20 PEC. (1 Commenter)

RESPONSE: The Department made the requested change.

34. **COMMENT:** On page 137, U.S. Steel requests that ACHD remove “each” from Condition V.F.1.g, as well as “(Each PEC)” in the title of Table V-F-1. There is only one baghouse for each battery group. (1 Commenter)

RESPONSE: The Department made the requested change.

35. **COMMENT:** On pages 156-157, Conditions V.G.2.d and V.G.2.f need to be removed from the Title V Permit which requires stack testing for NO_x, CO, and VOC for comparison to a new limit. In the

current Title V Permit, the following was required:

Condition V.G.2.c: *The permittee shall perform an evaluation for NO_x on the Battery B combustion stack to develop emission factors that can be applied to quantify NO_x emissions.*

Condition V.G.2.d: *The permittee shall perform emissions tests and evaluations for CO and VOC on the Battery B combustion stack to develop emission factors that can be applied to quantify CO & VOC emissions.*

U.S. Steel complied with these requirements in order to develop emission factors that would be used for air emissions inventory reporting purposes. ACHD has taken only one performance test and inappropriately and unjustly created a new emissions limit without any valid basis and without consideration of the other tests or operational variability – even if there were a basis for the creation of the new limits (which there is not.) The emissions testing was not performed to create new Title V Permit limits. The testing was performed to refine quantification of emissions for inventory reporting. (1 Commenter)

RESPONSE: Please refer to the Response to Comments No. 2 and 21 above.

36. **COMMENT:** On page 170, the newly created NO_x, CO, and VOC emission limits need to be removed from Table V-H-1. In addition to comment No. 2 above, U.S. Steel notes that the PEC baghouses are designed to control particulate matter, not gaseous pollutants. It is inappropriate and unnecessary to add a gaseous emission limit to a control device that controls particulate matter. (1 Commenter)

RESPONSE: The Department made the requested change.

37. **COMMENT:** On page 185, U.S. Steel requests that ACHD separate Coke Oven Battery C combustions stack and PEC stack requirements into separate sections to remove confusion, such that the format is the same as the other Batteries. (1 Commenter)

RESPONSE: The Department made the requested change, under section V.J.

38. **COMMENT:** The Title V Program is developed to streamline existing applicable requirements. Where the Installation Permit process established limits more stringent than those contained in a local or Federal regulation, language needs to be added to indicate that compliance with the more stringent limit ensures compliance with the less stringent standard. The following conditions for C Battery are examples where this language is necessary: (1 Commenter)

- i. Condition V.I.1.f – More stringent than 2105.21.d
- ii. Condition V.I.1.I – More stringent than 2105.21.f
- iii. Condition V.I.1.m – More stringent than 40 CFR 63.63.304(b)(4)

RESPONSE: The Department made the requested change.

39. **COMMENT:** The Department should remove requirements associated with one-time/initial compliance demonstrations for C Battery since those requirements have already been met. This

includes Conditions V.I.1.cc, V.I.1.dd, V.I.1.ee (on page 189) and V.I.5.d on page 204. (1 Commenter)

RESPONSE: The Department made the requested change. However, condition V.I.1.cc remains unchanged because it is not an initial compliance demonstration.

40. **COMMENT:** On page 190, the PM₁₀ limits in TABLE V-I-1 need to be corrected from “17.20” to “17.2” as 17.2 is the existing applicable requirement as stated in the existing Installation Permit. (1 Commenter)

RESPONSE: The Department made the requested change.

41. **COMMENT:** On page 192, Condition V.I.2.a.4).A is missing the equation referenced in the underlying Installation Permit for C Battery. To correct this deficiency, the following information needs to be added back into the Permit: (1 Commenter)

The inspection fee shall be determined according to Equation 3 of 40 CFR Part 63 Subpart L:

F = H x S (Eq. 3)

Where:

F = Fees to be paid by owner or operator.

H = Total person hours for inspections: 4 hours for 1 coke oven battery, 6.25 hours for 2 coke oven batteries, 8.25 hours for 3 coke oven batteries. For more than 3 coke oven batteries use these hours to calculate the appropriate estimate of person hours.

S = Current average hourly rate for private visible emission inspectors in the relevant market.

The enforcement agency may revise the value for H in equation 3 within 3 years after October 27, 1993, to reflect the amount of time actually required to conduct the inspections required under paragraph (a) of this section.

U.S. Steel also requests that this language be incorporated for the other batteries in a consistent manner on pages 57, 90, 124 and 157. As an alternative, U.S. Steel is open to the Department creating “source groups” in which similarly applicable conditions (e.g., MACT) can be grouped.

RESPONSE: The Department made the requested change under Site Level Condition IV.30.

42. **COMMENT:** On page 196, ACHD removed a monitoring requirement that is included in the underlying C Battery Installation Permit and SO₂ Installation Permit. U.S. Steel requests that the following condition be added back into Section V.I.3: (1 Commenter)

Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including as applicable, calibration checks and required zero and span adjustments), the permittee shall continuously monitor and record the H₂S concentration (in grains(gr)/100 dscf) of the COG combusted and the fuel flow rate required in Site Level Condition IV.27.b. Continuously shall be defined as at least once every 15 minutes. [IP 0052-I017, Condition V.A.3.a; §2102.04.b.6; §2103.12.i]

RESPONSE: The monitoring requirements has already been incorporated into section IV, Condition VI.32.c.

43. **COMMENT:** On page 231, Section V.L, the max design rate and capacity for 7A quench tower needs to be revised from “1,507,710” to “1,555,630” tons of coke per year to match the underlying 5A and 7A Installation Permit. (1 Commenter)

RESPONSE: The Department made the requested change.

44. **COMMENT:** On page 232, Condition V.L.1.i, none of the emission limits for Quench Tower 7A match the existing IP, though the existing IP is the basis of the existing applicable requirement and the Department’s review memo states that Quench Tower No. 7A emissions are based on IP 0052-I014. The emission limits need to be corrected to those established in the underlying installation permits as follows noting that the SO₂ hourly limit is found in the SIP SO₂ IP and there is no ton/year limit: (1 Commenter)

Table V-L-1 - Quench Tower 7A Emission Limitations

POLLUTANT	HOURLY EMISSION LIMIT (lb/hr)	ANNUAL EMISSION LIMIT (tons/year) ¹
Particulate Matter (total)	34.71 35.82	152.05 156.88
PM ₁₀	33.85 34.93	148.28 152.99
PM _{2.5}	32.99 34.04	144.51 149.10
Sulfur Dioxides**	7.21	31.58
NO _x	0.39	1.70
Volatile Organic Compounds	24.69 25.48	108.16 111.60

¹A year is defined as any 12 consecutive months.

**SO₂ SIP IP 0052-I017, Condition V.B.1.c.

RESPONSE: The Department made the requested change with the exception of the SO₂ limit which remains unchanged. See response to comment No. 3 above.

45. **COMMENT:** On page 243, Condition V.N.1.e, because there is no basis or existing applicable requirement for the carbon disulfide emission limits in Table V-N-1, these limits need to be removed from the permit. There are no regulations or underlying installation permits requiring compliance with this limit. Furthermore, limits for total reduced sulfur should be revised to 34.0 lb/hr and 148.90 tons per year as these are the values in the installation permit. (1 Commenter)

RESPONSE: The Department made the requested change.

46. **COMMENT:** On page 265, condition V.Q.1.fff, all new limits in Table V-Q-1 as identified in comment No. 2 above need to be removed from the permit as there is no basis or existing applicable requirements for these limits. In addition, the VOC limit requires correction from 58.03 to 68.0 tpy; and the benzene limit requires revision from 2.26 to 54.0 tpy as those are the limits in the current Title V Permit and the Department has not provided any basis or reference to an applicable requirement that requires revision from the limit in the existing Title V Permit. (1 Commenter)

RESPONSE: The Department made the requested change.

47. **COMMENT:** On page 302, the reference to P026 needs to be corrected to P042 in Condition V.Z.3. (1 Commenter)

RESPONSE: The Department made the requested change.

48. **COMMENT:** On page 305, Section V.BB, ACHD should revise the control device description from "Three (3)" to "Two (2)" module. (1 Commenter) The third module is not required and was not installed

RESPONSE: The Department made the requested change.

49. **COMMENT:** On page 305, Section V.BB, and throughout the permit, the reference to "all" in Condition V.BB.1.a (and elsewhere) needs to be removed to clarify that the capture efficiency of baghouses (when referring to particulate matter emissions) is not 100% as the condition could lead one to believe. This requested change should be implemented throughout the Title V Permit. (1 Commenter)

RESPONSE: The Department made the requested change.

50. **COMMENT:** On page 305, U.S. Steel requests that ACHD revise Condition V.BB.1.a.3 to clarify that the baghouse control system will capture PM emissions based on the designed capture efficiency from the manufacturer: (1 Commenter)

*3) The baghouse control system shall capture **all of the particulate matter emissions generated from the screening operation, based on the designed capture efficiency of the system.***

RESPONSE: The Department made the requested change.

51. **COMMENT:** On page 305, U.S. Steel requests that ACHD revise Condition V.BB.1.c to clarify that one module be run, with the other as a spare: (1 Commenter)

*c. The permittee shall only operate **one two** baghouse modules at a time and use the remaining one (1) as a spare. If the permittee wishes to operate **both all the three (3) modules at a time**, the permittee shall contact the Department. [§2103.12.h.6; IP 0052-I013, Condition V.A.1.c]*

RESPONSE: The Department made the requested change.

52. **COMMENT:** On page 306, U.S. Steel requests that Conditions V.BB.2.a and V.BB.2.b be removed because U.S. Steel has also demonstrated compliance with the conditions. These initial conditions have been met and are no longer required. (1 Commenter)

RESPONSE: The Department made the requested change.

53. **COMMENT:** On page 307, U.S. Steel requests that Condition V.BB.3.c be revised to correct "insure" to "ensure." (1 Commenter)

RESPONSE: The Department made the requested change.

54. **COMMENT:** On pages 317 to 330, U.S. Steel requests that ACHD remove Section EE, Crude Tar Processing P044c. The tanks have not been installed. (1 Commenter)

RESPONSE: The Department made the requested change.

55. **COMMENT:** On page 334, U.S. Steel requests that ACHD revise Condition V.GG.2.c by removing the newly proposed requirement to test for CO. Article XXI does not require testing for CO nor has the Department provided any rational basis for the proposed requirement. (1 Commenter)

RESPONSE: Boilers are a significant source of CO emissions and emissions from the boiler exceed more than 100 tons/year; therefore, no change has been made to Condition V.GG.2.c.

56. **COMMENT:** On page 334, U.S. Steel requests that ACHD remove Condition V.GG.2.d as Article XXI does not require testing for VOC and the VOC emissions are well below 100 tons per year threshold for requiring testing in 2108.02.b, nor has the Department provided any rational basis for the proposed requirement. (1 Commenter)

RESPONSE: The Department made the requested change.

57. **COMMENT:** On page 338, U.S. Steel requests that ACHD revise Condition V.HH.2.d by removing the newly proposed requirement to test for CO. Article XXI does not require testing for CO nor has the Department provided any rational basis for the proposed requirement. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 55 above.

58. **COMMENT:** On page 339, U.S. Steel requests that ACHD remove Condition V.HH.2.e as Article XXI does not require testing for VOC, and PM and VOC emissions are well below the 100 tons per year threshold for requiring testing in 2108.02.b, nor has the Department provided any rational basis for the proposed requirement. (1 Commenter)

RESPONSE: The Department agrees that VOC testing is not necessary and has made the requested change but disagrees regarding PM testing and no change has been made for this. Please refer to the Response to Comment No. 55 above.

59. **COMMENT:** On page 343, U.S. Steel requests that ACHD revise Condition V.II.2.a by removing the newly proposed requirement to test for CO. Article XXI does not require testing for CO, nor has the Department provided any rational basis for the proposed requirement. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 55 above.

60. **COMMENT:** On page 352, U.S. Steel requests that ACHD remove Section NN “Coal Storage Piles (E001).” All conditions in this section are new, though the emission source is not new and there are no underlying Installation Permits. The conditions provided in this section are not existing applicable requirements. The coal moisture content limit is a new, unjustified and inappropriate requirement. The Title V permit program was designed as a tool to compile all existing applicable permit requirements

into one operating permit, the Title V Permit, and not to establish new limits and requirements that are not otherwise already included in the existing permits or regulations. (1 Commenter)

RESPONSE: The Department has removed the emissions limit. However, the other requirements remain unchanged. See response to comment No. 2 above.

61. **COMMENT:** On page 353, U.S. Steel requests that ACHD remove Section OO “Coke Storage Pile – Peters Creek (E002).” All conditions in this section are new, though the emission source is not new and there are no underlying Installation Permits and the conditions listed are not existing applicable requirements. The coal moisture content limit is a new, unjustified requirement that is not appropriate since this Section refers to coke storage, not coal. The Title V permit program was designed as a tool to compile all existing applicable permit requirements into one operating permit, the Title V Permit, and not to establish new limits and requirements that are not otherwise already included in the existing permits or regulations. (1 Commenter)

RESPONSE: Please refer to the Response to Comments No. 2 and 60 above.

62. **COMMENT:** On page 354, U.S. Steel requests that ACHD remove Section “PP Coke Storage Pile – South Yard (E003).” All conditions in this section are new, though the emission source is not new and there are no underlying Installation Permits and the conditions listed are not existing applicable requirements. The coal moisture content limit is a new, unjustified requirement that is not appropriate since this Section refers to coke storage, not coal. The Title V permit program was designed as a tool to compile all existing applicable permit requirements into one operating permit, the Title V Permit, and not to establish new limits and requirements that are not otherwise already included in the existing permits or regulations. (1 Commenter)

RESPONSE: Please refer to the Response to Comments No. 2 and 60 above.

63. **COMMENT:** On page 355, U.S. Steel requests that ACHD remove Section QQ “Roadways and Vehicular Traffic (F001).” All conditions in this section are new, though the emission source is not new and there are no underlying Installation Permits and the conditions listed are not existing applicable requirements. ACHD has not provided justification for the new requirement to maintain vehicle speed below 10 mph, so this requirement should be removed along with the rest of the Section. The Title V permit program was designed as a tool to compile all existing applicable permit requirements into one operating permit, the Title V Permit, and not to establish new limits and requirements that are not otherwise already included in the existing permits or regulations. (1 Commenter)

RESPONSE: The Department has removed the emissions limits. However, the work practice requirements remain unchanged. See response to comment No. 2 above.

64. **COMMENT:** On page 359, Section VIII, U.S. Steel requests that ACHD remove “Limitations” from the header and corresponding table: (1 Commenter)

VIII. EMISSIONS LIMITATIONS SUMMARY

The following table summarizes the estimated annual maximum potential emissions (including fugitive) from the U.S. Steel Mon Valley Works - Clairton Plant. These annual (consecutive 12 month) emission estimates assume that all sources operate continuously at their maximum capacity.

TABLE VIII-1 – Permit Emission Limitations Summary

POLLUTANT	ANNUAL EMISSION LIMIT (tons/year)*
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RESPONSE: The requested changes cannot be made because the limit/limitations accurately reflect the emissions limits calculated for the facility. It also specified the potential emissions that the source shall not exceed, and any excursion beyond the specified limits triggers mandatory corrective action to restore compliance.

65. **COMMENT:** On pages 1-2 of the Technical Support Document, ACHD lists the various changes that ACHD made to the Title V Permit. U.S. Steel specifically notes that the list of changes according to ACHD does not include the creation of approximately 320 new emission limits that were not previously included in the existing Title V Operating Permit, nor any underlying installation permits or regulations. Those changes, as described above in general comments are inconsistent with the Clean Air Act, EPA’s Title V Permit Program and Article XXI Operating Permit requirements; therefore, U.S. Steel is requesting that the unjustified emission limits be removed from the Title V Operating Permit, as well as the review memo. (1 Commenter)

RESPONSE: Please refer to the Response to Comments No. 1 and 2 above.

66. **COMMENT:** On page 5 of the Technical Support Document, U.S. Steel requests that ACHD remove P044c from the table since the tar tanks were not installed.

RESPONSE: The Department made the requested change.

67. **COMMENT:** Starting on page 10 of the Technical Support Document, ACHD includes tables with existing, and unjustly revised or newly created emission limits. These tables contain significantly more emission limits than are currently applicable to the Clairton Plant; or are more stringent than the existing limits that are applicable requirements. In addition, on page 10 of the review memo, ACHD includes benzene, hexane, H₂S, ammonia, and HCl emission limits for Battery Combustion Stack 1, but they are not in the proposed Title V Permit and should therefore be removed. Consistent with EPA policies and the ACHD permitting process, the emission calculation spreadsheet included as part of the application was put together based on best available data (limited stack test, EPA based emission factors, etc.) and was not intended to be used to set new limits (as the Title V permit is a tool to put all existing applicable requirements into one operating permit – not to establish new limits and requirements that are not otherwise required). As described in the footnotes, several of the emission limits are derived from one historical stack test, which is not appropriate to set a new emission limit. U.S. Steel is requesting that the new, revised, and otherwise unjustified emission limits and requirements be removed from all emission limit tables starting on page 10 of the review memo. (1 Commenter)

RESPONSE: The Department made the requested change to the benzene, hexane, H₂S, ammonia, and HCl emission limits. The rest of the table remains unchanged. See response to comment No. 2 above.

68. **COMMENT:** On pages 11, 12, 16, and 17 of the Technical Support Document, PM₁₀ and PM_{2.5} should be revised to equal PM, as noted in our general comments above. ACHD should not rely on one outdated particle size distribution analysis to revise the PM₁₀ and PM_{2.5} emission limits. (1 Commenter)

RESPONSE: Please refer to the Response to Comment 4 above.

69. **COMMENT:** On page 16 of the Technical Support Document, the PM limit should be revised from 25.20 to 25.2 lb/hr and 110.20 to 110.2 tpy to be consistent with the limits in the current Title V Permit. (1 Commenter)

RESPONSE: The Department made the requested change.

70. **COMMENT:** On page 17 of the Technical Support Document, the PM limit should be revised from 13.40 to 13.4 lb/hr and 58.50 to 58.5 tpy to be consistent with the limits in the current Title V Permit. (1 Commenter)

RESPONSE: The Department made the requested change

71. **COMMENTCOMMENT:** On page 19 of the Technical Support Document, the PM₁₀ limit should be revised from 17.20 to 17.2 lb/hr to be consistent with the limit in the current Title V Permit. (1 Commenter)

RESPONSE: The Department made the requested change.

72. **COMMENT:** On page 22 of the Technical Support Document, U.S. Steel requests that the new NO_x, CO, and VOC emission limits be removed from the table as discussed in comments No. 2 and 67 above. Also, the PEC baghouses are designed to control particulate matter, not gaseous pollutants. It is unnecessary to add a gaseous emission limit to a control device that controls particulate matter. If ACHD wants to include approximate total ton values for gaseous pollutants, this process could be included in the review memo for informational purposes. The proposed SO₂ tpy limit does not match the proposed limit in the Title V, but it should be removed regardless since the SO₂ SIP IP contains only lb/hr SO₂ limits. Further, the SO₂ footnote should be revised by removing the statement: "The limits are combined for all the three (3) PEC baghouses." There is only one baghouse system for 1-3 PEC. (1 Commenter)

RESPONSE: The SO₂ tons/yr limit was corrected to be consistent with the Title V permit limit. However, the gaseous emission limits will remain in the technical support document. See Response to Comment No. 2 above.

73. **COMMENT:** On page 23 of the Technical Support Document, U.S. Steel requests that the new NO_x, CO, and VOC emission limits be removed from both tables as discussed in comments No. 2 and 67 above. Furthermore, the PEC baghouses are designed to control particulate matter, not gaseous pollutants. It is unnecessary to add a gaseous emission limit to a control device that controls particulate matter. If ACHD wants to include approximate total ton values for gaseous pollutants, this process could be included in the review memo for informational purposes. The proposed SO₂ tpy limit should be removed since the SO₂ SIP IP contains only lb/hr SO₂ limits. Further, the SO₂ footnotes should be revised by removing the statements: "The limits are combined for all the three (3) PEC baghouses" and

“The limits are for both PEC baghouses.” There is only one baghouse system each for 13-15 PEC, and 19-20 PEC. (1 Commenter)

RESPONSE: Please refer to the Response to Comments No. 2 and 3 above. The gaseous emission limits will remain in the technical support document.

74. **COMMENT:** On page 24 of the Technical Support Document, U.S. Steel requests that the total reduced sulfur limits be corrected from 0.007 to 0.3 lb/hr and 0.029 to 1.3 tpy to match the limits in the proposed Title V Permit. (1 Commenter)

RESPONSE: The Department made the requested change.

75. **COMMENT:** On page 25 of the Technical Support Document, all newly created emission limits for Quench Tower No. 1 should be removed. The only applicable emission limit should be the SO₂ lb/hr limit based on the SO₂ SIP IP. The Title V permit program was designed as a tool to compile all existing applicable permit requirements into one operating permit, the Title V Permit, and not to establish new limits and requirements that are not otherwise already included in the existing permits. (1 Commenter)

RESPONSE: The Department believes that Quench Tower 1 should have the gaseous emissions limit listed to be consistent with the primary quench towers 5A and 7A.

76. **COMMENT:** On page 26 of the Technical Support Document, all newly created emission limits for Quench Tower No. 5 should be removed. The Title V permit program was designed as a tool to compile all existing applicable permit requirements into one operating permit, the Title V Permit, and not to establish new limits and requirements that are not otherwise already included in the existing permits. (1 Commenter)

RESPONSE: The Department believes that the Quench Tower 5 should have the gaseous emissions limit listed to be consistent with the primary quench towers 5A and 7A.

77. **COMMENT:** On page 26 of the Technical Support Document, none of the emission limits for Quench Tower 7A match the existing IP, although ACHD’s review memo asserts that the Quench Tower No. 7A emissions are based on IP 0052-I014. U.S. Steel requests that ACHD revise these emission limits to those that are in the underlying IPs which are existing applicable requirements: (1 Commenter)

Quench Tower 7A Emission Limitations

POLLUTANT	HOURLY EMISSION LIMIT (lb/hr)	ANNUAL EMISSION LIMIT (tons/year)¹
Particulate Matter (total)	34.71 35.82	152.05 156.88
PM ₁₀	33.85 34.93	148.28 152.99
PM _{2.5}	32.99 34.04	144.51 149.10
Sulfur Dioxides**	7.21	31.58
NO _x	0.39	1.70
Volatile Organic Compounds	24.69 25.48	108.16 111.60

¹A year is defined as any 12 consecutive months.

**SO₂ SIP IP 0052-I017, Condition V.B.1.c.

RESPONSE: The Department made the requested change.

78. **COMMENT:** On page 27 of the Technical Support Document, all newly created emission limits for Quench Tower No. 7 should be removed. (1 Commenter)

RESPONSE: The Department believes that the quench tower 7 should have the gaseous emissions limit listed to be consistent with the primary quench towers 5A and 7A.

79. **COMMENT:** On page 27 of the Technical Support Document, all newly created emission limits for B Quench Tower should be removed. The only applicable emission limit is the SO₂ lb/hr limit based on the SO₂ SIP IP. (1 Commenter)

RESPONSE: The Department believes that quench tower B emission limits should be incorporated into the permit and TSD to be consistent with the quench towers 5A, 7A and C. Please refer to the Response to Comments No. 2 and 3 above.

80. **COMMENT:** On page 28 of the Technical Support Document, U.S. Steel requests that ACHD remove the carbon disulfide emission limits from the table, as these limits are not in the underlying Installation Permit. Furthermore, limits for total reduced sulfur should be revised to 34.0 lb/hr and 148.90 tons per year in order to match the underlying Installation Permit emission limits. (1 Commenter)

RESPONSE: The Department made the requested change.

81. **COMMENT:** On pages 28 through 30 of the Technical Support Document, U.S. Steel requests that ACHD remove the SO₂ limits and corresponding footnotes under each Table for each specified Boiler. ACHD incorrectly calculated the SO₂ limits in the review memo but correctly cited the SO₂ SIP IP Boiler aggregate SO₂ limit in Site Level Condition IV.32.f of the proposed Title V Operating Permit. These Boilers do not have separate SO₂ limits. The existing applicable requirement for SO₂ limits, which are part of SO₂ SIP are as follows: (1 Commenter)

SO₂ emissions from B001, B002, B005, B006, B007, and B008 shall not exceed the following limitations (SO₂ SIP IP 0052-I017, Condition V.A.1.b):

SO₂ Emission Limitations for the Boilers

30 day rolling*** average limit (lb/hr)*	Supplementary*** 24-hr Limit* (lb/hr)
118.44	134.06

*Limits are based on a rolling 30-day average of 24-hour (calendar day) averages, with an additional restriction of no more than 3 consecutive days above a supplementary 24-hour limit. These limits are based on ACHD's SO₂ State Implementation Plan (SIP) Permit Revision and USEPA SO₂ Guidance dated September 14, 2017.

**Tons/year value is used to demonstrate the expected tons/year from this unit. The value is derived by converting the 30-day rolling average limit lb/hr to an annual tons per year value. These limits are based on ACHD's SO₂ State Implementation Plan (SIP) Permit Revision and USEPA SO₂ Guidance dated September 14, 2017.

***Emission limits are on an aggregate basis

RESPONSE: The Department made the requested change.

82. **COMMENT:** On page 30 of the Technical Support Document, as previously discussed, all new created limits for the SCOT Plant should be removed from the table, and the SO₂ lb/hr limit should be revised from 24.00 to 24 lb/hr as it is provided as an existing applicable requirement. (1 Commenter)

RESPONSE: The Department made the requested change.

83. **COMMENT:** On page 31 of the Technical Support Document, U.S. Steel requests that ACHD remove all newly created limits for the Coke By- Products Recovery Plant as explained in our general comments above. In addition, the Department needs to revise the VOC limit from 58.03 to 68.0 tpy; and the benzene limit from 2.26 to 54.0 tpy as provided in the existing underlying applicable requirements. (1 Commenter)

RESPONSE: The Department made the requested change.

84. **COMMENT:** On pages 32-33 of the Technical Support Document, U.S. Steel requests that ACHD remove all newly created emission limits for the Keystone Cooling Tower and various coal and coke storage piles. The Title V permit program was designed as a tool to compile all existing applicable permit requirements into one operating permit, the Title V Permit, and not to establish new limits and requirements that are not otherwise already included in the existing permits. (1 Commenter)

RESPONSE: The limits have been removed from the permit.

85. **COMMENT:** On page 35 of the Technical Support Document, under Section 5.0 Testing Requirements, U.S. Steel requests that ACHD remove the 2-year testing requirements for NO_x and CO from the Coke Battery Combustion Stacks, and CO from the Boilers. The emissions testing was not intended to set a new Title V Permit limit with corresponding stack testing requirements for NO_x and CO. It was intended to refine quantification of emissions for inventory reporting. Article XXI does not require that NO_x and CO be tested, see 2108.02.b. The Department has not provided any rational basis for the proposed testing or the frequency of the proposed testing. (1 Commenter)

RESPONSE: NO_x and CO emissions from the coke battery combustion stacks and boilers are greater than 100 ton/yr. Facilities with potential to emit greater than 100 tons/yr of any criteria pollutants is required to conduct biennial stack test. Please refer to the Response to Comments No. 1 and 2 above.

86. **COMMENT:** U.S. Steel and the Allegheny County Health Department entered into Settlement Agreement and Order # 19060 on June 27, 2019, thereby resolving three Enforcement Orders and one Administrative Order issued by ACHD against U.S. Steel over the year prior thereto. Alleged violations in those Orders collectively occurred between the third quarter of 2017 and the first quarter of 2019 and covered various issues at the Facility, and the Clairton Works has failed to comply more or less continuously with a number of its permit limits on visible emissions from door areas as well as permit limits on visible emissions during charging, soaking, pushing, and travelling. This continuing and ongoing noncompliance is evidenced by ACHD's "Demands for Stipulated Penalties Under Settlement Agreement and Order #190604 Section IX. Stipulated Penalties," dated January 14, 2020; May 28, 2020; March 12, 2021; June 4, 2021, and March 2, 2022, as well as ACHD's Enforcement Order #220302, for exceedances of Pennsylvania's state ambient air quality standard for hydrogen sulfide that the Facility caused. Further, ACHD's website states that U.S. Steel continues to be "non-compliant" with the terms of its existing Title V Operating Permit.

ACHD must incorporate a "compliance schedule," which identifies "remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at the term of the permit issuance as required by Article XXI sections 2103.11 and 2103.12 as well as 40 C.F.R. §§ 70.5(c)(8)(iii)(C) and 70.6(c)(3). (1 Commenter)

RESPONSE: The Settlement Agreement and Order #19060 dated June 27, 2019, amended on February 5, 2020, and August 25, 2021, has been incorporated into the permit by reference to resolve the facility's outstanding compliance issues and includes a compliance schedule. The Department will continue to work with the facility to comply with the enforcement orders and the permit conditions to reduce emissions and bring the source into compliance. The Department reserves the right to pursue a rulemaking to impose more stringent limits on the coke batteries, if the more stringent limits are determined to be technically feasible, provided that any more stringent emission standards are achievable and maintainable.

87. **COMMENT:** The required compliance schedule identified in comment No. 86 above must "resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based." While recent evidence of continuing and ongoing noncompliance abounds (discussed *supra*), noncompliance with air quality regulations and subsequent litigation or administrative action involving the Clairton Works extends back decades, from the Commonwealth of Pennsylvania and County of Allegheny joint complaint filed in February 1972 alleging violations of state air pollution laws to the consent judgement dated March 24, 2016

Given the size and complexity of this facility, and in light of the vast history of noncompliance at the facility, ACHD and U.S. EPA must undertake a comprehensive review of compliance matters at the Clairton Works before drafting the required compliance schedule. (1 Commenter)

RESPONSE: The permit contains limits, methods, monitoring, recordkeeping, and reporting requirements and the facility is required to comply with all the applicable requirements in the permit and Article XXI even if not directly cited in the permit. Condition V.III.1 states, “It shall be a violation of this permit to fail to comply with any Requirement of this permit or Article XXI.” Article XXI mandates that all sources operate in compliance with applicable NESHAP of which Part 63, Subpart CCCCC are included. All violations or deviations from the permit requirements result in penalties and enforcement order and the Department will work with the facility to correct any violations whenever it is identified. Please refer to the Response to Comment 86 above.

88. **COMMENT:** The Draft Permit establishes hourly and annual limits for emissions of PM, PM₁₀, and PM_{2.5} from the Facility’s No. 1 and No. 2 Continuous Barge Unloaders. However, the only monitoring required for these sources is a once-per-year observation of visible emissions. Because visible emissions are not the same thing as emissions of PM, PM₁₀, or PM_{2.5}, it is not at all apparent how such infrequent monitoring of visible emissions could assure compliance with hourly and annual limits on PM, PM₁₀, and PM_{2.5} emissions. Accordingly, the Department must revise the Permit to incorporate monitoring requirements that are sufficient to assure compliance with the Permit’s limits on emissions of PM, PM₁₀, and PM_{2.5} from the No. 1 and No. 2 Continuous Barge Unloaders. If those emission limits are derived from emission factors (based, for example, on tons of coal throughput), the Department should revise the Draft Permit to require the Facility to keep records that may be used to assure compliance with each of the emission limits, and to report the content of those records. (1 Commenter)

RESPONSE: The Department has removed the emissions limit from the permit because it is fugitive and insignificant and was erroneously incorporated into the permit. The unloaders have no compliance issue with the opacity limits and the Department reserves the right to require frequent visible emission observation sufficient to assure compliance with the terms and conditions of the permit.

89. **COMMENT:** The Draft Permit establishes hourly and annual limits for emissions of PM, PM₁₀, and PM_{2.5} from the Facility’s Pedestal Crane Unloader. However, the only monitoring required for this source is a once-per-year observation of visible emissions. Because visible emissions are not the same thing as emissions of PM, PM₁₀, and PM_{2.5}, it is not at all apparent how such infrequent monitoring of visible emissions could assure compliance with hourly and annual limits on PM, PM₁₀, and PM_{2.5} emissions. Accordingly, the Department must revise the Draft Permit to incorporate monitoring requirements that are sufficient to assure compliance with the Permit’s limits on emissions of PM, PM₁₀, and PM_{2.5} from the Pedestal Crane Unloader. If those emission limits are derived from emission factors (based, for example, on tons of coal throughput), the Department should revise the Permit to require the Facility to keep records that may be used to assure compliance with each of the emission limits, and to report the content of those records. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 88 above.

90. **COMMENT:** The Draft Permit establishes hourly and annual limits for emissions of PM, PM₁₀, and PM_{2.5} from the Facility’s Coal Transfer Process. However, the only monitoring required for this source is a once-per-year observation of visible emissions. Because visible emissions are not the same thing as emissions of PM, PM₁₀, and PM_{2.5}, it is not at all apparent how such infrequent monitoring of visible emissions could assure compliance with hourly and annual limits on PM, PM₁₀, and PM_{2.5} emissions. Accordingly, the Department must revise the Permit to incorporate monitoring requirements that are sufficient to assure compliance with the Permit’s limits on emissions of PM, PM₁₀, and PM_{2.5} from the

Coal Transfer Process. If those emission limits are derived from emission factors (based, for example, on tons of coal throughput), the Department should revise the Draft Permit to require the Facility to keep records that may be used to assure compliance with each of the emission limits, and to report the content of those records. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 88 above.

91. **COMMENT:** The Draft Permit establishes hourly and annual limits for emissions of PM, PM₁₀, and PM_{2.5} from the Facility's Surge Bins and Bunkers. However, the only monitoring required for this source is a once-per-year observation of visible emissions. Because visible emissions are not the same thing as emissions of PM, PM₁₀, and PM_{2.5}, it is not at all apparent how such infrequent monitoring of visible emissions could assure compliance with hourly and annual limits on PM, PM₁₀, and PM_{2.5} emissions. Accordingly, the Department must revise the Draft Permit to incorporate monitoring requirements that are sufficient to assure compliance with the Permit's limits on emissions of PM, PM₁₀, and PM_{2.5} from the Surge Bins and Bunkers. If those emission limits are derived from emission factors (based, for example, on tons of pulverized coal throughput), the Department should revise the Permit to require the Facility to keep records that may be used to assure compliance with each of the emission limits, and to report the content of those records. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 88 above.

92. **COMMENT:** The Draft Permit establishes hourly and annual limits for emissions of PM, PM₁₀, and PM_{2.5} from the Facility's Coke Transfer Process, which includes two sources. However, the only monitoring required for these sources is a once-per-year observation of visible emissions. Because visible emissions are not the same thing as emissions of PM, PM₁₀, and PM_{2.5}, it is not at all apparent how such infrequent monitoring of visible emissions could assure compliance with hourly and annual limits on PM, PM₁₀, and PM_{2.5} emissions. Accordingly, the Department must revise the Permit to incorporate monitoring requirements that are sufficient to assure compliance with the Permit's limits on emissions of PM, PM₁₀, and PM_{2.5} from the Coke Transfer Process. If those emission limits are derived from emission factors (based, for example, on tons of metallurgical coke throughput), the Department should revise the Permit to require the Facility to keep records that may be used to assure compliance with each of the emission limits, and to report the content of those records. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 88 above.

93. **COMMENT:** The Draft Permit establishes hourly and annual limits for emissions of PM and PM₁₀ from the Facility's No. 1 and No. 2 Coke Screening Stations. However, the only monitoring required for this source is a once-per-year observation of visible emissions.³¹ Because visible emissions are not the same thing as emissions of PM or PM₁₀ it is not at all apparent how such infrequent monitoring of visible emissions could assure compliance with hourly and annual limits on PM and PM₁₀ emissions. Accordingly, the Department must revise the Permit to incorporate monitoring requirements that are sufficient to assure compliance with the Permit's limits on emissions of PM and PM₁₀ from the No. 1 and No. 2 Coke Screening Stations. If those emission limits are derived from emission factors (based, for example, on tons of metallurgical coke throughput), the Department should revise the Draft Permit to require the Facility to keep records that may be used to assure compliance with each of the emission limits, and to report the content of those records. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 88 above.

94. **COMMENT:** The Draft Permit establishes hourly and annual limits for emissions of PM and PM₁₀ from the Facility's Coal and Coke Recycle Screening Process. However, the only monitoring required for this source is a monthly observation of visible emissions. Because visible emissions are not the same thing as emissions of PM and PM₁₀, it is not at all apparent how such infrequent monitoring of visible emissions could assure compliance with hourly and annual limits on PM and PM₁₀ emissions. Accordingly, the Department must revise the Permit to incorporate monitoring requirements that are sufficient to assure compliance with the Permit's limits on emissions of PM and PM₁₀ from the Coal and Coke Recycle Screening Process. If those emission limits are derived from emission factors (based, for example, on tons of coal and metallurgical coke throughput), the Department should revise the Permit to require the Facility to keep records that may be used to assure compliance with each of the emission limits, and to report the content of those records. (1 Commenter)

RESPONSE: The Department has removed the emissions limit from the permit because it is fugitive and was erroneously incorporated into the permit. The screener has no compliance issue with the opacity limits and the Department reserves the right to require frequent visible emission observation sufficient to assure compliance with the terms and conditions of the permit.

95. **COMMENT:** The Draft Permit establishes hourly and annual limits for emissions of PM and PM₁₀ from the Facility's Peters Creek Coke Screening Process. However, the only monitoring required for this source is a monthly observation of visible emissions. Because visible emissions are not the same thing as emissions of PM and PM₁₀, it is not at all apparent how such infrequent monitoring of visible emissions could assure compliance with hourly and annual limits on PM and PM₁₀ emissions. Accordingly, the Department must revise the Permit to incorporate monitoring requirements that are sufficient to assure compliance with the Permit's limits on emissions of PM and PM₁₀ from the Peters Creek Coke Screening Process. If those emission limits are derived from emission factors (based, for example, on tons of metallurgical coke throughput), the Department should revise the Permit to require the Facility to keep records that may be used to assure compliance with each of the emission limits, and to report the content of those records. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 94 above.

96. **COMMENT:** Pennsylvania ambient air quality standards "establish the maximum concentrations of air contaminants which will be permitted to exist in the ambient air, at the point of its use, under various conditions and in various areas of this Commonwealth and to provide standards against which existing air quality may be compared. The "maximum value that may not be exceeded" for hydrogen sulfide (H₂S) averaged over 24 hours is 0.005 parts per million (ppm). This standard has been in place since October 1969.

Hydrogen sulfide levels measured by the ACHD air quality monitor in Liberty Borough ("Liberty monitor") have exceeded the Pennsylvania 24-hour average H₂S ambient air quality standard dozens of times per year for at least the past 30 years. Over a more limited timeframe, in ACHD's Enforcement Order # 220302, the Department "determined that during the period January 1, 2020 through March 1, 2022, emissions from U.S. Steel's Clairton Coke Plant caused exceedances of the [Pennsylvania] H₂S ambient air concentration standard of 0.005 parts per million by volume-dry (ppm) averaged over a 24-hour period at the Liberty Monitor," in violation of 25 Pa. Code § 131.3 and Article XXI § 2101.10.

Although the Enforcement Order covers a discrete period of time, the findings therein of no other significant sources of H₂S in the vicinity of the Liberty monitor and the overwhelming annual emissions of H₂S from the Clairton Works strongly suggest H₂S emissions from the Facility – at the very least – will cause or contribute to ongoing exceedances of the state’s 24- hour average H₂S air quality standard at the Liberty monitor.

As an unresolved and ongoing noncompliance matter, corrective measures to prevent additional exceedances of the state standard should be addressed in the Draft Permit’s compliance schedule (discussed *supra*). In addition, ACHD must demand from U.S. Steel revisions to its Permit application and/or revise the Draft Permit to include limits on H₂S emissions sufficient to guarantee compliance with Pennsylvania ambient air quality standards for H₂S. (1 Commenter)

RESPONSE: Enforcement Order # 220302 dated March 7, 2022 was issued to take legal action against the facility for the exceedance of H₂S ambient air concentration standard and to bring the facility into compliance with the ambient standards. In addition, the Title V operating permit contains requirements from the Part 63 NESHAP Subpart L for Coke Oven batteries and Subpart CCCCC for coke ovens that requires the facility to reduce fugitive emissions from coke oven doors, topside port lid and offtake systems and soaking which is among the source of H₂S emissions. Article XXI also mandates the facility to limit visible emissions from the coke oven batteries operation. The Department has Method 303 certified inspectors at the facility at all times to monitor and ensure compliance with the terms and conditions of the NESHAP, Article XXI and operating permit conditions. Any deviation from the required operation and noncompliance warrant enforcement and or fine.

97. **COMMENT:** In an Allegheny County Board of Health meeting on November 4, 2020, it was stated by the ACHD Air Quality staff that the past standard of the concentration of sulfur compounds in coke oven gas of 35 grains per hundred dry standard cubic feet of coke oven gas was calculated in error. It was noted in the meeting minutes that “The current plant wide standard is 35 grains, but the correct plant wide standard should be 23 grains” (referring in both cases to grains of sulfur compounds per hundred dry standard cubic feet of coke oven gas). The plant wide standard was corrected through weighting of the production capacity of the various coke oven batteries at the Clairton Plant.

ACHD cannot ignore this material error in Part 32 of Section IV of the proposed Permit and must correct it by updating the “35 grains of sulfur compounds per hundred dry standard cubic feet of coke oven gas” to “23 grains of sulfur compounds per hundred dry standard cubic feet of coke oven gas.”

RESPONSE: The rule making, or revision process is long and complex and there is currently no timeline on when the Article XXI, Section §2105.21- Coke Oven and Coke Oven Gas regulations revision process will be finalized, therefore the Department believes that the condition should remain as it is in the permit and amend the permit whenever the final rule is published. In addition, the facility is required to comply with all the applicable requirements in the permit and Article XXI even if not directly cited in the permit

98. **COMMENT:** The proposed Title V Permit should be amended to include a proper Episode Mitigation Plan under ACHD’s Mon Valley Air Pollution Episode Rule (“Episode Rule”), Article XXI §2106.06, was passed by Allegheny County Council and signed by the County Executive. The Episode Rule requires that subject facilities submit to the ACHD a Mon Valley Air Pollution Mitigation Plan (“Episode Mitigation Plan”) to reduce PM_{2.5} and PM₁₀ emissions to be implemented during the Mon

Valley Air Pollution Watch and Warning Phases. The Episode Mitigation Plan must include procedures to ensure that the source is operating in a manner consistent with good engineering practice and all air pollution control equipment is maintained in good working condition. The Episode Mitigation Plan is also required to include procedures for record keeping and reporting and procedures to ensure that the source has sufficient staff and resources available to implement the Mon Valley Air Pollution Warning Phase within 24 hours of the ACHD's notification to the source of a Mon Valley Air Pollution Watch or Warning. (1 Commenter)

RESPONSE: Condition IV.27 was revised to cite Article XXI, §2106.01, which encompasses all required episode plans, including the Mon Valley Air Pollution Mitigation Plan in §2106.06.

99. **COMMENT:** ACHD should amend the proposed Permit to include additional measures and a plan for compliance per Section 2103.12.a.3.d of Article XXI to ensure the Clairton Plant does not create a significant pollution event in the case of failure of the Plant's pollution control equipment or other circumstance of repeated violations. U.S. Steel has been found to be in violation of battery emissions limits at the Clairton Plant over the past several years, including 2017 and 2018. These multiple emissions violations led the ACHD to bring a major enforcement action against U.S. Steel which resulted in the ACHD and U.S. Steel entering into a settlement agreement in 2019, and the proposed Permit should be amended to include compliance schedules and plans for repeated and continuing violations whether they are addressed in the 2019 settlement agreement between U.S. Steel and ACHD or not.

As a fundamental measure, the proposed Permit should include any compliance schedules and plans established in the 2019 settlement including hot-idling or otherwise halting or slowing of operations of an oven, battery, or the entire Clairton Plant if ongoing compliance issues exist indicating that pollution control measures are ineffective, wholly broken down, or offline for whatever reason (i.e., fire, malfunction, equipment failure). The violations at the Clairton Plant have been frequently related to equipment failures and lack of proper maintenance and best practices to ensure emission requirements are met. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 86 above.

100. **COMMENT:** A significant omission from the proposed Permit is a functional real-time Continuous Emission Monitoring System (CEMS) for pollutants for which the Clairton Plant repeatedly or continuously exceeds the emission limits. The ACHD should require CEMS as part of a compliance schedule and plan per Section 2103.12.a.3.d of Article XXI to ensure the ACHD and the public have real-time information about violations at the Clairton Plant.

The 2018 fire incident is a clear example of why the draft Permit needs to include a compliance schedule and plan for provisions for real-time monitoring of plant emissions and the simultaneous transmission of the monitoring data to the ACHD. Therefore, per Section 2103.12.a.3.d of Article XXI, the proposed Permit should be amended to include mandatory a CEMS of coke oven gas, NO_x, particulate matter, volatile organic compounds, and carbon monoxide to be available in real-time to the ACHD and the public.

RESPONSE: Permitted sources in the county that have equipment or processes with the potential to emit over 100 tons or more of any criteria pollutant are required to perform emissions testing at least

every two years on that equipment or process to assure compliance with the terms and conditions of the permit and a properly operated source should not be above the maximum potential to emit. Requiring a CEM for a process/pollutant where emissions are known to be low is practically infeasible. In addition, it would require an enforcement order to require installation of a new CEM and cannot be done through the permit renewal process.

101. **COMMENT:** As an additional measure to address multiple and repeated violations at the Clairton Plant, the proposed Permit should identify and set the date at which Batteries 1, 2, and 3 will be permanently closed and taken out of operation. The permanent shuttering of Batteries 1, 2, and 3 at the Clairton Plant is a planned event that USS has already committed to through public announcement on April 30, 2021. According to news sources, U.S. Steel plans to close these batteries “by the first quarter of 2023. The closing of Batteries 1, 2, and 3 will impact overall Plant emissions because the Batteries are 70 years old and the least efficient and highest sources of pollution of the ten batteries at the Clairton Plant due to their age and limited technology. In addition, the shutting down will also provide certainty, enforceable terms, and transparency to the public regarding this important pollution reducing measure.

RESPONSE: The permit has been revised to include Permit Condition IV.34 which requires the permanent shutdown of Batteries 1, 2 and 3 by June 1, 2023.

102. **COMMENT:** The Department should revise its approach to public participation for Title V permits by adopting more generous comment periods and posting all relevant documents in advance, to avoid problems similar to those experienced with respect to the Draft Permit. According to 40 C.F.R. §70.7(a)(1)(ii), an application for a Title V permit may not be granted if the permitting authority has not complied with the requirements for public participation.

Failure to meet the public participation requirement is also grounds for a petition for objections to the Administrator of the Environmental Protection Agency. *See* 40 C.F.R. §70.12(a)(2)(iv) (“If the petition claims that the permitting authority did not provide for a public participation procedure required under § 70.7(h), the petition must identify specifically the required public participation procedure that was not provided”).

It is also a ground for withdrawal of the Title V program. *See id.*, 40 C.F.R. §70.10(c)(2)(C)) (“Criteria for withdrawal of State programs Failure to comply with the public participation requirements of § 70.7(h) of this part”)

Commenters and nine other organizations made a request for an extension of the public comment for an additional 30 days, from February 28, 2022 to March 30, 2021. This was denied.

Key documents should be made available at the time of the notice of the draft permit. There is no reason not to pre-screen vital documents and make them available in advance. This would make it less likely for people to make requests for extensions of time and records requests, using up precious time during the public comment period. The Department should revise its procedures accordingly (1 Commenter)

RESPONSE: 40 C.F.R. §70.7.h.4 states; The permitting authority shall provide at least 30 days for public comment and shall give notice of any public hearing at least 30 days in advance of the hearing.

Occasionally, the public comment period has been in excess of thirty (30) days when the last day of the public comment period fell on the weekend or there was a holiday during that time, such as Thanksgiving or Christmas. Such an extension has always been at the Department's reasonable discretion. In this case, the draft permit was advertised for public comment on January 13, 2022, and the Department extended the public comment period until March 15, 2022 for a total of sixty (60) days.

The application was advertised as received in the Pittsburgh Post-Gazette on December 13, 2016, in accordance with Article XXI, §2103.11.g. The application as well as most of the documents cited in the draft Technical Support Document have been available for public review since that time.

103. **COMMENT:** Under federal regulations, an applicant is required to submit a timely and complete application for renewal of a Title V permit. *See* 40 C.F.R. §70.5(a) (“[f]or each part 70 source, the owner or operator shall submit a timely and complete permit application in accordance with this section”). There is also an affirmative duty to supplement an application, even if not requested by the state air permitting agency.

The application was not complete even at the time of its submission in 2016, relying on outdated emissions data from old stack tests. Emissions data in the 2016 application were very outdated, even at the time of its submission to the Department. The data are from 2000, 2003, 2006, 2007, 2008, 2011, 2012, and 2014. In some instances, the facility appropriated values from other facilities operated by other companies (the Burns Harbor and ABC Coke facilities in Indiana and Alabama) to adopt emissions factors for its coke batteries -- and took an average of those values, at that. There are numerous flaws in the application that render it incomplete, and does not address several changes at the facility after 2016, which affect the determination of the nature and extent of air emissions (1 Commenter)

RESPONSE: U.S. Steel submitted the application in 2016 and the Department believes that the facility should and would use the available information at the time to develop emissions limit. Some stack tests were required with the express purpose of developing emission factors and/or emissions limits. Where appropriate, those limits were incorporated into the operating permit. Subsequent stack tests were required to demonstrate compliance with the established limits, not to adjust those limits. There are no applicable regulations or orders that require those limits to be adjusted based on new test data.

During the 2012 operating permit process, the Department asked U.S. Steel to develop emission factors for NO_x, CO and VOC through stack testing. The 2014 stack test results were used to estimate limits and subsequent testing has shown compliance with the limits. CO and VOC for Batteries 13 & 14 were last tested on April 2, 2012. NO_x was tested in 2020 and the results are not applicable to normal operation, as the battery was on a 36-hr coking cycle during the test. Therefore, the stack test results used are up to date.

The October 16-17, 2014 stack test result used to estimate the Battery 13 PM condensable is accurate. The 2019 stack test result was significantly lower at 3.5 lb/mmcf compared to 6.34 lb/mmcf for 2014. However, the 2016 result was higher at 10.1 lb/mmcf. Therefore, it is reasonable in this case to use the 2014 result.

The October 14-15, 2014 stack test result of 3.87 lb/mmcf used to estimate Battery 14 PM condensable is accurate. Although, the 2018 result was lower at 2.9 lb/mmcf compared to 3.87 lb/mmcf for 2014.

However, the 2016 result was significantly higher at 9.1 lb/mmcf.

The CO and VOC for Battery 15 were last tested on 10/23-24/2012.

For Battery 15 PM condensable emission, a stack test was conducted in 2016 and the result was substantially higher, at 8.72 lb/mmcf compared to 3.86 lb/mmcf for 2014. So, the 2014 result was used because it gives a more stringent limit. However, the 2018 stack test result is somewhat lower at 3.53 lb/mmcf compared to 3.86 lb/mmcf for 2014.

CO and VOC for Batteries 19 & 20 were last tested 10/16/2012. NO_x was tested in 2018.

For the Battery 19 PM condensable limit, the Department used the 2014 stack test result to estimate the PM condensable because the 2016 result was substantially higher, at 7.32 lb/mmcf. However, the 2018 test result is somewhat lower at 4.08 lb/mmcf compared to 5.13 lb/mmcf and based on a review of the 2014-2018 stack test data, the Department believes the 2014 stack test result was reasonable.

For the Battery 20 PM Condensable limit and based on a review of the 2014-2018 stack test data, the 2016 and 2018 result were substantially higher at 8.43 lb/mmcf and 5.98 lb/mmcf compared to 5.35 lb/mmcf for 2014. Therefore, the 2014 stack test result of 5.13 lbs/mmcf used for both batteries 19 & 20 remains unchanged.

CO and VOC for Battery B were last tested 11/6/2015. The most recent test for B Battery Underfire condensable PM was November 20, 2017 with the result of 2.79 lb/mmcf compared to 4.70 lb/mmcf for the 2015 stack test. Therefore, the Department based the PM condensable limit on the 2014 stack test result.

The Clairton boilers have not been tested for CO and the 2014 diagnostic test is the only test performed on the boilers for VOC.

The 2011 tests are the only tests performed on the cooling tower and the ammonia flare was tested in 2017 during ammonia loading only, wastewater treatment surge tank venting only, and both combined. The ammonia flare emissions limit was based on IP 0052-I002b.

104. **COMMENT:** Emission-related information in the 2016 application does not reflect any attempted repairs to air pollution control equipment following a catastrophic fire in December 2018. The catastrophic fire in December of 2018 had a significant impact on the facility's desulfurization plant and the repairs took months to complete, yet these repairs seem to have not been taken into account at all in the proposed renewal.

Given that the desulfurization plant not only has a large quantity of emissions associated, but it also has a significant impact on the emissions of any process throughout the Mon Valley Works that combusts the coke oven gas that passes through it, any changes to it should be considered very carefully. This is a further reason that the Department's reliance on emissions data in the 2016 application is insufficient. The Department should consider and account for any replacement and repair when revising the Draft Permit.

RESPONSE: The permit renewal application and the supporting document were submitted to the Department in 2016, two years before the fire incident, and therefore the fire incident did not have any effect on the submitted information. The permit reflects the allowable emissions and applicable regulations, which are not affected by the results of the 2018 fire.

105. **COMMENT:** Both the 2016 application and the Draft Permit set forth numerous emissions limitations that are so high that they are in effect not limitations at all. Emissions limitations for certain emissions units are significantly higher than the potential to emit (PTE) for those units. The Department should correct this in a revised Draft Permit.

Before installation of an emissions unit, it is often the practice to determine limits and PTEs using general emissions factors in AP-42. From available records, it appears that in the subsequent years of operation, actual site-specific emission factors have been developed from data gathered through stack tests and other data collection methods. These new, more representative, emissions factors have since been applied to the unit level PTE but were never applied to the emission limits. This has led to a large number of emissions limits that, by the definition of PTE, could never be reached because they are greater than the PTE. They are, therefore, not actually limits at all. Some of the limits at issue are an entire order of magnitude greater than the PTE. As these limits stand, they are patently absurd, and do not limit anything at all. Below is a non-exhaustive table of annual unit level emissions that exceed the PTE by a large margin. The limits come directly from the proposed permit and the PTEs come from attachment G of the 2016 application.

Source	Pollutant	Limit (tpy)	PTE (tpy)	Limit is X times Higher than PTE
5A Quench Tower	Particulate Matter	128.11	<u>10.23</u>	<u>12.52X</u>
	VOC	113.29	10.8	10.49x
7A Quench Tower	Particulate Matter	152.05	17.11	8.89x
	VOC	108.16	13.22	8.18x
Batt. C Quench Tower	Particulate Matter	108.3	14.95	7.24x
Batt. C Stack	NO _x	625.7	571.36	1.1x
	VOC	55.2	16.43	3.36x
	HCl	22	13.74	1.6x
Boiler 1	Particulate Matter	66.58	8.65	7.7x
Boiler 2	Particulate Matter	42.14	5.43	7.76x
	NO _x	780	613.04	1.29x
Boilers R1+ R2	Particulate Matter	40.12	9.57	4.19X
Boilers T1+ T2	Particulate Matter	27.34	3.75	9.29X
Ammonia Flare	Ammonia	14	0.22	63.64X

RESPONSE: The emissions limit column, which is the same as the potential-to-emit (PTE), is the set limit for the equipment/operation based on the maximum throughput, even if actual operating emissions are significantly lower. The quench towers limits are based on an existing issued installation permit, PM for the boilers is based on Article XXI 2104.02.a.4 while the Boiler 2 NO_x is based on the issued RACT IP. The commenter's referenced PTE column in the above table is mischaracterized, as it actual emissions, not the PTE.

106. **COMMENT:** The application is incomplete because the applicant failed to include a compliance plan to address its regular problems with complying with the law and permit requirements relating to its air emissions. For a number of years, the facility has been in regular noncompliance with its Title V permit under the federal Clean Air Act. The facility did not submit any materials regarding a compliance plan when it submitted its application in September 2016. The Department should require the facility to submit a compliance plan to address the regular noncompliance with its Title V permit. Without a compliance plan the application is incomplete as is.

The federal Clean Air Act requires the inclusion of a compliance plan in an application for a Title V permit:

Compliance plan

(1) The regulations required by section 7661a(b) of this title ***shall include a requirement that the applicant submit with the permit application a compliance plan describing how the source will comply with all applicable requirements under this chapter.*** The ***compliance plan*** shall include a ***schedule of compliance***, and a schedule under which the permittee will submit progress reports to the permitting authority no less frequently than every 6 months.

(2) The regulations shall further require the permittee to periodically (but no less frequently than annually) certify that the facility is in compliance with any applicable requirements of the permit, and to promptly report any deviations from permit requirements to the permitting authority.

These federal requirements mean something more than simply writing a periodic check to the Department. This means that the facility should explain what it has been doing to prevent leaks from charging, doors, lids, offtakes, travel, soaking, and COMS – areas of noncompliance identified in the periodic enforcement orders. This should also include a schedule for compliance.

The facility should do more than point to the minimum regulatory requirements that are already required, because that would be a circular argument. 40 C.F.R. §70.6(c)(3) requires that all Title V permits contain a compliance schedule consistent with §70.5(c)(8). Therefore, the Department is required to include a compliance schedule containing the elements described above in the final permit (1 Commenter)

RESPONSE: Inspections of the coke batteries are conducted each day to determine the number of leaking doors, topside leaks and the seconds of charging emissions to ensure the coke batteries are in compliance with the applicable standards. Periodic testing is performed to ensure emissions from the coke battery combustion stacks, pushing emission control system baghouse stacks and boilers are in compliance with applicable emission standards. The Title V operating permit contain requirements

from the NESHAP Subpart L for Coke Oven batteries and Subpart CCCCC for coke ovens that requires the facility to reduce fugitive emissions from coke oven doors, topside port lid and offtake systems.

Any deviation from the required operation warrant enforcement and or fine. As part of the June 27, 2019 enforcement order, and effort to control fugitive emissions, U.S. Steel replaced all the end-flues at Batteries 1, 2 and 3, and was required to replace battery 15 stack and required to repair all the battery 15 oven walls by February 1, 2024. In addition, U.S. Steel Clairton is slated to shut down batteries 1-3 by June 1, 2023 and this shutdown will reduce emissions because of the old and inefficiency of the batteries. See also Response to comment No. 86 above.

107. **COMMENT:** The Draft Permit should expressly incorporate the “applicable requirement” contained in Article XXI §2101.11.b.1, and recently acknowledged by the Third Circuit Court of Appeals, that prohibits U.S. Steel from releasing benzene, coke oven emissions, or any other air contaminant except as is explicitly permitted. The Draft Permit fails to include all applicable requirements and should be revised to expressly include a prohibition on releasing air pollutants except as explicitly permitted by Article XXI of ACHD’s regulations, which is an applicable requirement. (1 Commenter)

RESPONSE: The facility is required to comply with all the applicable requirements in the permit and Article XXI, including §2101.11.b.1, even if not explicitly cited in the draft permit. However, Condition III.1 has been revised to explicitly include §2101.11.b.1.

108. **COMMENT:** The Department should require a compliance plan and compliance schedule to require compliance with Article XXI’s breakdown reporting provisions, which U.S. Steel failed to comply with following its release of air contaminants during and after the December 24, 2018 fire at the Clairton Plant. Upon Commenters’ information and belief following several attempts to obtain this information, U.S. Steel has, to date, failed to provide to the Department a notification that contains the required information, such as the identification of specific materials emitted, the toxic qualities of those specific materials, or the estimated quantities of each material emitted during and in the aftermath of the December 24, 2018 fire.

It is appropriate and correct that the Department has incorporated the specific requirements of Article XXI §2108.01.c.1 and 2108.01.c.2.D-E expressly into the Draft Permit as these are rightly applicable requirements that need to be explicitly included. *See* Draft Permit, at 37, Section IV.9. However, given that many years have passed now, and U.S. Steel remains in noncompliance with these reporting requirements, and even a federal Appellate court has recognized this noncompliance, it is imperative that the Department require a schedule of compliance be included in the Draft Permit with a date certain for reporting the identities, quantities, and properties of all pollutants released during and following the December 24, 2018 fire. (1 Commenter)

RESPONSE: The facility reported the breakdown of No. 2 & No. 5 control rooms and identified some emissions and toxic qualities on December 31, 2018. The Department issued an enforcement order #190202 and #190202A on February 28, 2019 and March 12, 2019 respectively, and it required the facility to complete the repair to the control rooms by April 15, 2019 and the facility was back in operation by April 4, 2019 and resumed desulfurization in a way it was conducted prior to December 24, 2018.

In addition, the U.S. Steel provided very detailed estimates of daily avg. grains H₂S in coke oven gas

and SO₂ emissions broken down by gas line and group of emission units (e.g., Irvin North, Irvin South, Flares, etc.) beginning with the March 19, 2019 SO₂ emissions report covering 12/24/2018-3/16/2019 and continuing with weekly SO₂ emissions reports through June 25, 2019, over two months after the desulfurization plant was back online.

109. **COMMENT:** Allegheny County's Air Pollution Control Regulations grant the Department with broad enforcement powers in the event a source is in violation of its permit, see Article. XXI § 2109.03(a)

“Whenever the Department finds . . . that any source is being operated in violation of any provision of this Article, including any provision of any permit or license issued pursuant to this Article, *it may order the person responsible for the source to comply with this Article or it may order the immediate shutdown of the source or any part thereof*”.

Because fines, penalties, and the regulatory requirement to include a compliance plan in a Title V application have not been sufficient to lead to compliance for the applicant, the Department should do more. Given Clairton Coke Works' long history of regular noncompliance with its permit, the Department should revise the Draft Permit to require U.S. Steel to hot idle coke oven batteries to ensure compliance in the event of noncompliance or a malfunction.

RESPONSE: The permit contains enforceable limits, methods, monitoring, record keeping, and reporting requirements and the facility is required to comply with all the applicable requirements in the permit and Article XXI, and all violations or deviations from the permit requirements result in penalties and enforcement order and the Department will direct the facility to correct any violations whenever it is identified.

110. **COMMENT:** The Draft Permit removes hourly emissions limitations for sulfur dioxide that are contained in the 2012 permit. Among the regime of SO₂ emission limitations currently implemented at Clairton, these hourly limitations are uniquely capable of protecting nearby communities from short-term spikes in SO₂ emissions. The Department should determine appropriate hourly emissions limitations for these units (see comment No. 103 above regarding how some information is out-of-date) and reinstate them into a revised Draft Permit. The 2012 permit includes hourly (lb/hr) and annual (tons/year) SO₂ emission limits for the battery stacks and boilers. Clairton's SO₂ SIP Installation Permit (Permit No. I017) imposes two additional limits for SO₂ emissions from these emission points: A Thirty-day (30-day) Limit and a Supplementary 24-hr Limit. In its Draft Permit, the Department incorporates the Thirty-day (30-day) Emission Limit and Supplementary 24-hr Limit for each emission point; however, it eliminates all *hourly* emission limits for the batteries and boilers imposed by the 2012 permit.

The Thirty-day Emission Limits and Supplementary 24-hour Limits serve purposes distinct from the hourly limits contained in the 2012 permit, and are not simply more stringent revisions, is supported by the language of ACHD's SO₂ State Implementation Plan (SIP), through which they were implemented.

For the boilers (as opposed to battery stacks), the Draft Permit eliminates both the hourly AND annual per-boiler SO₂ emission limits in the 2012 Permit. The Department should put the annual per-boiler SO₂ emission limits back into the Draft Permit and make them more stringent as appropriate.

RESPONSE: The Clairton SO₂ SIP Installation Permit 0052-I017, dated September 14, 2017, is part of the attainment demonstration for sulfur dioxide (SO₂) and supersedes the SO₂ limits in the 2012 permit.

111. **COMMENT:** Presently, the Department requires the Facility to use coke oven gas as a blanketing agent in tanks for the byproduct recovery unit. This is a dangerous practice that utilizes a toxic and combustible gas to control VOC emissions. The Department and the Company should explore alternative means to control VOC emissions from these byproduct tanks. At the very least, the Department should require a more robust leak detection and repair program to ensure that the COG from these tanks is not being emitted directly to the atmosphere in violation of the terms of the permit. This could, in part, be addressed with fence line monitoring.

RESPONSE: Installation Permit 91-I-0021-9, which was issued on April 29, 1991 allows the facility to use clean coke oven tail gas from the main regenerators. The by-products facility has a history of reliable and consistent performance and according to 40 CFR 61, Subpart V, §61.242-7(a) (permit conditions V.Q.3.r), valves shall be monitored monthly to detect leaks and §61.242-7(c) (permit condition V.Q.3.t) allows valves that have not leaked for two consecutive months be monitored the first month of every quarter. Quarterly monitoring of valves that meet the requirements of §61.242-7(c) is adequate. The By-Products plant captures VOC emissions in the coke oven gas blanketing system and emissions are minimal.

112. **COMMENT:** The calculated hourly limit for SO₂ for the SCOT Desulfurization plant in the application in 2016 is lower than the calculated hourly limit in both the Title V review memo and SO₂ SIP IP17 (6.46 lb/hr vs 24 lb/hr). While revised emissions limitations for the new VCU are included in the Draft Permit, SO₂ hourly emissions are increasing overall. It is unclear why this is the case given the supposed increased level of control from the installation of the VCU. This increase represents a sizable potential annual increase of more than 75 tons of SO₂. The Department should explain why SO₂ emissions are increasing despite the installation of control technology (1 Commenter)

RESPONSE: The SCOT Desulfurization plant SO₂ limit is based on the SO₂ SIP Installation Permit 0052-I017, dated September 14, 2017, and is part of the attainment demonstration for sulfur dioxide (SO₂) and supersedes the SO₂ limits in 2016 permit application.

113. **COMMENT:** COG emission factors for certain HAPs were incorrectly based on the MSDS weight % for COG. Coke oven gas emission factors, specifically for the HAPs toluene, propylene, and ethylene at the desulfurization plant were based on the weight percentage from a 1997 Material Safety Data Sheet (MSDS) for coke oven gas. Commenters do not believe that this is an appropriate source for estimating HAP emissions. This specific MSDS was out of date at the time of the application (the MSDS was revised in 2010) and is out of date now, as it was revised again in 2020.

RESPONSE: The Department will advise the facility to update the SDS sheet in the future applications. However, the HAP estimate, for example of 0.0017 tpy for toluene, will not be impacted because based on the 2007 MSDS, the facility used 0.15% of Toluene in the coke oven gas for the estimation and that is within range of 0.1-0.2% of Toluene in the coke oven gas from the 2020 SDS sheet.

114. **COMMENT:** The review memorandum for installation permit I015 states that VOC potential emissions from coal tar loading are 1.39 lbs/hr and 6.07 tons/yr. But the installation permit lists VOC potential emissions as 1.39 lbs/hr and 60.7 tons/yr. Since $1.39 \text{ lbs/hr} \times 4.38 \text{ hr-ton/lb-year} = 6.07 \text{ tons/yr}$, there was clearly a typographical error in the installation permit. This error was repeated on page 331, Condition V.FF.1.b of the Draft Permit. The Department should correct this error.

There is also a slight error in the Title V review memo stating incorrectly that IP015 modifies only process P044c when in fact it should modify P044c and P044d, both the storage tank working losses (P044c) and crude tar truck/rail loading (P044d) are modified. The emission limit typo occurs in the modification of crude tar truck/rail loading (P044d) emissions limits.

In installation permits I015 and I016 (and possibly the Title V permit), it appears that the Department has been incorrectly rounding during subtotaling at various points in calculations. This can cause the hourly emissions limitation to not equal the tons per year emissions limitation when multiplied by $8,760 \text{ hr/yr} \times 1 \text{ ton}/2,000 \text{ lbs}$ (or using a ratio of 4.38 hr-ton/lb-year). Note that the units where these errors are present are permitted to operate at 8,760 hr/yr so there is most likely no other explanation of this discrepancy other than rounding error. (1 Commenter)

RESPONSE: The Department made the requested changes.

115. **COMMENT:** The Department should revise the Draft Permit to require U.S. Steel to install air pollution monitors at the perimeter of the Facility to measure benzene and hydrogen sulfide emissions that impact the community and to ensure compliance with the facility-wide emissions limitations for benzene, hydrogen sulfide, and other pollutants. Fence-line monitoring programs at other industrial facilities like refineries and chemical plants have been successful in identifying otherwise hidden emissions and alerting plant operators to benzene concentrations at property boundaries that pose a health risk to nearby communities. For example, EPA adopted Clean Air Act regulations in 2015 that require refineries to measure the average benzene concentration at multiple locations around the perimeter of the plant. 40 C.F.R. §63.658. If the net benzene level exceeds EPA's action level, the rule requires the facility to investigate and take action to reduce pollution. Environmental Integrity Project's most recent analysis of this monitoring data identified twelve refineries and two chemical plants where annual benzene concentrations exceeded the federal action level as of June 30, 2021.

The Department may and should go beyond minimum requirements when making permitting decisions for this Facility under Title V of the Clean Air Act. Thus, the Department has the authority to include conditions requiring fence-line monitoring for benzene and should revise the Draft Permit to include such conditions. (1 Commenter)

RESPONSE: There are restrictions, testing, monitoring, and record keeping requirements in the draft permit that require the facility to ensure compliance with all the applicable regulations. The Department has an air monitor in North Braddock and Liberty that monitors the air around Braddock and Clairton region to ensure that the facilities are not exceeding limits. Condition IV.11 prohibits malodorous matter from becoming perceptible beyond facility boundaries. Further, the permittee shall perform such observations as may be deemed necessary along facility boundaries to ensure that malodorous matter beyond the facility boundary in accordance with Article XXI §2107.13 is not perceptible and record all findings and corrective action measures taken. The Department considers the monitoring requirements specified by the permit to be sufficient to demonstrate to compliance.

116. **COMMENT:** Under the battery NESHAP in 1993, the company was required to prepare a written emission control work practice plan to address visible emission limitations for coke oven doors, topside port lids, offtake systems, and charging operations:

§63.306 Work practice standards.

(a) Work practice plan. *On or before November 15, 1993, each owner or operator shall prepare and submit a written emission control work practice plan for each coke oven battery. The plan shall be designed to achieve compliance with visible emission limitations for coke oven doors, topside port lids, offtake systems, and charging operations under this subpart*, or, for a coke oven battery not subject to visible emission limitations under this subpart, other federally enforceable visible emission limitations for these emission points, see condition IV.29 of the draft permit.

There are several limitations that inhibit the effectiveness of the regulations. First, while there are provisions for implementing the work practice plan under the federal regulations, the regulations might be construed to limit this to certain circumstances tied to exceedances of emissions limitations. *See id.*, 40 C.F.R. 63.306(c) (“Implement the provisions of the work practice plan pertaining to a particular emission point following the second independent exceedance of the visible emission limitation for the emission point in any consecutive 6-month period”).

Second, while there are provisions for reviewing and revising the work practice plan under the federal regulations, the regulations might be construed to limit this to certain circumstances tied to exceedances of emissions limitations. *See id.*, 40 C.F.R. 63.306(d)(1) (“The reviewing authority may request the owner or operator to review and revise as needed the work practice emission control plan for a particular emission point if there are 2 exceedances of the applicable visible emission limitation in the 6-month period that starts 30 days after the owner or operator is required to implement work practices under paragraph (c) of this section”).

The Department maintains the authority to expand upon these requirements in its own regulations. Nothing in the federal law or regulations preempts the Department from requiring a meaningful work practice plan and work practice standards in the Draft Permit. (1 Commenter)

RESPONSE: This is a federal regulation, and the Department does not have the authority to require revision to the NESHAP rule.

Inspections of the coke batteries are conducted each day to determine the number of leaking doors, topside leaks and the seconds of charging emissions to ensure the coke batteries are in compliance with the applicable standards. The Department will review the work practice plan and request revision and adjustment, if necessary. In addition, ACHD, through enforcement action, has ordered or will require the facility to make any necessary fixes or repair to the batteries to limit fugitive emissions from coke oven doors, topside port lids, offtake systems, and charging operations.

117. **COMMENT:** The NESHAPS Work Practices Plan, dated November 12, 1993 (for batteries 1, 2, 3, 7, 8, 9, 13, 14, 15, 19, and 20) provides for inspections of doors. *See id.*, Section I.A.1, page 7 (“Oven doors and jambs are to be inspected for defects which may cause problems with the door sealing system”). However, the inspection is limited to “visible defects.” *See id.*, Section I.A.1.c, page 7 (“Visible defects are to be brought to the attention of the first line supervisor”). Therefore, this does not address problems of excess fugitive emissions from defects that are not visible.

“A problem door or jamb which has been **identified by either poor performance or a report of a visible defect is to be inspected more-thoroughly** by the first line supervisor or Door Coordinator. This inspection may include taking physical measurements to determine the remedial action required”, Section I.A.3.b, page 8 (bold italics added for emphasis) However, the plan does not define “poor performance,” or provide an indication of what this phrase means

This is also the case with inspection of automatic cleaning systems. Following the “reporting [of] any problems associated with the automatic cleaning equipment,” the plan states that the Maintenance Manager or team leader “will take appropriate corrective action.” *See id.*, Section I.C.2, page 10. This begs the question what is “corrective action.”

The corrective action provision for doors says nothing about what requires corrective action and what does not require corrective action:

If door leakage is observed by the Door Cleaner or Machine Operator, **he may inspect the leak to determine the cause and take corrective action such as retightening the latches.** If the problem door continues to leak, it will then be reported to the first line supervisor or Door Coordinator. **The Door Coordinator will inspect door leaks as observed or reported to determine corrective action.** A door that will require repair is to either repaired on the unit or replaced by a reconditioned door. The Shift Manager's "Shift Report" along with the Emission Observer's report is to be used by the Door Coordinator to determine which doors must be taken out of service for cleaning, inspection, re-adjustment, and/or replacement. The Door Coordinator will schedule the transfer of problem doors to CDR for repair.

Although the work practices plan provides for mechanical steps for repair and replacement, it does not specify standards or criteria for repair or replacement, or for corrective action. *See id.*, NESHAPS Work Practices Plan, dated November 12, 1993 (for batteries 1, 2, 3, 7, 8, 9, 13, 14, 15, 19, and 20), pages 7-15. Therefore, it is a weak plan that could be improved by the Department through regulation. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 116 above.

118. **COMMENT:** The NESHAPS Work Practices Plan, dated November 12, 1993 (for batteries 1, 2, 3, 7, 8, 9, 13, 14, 15, 19, and 20) provides for inspections of the larry car, pusher machine, and offtake and charging system. *See id.*, Section III.A, pages 16-17. Although the plan states that a defect found during an inspection that will cause the release of emissions will be repaired to maintain emission control, it does not define “defect”:

If the results of an inspection of equipment used to control charging emissions **indicate problems which will cause the release of emissions, the equipment is to be repaired or replaced by a back-up machine.** The Maintenance Manager and/or team leader is to determine a schedule for repairs based on priority.

See id., Section III.C, page 17. Presumably, the word “defect” is the determinative term, as the phrase “release of emissions” is unqualified as to extent, and “maintain emissions control” indicates a commitment to ensure that there will be no violations of the emissions limitations.

Provisions for an audit of the offtake repair/replacement program are weak:

“The Area Manager-Maintenance will initiate *an audit annually* or more frequently as necessary *to confirm that at least one item listed below was repaired or replaced and meets operating specifications*”:

- a. pusher machine
- b. larry car
- c. standpipes and standpipe caps
- d. goosenecks and liquor spray nozzles
- e. charging hole castings and lids
- f. steam supply system
- g. liquor supply pressure.

See id., Section III.E.2, pages 18-19 (bold italics added for emphasis). The remedy for “significant deviation from the prescribed repair or replacement procedures” is to provide “supplemental training,” and not necessarily faster or more efficient repair and replacement. *See id.*, Section V.E.2.c, page 27. Therefore, the criteria for the audit consist only of whether an item of repaired or replaced equipment meets operating specifications and whether the operator has followed prescribed repair or replacement procedures.

Although the work practices plan provides for mechanical steps for repair and replacement for charging operations, it does not specify standards or criteria for repair or replacement, or for corrective action. *See id.*, pages 16-21. Therefore, it is a weak plan that could be improved by the Department through regulation. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 116 above.

119. **COMMENT:** The NESHAPS Work Practices Plan, dated November 12, 1993 (for batteries 1, 2, 3, 7, 8, 9, 13, 14, 15, 19, and 20) provides for inspections of charging hole lids. *See id.*, Section IV.A.1.a, page 22 (“Charging hole lids and castings are to be inspected by the lid man each time after the oven is pushed.”). The plan contemplates the replacement of lids that are visually damaged. *See id.*, Section IV.A.2.a, page 22 (“Lid man and/or Battery Laborer is to replace any cracked or damaged lids that cannot be sealed with luting material.”). The plan does not specify standards or criteria for repair or replacement. *See id.*, Section IV.A.2.c, page 22 (the facility is to “to compile a listing of defective charging hole castings. Repair or replacement is to be scheduled and performed.”).

The plan contemplates “corrective action” for lid emissions that cannot be stopped by sealing, but it does not specify standards or criteria for corrective action. The provisions for an audit of the lid repair/replacement program are weak.

The Area Manager-Maintenance is to initiate *an audit annually* or more frequently as necessary *to confirm that at least one of the items below was repaired or replaced and meets operating specifications*:

- a. Lid
- b. Charging Hole Casting.

See id., Section IV.C.2.a, page 24 (bold italics added for emphasis). The remedy for “significant deviation from the prescribed repair or replacement procedures” is to provide “supplemental raining,” and not necessarily faster or more efficient repair and replacement. *See id.*, Section IV.C.2.c, page 24. Therefore, the criteria for the audit consists only of whether an item of repaired equipment meets the operating specifications and whether the operator has followed prescribed repair or replacement procedures.

Although the work practices plan provides for mechanical steps for repair and replacement of charging hole lids, it does not specify standards or criteria for corrective action. *See id.*, pages 22-24. Therefore, it is a weak plan that could be improved by the Department through regulation. (1 Commenter)

RESPONSE: The plan says, “Lid man and/or Battery Laborer is to replace any cracked or damaged lids that cannot be sealed with luting material”. Please refer to the Response to Comment No. 116 above.

120. **COMMENT:** The NESHAPS Work Practices Plan, dated November 12, 1993 (for batteries 1, 2, 3, 7, 8, 9, 13, 14, 15, 19, and 20) provides for inspections of offtakes. *See id.*, Section V.A.1.a. (“The Larry Car Operator is to inspect the gooseneck, standpipe cap, and standpipe each time the oven is dampered off the main prior to the charging operation.”). The plan only requires the reporting of defects that are likely to cause excessive emissions and does not require the reporting of poor performing offtakes. *See id.*, Section V.A.2.a, page 25. (“Defects in any offtake system components which are likely to cause excessive emissions are to be reported to the first line supervisor”). Moreover, the plan does not identify criteria or standards for determining whether offtakes are to be repaired or replaced. V.A.2.c (“Repair or replacement is to be scheduled and performed.”).

Provisions for an audit of the offtake repair/replacement program are weak: “The Area Manager-Maintenance is to initiate *an audit annually* or more frequently as necessary *to confirm that least one of the items listed below has been repaired or replaced and meets operating specifications*”:

- a. Standpipe
- b. Standpipe caps
- c. Goosenecks.

See id., Section V.E.2.a, page 27 (bold italics added for emphasis). The remedy for “significant deviation from the prescribed repair or replacement procedures” is to provide “supplemental training,” and not necessarily faster or more efficient repair and replacement. *See id.*, Section V.E.2.c, page 27. Therefore, the criteria for the audit consist only of whether an item of repaired or replaced equipment meets operating specifications and whether the operator has followed prescribed repair or replacement procedures.

In conclusion, the company’s work practices plans do not set forth minimal requirements of performance that would trigger the need to repair or replacement equipment, if violated. They do not say that certain equipment must be repaired or replaced if there are violations of particular standards that are sufficiently frequent to merit repair and replacement. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 116 above.

121. **COMMENT:** On or about April 30, 2021, the applicant made an unequivocal announcement that it would be permanently retiring batteries 1, 2, and 3. In the wake of the 2020 pandemic and the increased urgency of the climate crisis, we are reviewing all projects and facilities with an even greater focus on their implications for our carbon footprint.

The revised application should reflect the upcoming retirement of batteries 1, 2, and 3, promised to take place in early 2023. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 101 above.

122. **COMMENT:** At the public hearing on February 22, 2022, the applicant opposed the Department's inclusion of allegedly new emissions limitations in the proposed Title V permit, under the rationale that the Department could not legally add more emissions limitations that were not included in the previous Title V permit. It took this position in its preliminary comments and emails with the Department. According to applicant, the Department created new emissions limitations based on emissions factors provided by applicant in the 2016 application. As a matter of law, the applicant is wrong in asserting that additional, more stringent emissions limitations may not be imposed. Nothing in federal, state, or county regulations prohibits the inclusion of requirements that are more stringent than "applicable requirements."

One of the fundamental aspects of the Title V program is that the state air permitting agency is required to include all "applicable requirements" in the permit. *See* 40 C.F.R. §70.5(a). But there is nothing in the federal law that prohibits a state air permitting agency from including in a Title V permit requirement that are more stringent than "applicable requirements." *See generally* Section 501-507, 42 U.S.C. 7661-7661f.

In fact, the federal regulations related to Title V permitting by states specifically contemplates the inclusion of terms and conditions more stringent than "applicable requirements":

Notwithstanding paragraph (b)(1) of this section, "*the permitting authority shall specifically designate as not being federally enforceable under the Act any terms and conditions included in the permit that are not required under the Act or under any of its applicable requirements*". Terms and conditions so designated are not subject to the requirements of §§70.7, 70.8, or of this part, other than those contained in this paragraph (b) of this section. *See* 40 C.F.R. §70.6(b)(2)

Similarly, Article XXI, §2103.22(d), The Department shall specifically designate as not being federally enforceable under Clean Air Act any terms and conditions included in each permit issued under this Subpart that are not required under either the Clean Air Act or other major source applicable requirement

Finally, the Department should reject the applicant's request to insert a reference to the settlement agreement from 2019 in the Draft Permit. For reasons set forth in the Commenters' comment on the proposed coke oven regulations in January 2021, it is unlawful for the Department to attempt to give up its authority to adopt more stringent standards for emissions from batteries in an agreement with the regulated industry. (1 Commenter)

RESPONSE: The Department acknowledges the Commenter's concerns. Please refer to the Response

to Comment No. 2 above.

123. **COMMENT:** The monitoring and testing requirements in the Draft Permit do not assure compliance with the boilers' emissions limits for PM and PM₁₀. The Draft Permit does not require the permittee to monitor for PM emissions from any of the boilers despite each of the boiler sources being subject to hourly and annual emissions limits for PM. For boilers B001, R1, and R2, the permit does not include any monitoring or testing requirements for PM. For boiler B002, the permittee is required to conduct PM emissions stack tests only once every 5 years, which is too long of a duration between tests to assure compliance with the source's hourly PM limits. Draft Permit Condition V.HH.2(e). This testing is far too infrequent to ensure emissions meet hourly and annual limits

The Department has also failed to provide any clear and documented rationale for any of these monitoring requirements in the Review Memo or Draft Permit, as required by 40 C.F.R. §70.7(a)(5). The Review Memo does not include any discussion of why the monitoring requirements for the PM limits for the boilers have been chosen. In fact, the term monitoring only appears twice in the Review Memo, and only with respect to monitoring required as part of the benzene waste operations NESHAP and a general reference that the "operating permit contains all testing, monitoring, recordkeeping, and reporting requirements (as required under 70.6(a)(3))." Review Memo, at 36 and 37.

The Department's references to testing in the Review Memo similarly do not provide a rationale for the monitoring and testing requirements for the limits for coke oven battery combustion stacks and boilers, and simply note that stack testing is required or that it is conducted or not conducted. *Id.* at 34, 35, 37.

The Department should supplement the monitoring requirements in the Draft Permit to assure compliance with the PM emission limitations for the coke oven battery combustion stacks and boilers. The Department ought to require the permittee to use PM CEMs to demonstrate compliance with the hourly PM limits. PM CEMs has been approved by the EPA as an alternate method of demonstrating compliance with federal emission limits for PM. 40 C.F.R. §60.58b(a)(10). Notably, EPA allowed PM CEMS for compliance demonstration purposes in its most recent regulations for municipal waste combustors without requiring that performance specifications must first be issued, in contrast to other types of continuous monitors. *See* 71 Fed. Reg. 27326; 40 C.F.R. §60.58b(a)(10).

RESPONSE: The Department has incorporated testing requirements to require the permittee to test boilers 1, R1 & R2, T1 & T2 for PM. Coke oven battery combustion stacks and boilers have shown compliance with PM in recent time. The 2018 stack test result of boilers 1, 2, R, R2, T1 & T2 and the reported emissions inventory are significantly lower than the potential to emit and requiring a CEM for a process/pollutant where emissions are low seem infeasible, and it would require an enforcement order to require installation of a new CEM and cannot be done through the permit renewal process. In addition, the Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of the permit, if it is deemed necessary.

Source	Measured Emission 2018 Stack Test		Permit Emission Limit	
	lbs/hr	tons/yr	lbs/hr	tons/yr
Boiler 1	1.743	7.64	15.20	66.58
Boiler 2	1.723	7.55	9.62	42.14
Boiler R2	0.726	3.18	4.58	20.06
Boiler T1	0.34	1.489	3.12	13.67
Boiler T2	0.270	1.183	3.12	13.67

124. **COMMENT:** All coke oven battery combustion stacks are subject to hourly (lbs/hr) and annual (tons/year) CO emission limitations. Draft Permit, Conditions V.A.1.(u), -(w), -(y); V.C.1.(v), -(x), -(z); V.E.1(bb), -(cc); V.G.1.(v); V.I.1(ii). The boilers at the Facility are also subject to hourly (lbs/hr) and annual (tons/year) CO limits. *Id.* at V.GG.1(h); V.HH.1(i); V.II.1(g); V.JJ.1(h). For example, CO emissions from the combustion stack for Coke Battery No. 1 are not allowed to exceed 40.94 lb/hr or 179.32 tons/year, with a year defined as any consecutive 12- month period. *Id.* at V.A.1.(u).

The monitoring and testing requirements in the Draft Permit do not ensure compliance with the emission limitations for CO from the coke oven battery combustion stacks and boilers. For battery combustion stacks, the permit requires each battery combustion stack source except for battery combustion stack C to have testing for CO conducted every two years. *Id.* At V.A.2.(d); V.C.2.(d); V.E.2.(d); V.G.2.(d). The permit does not require any testing for CO emitted from battery combustion stack C. *See id.* at V.I.4, V.I.5.

These testing requirements are insufficient to assure compliance with the hourly emissions limits because testing once every two years is too infrequent to ensure emissions meet hourly or annual limits. As discussed above, the frequency of monitoring must be reasonably related to the averaging time to determine compliance with a limit. 40 C.F.R. § 70.6(a)(3)(i)(B); *Sierra Club*, 536 F.3d at 676-77. EPA has concluded, for example, that even annual stack testing alone is insufficient to assure compliance with an hourly limit. NMWDA Order, at 9.

Regarding boiler stacks, the monitoring and testing requirements in the Draft Permit for CO also do not assure compliance with the hourly emissions limits. The Draft Permit requires the permittee to monitor and record the volume of coke oven gas and natural gas combusted in each of the boilers on a daily basis. *Id.* at V.GG.3.(b); V.HH.3.(b); V.II.3; V.JJ.3. This form of monitoring might help the permittee determine the quantity of CO emissions from the boiler stacks on a daily basis, but it does not monitor CO on an hourly basis. For this reason, these monitoring provisions are not adequate to determine whether CO emissions from the boiler stacks will be in compliance with the permit limitations or not

Furthermore, the Department provided no clear rationale in the Review Memo or Draft Permit demonstrating why these flawed monitoring and testing choices were made. ACHD’s failure to provide such rationale for the lack of adequate monitoring fails to comply with the requirements of 40 C.F.R. § 70.7(a)(5). The Review Memo does not include any discussion of why the monitoring and testing requirements for the CO limits for the coke oven battery combustion stacks or boilers have been chosen, nor any discussion of why the permit fails to include monitoring requirements for the CO limits for coke oven boiler stacks T1 or T2 at all

To assure compliance with the CO hourly and annual emissions limits, the Department should require that CO CEMS be installed in each of the battery combustion stacks and the boiler stacks. This will allow CO emissions from these sources to be monitored continuously. The Department should also supplement the monitoring requirements in the Draft Permit by requiring that CO CEMS be used to demonstrate compliance with the permits' CO limits. CO CEMS are available for this purpose and commonly used.

RESPONSE: The Department has incorporated testing requirements to require the permittee to test C battery for CO. The Department considers the CO testing frequency specified by the permit for the battery combustion stacks and boilers to be sufficient to demonstrate compliance. The 2021 emissions inventory shows the reported batteries CO emissions is significantly lower than the potential to emit and there is no basis to require the installation of CEM. In addition, it would require an enforcement order to require installation of a new CEM and cannot be done through the permit renewal process. The Department reserves the right to require additional emissions testing or monitoring sufficient to assure compliance with the terms and conditions of the permit if it is deemed necessary.

125. **COMMENT:** All coke oven battery combustion stacks are subject to hourly (lbs/hr) and annual (tons/year) VOC emission limitations. Draft Permit, Conditions V.A.1.(u), -(w), -(y); V.C.1.(v), -(x), -(z); V.E.1(bb), -(cc); V.G.1.(v); V.I.1(ii). The boilers at the Facility are also subject to hourly (lbs/hr) and annual (tons/year) VOC limits. *Id.* at V.GG.1(h); V.HH.1(i); V.II.1(g); V.JJ.1(h). For example, VOC emissions from the combustion stack for Coke Battery No. 1 are limited to 2.17 lb/hr and 9.50 tons/year. *Id.* at 53, Condition V.A.1.(u).

The monitoring and testing requirements in the Draft Permit do not ensure compliance with the emission limitations for VOCs from the coke oven battery combustion stacks and boilers. Coke oven battery combustion stack monitoring requirements established in the Draft Permit do not specifically apply to VOCs and the Department has provided no clear rationale in the Review Memo explaining why there is no monitoring of VOC emissions. The Draft Permit requires stack testing for VOCs for batteries 19, 20, and B at least once every four years. *Id.* At V.E.2.(e); V.G.2.(f). One stack test in four years is not sufficiently able to assure compliance with the hourly or even the annual permit limitations on VOC emissions from these units. Therefore, stack testing once every four years is less adequate to ensure compliance with the permits' hourly limitations and also clearly inadequate to capture an annual limitation. The agency failed to provide a sufficient rationale for these inadequate monitoring or testing requirements.

Furthermore, the Draft Permit contains no requirement for combustion battery stack testing of VOCs for the other batteries, namely batteries 1, 2, 3, 13, 14, 15, C, at all in the Draft Permit. Without any stack testing of VOCs for these batteries, the Draft Permit clearly fails to contain monitoring or testing requirements sufficient to determine or assure compliance with the hourly or annual VOC emissions limitations applicable to these batteries. Moreover, the Department failed to provide a sufficient rationale for failing to include sufficient - or any - monitoring requirements for these batteries.

The Draft Permit does not require the permittee to specifically monitor for emissions of VOCs from the boiler stacks, but instead requires the permittee to conduct monitoring and recording of the volume of coke oven gas and natural gas combusted in each of the boilers on a daily basis. *Id.* V.GG.3.(b); V.HH.3.(b); V.II.3; V.JJ.3.

Furthermore, the permittee is required to conduct stack tests only once every four years for VOCs from boiler number one and once every five years from boiler number 2, and no stack testing for VOCs is required at all from boilers R1, R2, T1, and T2. *Id.* at V.GG.2.(d); V.HH.2.(e). Again, stack testing once every four or five years from some units and no stack testing requirements at all from other units are clearly inadequate to assure compliance with the Draft Permit's hourly or annual VOC emissions limitations from these boilers.

To assure compliance with the VOC hourly and annual emissions limits, the Department should require that VOC CEMS be installed in each of the battery combustion stacks and the boiler stacks. This will allow VOC emissions from these sources to be monitored continuously. VOC CEMS are available for this purpose as evidenced by EPA's performance specifications guidance on operating these devices.

RESPONSE: The VOC emission for the coke oven battery was based on the 2015 stack test result firing coke oven gas and AP 42 emission factor when combusting natural gas with the maximum coke oven gas and natural gas burn as provided in the permit application and emissions spreadsheet, and as noted in the review memo emission table footnote. The stack testing frequency is reasonable based on the potential emissions and historic emissions inventory submissions and the Department reserves the right to require additional emissions testing or monitoring sufficient to assure compliance with the terms and conditions of the permit, if it is deemed necessary. The Department has incorporated VOC testing requirements in the permit for batteries 1, 2, 3, 13, 14, 15 and C

For the facility's boiler, the potential to emit in the permit and the historical annual emissions inventory is significantly lower than the VOC major threshold and there is no basis for requiring VOC CEM for a source that is not a source of significant emissions. In addition, it would require an enforcement order to require installation of a new CEM and cannot be done through the permit renewal process. The Department reserves the right to require additional emissions testing or monitoring sufficient to assure compliance with the terms and conditions of the permit.

126. **COMMENT:** All coke oven battery combustion stacks are subject to hourly (lbs/hr) and annual (tons/year) NO_x emission limitations. Draft Permit, Conditions V.A.1.(u), -(w), -(y); V.C.1.(v), -(x), -(z); V.E.1(bb), -(cc); V.G.1.(v); V.I.1(ii). The boilers at the Facility are also subject to hourly (lbs/hr) and annual (tons/year) NO_x limits. *Id.* at V.GG.1(h); V.HH.1(i); V.II.1(g); V.JJ.1(h).

The monitoring and testing requirements in the Draft Permit do not assure compliance with the emission limitations for NO_x from the coke oven battery combustion stacks and boilers. The Draft Permit includes no requirements for continuous monitoring of NO_x from any of the coke oven battery combustion stacks. In contrast, the Review Memo and certain testing requirements reference the existence of a NO_x CEMS for coke oven battery combustion stack B. Review Memo, at 35; Draft Permit, Condition V.G.2.(e). The Draft Permit, but not the Review Memo, also requires testing of a NO_x CEMS for coke oven battery combustion stack C, but there is no indication in the permit record that this exists and no monitoring or testing requirement in the Draft Permit related to the operation of this CEMS. *Id.* at V.I.2.(t). At a minimum, the Department should include a requirement in the Draft Permit to require the operation of a NO_x CEMS to assure compliance with the NO_x hourly and annual emissions limits from the coke oven battery combustion stacks B and C. The Department should also revise the Draft Permit to require the installation and operation of NO_x CEMS for all other battery combustion stacks.

The Draft Permit requires that the permittee conducts stack tests for NO_x only once every two years at battery combustion stacks 1, 2, 3, 13, 14, 15, 19, 20, and B. *Id.* at V.A.2.(d); V.C.2.(d); V.E.2.(d); V.G.2.(d). There is no reasonable relationship between the periodicity of these NO_x stack tests and the hourly emissions limits for NO_x. Therefore, they do not assure compliance with those emissions limits

The Draft Permit does require the use of NO_x CEMS on Boilers numbers 1 and 2. *Id.* At V.GG.1.(c); V.HH.1.(c). However, the Draft Permit does not include any requirements for the operation of CEMS for any of the other boiler stacks, and requires that stack tests for boilers R1, R2, T1, and T2 be conducted only once every two years. *Id.*, at V.II.2.(a); V.JJ.2.(a). As discussed above, this two-year frequency is insufficient to assure compliance with the hourly and annual emissions limits for NO_x, and the Department should revise the Draft Permit to require the use of NO_x CEMS.

RESPONSE: The batteries combustion stacks NO_x emissions were based on stack test result and the maximum coke oven gas and natural gas usage, and Condition IV.14.a requires the facility to perform stack testing once every two years for any piece of equipment or process which has an allowable emission rate, of 100 or more tons per year. Conditions V.A.2.e, V.C.2.e, V.E.2.f, V.G.2.g and V.I.2.v of the draft permit clearly state that the ACHD has the right to require additional emissions testing to ascertain compliance with the terms and conditions of this permit. This implies that the ACHD may require any kind of testing (continuous emissions monitoring or stack testing) or monitoring and work practice to demonstrate compliance.

In addition, the Department believes that the NO_x testing frequency on the boilers is sufficient to demonstrate compliance and does not see any reason to require the facility to install NO_x CEM on the batteries and boilers R1, R2, T1, and T21 to demonstrate compliance.

127. **COMMENT:** The Draft Permit requires the permittee to install, operate, and maintain bypass/bleeder stack flare systems in each battery that are capable of controlling 120 percent of the normal gas flow generated by each battery. *Id.* at V.A.1.(a); V.C.1.(a); V.E.1.(a); V.G.1.(a); V.I.1.(o). The Draft Permit also requires that each flare system for each battery be designed for a net heating value of 240 Btu per standard cubic feet (Btu/scf) and have a continuously operable pilot flame that is present at all times as determined by a thermocouple or any other equivalent device. *Id.* At V.A.1.(d) and (e); V.C.1.(d) and (e); V.E.1.(d) and (e); V.G.1.(d) and (e); V.I.1.(p).8

The monitoring requirements included in the Draft Permit are not sufficient to ensure that the flare systems are capable of controlling 120 percent of the normal gas flow generated by each battery and operating at a net heating value of 240 Btu per standard cubic feet (Btu/scf). 40 CFR §70.6(c)(1) requires that the permit contain with respect to compliance, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit. *See In the Matter of BP Amoco Chemical Company Texas City Chemical Plant Galveston County, Texas*, Order on Petition No. VI-2017-6 (Jul. 20, 2021). The permit in question in that order required that flares achieve a 98% destruction efficiency of VOCs and benzene and the installation of a continuously operating pilot light but lacked other monitoring methods to assure compliance with those operational limits and the emissions caps on VOCs and benzene. The petitioners presented evidence that additional monitoring requirements were necessary to address problems that are known to reduce destruction efficiency, like over-steaming, excess aeration, high winds, and flame liftoff.

The Department should incorporate the requirements found in 40 CFR §63.670(i), which provide a variety of monitoring methods for monitoring flare vent gas, steam assist and air assist flow rate and can assure that the control of 120 percent of the normal gas flow rate is achieved. The Department should also incorporate the requirements of 40 CFR §63.670(e) and (m), which provide monitoring and calculation methods to assure that the 240 Btu/scf net heating value in the flare combustion zone is maintained and achieved. Additionally, the Department should require that the visible emissions observations, required by Conditions V.A.3.(g); V.C.3.(g); V.E.(g); V.G.(g), occur more frequently, either daily, as required by 40 CFR §63.670(h), or hourly. The Department should clarify in the permit which kind of flare the permittee is currently operating (steam/air assisted or neither) so that compliance with those requirements can be more accurately assured. It should also add language to the permit ensuring that the existing monitoring requirements for the operation of the flare systems as well as the supplemental requirements recommended above are applied to the bypass/bleeder stack flare systems on Battery C. (1 Commenter)

RESPONSE: The flares at Clairton Plant operate on an emergency basis only. The flares combust excess de-sulfurized COG that cannot be used as fuel in its boilers or for battery underfiring. In this capacity, an emergency flare primarily functions as VOC control and a safety device. Without them, excess COG would accumulate near ground level and create a significant fire/explosion hazard. The emergency flares are open flares, i.e., are not enclosed, and operate with a VOC destruction efficiency of 99 percent. 40 CFR §63.670(i) is applicable to the Petroleum Refineries flare that operates at all times and not the flares at Clairton.

128. **COMMENT:** The Draft Permit does not include sufficient monitoring or testing requirements for hourly or annual benzene, hydrochloric acid, or naphthalene emission limitations for the Coke Oven Battery C combustion stack or hourly or annual benzene, hexane, hydrochloric acid, ammonia, or hydrogen sulfide emission limitations for the Coke Battery No. 20 combustion stack.

The monitoring and testing requirements for emissions of benzene, hydrochloric acid, and naphthalene from Coke Oven Battery C do not assure compliance with the hourly and annual emissions limits for those pollutants. Also, the monitoring and testing requirements for emissions of benzene, hexane, hydrochloric acid, ammonia, and hydrogen sulfide from the Coke Oven Battery No. 20 combustion stack do not sufficiently assure compliance with the source's hourly and annual emissions limits.

The Department should revise the Draft Permit to include sufficient monitoring and testing requirements to assure compliance with the hourly and emissions limits that it sets for this source. (1 Commenter)

RESPONSE: The benzene, hexane, hydrochloric acid, ammonia, and hydrogen sulfide emission were calculated based on the coke oven gas combustion. However, the limits were erroneously included in the table and have been removed to be consistent with the other batteries emissions table.

129. **COMMENT:** The Draft Permit does not include sufficient monitoring and testing requirements for hourly and annual ammonia, hexane, and hydrochloric acid for the boiler stacks. See Conditions V.GG.1.(h); V.HH.1.(i); V.II.1.(g); V.JJ.1.(h). The monitoring and testing requirements for emissions of these pollutants from the boiler stack sources does not assure compliance with the source's hourly and annual emissions limits. The Draft Permit requires the permittee to conduct monitoring and recording of the volume of coke oven gas and natural gas combusted in each of the boilers on a daily

basis. However, neither the Draft Permit nor the Review Memo describe adequately or clearly how, or even if, this analysis might be used to determine emissions of ammonia, hexane, or hydrochloric acid on an hourly basis. *Id.* at V.GG.3.(b); V.HH.3.(b); V.II.3; V.JJ.3.

The Department needs to add sufficient monitoring and testing requirements in the permit to ensure that compliance with the hourly and annual emissions limitations for each of these pollutants from the boiler stacks can be assured. (1 Commenter)

RESPONSE: The Department has removed the HCL, ammonia and hexane limits from the boilers emissions tables because it was erroneously included in the emissions tables.

130. **COMMENT:** The Draft Permit does not include sufficient monitoring or testing requirements to ensure the ammonia flare complies with multiple emission limitations, achieves a minimum destruction efficiency of 98%, or meets other applicable permit restrictions.

The ammonia flare is subject to the following emissions:

**Table V-LL-1
 Ammonia Flare Emission Limitations**

Pollutant	Total Emissions	
	lb/hr	tons/yr ¹
SO ₂	1.0	1.5
NO _x	19.80	19.03
CO	0.44	0.95
VOC	0.30	0.49
Ammonia	20.0	14.0

¹A year is defined as any consecutive 12-month

The Draft Permit only requires emissions testing once every five years to determine the destruction efficiency of the flare and emission rates, condition V.KK.2.a. The Draft Permit does include requirements to continuously monitor and record the temperature of the flare and operating hours, but there are no requirements to ensure the flare achieves the minimum residence time and there is no rationale for the selected monitoring and testing requirements in the review memo.

According to the Review Memo, the flare might be gas assisted, but the permit record does not make this specification clear. The Department should clarify whether this is a gas assisted, steam assisted, or air assisted flare. Steam and air assisted flares, without adequate monitoring and operational requirements, rarely achieve the claimed 98% destruction efficiency and this Draft Permit fails to include those sufficient monitoring requirements. Therefore, our request is the same - the Department should revise the Draft Permit to include the monitoring and testing requirements found in the petroleum refinery NESHAP at 40 CFR § 63.670. Additionally, the Department should require that a continuously lit pilot light be installed on the flare along with the accompanying monitoring found in the petroleum refinery NESHAP. (1 Commenter)

RESPONSE: The ammonia flare is restricted to 2,920 hours of operation per year and operates infrequently, unlike the petroleum refinery flares that operate continuously. Therefore, NESHAP 40 CFR § 63.670 is not applicable to the ammonia flare. The Department believes that the testing and monitoring requirements in the permit is sufficient to demonstrate compliance with the flare restrictions. In addition, the Department reserve to require additional testing or monitoring sufficient to assure compliance with the terms and conditions of the permit section.

131. **COMMENT:** Several boilers and coke oven battery combustion stacks are subject to multiple SO₂ emission limitations. Specifically, Boilers B001, B002, B005, B006, B007, and B008 are subject a 30-day rolling average (lb/hr); supplementary 24-hr limit (lb/hr) and tons per year. Draft Permit, Condition IV.32(f). Similarly, all coke oven batteries are subject to a 30-day rolling average, supplementary 24-hr, and tons per year limit for SO₂ emissions.

For each of these emission limits, the Draft Permit states that U.S. Steel must “continuously” monitor and record the H₂S grain loading and fuel flow rate in order to calculate sulfur dioxide emissions except for periods of monitor malfunction, breakdown, and repair. *Id.* at IV.32(b)-(c). “Continuous” means at least once every 15 minutes. During periods of monitor malfunction, breakdown, and repair, U.S. Steel must propose a procedure for measuring the H₂S content of the gas for the Department’s approval. However, the procedure is not incorporated into the Draft Permit nor are there other monitoring or testing requirements for these periods. Consequently, these monitoring requirements and the exception without alternative monitoring requirements are inadequate to assure compliance with the permit limitations for SO₂ for these boilers and coke oven battery combustion stacks. Although the Draft Permit also requires SO₂ stack tests for at least some of the coke oven battery combustion stacks once every two years, this is clearly not sufficient to assure compliance with the 30 day, 24-hour, or even annual SO₂ limits for these sources. *Id.* at V.A.2(b), V.C.2(b), V.E.2(b), V.G.2(b). The Draft Permit and review memo contain no explicit rationale for the selected monitoring and testing requirements.

The Department should revise the Draft Permit to require additional monitoring and testing requirements to address this deficiency and to ensure that each of the SO₂ limitations in the permit for Boilers B001, B002, B005, B006, B007 and B008, as well as for all coke oven batteries, has specific monitoring requirements included in the permit so that compliance with each limitation can be assured by those monitoring requirements. (1 Commenter)

RESPONSE: The boilers and coke batteries combustion stacks SO₂ emissions are based on Clairton SO₂ SIP Installation Permit 0052-I017, dated September 14, 2017, and it is part of the attainment demonstration for sulfur dioxide (SO₂). The Department believes that the testing and monitoring requirements contain in the permit is sufficient to assure compliance with the permit conditions.

132. **COMMENT:** There is an error in the permit numbering. The permit subsections for Section IV.32 are numbered: (a), (b), (c), (d), (a), (e), (f), (g). *See* Draft Permit, at 48-49. This requirement is the second (a) subsection. The permit should be renumbered here to avoid the duplication (having a section subsection “(a)”) and to prevent confusion (1 Commenter)

RESPONSE: The Department made the requested change.

133. **COMMENT:** The Draft Permit sets hourly and annual emissions limitations from the Desulfurization Plant for PM, SO₂, CO, NO_x, VOC, and H₂S and does not include sufficient monitoring or testing requirements to assure compliance with emissions limits at the Desulfurization Plant.

The Draft Permit requires the permittee to monitor and record online operating hours of the plant and to continuously monitor the concentration of sulfur compounds in the desulfurized coke oven gas according to the continuous Method approved by the Department. *Id.* at Condition V.O.3.(a) and (b). The permittee is also required to perform a stack test every two years of the plant's incinerator waste gas stream to measure the emission rate of sulfur compounds. *Id.* at Condition V.O.2.(a). Neither of these measures is sufficient to assure compliance with the hourly or annual emissions limits in the table above. Moreover, neither the Review Memo nor the Draft Permit describe how the monitoring and recording of online operating hours at the plant will sufficiently monitor emissions of PM, CO, NO_x, or VOC on an hourly or annual basis.

The Department should require the installation of CEMS at the desulfurization plant that monitor PM, CO, NO_x, and VOC as recommended for other sources in multiple comments above to assure compliance with the hourly and annual emissions limits for these pollutants from the desulfurization plant.

As for the H₂S and SO₂ testing and monitoring requirements, as described in comments above, an annual testing requirement is insufficient to assure compliance with an hourly emissions limitation. *See* 40 C.F.R. §70.6(a)(3)(i)(B); *Sierra Club*, 536 F.3d at 676-77; NMWDA Order, at 9. While the continuous monitoring of sulfur compounds in the desulfurized coke oven gas appears to be reasonably related to the hourly emissions limit for SO₂ and H₂S, it is not sufficient to determine compliance with the emissions limits for SO₂ or H₂S because the Department did not incorporate the continuous method that was selected and which they approved.

The Draft Permit should require the installation of an SO₂ CEMS, which are a proven monitoring method, in the SCOT plant combustion stacks and provide clear rationale in the Review Memo or the Draft Permit to explain how this testing and monitoring is expected to assure compliance with the hourly and annual emissions limits for H₂S and SO₂. (1 Commenter)

RESPONSE: The emissions limit was estimated using 2015 stack test result and the potential emissions limit for PM (total) is 1.66 tons, NO_x is 3.68 ton/yr, and VOC is 4.934 ton/yr. Therefore, there is no basis for requiring the installation of CEMs for this low emissions limit. The SO₂ emissions limit of 105 ton/yr is based on the SO₂ SIP, and pursuant to condition V.P.2.a, the permittee shall conduct a biennial stack test to determine compliance with the SO₂ limit, and the Department believes that the testing frequency combined with the continuous monitoring of the H₂S concentration (as required under Site Level Condition IV.30) is sufficient to demonstrate compliance with the limit. Therefore, there is no basis for requiring the installation of SO₂ CEMs.

134. **COMMENT:** The Draft Permit sets hourly and annual emissions limitations from the Coke By-Product Plant for VOC, methanol, benzene, HCl, H₂S, phenol, and ammonia but does not include sufficient monitoring or testing requirements to assure compliance with emissions limits for VOC, methanol, benzene, HCl, H₂S, phenol, or ammonia at the Coke By-Product Plant.

The testing and monitoring requirements that the Draft Permit establishes for this source do not assure compliance with the hourly and annual emissions limitations for each of these pollutants. First, the testing requirements do not include testing for any of these specific pollutants other than benzene. *Id.* at 265, Condition V.Q.2.(a) to (f). The benzene test is an analysis of the annual total benzene quantity from facility waste. *Id.* at V.Q.2.(b). There is no reasonable relationship between this annual quantity and the hourly benzene emissions limitations. Neither the Review Memo nor the Draft Permit provide any clear rationale for this deficiency.

The monitoring requirements are also inadequate to assure compliance with the hourly or annual limitations, it primarily includes visual inspections of leaking connections, seals, valves, and pipes with inconsistent periods of time between each visual inspection. *Id.* at 269, Section V.Q.3.

Furthermore, Condition V.Q.3.(II) mentions the possible existence or use of a flare to control emissions from this source, but does not include any of the monitoring requirements, which are needed to assure compliance with any emissions from that flare and its effective operation, which we have detailed above in comments 127 and 130. The Department should confirm whether the flare is in operation at this source, what type of flare is in operation at the source, incorporate that into the permit, and include the requirements that we recommended to ensure that all limitations in the permit have corresponding monitoring requirements detailed in the permit that are sufficient to assure compliance. (1 Commenter)

RESPONSE: The source uses a blanketing system and not flare to comply with the requirements, and therefore the condition has been removed. The VOC and Benzene limits have been revised to correspond with the Installation Permit 91-I-0021 P. The methanol, phenol, ammonia HCl and H₂S limits have been removed because the result from the EPA Water 9 software and batteries coal throughput was used to estimate the emissions limits and the EPA now considers that software to be outdated and unreliable. The facility will continue to report HAP's emissions semiannually and as part of the emissions inventory.

135. **COMMENT:** The Draft Permit imposes hourly and annual emissions limitations on PM, SO₂, NO_x, and VOCs for each of the quench towers but does not include sufficient monitoring or testing requirements to assure compliance with emissions limits for PM, SO₂, NO_x, or VOCs for the Quench Towers. The monitoring requirements in Condition V.J.3.(b) and (c); V.K.3.(b) and (c) V.L.3.(b) and (c); V.M.3.(b) and (c) only monitor for emissions of benzene on a weekly basis rather than on an hourly basis.

Furthermore, none of the Draft Permit's monitoring requirements for these sources require monitoring for any of the pollutants for which they are subject to hourly and annual emissions limits. Conditions V.K.2.(e) and V.L.2.(e) do require PM₁₀ and PM_{2.5}, sulfur oxides, and VOC emissions tests on their quench tower outlets at least once every two years in accordance with Condition IV.14.a, but a one-year annual test is insufficient to assure compliance with hourly emissions limitations. *See* 40 C.F.R. § 70.6(a)(3)(i)(B); *Sierra Club*, 536 F.3d at 676-77; NMWDA Order, at 9. The Draft Permit and supporting documents also fail to provide a rationale for how the Draft Permit's deficient monitoring requirements can assure compliance with the hourly or annual emissions limitations for the pollutants listed above. The permit should be revised to expressly incorporate monitoring requirements sufficient to assure compliance with each limitation in the permit for each pollutant from the quench towers.

The Draft Permit also fails to identify the site-specific limit for concentrations of benzene, benzo(a)pyrene, and naphthalene, which the Department, we are assuming, has and is required to approve. Compliance with those limits and with these hourly emissions limits for those pollutants cannot be assured unless that site-specific limit is incorporated and included in the final permit.

In accordance with the guidance detailed in comments above, the Department should require the installation of PM, NO_x, SO₂, and VOC CEMs on each quench tower's outlet. This continuous monitoring would assure compliance with those pollutants' hourly emissions limits.

RESPONSE: The quench tower limits was estimated using the stack test result in lb/tons of coke and the amount of coke quench and as shown in the quench towers emissions table, the limits are significantly lower than the major emissions limit threshold and, therefore; the Department sees no reason to require the installation of CEM. However, the Department has incorporated a testing requirement of PM, SO₂, and VOC in Sections V.J & V.M to be consistent with the other quench towers and demonstrate compliance with the limits

Concerning site-specific limit for concentrations of benzene, benzo(a)pyrene, and naphthalene, the facility has elected to meet the concentration of total dissolved solids (TDS) in the water requirement and not the concentrations of benzene, benzo (a) pyrene, and naphthalene in the water because, for example, condition V.J.1.b.1 says:

For the quenching of hot coke, the permittee shall meet one of the following requirements:
[§2103.12.h.6; §63.7295(a)(1)]

1. The concentration of total dissolved solids (TDS) in the water used for quenching must not exceed 1,100 milligrams per liter (mg/L); or
2. The sum of the concentrations of benzene, benzo (a) pyrene, and naphthalene in the water used for quenching must not exceed the applicable site-specific limit approved by the Department.

136. **COMMENT:** The Draft Permit sets hourly and annual emissions limits for PM, NO_x, CO, VOC, and SO₂ from the Pushing Emission Control ("PEC") Systems sources as well as hourly and annual emissions limits of SO₂ from the hot car sources for every battery, but Battery B. And it does not include sufficient monitoring or testing requirements to assure compliance with emissions limits for emissions from the Pushing Emission Control Systems.

The major flaw with this monitoring of control systems and the baghouse is that baghouses primarily control emissions of PM and not the other pollutants for which hourly and annual limits have been established, and neither the Draft Permit nor the Review Memo establish nor discuss monitoring that covers emissions, on an hourly basis, of CO, VOC, NO_x, SO₂, and the other pollutants that are subject to hourly and annual emissions limits from battery C. The Draft Permit does require the permittee to record the number of pushes per day and the amount of coal charged daily for each of the Battery Units excluding C, but it does not explain how this could possibly be a sufficient monitoring requirement to assure compliance with the hourly and annual emissions limits for each applicable pollutant.

The annual/bi-annual stack testing does not include testing for every pollutant that is subject to an hourly or annual emission limit, and even the annual stack testing alone is insufficient to assure compliance with an hourly limit. The draft permit should be properly revised to include reasonably

related monitoring and testing requirements in order to assure compliance with those permit limitations.
(1 Commenter)

RESPONSE: The NO_x, CO, and VOC emissions limit have been removed from batteries 1-3; 13-15; 19-20 & B PEC sections because it was erroneously included in the emissions tables as the PEC was designed to control particulate matter.

137. **COMMENT:** The permit incorporates new tables with lb/hr and tpy emissions limits for multiple pollutants. For instance, see Table V-A-1, V-A-2, V-A-3, V-B-1, etc. (list is non-exhaustive). The review memo explains how maximum emissions limits were calculated, but the underlying regulatory authority is unclear. Permit conditions cite to many sources including, most frequently, subparagraphs of ACHD Article XXI 2105.21 Coke Ovens and Coke Oven Gas regulations and the SO₂ SIP IP 0052-I017. These authorities are related to SO₂ and particulate; however, the authority for other pollutants such as NO_x, CO, and VOCs is unclear. Other non-pollutant specific regulations such as Article XXI §2103.12.g and §2105.03 (examples are non-exhaustive) are also cited.

- a. Please describe the underlying authority for all emissions limits newly incorporated into this permit
- b. Please ensure all emissions limits in the permit cite to the proper underlying regulatory authority

RESPONSE: Article XXI §2103.12.a.2.B, which requires RACT where no other limitations have been established by Article XXI, has been incorporated as part of the regulatory authority to require the NO_x, VOC and CO emissions.

138. **COMMENT:** Please explain how continuous compliance with lb/hr and tpy emissions limits for each pollutant is ensured at facility Coke Batteries (P001-P003, P007-P009, P0010-P012, P046) and Boilers (B001, B002, B005-B008, B010). Given the variable operations of the facility and historic compliance issues, stack testing every two or four years (testing requirements vary by pollutant) does not seem adequate. We suggest increasing frequency to annual testing and incorporating periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit limits. See ACHD Article XXI §2103.12.i.2 and 40 CFR §70.6(a)(3)(i)(B).
(1 Commenter)

RESPONSE: Compliance with the limits on sulfur compounds is demonstrated by continuous monitoring of the sulfur content of the coke oven gas. All batteries are required to use COMs, which will demonstrate continuous compliance with stack particulate emissions. Additionally, Battery C and Boilers 1 and 2 are required to use continuous NO_x emissions monitors. While the limits on these processes are not new to this renewal permit, the renewal permit includes increased testing, including testing for PM, NO_x, SO₂, and CO every two years. The historic compliance issues have primarily been with fugitive emissions, not stack emissions, so the Department feels that this is sufficient to demonstrate compliance, and that annual testing would be excessive.

139. **COMMENT:** EPA's Enforcement and Compliance History Online (ECHO) database indicates the facility has on an ongoing, unaddressed High Priority Violation for sulfur dioxide, beginning 2/28/2019.

- a. Please provide information in the review memo about the current compliance status and compliance history of this facility.
- b. If the facility is out of compliance, a compliance schedule is required at operating permit issuance. See ACHD Article XXI §2103.12(d) and 40 CFR §70.6(c)(3).

RESPONSE: Based on the Partial Compliance Evaluation performed in May 2022, compliance monitoring check, and review of the records and reports, the facility is in compliance with the applicable reporting requirements and the criteria pollutants limits. In addition, whenever there is a deviation or reported breakdowns, the Department ensures that the deviation or breakdown is corrected. If necessary, the Department will issue an enforcement action to ensure compliance with applicable requirements.

The ongoing issue leading to the HPV is related to the December 24, 2018 fire that rendered the desulfurization plant inoperable. The desulfurization plant was put back online in April 2019, returning the Clairton Plant (and all other facilities burning coke oven gas generated at the Clairton Plant) to compliance with the H₂S concentration and SO₂ emission limits. The Enforcement case remains in litigation and/or negotiation due to the civil penalty to be agreed on or awarded in court.

A Resolution date is entered for the Addressing Action only when all requirements have been completed, that is the facility has completed the activities specified under the compliance plan or in the Consent Agreement/Decree, and in this case the facility has completed the activities specified in the compliance plan. The only pending issue is the penalty, which could take months or years to resolve. Until a resolution date is entered on the linked Enforcement Action that shows up in the Case File pathway as the Addressing Action for the violation, the violation will remain unresolved in ECHO.

140. **COMMENT:** U.S. Steel's Clairton Plant has a long, sordid history of dangerous pollution emissions, rampant non-compliance with air pollution requirements, and failure to protect health and the environment from potential harm from its operations.

RESPONSE: ACHD appreciates your participation in the public comment process. ACHD prioritizes air quality as one of the County's most pressing public health challenges. The ACHD Air Quality Program will continue to work with the facility to gain and maintain compliance with permitting requirements, including adherence to local, state, and federal air quality regulations.

141. **COMMENT:** The application should be revised because the Department has failed to comply with the public participation requirements of Title V. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 102 above.

142. **COMMENT:** The Department should have the permittee (U.S. Steel) update its application because the applicant has not properly submitted a complete application or properly supplemented it. (1 Commenter)

RESPONSE: The application was deemed both administratively and technically complete when it was submitted in 2016. Also, please refer to the Response to Comment No. 103 above.

143. **COMMENT:** The Department should revise the Draft Permit to require more frequent monitoring and testing to assure compliance with multiple emission limits. (1 Commenter)

RESPONSE: The Department has increased most of the permit testing frequency to biennially. The Department believes that biennial testing and the right to require additional emissions testing, if necessary, and the monitoring requirements specified by the permit to be sufficient to demonstrate to compliance.

144. **COMMENT:** The Department should revise the draft permit to include additional provisions to reduce exposure of the community to harmful emissions from the facility. (1 Commenter)

RESPONSE: The proposed Title V Operating permit reflects current regulatory and facility conditions, including emission standards and other safety measures. The restrictions within the permit reflect the current levels set by local, state, and federal regulations. ACHD and the Air Quality program are actively engaged in drafting and implementing regulatory and enforcement actions that support the work of the Permitting section and that address the health needs of impacted communities, including the passage of the Mon Valley Pollution Episode regulation in the fall of 2021.

145. **COMMENT:** It is not improper for the Department to include in the proposed Title V permit new emissions limitations that were not in the previous Title V permit, contrary to the assertions of the applicant. (1 Commenter)

RESPONSE: The Title V permit program requires facilities to have pounds per hour and tons per year emissions limit. Please refer to the Response to Comments No. 2 & 3 above.

146. **COMMENT:** The Draft Permit fails to incorporate all applicable requirements and must be revised to expressly incorporate the applicable requirement that U.S. Steel is prohibited from releasing benzene, coke oven emissions, or other air pollutants except as explicitly permitted. (1 Commenter)

RESPONSE: The proposed Title V Operating permit reflects current regulatory and facility conditions. All Title V permits detail the regulations that apply to a specific facility, including emission limits, and outline how the facility will demonstrate compliance with those regulations through monitoring, testing, and reporting requirements. The restrictions within the permit reflect the current levels set by local, state, and federal regulations. The Title V operating permit contains requirements from the NESHAP Subpart FF for Benzene Waste Operations, Subpart L for Coke Oven Batteries, and Subpart CCCC for coke ovens that requires the facility to reduce fugitive emissions from coke oven doors, topside port lid and offtake systems. Article XXI also mandates the facility to limit visible emissions from the coke oven batteries operation. The Department has Method 303 certified inspectors at the facility at all times to monitor and ensure compliance with the terms and conditions of the NESHAP, Article XXI and operating permit conditions. Any deviation from the required operation warrant enforcement and or fine. As part of the June 27, 2019 enforcement order, and effort to control fugitive emissions, U.S. Steel replaced all the end-flues at Batteries 1, 2 and 3, and replaced battery 15 stack by November 1, 2021 and repair all the battery 15 oven walls by February 1, 2024.

147. **COMMENT:** The Department should require a compliance plan and compliance schedule to address U.S. Steel's unaddressed, ongoing noncompliance with the breakdown reporting requirements of Article XXI. (1 Commenter)

RESPONSE: Compliance plans are drafted as a result of enforcement actions. Consent Orders and Agreements include compliance plans, and current Consent Orders and Agreements are included as a condition of Title V permitting. In the proposed permit, this information can be found under the Site Level Terms and Conditions, Condition #31 “Consent Order and Agreement” on page 48. Facilities that are issued permits must currently be in compliance or be working toward fulfillment of their compliance plan to the satisfaction of the Department.

The ACHD Air Quality program and the Permitting section, as extensions of the federal Title V program, are charged with upholding current local, state, and federal air quality regulations, including the breakdown reporting requirements of Article XXI. The Permitting and Enforcement sections actively enforce these rules, including them as a condition of Title V permitting and working with facilities to address violations and properly report breakdowns.

148. **COMMENT:** ACHD should codify in the Permit U.S. Steel’s public commitment to shut down their oldest coke oven batteries (No. 1, No. 2, and No. 3) and to do so by the first quarter of 2023. This would likely improve air quality and community health. Because of loopholes in clean air rules for older plants, those batteries are legally permitted to emit two to three times more pollution than newer coke ovens. Batteries 1, 2, and 3 are nearly 70 years old, and should have been upgraded or replaced decades ago. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 101 above.

149. **COMMENT:** Actions stipulated in the Settlement Agreement have not been carried out. U.S. Steel pays the fines and appeals the orders in court and continues polluting unabated. ACHD should not rely on self-reporting of emissions monitoring by U.S. Steel. Rather, ACHD should install real-time monitors around the plant that report directly to ACHD Air Quality Program staff and members of the community to measure PM_{2.5}, sulfur compounds, and air toxics. ACHD must revise the permit to stop the ongoing emissions violations by requiring the plant to cease operations from specific batteries until the source of the violations is certified as corrected. This action is within the powers of the ACHD under Section 2109.03 Enforcement of its regulations. (1 Commenter)

RESPONSE: The commenter failed to reference the Settlement Agreement in question. However, the Settlement Agreement Order #19060, dated June 27, 2019, relating to alleged violation of certain provision of Article XXI requires U.S. Steel to:

- a. Install mechanisms to close or alarm doors situated on the B Battery shed by November 1, 2019 and install a cover and/or air curtains at the south side of the B Battery shed by May 1, 2020. These projects are meant to reduce fugitive emissions from the B Battery shed and it was completed on October 21, 2019 & May 1, 2020.
- b. Upgrade all filter bags and filter bag cages on all PEC baghouses situated at the Facility by May 1, 2020, U.S. Steel shall. No later than July 1, 2020, U.S. Steel shall submit an application for an installation permit for replacement PEC baghouses for Batteries 13-15 and 19-20 for improved capture and control of particulate matter. No later than 28 months after issuance of an installation permit or other air permitting authorization (plus the amount of time any permit or authorization remains under appeal), U.S. Steel shall have installed replacement PEC baghouses for Batteries 13-15 and 19-20 for improved capture and control. These upgrades were completed on May 1, 2020

and the installation of PEC baghouses for Batteries 13-15 and 19-20 for improved capture and control was replaced by the proposed shutdown of batteries 1-3. Please refer to the Response to Comment No. 101 above.

- c. Complete its campaign of repair or replacement of all of the endflues located at Batteries 1, 2 and 3 by September 1, 2020, U.S. Steel shall have. No later than 60 days after completion, U.S. Steel shall submit to the Department a report indicating that the repairs are complete and indicate what repairs were conducted with respect to the Batteries 1, 2 and 3 endflues. The endflue replacement project was completed on July 13, 2020.

Most of the actions stipulated in the Settlement Agreement have been fulfilled. In addition, The Department has an EPA-approved air monitor in North Braddock and Liberty that monitors the air around Braddock and Clairton region to ensure that the facilities are not exceeding limits.

150. **COMMENT:** The new Permit must specify an enforceable Compliance Plan for bringing the chronic air emission violations into compliance. The actions specified in this Compliance Plan must be enforced by ceasing operations of the non-compliant facilities or parts of facilities until the corrections have been completed. U.S. Steel must spend money to fix air pollution problems at its Clairton Coke Works in a manner that permanently improves air quality. Fines alone have proven ineffective in assuring compliance in these operations. All fines collected should be distributed to affected communities to address health protection actions.

RESPONSE:

Compliance plans are drafted as a result of enforcement actions. Consent Orders and Agreements include compliance plans, and current Consent Orders and Agreements are included as a condition of Title V permitting. In the proposed permit, this information can be found under the Site Level Terms and Conditions, Condition IV.31 “Consent Order and Agreement” on page 48. Facilities that are issued permits must currently be in compliance or be working toward fulfillment of their compliance plan to the satisfaction of the Department. The ACHD Air Quality program and the Permitting section, as extensions of the federal Title V program, are charged with upholding current local, state, and federal air quality regulations and cannot levy penalties, including the stoppage of operations, outside of the scope of what is currently provided within those regulations.

The ACHD actively seeks out opportunities to apply funds collected as a result of enforcement action directly toward impacted communities, including requests made to the Clean Air Fund and provisions in the U.S. Steel Settlement Agreement placing 90% of payments into a Community Benefit Trust.

151. **COMMENT:** The ACHD must act as soon as possible to update its air permit regulations and standards. The conditions we experience now call for urgent action to reduce or eliminate the combustion of fossil fuels to address crisis levels of carbon emissions. As the economy of our region moves toward a more high-tech profile, the quality of life will be a factor in determining the participation of communities in the Mon Valley, including Forest Hills. A constant rating of “Not Good” air quality seriously impedes the prospects for new opportunities and investment. Generations of children have grown up with increased risk of asthma, and elderly and other sensitive populations experience asthma and respiratory distress at levels three times higher than the national average. For all our citizens who live with the constant pollution from this operation, fines do not alleviate the distress.

RESPONSE: ACHD prioritizes air quality as one of the County's most pressing public health challenges and the Air Quality program are actively engaged in drafting and implementing regulatory and enforcement actions that support the work of the Permitting section and that address the health needs of impacted communities. However, the elimination of fossil fuel or control of asthma is out of the scope of this permit and the comment does not address specific issues related to the permit or its associated technical support document (TSD) and as such the Department is unable to respond to your comment.

152. **COMMENT:** The Allegheny County Health Department must exert with every power it has been granted and set a higher standard for air quality in our County and strengthen the Clairton Coke Works' Title V Permit so that U.S. Steel is no longer incentivized to pay to pollute the air and instead improves its emission controls, transparency, and compliance with health-protective standards. (1 Commenter)

RESPONSE: Please see the Response to Comment No. 144 above.

153. **COMMENT:** The new draft permit proposed by the Allegheny County Health Department would make some improvements and lower pollution limits to ensure the facility isn't emitting at unsafe levels and require U.S. Steel to develop and implement a plan to be in full compliance with its Clean Air act requirements. (1 Commenter)

RESPONSE: The Department agrees with the commenter that the permit will require U.S. Steel to develop and implement a plan to be in full compliance with its Clean Air act requirements. No revisions were necessary in response to this comment.

154. **COMMENT:** The County should lower pollution limits to ensure the Clairton Coke Works isn't emitting at unsafe levels by: (193 Commenters)

1. Require U.S. Steel to develop and implement a plan to bring the facility into full compliance with its Clean Air Act requirements,
2. Require real-time monitoring of sulfur dioxide pollution, including 1-hr emissions limits for sulfur dioxide in addition to 24-hr, 3-day and 30-day limits to prevent short term spikes in emissions,
3. Dramatically reducing pollution levels for the most dangerous emissions coming from Clairton Coke Works, such as cancer-causing benzene and
4. Set an enforceable deadline for U.S. Steel to follow through on plans to close the three oldest coke oven batteries by 5/1/23.

RESPONSE: The permit contains many emission limitations, operation and maintenance requirements and work practice standards that were including NESHAP Subpart CCCCC, Subpart L & Subpart FF for Coke Oven Batteries regulations that requires the facility to monitor and reduce emissions including benzene to ensure that where the area is in attainment of the National Ambient Air Quality Standards, that they will not be violated, and where the NAAQS is already in violation, that this permit will not hinder the progress toward attainment.

The permit requires the facility to perform testing biennially to demonstrate compliance with the permit limits including sulfur dioxide and the Department believes that the testing frequency is sufficient to demonstrate compliance and does not see any reason to require real-time monitoring of sulfur dioxide

or require the installation of SO_x CEM. In addition, the Department reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of this permit and one of the purposes of the permit is to put enforceable limits on the facility to control its emissions. If they exceed those emissions, the Department can then take legal action against the permittee. Please refer to the Response to Comment No. 101 above regarding the requirement to shut down the oldest coke oven batteries. (193 Commenters)

155. **COMMENT:** The proposed permit makes some improvements but not enough. Comparisons of this aging facility with state-of-the-art facilities such as Hutni Projekt in Slovakia, for example, shows how far behind we are in terms of the use of modern emissions control for each of the coke by-products. The ACHD must force U.S. Steel to set stronger, health-based standards to reduce dangerous emissions at Clairton Coke Works, requiring continual real-time fence-line monitoring of hydrogen sulfide and sulfur dioxide pollution, and including 1-hr emissions limits for sulfur dioxide. ACHD must demand shutdown and removal of the worst offending ovens 1, 2, and 3 and fundamental rebuilding of the facility. U.S. Steel should provide an approved plan to bring the Works into compliance with all federal, state, and local regulations. (1 Commenter)

RESPONSE: Requiring state-of-the-art modern emission control equipment is beyond the scope of this permit. The Department considers the emission controls specified by the permit to be sufficient to demonstrate compliance. Please refer to the Response to Comment No. 154 above.

156. **COMMENT:** The opening paragraph of the Allegheny County Health Department (ACHD) website states as follows: *“Welcome to the Allegheny County Health Department (ACHD) website. Our mission is to protect, promote, and preserve the health and well-being of all Allegheny County residents, particularly the most vulnerable. We strive daily to assure quality public health services to more than 1.2 million county residents”*
The facility is a major source of particulate matter, carbon monoxide, sulfur oxides, nitrogen oxides, volatile organic compounds and hazardous air pollutants, and ACHD should not issue air permit to the Clairton Plant. (1 Commenter)

RESPONSE: The ACHD Air Quality program and the Permitting section, as extensions of the federal Title V program, are charged with upholding current local, state, and federal air quality regulations and cannot levy penalties, including the stoppage of operations or denial of permitting, outside of the scope of what is currently provided within those regulations.

157. **COMMENT:** Do not renew U.S. steel Clairton coke works permit and shut them down. This is the main leverage ACHD HAS over this company. Use that leverage to force U.S. Steel to make all the necessary upgrades, and have them verified, so that there is virtual certainty that all air pollution laws are met or exceeded. It would go a long way to improving air quality in Allegheny County which badly needs improvement. (33 Commenters)

RESPONSE: Please refer to the Response to Comment No. 156 above.

158. **COMMENT:** In order to save hundreds of jobs please renew. (1 Commenter)

RESPONSE: The ACHD acknowledges the impact of local industry and its workforce on the County’s economy. The Department is charged, however, with using its regulatory authority to propose and

enforce policies that protect, promote, and preserve the health and well-being of all Allegheny County residents.

159. **COMMENT:** Please make clean air a priority for doing business in Southwestern Pennsylvania. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 140 above.

160. **COMMENT:** Enforcing meaningful penalties that would change the way the U.S. Steel does business; limit emissions during inversions and help U.S. Steel to shut down their three most outdated batteries. (1 Commenter)

RESPONSE: Article XXI mandates all sources operate in compliance with applicable National Emission Standards for Hazardous Air Pollutants (NESHAP) & Maximum Achievable Control Technology (MACT) of which Subpart CCCCC, Subpart L, Subpart Y & Subpart FF are included. All violations or deviations from the permit requirements result in penalties and enforcement order and the Department cannot levy penalties beyond what the regulations allow. Please refer to the Response to Comment No. 101 above regarding the requirement to shut down the oldest coke oven batteries.

161. **COMMENT:** Do not make a bad situation worse and shorten our lives more (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 140 above.

162. **COMMENT:** ACHD should demand compliance to existing agreements and regulation from U.S. Steel and other businesses that routinely violate regulations. (41 Commenters)

1. Demand a firm date for U.S. Steel to close coke batteries 1, 2, and 3.
2. Increase real-time monitoring of the Clairton Coke Works so it is not dependent on U.S. Steel to report emissions.
3. Putting in place real-time monitors around the plant to measure PM_{2.5}, sulfur compounds, and air toxics that report directly to Allegheny County Health Department, Air Quality Program staff and members of the community.
4. Ban coke production/Idle the plant if pollution control equipment is inoperable – which it too often is.
5. Require a serious plan to reduce emissions on days when pollution levels exceed federal standards, as required by the Mon Valley Pollution Episode Rule. *And then impose penalties with teeth!*
6. If these provisions can't or won't be met by U.S. Steel, the permit should not be renewed.

RESPONSE: Please refer to the Response to Comments No. 144 above & 154 above.

163. **COMMENT:** Implement further environmental protections at the Clairton Coke Plant. Our air quality is a serious hazard to the health of our citizens and to the future growth of the city. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 144 above.

164. **COMMENT:** Please include measurable goals in the next permit. Our air is cleaner than it has been in the past, but the Clairton plant is the worst offender in the area, creating many air quality action days and hurting the health of everyone downwind including me. (1 Commenter)

RESPONSE: The Department acknowledges the Commenter's concerns. The purpose of the permit is to put enforceable limits on the facility to control its emissions. If those emissions are exceeded, the Department can then take legal action against the permittee.

165. **COMMENT:** It is time for the Health Department to protect the residents of Allegheny County from the hazardous air pollution we are subjected to from our toxic neighbor, U.S. Steel Clairton Works. (3 Commenters)

RESPONSE: Please refer to the Response to Comment No. 140 above.

166. **COMMENT:** Let's do our best to provide stricter control on pollutants in our air. These have serious negative impacts on the health of our residents. Make industrial companies invest more to produce cleaner emissions. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 144 above.

167. **COMMENT:** I know a new permit was issued today, after not having one since 2017, and I am emailing to ask what new sanctions or restrictions have been put in place to protect nearby citizens with this permit? (1 Commenter)

RESPONSE: The proposed Title V Operating permit reflects current regulatory and facility conditions, including emission standards and other safety measures. The proposed permit incorporates the conditions of all existing operating and installation permits, including installation permits issued after 2017 with more stringent standards. The proposed permit also incorporates other conditions such as Consent Orders and Agreements, including a 2019 Consent Order. All Title V permits detail the rules that apply to a specific facility, including emission limits, and outline how the facility will demonstrate compliance with those rules through monitoring, testing, and reporting requirements. The restrictions within the permit reflect the current standards set by local, state, and federal regulations and those set-in response to enforcement actions. Please note that this comment was to the draft permit, not to an issued permit.

168. **COMMENT:** The application relied upon emissions factors and tests dating back as far as the turn of the century. Under a number of installation permits, the facility must conduct stack tests every two years, which indicates that more recent data should be readily available. The five-year delay represents the time in which the facility would have had to apply for another renewal, making the data even more out of date

The permit includes a number of emissions limits that are significantly higher than the potential to emit for those sources of pollution – a mathematical absurdity. Since potential to emit represents the maximum emissions that are possible under normal operations, these limits will limit nothing. The ACHD should adjust the emissions limits so that they are actually imposing enforceable requirements on the facility.

The application should be amended to include a compliance plan to address regular violations of the Title V permit and the law, and the permit should require the facility to follow that compliance plan to address these regular violations. The permit should memorialize enforceable requirements for coming into compliance. This means more than just identifying what legal requirements apply to the facility. The facility should identify how it will cure its noncompliance, in detail.

In the early 1990s, federal regulations required the company to prepare a work practices plan to address coke oven emissions from leaking doors, lids, and oftakes. The company prepared its plan 28 years ago. ACHD should require the company to update that plan. It should also require the company to revise that plan to include specific measures to reduce coke oven emissions. ACHD must then enforce the plan to secure meaningful emissions reductions. I urge ACHD to deny the Title V permit and request additional information from U.S. Steel that addresses my concerns. (312 Commenters)

RESPONSE: The Department agrees with the commenter that under several installation permits, the facility must conduct stack tests every two years. Meanwhile, the testing in this permit is required to show compliance with the existing limit and not to set a new limit.

The current permit, issued in 2012, did not have NO_x, CO and VOC limits in the permit for most of the batteries and boilers and the facility was required to perform a series of testing to develop emissions factors to estimate the limits. The 2014 stack testing was mostly used to estimate the limit in the draft permit and the subsequent biennial testing is meant show compliance with the limit, except where the Department thinks the limit should be revised.

The commenter did not specify the emissions limits that are significantly higher than the potential to emit, and therefore, the Department cannot comment on it. Please refer to the Response to Comment No. 147 above. The Department will continue to revisit the work practice plan and require updates where necessary.

169. **COMMENT:** Please put strict conditions on permitting or better yet, deny them. And monitor them during weather conditions. (1 Commenter)

RESPONSE: Please refer to the Response to Comments No. 144 above and 164 above.

170. **COMMENT:** ACHD should revise the proposed Clairton Coke Works Title V Operating Permit to require a compliance plan, more frequent monitoring and testing, and additional measures to reduce the public's exposure to harmful coke oven emissions. The national air quality standards will be tightened in 2023. Please consider these new standards when permitting the coke works (65 Commenter)

RESPONSE: Please refer to the Response to Comments No. 143, 144 and 149 above.

171. **COMMENT:** The Permit must be revised to include monitoring, recordkeeping, and reporting requirements that are sufficient to assure compliance with all of the emission limits that the Permit establishes for: No. 1 and No. 2 Continuous Barge Unloaders, Pedestal Crane Unloader, Coal Transfer Process Surge Bins and Bunkers Coke Transfer Process No. 1 and No. 2 Coke Screening Stations Coal and Coke Recycle Screening Process Peters Creek Coke Screening Process. ACHD should stop the

H₂S emissions coming from the Clairton plant. The air literally smells like cancer. I know what cancer tastes like on my tongue. (184 Commenters)

RESPONSE: Please refer to the Response to Comments No. 88, 94 above

172. **COMMENT:** The proposed permit is based on very old, outdated, and inaccurate data. The people of the Mon Valley and beyond have a constitutionally defined right to clean air. I urge ACHD to deny the Title V permit and request additional information from U.S. Steel that addresses my concerns. (1 Commenter)

RESPONSE: The commenter did not specify which part of the permit is based on old and inaccurate data. Please refer to the Response to Comments No. 144, 149, 156 above.

173. **COMMENT:** Please regulate industrial polluters like U.S. Steel so that the Pittsburgh region is a safe place to live for all residents, every day, at all hours. (1 Commenter)

RESPONSE: Please refer to the Response to Comments No.140 and 144 above.

174. **COMMENT:** The air quality in Shadyside has seemingly gotten worse over the years and the distinctive smell is very apparent on days with high emissions from Clairton. (1 Commenters)

RESPONSE: The Department thanks the Commenter for his/her comment. However, the comment does not address specific issues related to the permit or its associated technical support document (TSD) and as such the Department is unable to respond to your comment.

175. **COMMENT:** This region is the 8th worst in the nation for particulates; including these amendments to the contract are imperative to improving our city's air quality, as well as the quality of life for Braddock, Clairton, and Pittsburgh residents. (1 Commenter)

RESPONSE: Please refer to the Response to Comment No. 174 above.

176. **COMMENT:** U.S. Steel's Clairton Coke Works has been operating without a Title V permit since 2017, but it's been dumping its toxins into Pittsburgh's air for generations. As a major source of air pollution, it's high time that U.S. Steel fully complies with the requirements of the Clean Air Act, and that they are held to account by stringent, real-time monitoring of their emissions. As part of the permitting process, U.S. Steel should provide detailed plans for how they will achieve compliance, and these terms must be rigorously enforced. The Health Department should set an enforceable deadline to close the three oldest coke oven batteries by 5/1/23 (1 Commenter)

RESPONSE: Although the permit expired in 2017, the facility is still subject to the installation/operating permit, Article XXI and the applicable federal regulations. The Department is also in constant monitoring of the facility's operation to ensure compliance with the permit, and because a facility's operating permit expires does not mean that there is no oversight from ACHD. Please refer to the Response to Comments No. 87 and 101 above.

177. **COMMENT:** As an Allegheny county resident with children who have experienced asthma, I need to know that the county is doing everything in its power to protect its residents.

RESPONSE: Please refer to the Response to Comment No. 140 above.

178. **COMMENT:** I urge ACHD to incorporate terms and restrictions on U.S. Steel's Clairton Coke Works permit that will ensure the County has the ability to hold U.S. Steel accountable for the damage its pollution causes the community. (1 commenter)

RESPONSE: Please refer to the Response to Comments No. 87 above.

179. **COMMENT:** I moved to Pittsburgh 4 years ago and I love this city, but I do not love the air. I worry every day that my children are going to have asthma. I worry that playing soccer at Schenley oval is bad for my health. I worry that my children will have childhood cancers. I love this city, but the unhealthy air is unhealthy for my children, and it is unhealthy for me. Clairton Coke Works is responsible for these concerns. Please consider the health risks we all face because of one company. How many people have left Pittsburgh or will never move here because of the air pollution? Please take responsibility for this immediately. (1 Commenter)

RESPONSE: Please refer to the Response to Comments No. 140, 144, and 177 above.

180. **COMMENT:** It hurts more to breathe on bad air days here. How messed up is that?? I moved to Pittsburgh with intent to maybe stay here forever, but I would never want my kids to grow up with such a high chance for asthma or fear that they might well be hurt by the chemicals commonly in our air! Please make this better for us. (1 Commenter)

RESPONSE: Please refer to the Response to Comments No. 140, 144, and 177 above.

181. **COMMENT:** Because of big polluters like the Clairton Coke Works, I regularly have to worry about how much time I spend outside breathing in Pittsburgh's air, which ranks close to worst in the nation. This Health Department just recently found that there were 153 days since 2020 when hydrogen sulfide levels exceeded state air quality standards. I applaud the \$1.8 million fine for this noncompliance. However, we also need to hold Clairton Cork Works accountable under the laws that are designed to protect the public good. Otherwise, what are they for, and how can we continue to see the ACHD as a legitimate institution to protect us? (1 Commenter)

RESPONSE: Please refer to the Response to Comments No. 140 and 151 above.

182. **COMMENT/RESPONSE:** Conditions III.12.c, III.15.f, IV.8.d, IV.9.g, and IV.10 were updated to allow for use of the Department's Regulated Entities Portal (REP) for submission of reports and notices.