

**ALLEGHENY COUNTY HEALTH DEPARTMENT**  
**Air Quality Program**

**SUMMARY OF PUBLIC COMMENTS AND DEPARTMENT RESPONSES**  
**ON THE PROPOSED ISSUANCE OF UNITED STATES STEEL CORPORATION MON**  
**VALLEY WORKS EDGAR THOMSON PLANT TITLE V OPERATING PERMIT NO. 0051**

*[Notice of the opportunity for public comment appeared in the legal section of the Pittsburgh Post-Gazette on May 25, 2022. The public comment period ended on June 30, 2022.]*

1. **COMMENT:** ACHD has exceeded its authority on creating new limits and conditions. ACHD improperly created new emission limits and conditions that are not existing applicable requirements. U.S. Steel objects to the Department’s creation 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 100 new emission limits, with no sound legal or technical justification by ACHD. (See Table 1 regarding PM, PM<sub>10</sub>, PM<sub>2.5</sub>, PM condensable, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC, HCl, Total HAPs, and methanol; Tables 2 and 3 regarding SO<sub>2</sub>.) The Title V permit program was designed as a tool to compile all existing applicable permit requirements into one operating permit. The Title V operating permit program does not authorize new substantive applicable requirements, but does require permits to contain monitoring, recordkeeping, reporting, and other compliance requirements to assure compliance by sources with existing applicable requirements. (See, e.g., 57 Fed. Reg. 32250, 32251 (July 21, 1992)). 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. (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)
45 – Blast Furnace No. 1 Casthouse Baghouse Emission Limitations	Table V-A-1	PM condensable, NO <sub>x</sub> , SO <sub>2</sub> , CO, VOC, HCl, Total HAPs
46 – Blast Furnace No. 3 Casthouse Baghouse Emission Limitations	Table V-A-2	PM condensable, NO <sub>x</sub> , SO <sub>2</sub> , CO, VOC, HCl, Total HAPs
60 – No.1 or No.3 Blast Furnace Stoves	Table V-B-1	PM condensable, NO <sub>x</sub> , CO, VOC, HCl, Total HAPs
65 – Blast Furnace Gas Flare	Table V-C-1	PM, PM <sub>10</sub> , PM <sub>2.5</sub> , NO <sub>x</sub> , CO, SO <sub>2</sub>
70 – BOP Shop	Table V-D-1	PM <sub>2.5</sub> , CO, SO <sub>2</sub> , VOC
71 – BOP Secondary Baghouse	Table V-D-2	VOC
72 – BOP Mixer and Desulfurization	Table V-D-4	VOC
88 – LMF Baghouse	Table V-E-1	PM condensable
98 – Caster Tundish Preheaters	Table V-H-1	CO, VOC, HCl
105 – Riley Boilers	Table V-H-2	NO <sub>x</sub> (tpy only)
115 – Cooling Towers	Table V-K-1	PM, PM <sub>10</sub> , PM <sub>2.5</sub>
121 – Pot Coat Winter Grade	Table V-O-1	VOC/HAPs (Methanol)

**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 100 new emission limits, including NO<sub>x</sub>, CO & VOC with no sound legal or technical justification. During the 2016 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<sub>x</sub>, CO & VOC to develop emission factors that can quantify NO<sub>x</sub>, CO & VOC emissions", and result of the stack testing associated with the renewal permit application was used to set the permit limit. This testing was conducted under normal operating conditions, and the results and subsequent development of emission factors can be found in the calculations provided with the permit application. In addition, these are not new limits, they are maximum potential emission 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.

2. **COMMENT:** ACHD has made technical errors that do not support ACHD's attempt to derive a new limit; and in other instances, ACHD has inappropriately relied on insufficient data in its attempt to derive a new limit. For these reasons, and other reasons explained herein, the new proposed limits need to be removed from the permit before it is issued. Examples include: (1 Commenter)

***Blast Furnace No. 1 and No. 3 Casthouse Baghouse Emission Limitations:***

- a. *ACHD incorrectly applied 15% margin (typically used for published AP-42 factors) rather than the 20% proposed to stack test results (NO<sub>x</sub>, PM cond., CO, HCl and VOC).*
- b. *Using only a few stack tests to set limits is inappropriate particularly when additional data is available.*

- c. *ACHD inconsistently removed safety factor for ammonia between #1 and #3 casthouse.*

**No. 1 or No. 3 Blast Furnace Stoves Emission Limitations:**

- d. *ACHD incorrectly applied 15% margin rather than the 20% proposed to stack test results (PM cond, CO, HCl and VOC).*
- e. *Using only a few stack tests to set limits is inappropriate particularly when additional data is available.*
- f. *ACHD arbitrarily excluded a 2016 CO stack test result.*

**Blast Furnace Gas Flare Emission Limitations:**

- g. *ACHD arbitrarily removed all safety factors stating that: "This is a flare that is used to combust excess gas that is not used by the process, and because it is difficult to consistently estimate the unused gas, the flare capacity/throughput was used to estimate the potential emissions and therefore, there is no reason to consider the 15% compliance margin." All sources are in essence based on capacity, so the safety factor should be applied.*
- h. *Typo – NO<sub>x</sub> should be 18.36 lb/hr, not 18.32 lb/hr.*

**LMF Baghouse Emission Limitations:**

- i. *ACHD incorrectly applied 15% margin rather than the 20% proposed to stack test results (PM cond.).*
- j. *Using only one stack test to set a limit is inappropriate particularly when additional data is available.*
- k. *ACHD did not include 2021 PM condensable stack test in the PTE calculation.*

**Riley Boilers Emission Limitations:**

- l. *ACHD incorrectly applied 15% margin rather than the 20% proposed to stack test results (VOC, CO and HCl).*
- m. *Using only a few stack tests to set limits is inappropriate particularly when additional data is available.*

**RESPONSE:** There is no rule that requires the Department to apply 20% to stack test results. The 15% or 20% is added to AP-42 or stack test results at the discretion of the Department to sometimes account for operational variability. It would generally be expected for stack test results to be more accurate than AP-42 factors, so a smaller operational variability would be used, if at all.

In establishing the limits in the permit, the Department relied on the best available information from U.S. Steel, the EPA (AP-42) and/or stack test data to establish emission limitations at the maximum level of operation of the source, and in the case of the sources referenced by the commenter, the Department used the same information that was supplied by the facility during the application process, which was based on the highest value between the 2018 & 2020 stack to set the limit.

For the blast furnace stove, the Department believes that the 2016 stack test result for the blast furnace stove CO is an outlier and was removed from consideration.

3. **COMMENT:** U.S. Steel disagrees with ACHD’s newly created SO<sub>2</sub> emission limits that were not contained in any existing applicable requirement, including regulations and permits, including SO<sub>2</sub> Installation Permit #0052-I006. There is no basis for the newly created limits. Table 2 identifies the unjustified SO<sub>2</sub> limits that require removal before issuance of a final renewed Title V Permit:

**Table 2. Emission Units Where Newly Created Unjustified SO<sub>2</sub> Limits (lbs/hr and tpy) Require Removal.**

Page# and Emission Unit	Table
45 – Blast Furnace No. 1 Casthouse Baghouse Emission Limitations	Table V-A-1
46 – Blast Furnace No. 3 Casthouse Baghouse Emission Limitations	Table V-A-2
65 – Blast Furnace Gas Flare	Table V-C-1
70 – BOP Shop	Table V-D-1
98 – Caster Tundish Preheater	Table V-F-1

**RESPONSE:** The Department feels that the limits in the SO<sub>2</sub> SIP Installation Permit #0051-I006 are more representative of facility SO<sub>2</sub> emissions than those in the table above. Therefore, the Department made the requested change.

4. **COMMENT:** U.S. Steel also disagrees with SO<sub>2</sub> tons/year emission limits that were not contained in SO<sub>2</sub> Installation Permit #0051-I006. The SO<sub>2</sub> 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 ACHD issued lb/hr SO<sub>2</sub> emission limits – which was approved by U.S. EPA. These limits are also in the approved (and effective) SO<sub>2</sub> State Implementation Plan (SIP). There is no basis for the newly created annual limits. Table 3 identifies the unjustified SO<sub>2</sub> limits that require removal before issuance of a final renewed Title V Permit: (1 Commenter)

**Table 3. Emission Units Where Newly Created Unjustified SO<sub>2</sub> Limits (lbs/hr and tpy) Require Removal.**

Page# and Emission Unit	Table
47 – Blast Furnace 1 Casthouse (roof & fume suppression)	Table V-A-3
47 – Continuous Casting (roof)	Table V-A-3
47 – Casthouse Baghouse	Table V-B-2
61 – Blast Furnace 1 Stoves	Table V-B-2
61 – Blast Furnace 3 Stoves	Table V-F-1
71 – BOP Process Roof	Table V-D-3
105 – Riley Boilers	Table V-H-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 SO<sub>2</sub> Installation Permit #0051-I006 was issued with lb/hr limit but the operating permit must have both lbs/hr and tons/yr limits. Therefore, the conditions remain unchanged.

5. **COMMENT:** U.S. Steel became aware of the Department’s intent to include new, substantive requirements in the renewed Title V only a few days before ACHD submitted the draft for public comment. U.S. Steel submitted the renewal application on October 13, 2020, so ACHD had the

application for approximately 19 months and never worked with U.S. Steel during this timeframe. Sources, especially complex sources, in Allegheny County (and most jurisdictions) are typically provided with more than 4 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 125 pages, with a technical support document that is 68 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 also notes that the proposed Consent Decree between U.S. Steel, ACHD, and EPA went out for public comment on May 24, 2022, two days prior to the commencement of the proposed Title V public comment period. The timing of the proposed issuance of a renewed Title V Permit while the consent decree is 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 consent decree is being proposed is contrary to the intent and goals of the Title V program. (1 Commenter)

**RESPONSE:** The Title V operating permit and consent decree are separate documents that go through different process and are not dependent on each other. The consent decree process is complex and there is no timeline on when it will be finalized. However, the Title V operating permit can be amended to incorporate any applicable conditions from the finalized consent decree document onto the permit.

7. **COMMENT:** U.S. Steel requests that ACHD add operational flexibility pertaining to Article XXI Condition §2108.02 and the requirement to test every two years. As U.S. Steel continues to complete the test, this inherently pushes the testing schedule up on the calendar, eventually resulting in conducting stack tests under non-ideal conditions in the winter. U.S. Steel requests that ACHD provide a 1-month grace period similar to the Boiler MACT Subpart DDDDD, which allows for two year testing to be completed within 25 months from the last test. (1 Commenter)

**RESPONSE:** The Department rejects the commenter's request. U.S. Steel can request an extension on a case-by-case basis based on the situation at the time of the proposed testing.

8. **COMMENT:** On page 7, the corresponding stack ID should be revised to a new, unique ID # for Riley Boilers No. 1, 2, and 3 since a new common stack was constructed per SO<sub>2</sub> IP #0052-I006. (1 Commenter)

**RESPONSE:** The Department made the requested change.

9. **COMMENT:** On page 32, U.S. Steel requests that the agency include the full language from the citation into permit condition IV.1. Specifically, the following statement should be included at the end of the permit current permit condition: "The Department shall define "prompt" on a case-by-

case basis in relation to the degree and type of deviation likely to occur and the applicable requirements." (1 Commenter)

**RESPONSE:** The Department made the requested change.

10. **COMMENT:** On page 32, U.S. Steel requests that permit condition IV.6 be revised to match the language contained within §2105.50 as follows:

"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:** The Department made the requested change.

11. **COMMENT:** On page 35, Condition No. IV.11, 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 requests this revision because of potential delays caused by the reporting system (as is with reporting year 2021) that are no fault of the permittee's. (1 Commenter)

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

12. **COMMENT:** On page 41, Site Level Condition IV.32.d, requires revision and updating 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 Edgar Thomson 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 H<sub>2</sub>S are added to the measured H<sub>2</sub>S. The concentration of sulfur compounds specified shall include the tail gas sulfur, measured as hydrogen sulfide, emitted from sulfur removal equipment. [SO<sub>2</sub>-SIP IP-0051-1006; Condition IV.27; §2105.21.h, §2105.21.h.4 & §2105.21.h.5 ]*.

**RESPONSE:** Condition IV.32.d reflects what is in Article XXI §2105.21.h and §2105.21.h.4, therefore, the condition remains unchanged.

13. **COMMENT:** On page 42, Site Level Condition No. IV.33 (which cites to reporting of GHG as an applicable requirement to be included in the Title V Permit) contradicts the ACHD review memo, which states

“The facility is a major source of greenhouse gas (CO<sub>2</sub>) emissions. However, the Greenhouse Gas (GHG) reporting rule under 40 CFR Part 98 are not considered applicable requirements under the Title V regulations at this time. Therefore, there are presently no greenhouse gas requirements at the facility.”

U.S. Steel further notes that ACHD’s TSD is correct. During the promulgation of 40 CFR 98, EPA received numerous comments about whether the requirements imposed by the GHG reporting rule would be “applicable requirements” under the Title V Operating Permit program. In response, EPA clarified (in a manner consistent with most commenters) that the definition of “applicable requirement” does not include a monitoring rule, including the GHG rule, which is promulgated under sections 114(a)(1) and 208 of the Clean Air Act. See, 74 Fed. Reg. 56260, 56,288 (October 30, 2009.) Nor does the Air Pollution Control Act or Article XXI provide an independent basis for the inclusion of Condition IV.33 in the Title V Permit. For these reasons, Condition IV.33 of the draft Title V Permit should be removed from the Permit. (1 Commenter)

**RESPONSE:** While the Department agrees with the EPA’s response, pursuant to 74 Fed. Reg. 56260 that “applicable requirement” does not include a monitoring rule, including the GHG rule, which is promulgated under sections 114(a)(1) and 208 of the Clean Air Act, it does not exempt Iron and Steel Production facility that emits 25,000 metric tons CO<sub>2</sub>e or more per year from the annual reporting, pursuant to 40 CFR §98.2.a.2, Table A-4. Therefore, the facility shall continue to report the annual GHG emission, in addition, the TSD has been revised and condition IV.33 remains unchanged.

14. **COMMENT:** To streamline and to avoid inappropriate duplication, the following Conditions need to be removed from the Title V Permit since the requirement is accounted for in Site Level Condition IV.32.d. It is inappropriate and unnecessary to include a condition that states that the source “shall comply with the COG requirements in condition IV.32.d [§2105.21.h.4].” These redundant conditions in the Table below should be removed since the Plant is subject to the requirement on a site-wide basis making these conditions duplicative. (1 Commenter)

Page# and Emission Unit	Table
44 – Blast Furnace No. 1 or Blast Furnace No. 3	Table V.A.1.f
69 – Basic Oxygen Process (BOP) Shop	Table V.D.1.e
97 – Dual Strand Continuous Caster	Table V.F.1.a
101 – Vacuum Degasser	Table V.G.1.b
104 – Riley Boilers	Table V.H.1.d

**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.

15. **COMMENT:** On page 45, U.S. Steel requests that ACHD revise Condition V.A.1.j by referencing the most recent developed O&M Plan instead of adding in specific values contained within the

O&M Plan and the actual date of the Plan. U.S. Steel has the capability of revising the O&M Plan at any time, but if we change the values, the permit condition would need to be modified via a permit amendment. Removing the specificity here would promote operational flexibility for the Plant and efficiency for ACHD, and match the regulatory language in 40 CFR 63.7790(b)(1): (1 Commenter)

*j. For the Casthouse Baghouse: [§63.7790(b)(1)]*

*1) The permittee must operate the baghouse fan motor amperes applied to emissions from the No. 1 and No. 3 Blast Furnace Casthouses at or above ~~the lowest value or 662 amps value or~~ settings established for the operating limits in the most recent developed operation and maintenance plan (~~October 19, 2015~~). [§63.7790(b)(1); §2103.12.g]*

**RESPONSE:** The condition already requires the facility to operate the fan at the specified set limit or the setting established in the most recent developed O&M plan. Therefore, there would be no need to amend the Title V permit anytime the O&M Plan and the fan limit is revised.

16. **COMMENT:** On page 45, Condition V.A.1.j.2. does not have a specific citation listed in the permit. The overarching citation, 63.7790(b)(1), does not appear to align with this condition. Please add the correct citation. (1 Commenter)

**RESPONSE:** The Department made the requested change.

17. **COMMENT:** On page 45, the citation listed for Condition V.A.1.k appears to be erroneous. The correct citation appears to be 63.7826(a)(2). (1 Commenter)

**RESPONSE:** The Department made the requested change.

18. **COMMENT:** On page 45, in addition to comment #2 above, Blast Furnace No. 1 Casthouse Baghouse is 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 newly proposed PM condensable, NO<sub>x</sub>, SO<sub>2</sub>, CO, VOC, HCl, and Total HAP limits should be removed from Table V-A-1. (1 Commenter)

**RESPONSE:** The Department agrees that the baghouse is not designed to control gaseous emissions, however, the gaseous emissions are part of the process emissions that exit through the baghouse stack. Therefore, the emissions remain unchanged.

19. **COMMENT:** On page 46, in addition to comment #2 above, Blast Furnace No. 3 Casthouse Baghouse is 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 newly proposed NO<sub>x</sub>, SO<sub>2</sub>, CO, and VOC limits should be removed from Table V-A-2. (1 Commenter)

**RESPONSE:** Please refer to the Response to Comment #18 above.



20. **COMMENT:** Conditions V.A.2.g.1.f & g, Page 48. Method 201 and 202 for PM testing are listed in §2107.02 and not from the citations listed in the permit condition.

**RESPONSE:** The Department made the requested change by incorporating the citation.

21. **COMMENT:** Condition V.A.2.g.1.h, Page 48. Method 18 testing is not required by any of the citations listed in the permit condition; nor is the method listed in any of the citations. Because ACHD provided no basis for this new testing for VOC, and the Title V permit program was designed as a tool to compile all existing applicable permit requirements into one operating permit, Condition V.A.2.g.1.h should be removed.

**RESPONSE:** The blast furnaces is a source of VOC emissions, and the Department believes that VOC testing is warranted to assure compliance at the facility. See response to comment #1 above.

22. **COMMENT:** Condition V.A.2.m, Page 49. The two sub conditions should reference 63.7823(c)(1) and (c)(2) rather than Roman numeral "i" and "ii". Although not currently used, the alternative opacity observation methods listed under (c)(1) are not included in the permit. Such provisions should be included for completeness.

**RESPONSE:** The Department made the requested change by incorporating the alternate digital opacity demonstration requirements.

23. **COMMENT:** Condition V.A.5.d, Page 54, the citation listed for appears to be erroneous. The correct citation appears to be 63.7826(c).

**RESPONSE:** The Department made the requested change.

24. **COMMENT:** Condition V.A.5.h.8.iv, Page 55. The sentence was cut off and the full condition should read: "The date and time that each deviation started and stopped, and whether each deviation occurred during a malfunction or during another period." Please update this condition accordingly.

**RESPONSE:** The Department made the requested change.

25. **COMMENT:** Condition V.B.2.a, Page 61. U.S. Steel requests that ACHD revise the condition 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. Furthermore, Condition V.B.2.a.1.j shall be removed as there is no rational basis for incorporation of Method 10. In the current Title V Permit, the following was required:

*Condition V.B.2.b: The permittee shall perform emissions tests and evaluations for NO<sub>x</sub> and CO on No. 1 and No. 3 Blast Furnace Stoves to develop emission factors that can be applied to quantify NO<sub>x</sub> and CO emissions. Testing for NO<sub>x</sub> shall be conducted at least once every two years in accordance with approved EPA Methods in Appendix A of 40 CFR Part 60, Article XXI§2108.02 or another Department approved test method. (§2103.12.h.1; §2108.02.b, §2108.02.e.)*

U.S. Steel complied with these requirements in order to develop emission factors that would be used for air emissions inventory reporting purposes. ACHD 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 blast furnace stoves are a significant source of CO with potential emissions exceeding the major threshold. Therefore, the facility needs to perform biennial testing to assure compliance. See response to comment #1 above.

26. **COMMENT:** On page 65, U.S. Steel requests that the newly created emission limits be removed entirely for the Blast Furnace Gas Flare. In addition to comment #2 above, the Blast Furnace Gas Flare is designed to function as a safety device, and it is inappropriate to limit what the facility can flare. Recently, ACHD issued RACT IP8a, which included the requirement to maintain and operate the BFG flare according to a flare minimization plan.

**RESPONSE:** The Department made the requested change.

27. **COMMENT:** Condition V.D.1.j, Page 70. U.S. Steel requests that ACHD revise the condition by referencing the most recent developed O&M Plan instead of adding in specific values contained within the O&M Plan and the actual date of the Plan. U.S. Steel has the capability of revising the O&M Plan at any time, but if we change the values, the permit condition would need to be modified via a permit application. Removing the specificity here would promote operational flexibility for the Plant and match the regulatory language in 40 CFR 63.7790(b)(1):

*The permittee must meet each operating limit for capture systems and control devices in paragraphs V.D.1.j.1) and V.D.1.j.2) below: §2103.12.g; [§63.7790(b)]*

*1) The permittee must operate the secondary baghouse fan motor amperes applied to secondary emissions from a BOPF at or above **the lowest value or 305 amps value or** settings established for the operating limits in the most recent developed operation and maintenance plan (~~October 19, 2015~~). [§2103.12.g; §63.7790(b)(1), IP-0051-I004a, Condition V.A.1.g]*

**RESPONSE:** Please refer to the Response to Comment #14 above.

28. **COMMENT:** On page 70, references to SO<sub>2</sub> SIP IP 0051-I006 should be removed from Conditions V.D.1.l and V.D.1.m as there are no corresponding SO<sub>2</sub> limits in the IP that were added to Tables V-D-1 and V-D-2.

**RESPONSE:** The Department made the requested change.

29. **COMMENT:** On page 71, in addition to comment #2 above, BOP secondary baghouse is designed to control particulate matter, not gaseous pollutants such as VOC. 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 newly proposed VOC limit should be removed from Table V-D-2.

**RESPONSE:** Please refer to the Response to Comment #18 above.

30. **COMMENT:** On page 72, in addition to comment #2 above, BOP mixer and desulfurization baghouse is designed to control particulate matter, not gaseous pollutants such as VOC. 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 newly proposed VOC limit should be removed from Table.  
V-D-4.

**RESPONSE:** Please refer to the Response to Comment #18 above.

31. **COMMENT:** Condition V.D.2.f , Page 73. The condition needs to be removed from the Title V Permit which requires stack testing for NO<sub>x</sub>, SO<sub>x</sub>, CO and VOC for compliance with newly proposed limits. Article XXI does not require testing for CO and 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. In the current Title V Permit, the following was required: (1 Commenter)

*Condition V.D.2.f: The permittee shall perform emissions tests and evaluations for NO<sub>x</sub>, SO<sub>x</sub>, CO and VOC on the BOP Shop venturi scrubber to **develop emission factors that can be applied to quantify NO<sub>x</sub>, SO<sub>x</sub>, CO and VOC emissions**. Testing for NO<sub>x</sub>, SO<sub>x</sub>, CO and VOC shall be conducted in accordance with the following approved EPA Methods in Appendix A of 40 CFR Part 60, Article XXI §2108.02 or another Department approved test method: (§2103.12.h.1; §2108.02.b, §2108.02.e.)*

U.S. Steel complied with these requirements in order to develop emission factors that would be used for air emissions inventory reporting purposes. ACHD 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<sub>x</sub>, CO and VOC emissions is meant to develop emission limits, and the Department believes that the emissions factor used to estimate emissions limit can also be used to 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 #1 above.

32. **COMMENT:** Condition V.D.4.e, Page 80. The permit does not include §63.7842(a)(3) or (a)(5), however these provisions should be included.

(3) For each failure to meet an applicable standard, a list of the affected sources or equipment, an estimate of the quantity of each regulated pollutant emitted over any emission limit, and a description of the method used to estimate the emissions.

(4) Records of the actions taken to minimize emissions in accordance with § 63.7810(d), and any corrective actions taken to return the affected unit to its normal or usual manner of operation"

**RESPONSE:** The Department made the requested change.

33. **COMMENT:** Conditions V.D.5.h.6 & 7, Page 82. Please revise the Conditions to include COMS and CEMS as described in §63.7841(b):

"6) If there were no periods during which a continuous monitoring system (including a CPMS, **COMS, or continuous emission monitoring system (CEMS)**) was out-of-control as specified in §63.8(c)(7), a statement that there were no periods during which the CPMS was out-of-control during the reporting period.

7) For each deviation from an emission limitation in Condition V.D.1.f through V.D.1.h above that occurs at the capture and control system applied to secondary emissions, where a continuous monitoring system is not used (including a CPMS, **COMS, or CEMS**) to comply with an emission limitation in 40 CFR Part 63, Subpart FFFFF, the compliance report must contain the information in conditions V.D.5.h.1) through V.D.5.h.4) and the information in conditions V.D.5.h.7)a) and V.D.5.h.7)b) below. **This includes periods of startup, shutdown, and malfunction.**"

**RESPONSE:** The Department made the requested change.

34. **COMMENT:** Section V.F, Page 98. Please revise "Table V-FF-1" to "Table V-F-1." (1 Commenter)

**RESPONSE:** The Department made the requested change.

35. **COMMENT:** Section V.H, Page 105. The annual NO<sub>x</sub> emission limits in tons/yr should be removed from Table V-H-2. RACT IP8a contains hourly lb/hr emission limits, as well as annual emission limits in lbs/MMBtu based on 12-month rolling average Continuous Emission Monitoring (CEM) data. RACT IP8a does not contain annual tons/yr NO<sub>x</sub> emission limits for each of the Boilers, so these newly proposed limits 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 or regulations.** (1 Commenter)

**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 NO<sub>x</sub> RACT IP8a was issued with lb/hr limit but the operating permit must have both lbs/hr and tons/yr limits. Therefore, the conditions remain unchanged. See also the response to comment #1 above.

36. **COMMENT:** Condition V.H.2.d, Page 106. The condition needs to be removed from the Title V Permit which requires stack testing for CO, VOC, and HCl for compliance with newly proposed limits. Article XXI does not require testing for CO, nor has the Department provided any rational basis for the proposed requirement. In the current Title V Permit, the following was required:

*Condition V.H.2.d: The permittee shall perform emissions tests and evaluations for CO, VOC and HCl on Riley Boilers No. 1, 2 and 3 to develop emission factors that can be applied to quantify CO, VOC and HCl emissions. Testing for CO, VOC and HCl shall be conducted in accordance*

*with approved EPA Methods in Appendix A of 40 CFR Part 60, Article XXI §2108.02, or another Department approved test method. (§2103.12.h.1; §2108.02.b, §2108.02.e.)*

U.S. Steel complied with these requirements in order to develop emission factors that would be used for air emissions inventory reporting purposes. ACHD 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 Comment #31 above.

37. **COMMENT:** Condition V.H.3.h, Page 107. The condition should be revised to match Article XXI so that an erroneous reference is corrected, "The failure to install and operate any continuous emissions monitoring system required by §2108.02 within the time specified". (1 Commenter)

**RESPONSE:** The Department believes that the condition is accurate as written. The condition in Article XXI refers to “this section”, meaning the entirety of §2108. In this case, §2108.03 describes continuous emissions monitoring (CEM) violation or failure while §2108.02 is describes emission testing. Therefore, §2108.03 is the relevant condition, so the permit condition remains unchanged.

38. **COMMENT:** Condition V.I.1.e, page 110, U.S. Steel requests that the condition be deleted. U.S. Steel could not locate Permit No. 7035003-002-31400; therefore, we cannot confirm that this was a prior requirement for U.S. Steel; nor was this requirement in the existing Title V Operating Permit. (1 Commenter)

**RESPONSE:** The correct permit No. is 7035003-002-32300 dated October 6, 1994, and it has been revised in the permit.

39. **COMMENT:** Condition V.K.6, Page 116. The citation appears to be erroneous since 2103.12.k pertains to standard reporting requirements for operating permits and not operating practices such as annual inspections. Please update the citation accordingly. (1 Commenter)

**RESPONSE:** The Department made the requested change.

40. **COMMENT:** On page 119, U.S. Steel requests that ACHD remove Section M “Slag Storage Piles.” 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 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 storage piles are an integral part of the facility’s operation and part of an operating permit is to account for all the equipment/operation in the facility. The conditions are more of a work-practice standard than restriction and have been transferred from restriction to the work practice section. See also response to comment #1 above.

41. **COMMENT:** Section N, Page 120. U.S. Steel requests that ACHD remove this Section “Paints/Thinners & Solvents Degreaser.” 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 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 degreasing operation is part of the facility’s operation and needs to be included in the permit with the applicable Article XXI §2105.15 requirements for degreasing operation. See also response to comment #1 above.

42. **COMMENT:** Section O (Pot Coat Winter Grade), Page 121, U.S. Steel requests that ACHD remove the section from the permit. 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 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 Pot Coat Winter Grade is a significant part of the facility’s operation and a source of VOC emission that needs to be included in the permit to assure compliance with the facility. See also response to comment #1 above.

43. **COMMENT:** On page 125, U.S. Steel requests that ACHD remove “Limitations” from the header and corresponding table since this pertains to an emissions summary. (1 Commenter)

### **VIII. EMISSIONS LIMITATIONS SUMMARY**

*The annual emissions limitations for the U.S. Steel Edgar Thomson plant facility are summarized in the following table:*

**TABLE VIII-1: Emission ~~Limitations~~ Summary**

<b>POLLUTANT</b>	<b>ANNUAL EMISSION LIMIT (tons/year)*</b>
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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 a swift corrective action to restore compliance.

44. **COMMENT:** On page 125, U.S. Steel requests that ACHD revise Table VIII-1 (emissions summary) after removal of the unjustified limits. (1 Commenter)

**RESPONSE:** Table VIII-1 reflects all applicable emission limits.

45. **COMMENT:** On page 3 of the Technical Support Document, ACHD acknowledges that Conditions V.A.1.f and V.B.1.c were deleted because they were “redundant with site level Condition IV.32.d.” However, ACHD replaced those Conditions with a requirement that referenced

the site level Condition IV.32.d. The new Conditions are still redundant with Site Level requirements and should be removed.

**RESPONSE:** Please refer to the Response to Comment #14 above. The Department feels that repeating the *actual numerical limit* in Site Level Condition IV.32.d is redundant, not the need for the limit itself.

46. **COMMENT:** On page 3 of the Technical Support Document, ACHD should delete “Condition V.G.1.e. Added vacuum degasser emissions limit table.” There are no new emissions limits incorporated.

**RESPONSE:** The Department made the requested change by deleting the statement.

47. **COMMENT:** On page 3 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 100 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.

**RESPONSE:** Please refer to the Response to Comment #1 above.

48. **COMMENT:** On page 4 of the Technical Support Document, the corresponding stack ID should be revised to a new, unique ID # for Riley Boilers No. 1, 2, and 3 since a new common stack was constructed per SO<sub>2</sub> IP #0052-I006.

**RESPONSE:** The Department made the requested change.

49. **COMMENT:** Starting on page 7 of the Technical Support Document, ACHD includes tables with existing, and newly created emission limits. Again, these tables contain significantly more emission limits than are currently applicable to the Edgar Thomson Plant; or are more stringent than the existing limits that are applicable requirements. See general comments above. 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 Technical Support Document.

**RESPONSE:** Please refer to the Response to Comment #1 above.

50. **COMMENT:** On page 30 of the Technical Support Document, the following new testing requirements should be removed because ACHD has not *provided any rational basis for the proposed requirements*.

1. Blast Furnaces 1 & 3 – (NO<sub>x</sub>, CO, VOC & HCl)
2. Blast Furnace No. 1 Stoves and Blast Furnace No. 3 Stoves – (CO, VOC & HCl)
3. Basic Oxygen Process (BOP) Shop (NO<sub>x</sub>, SO<sub>x</sub>, CO and VOC)
4. Riley Boilers Nos. 1-3 - (CO, VOC and HCl)

**RESPONSE:** Please refer to the Response to Comments #1 and #2 above.

51. **COMMENT:** On page 31 of the Technical Support Document, U.S. Steel requests that ACHD remove “Limitations” and “limit” from Table 16 since this pertains to an emissions summary.

**RESPONSE:** Please refer to the Response to Comment #43 above.

52. **COMMENT:** The Department’s Technical Support Document for the Permit includes hourly and annual emission limits for particulate matter and carbon monoxide from the Facility’s Vacuum Degasser; hourly and annual emission limits for filterable particulate matter from the Facility’s Blast Furnace Slag Pits; and hourly and annual emission limits for VOC and toluene from the Facility’s use of paints, thinners, and solvent degreasers in its maintenance activities, as well as throughput limits for the Facility’s use of paints, thinners, and solvent degreasers. These limits appear to be based on information in the Permit application, and thus presumably represent RACT for the sources (if not some other applicable, but unidentified, requirement). However, those emission limits are not in the Permit itself. Thus, the Permit must be revised to include the hourly and annual emission limits and throughput limits from the Technical Support Document for the Facility’s Vacuum Degasser, Blast Furnace Slag Pits, and maintenance activities. Because the VOC emissions from the Facility’s maintenance activities appear to be dependent on throughput, the Permit should also limit the quantity of paint, thinners, and solvent degreasers that may be used at the Facility so that the hourly and annual emission limits are not exceeded. (1 Commenter)

**RESPONSE:** The Slag Pits and Degreaser maintenance activities emissions are fugitive and insignificant and have been included in the TSD for informational purposes and to calculate a total facility potential-to-emit. These activities have no history of compliance issues, and the permit contains all the applicable work practice standard requirements. Because maintenance activities especially are not predictable, throughput limits are not appropriate.

The Vacuum Degasser is operated on an as needed basis, which is dictated by customer’s orders and scheduling and has no history of compliance problems with the opacity limits. In addition, the vacuum degasser operation contains all the applicable requirements to ensure compliance including regular monitoring of sulfur concentration in combustion gas and visible emissions monitoring when in use.

53. **COMMENT:** Section K (cooling towers). The Permit establishes limits for particulate matter emissions from the Facility’s Circulating Water-Cooling Towers. According to the application for the Permit, the amount of those emissions depends largely on the total dissolved solid (“TDS”) content of the recirculating water for those cooling towers. However, the Permit does not limit the TDS content of the recirculating water for the cooling towers. Consequently, the Permit lacks a requirement or limitation to assure compliance with the limit on particulate matter emissions from the water cooling towers. The Permit already requires monthly testing of the TDS content of Facility’s recirculating cooling water for the purpose of providing an emission inventory; it must



also limit the TDS content of the recirculating cooling water to assure compliance with the limit on particulate matter emissions from those towers. (1 Commenter)

**RESPONSE:** Because the cooling tower water is from the Monongahela River, TDS is not consistent and therefore it would be impractical to set a limit. The monitoring and work practice requirements contained in the permit and coupled with the proper operation and maintenance of the source will assure compliance with the permit limits. See the Technical Support Document for a detailed evaluation of monitoring requirements.

54. **COMMENT:** The Department should make downward adjustments to emissions limitations based on outdated data, and improper use of "safety" or "compliance" margin. It is apparent that the Department has proposed a number of emissions limitations that have been adjusted upward unreasonably. The Department should correct these flawed emissions limitations. To illustrate, numerous AP-42 and WebFIRE 6.25 emission factors have been adjusted upwards by 15% using a compliance margin "per ACHD guidance when calculating PTE".

The Department has made a 15% compliance margin even for some stack tests. This appears to contradict the Department's stated policy on applying compliance/safety margins to "any published factors that are not based on site-specific testing." The Department should explain why it is applying a compliance margin even where there are stack test data based on site-specific testing.

The Department has extensive experience and familiarity with emissions from the facility, derived from decades of regulation. The Department should not indiscriminately base emissions limitations on upwards adjustments of AP-42 emissions factors but should make them more stringent based on-site conditions, if appropriate. In addition, the Department should review and update emissions limitations across the board to properly address compliance factors and safety margins, as appropriate. (1 Commenter)

**RESPONSE:** The 15% compliance margin is used to allow for variability in the AP-42 emissions factors because they are not site specific and are based on averages of all available data of acceptable quality that are generally assumed to be representative of long-term averages for all facilities in the source category. Similarly, stack tests represent a "snapshot" in time. While there have been more recent stack tests, the purpose of those tests was to demonstrate compliance, not to reevaluate and establish new emission limits.

55. **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. Specifically, the Draft Permit fails 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 that must be included in the final permit. *See* 40 C.F.R. §§ 70.6(a)(1), 70.2; 70.3(c).

The conditions in the Draft Permit fail to include a prohibition on a release of an air contaminant in a manner that is not explicitly permitted by the permit, which is prohibited in Article XXI § 2101.11(b)(1). In 2021, the Third Circuit reviewed the Article XXI reporting requirements applicable to U.S. Steel's Clairton facility in a lawsuit brought by Clean Air Council represented by Environmental Integrity Project for violations of the Comprehensive Environmental Response,

Compensation, and Liability Act (“CERCLA”). Clean Air Council alleged that U.S. Steel violated CERCLA by failing to report U.S. Steel’s releases of benzene, coke oven emissions, and other pollutants that occurred during the December 24, 2018, fire at the Clairton Coke Works and the following months, when U.S. Steel continued to operate and send unprocessed coke oven gas through the plant despite the No. 2 and No. 5 pollution control rooms having been rendered inoperable by the fire.

The General Conditions section of the Title V permit should be revised to explicitly include the language from Article XXI §2101.11(b)(1), which is an applicable requirement that is not sufficiently addressed by the partial reference to Article XXI § 2101.11 in the Draft Permit. Specifically, the Draft Permit should be modified to state that U.S. Steel is prohibited from “operating, or allowing to be operated, any source in such manner as to allow the release of air contaminants into the open air or cause air pollution as defined in this Article, except as is explicitly permitted by this Article.” Without this language from Article XXI §2101.11(b)(1) expressly included in the Title V permit, the permit would not include all applicable requirements as required by the Clean Air Act. *See* 40 C.F.R. §§ 70.6(a)(1), 70.2, 70.3(c). (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 directly cited in the draft permit. However, Condition III.1 has been revised to explicitly include §2101.11.b.1.

56. **COMMENT:** The Draft Permit establishes CO emission limits on the Blast Furnace Sources, Blast Furnace Stoves, Blast Furnace Gas Flare, BOP Shop, Caster Tundish Preheaters, Riley Boilers, and Emergency Generators. Draft Permit Conditions V.A.1.(m) and (p), B.1.(e), C.1.(d), D.1.(l), F.1.(e), H.1.(g), and J.1.(f). However, the Draft Permit and the Review Memo do not identify the origin of these limits as required by 40 CFR §70.6(a)(1)(i). None of the emission limit tables cited above include citations or references that identify the origin of the limits. Although the Review Memo does include a discussion of applicable Installation Permits, there is no discussion of CO limits. Review Memo, at 21. The final permit must identify the origin of each of the CO limits that applies to each of the sources identified above. (1 Commenter)

**RESPONSE:** The emissions table footnote in the review memo referenced that CO and other emissions limits are based on stack testing result and the emission factors was listed in the table. The limits are incorporated into the permit under Article XXI RACT, §2103.12.a.2.B (see response to comment #1 above).

57. **COMMENT:** The Draft Permit establishes NO<sub>x</sub> emission limits on the Blast Furnaces, the Blast Furnace Gas Flare, the Blast Furnace Stoves, the BOP shop, the Caster Tundish Preheaters, and the Emergency Generators, but does not identify the origins of these emission limits. Draft Permit Conditions V.A.1.(m) and (p), B.1.(e), C.1.(d), D.1.(l), F.1.(e), and J.1.(f). In contrast, and as an example of the level of clarity required, the Draft Permit and Review Memo identify the origin of the NO<sub>x</sub> emission limits for the Riley Boilers as the 2020 RACT Installation Permit. *See* Draft Permit Condition V.H.1.(h); Review Memo, at page 21. The final permit must identify the origin of each of the NO<sub>x</sub> limits that applies to the sources identified above. (1 Commenter)

**RESPONSE:** It was referenced in the review memo that the emergency generators emission was based on an installation permit, which includes NO<sub>x</sub> emissions. The emission tables in the review memo for most of the sources also show the emission factors that were used to estimate the emission

and the origin of the emission factors. In addition, Appendix A & B of the review memo shows the emission unit data and the potential emission calculation spreadsheet. The limits are incorporated into the permit under Article XXI RACT, §2103.12.a.2.B (see response to comments #1 and #56 above).

58. **COMMENT:** The Draft Permit does not include PM emission limits from the blast furnace slag pit, plant roads, and vacuum degasser. However, the Department identified hourly and annual emission limits for these sources in the Review Memo. *See* Review Memo, at pages 13-15. The Draft Permit must include all applicable requirements and identify the origin of those applicable requirements. The Department must explain why these emission limits are not applicable requirements or include the emission limits in the final permit and ensure there are sufficient monitoring, testing, recordkeeping, and reporting requirements. (1 Commenter)

**RESPONSE:** Please refer to the Response to Comment #52 above. The limits are incorporated into the permit under Article XXI RACT, §2103.12.a.2.B (see response to comments #1 and #56 above).

59. **COMMENT:** Table V-C-1 appears to identify emission limitations for the Blast Furnace Gas Flare and is titled “Emission Limitations for the Blast Furnace Gas Flare.” Draft Permit Condition V.C.1.(d). However, each of the columns in the table states that the emission limits apply to the Blast Furnace Stoves. The Department should address this confusion and correct the table in the final permit. (1 Commenter)

**RESPONSE:** The Department appreciates the comment. However, the blast furnace gas flare emissions table has been deleted from the permit because the flare is designed to flare excess blast furnace gas and function as a safety device and there is no limit on the excess gas that could be flared. In addition, the limit was based on the flare throughput/capacity, which is an over-estimation.

60. **COMMENT:** At the public hearing on June 29, 2022, members of the community spoke out in favor of more stringent permitting requirements for this facility, based on their experiences with harmful air quality in their community. At the public hearing, representatives of the applicant asserted that the Department may not insert additional requirements that are not “applicable requirements,” in the Title V permit. The applicant is wrong as a matter of law. Nothing in federal, state, or county regulations prohibits the inclusion of requirements that are more stringent than “applicable requirements.”

The applicant would have people believe that this 5-year permit review process is just a paperwork exercise for copying and pasting requirements into one big permit. That is not true. This is an opportunity for the Department to look back at outdated emissions limitations and revise them so that they regulate the facility in a meaningful way. For example, flawed emissions limitations should be corrected in this context. If the applicant had its way, emissions limitations would never be made more stringent over time.

The permit may include requirements more stringent than “applicable requirements.” This should include correcting flawed emissions limitations, adding requirements for the use of video cameras and digital images for monitoring for opacity, and requiring fenceline monitoring for particulate matter, heavy metals, volatile organic compounds, and sulfur dioxide emissions.

**RESPONSE:** There are restrictions, testing, monitoring, and record keeping requirements in the draft permit that requires 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. See response to comment #1 above for details on the Department's authority to incorporate new limits.

61. **COMMENT:** In its application, the applicant has requested that the Department delete a number of emissions unit level terms and conditions and replace them with one site-level term and condition for the prohibited activity. To illustrate, it made this request relating to standards for sulfur compounds in coke oven gas (less than 35 grains per dry standard cubic foot of coke oven gas). In the proposed permit, the Department has suggested it may grant this request. In the proposed permit, Condition IV.32.d the Department suggests that it may grant this request. The emissions limitation of 35 grains per dry standard cubic foot of coke oven gas is mentioned only once in a site-level term and condition, rather than in an emissions unit level term and condition.

This highlights particular emissions units of concern. The "emission unit" is a closer point of reference for potential problems, than the "site." In addition, replacing emissions unit level terms and conditions with site-level terms and conditions could enable the applicant in the future to characterize multiple air pollution problems occurring simultaneously as a single site-level event, and avoid the compounding of civil penalties in an enforcement action.

Because there is value in having these terms and conditions specifically set forth for particular emissions units and because a contrary result could lead to the avoidance of civil penalties, the Department should not grant the applicant's request.

**RESPONSE:** See response to comments #14 and #45 above. The Department removed the numerical limit in each Emission Unit section but replaced it with a reference to the Site Level condition, so that the requirement to meet that limit remains.

62. **COMMENT:** The application is incomplete because the applicant failed to include a compliance plan to address noncompliance with the law and permit requirements relating to its air emissions. The application materials identify at least eight enforcement actions since the time of the issuance of the Title V permit in 2016. A notice of violation was issued by the Environmental Protection Agency in December 2017 and a consent order was proposed by the Department of Justice in May 2022. But the facility did not submit a compliance plan with its application in October 2020 or with a subsequent application for an administrative amendment in December 2020. The Department should require the facility to submit a compliance plan to address noncompliance with its Title V permit.

Any compliance plan should include an analysis of how the facility will come into compliance with the law, assuming that it does what it says it has done and what it will do, in the proposed consent decree.

It is significant that the proposed consent decree itself does not demonstrate how the facility will come into compliance with the law. In fact, various commenters on the proposed consent decree have noted that the Department does not provide such an analysis in the proposed consent decree itself, and that the Department has not provided spreadsheets showing emissions reductions that would occur as a result of upgrades undertaken to date.

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.

**RESPONSE:** The referenced consent order was signed on December 16, 2022 and has been incorporated by reference into this permit under condition IV.29.d, and relevant conditions have been added to the permit (V.H.6.d and V.I.6.b-d) to address specific requirements of this order. The conditions of the consent order referenced in the comment either have been or are being addressed to the satisfaction of the Department, and the facility is in compliance with all conditions of the proposed permit.

63. **COMMENT:** Although the proposed consent decree contemplates the use of video cameras at the facility to gather information about air emissions, it does not go far enough. Video cameras and digital images should be required to determine compliance with opacity requirements, and this should be reflected in terms and conditions in the Title V permit. The proposed consent decree inappropriately limits the utility of video cameras by stating that “the cameras were not installed to determine compliance or noncompliance with Article XXI§2104.01”:

In 1997, the Environmental Protection Agency promulgated the “any credible evidence” rule, which allows the use of “any credible evidence or information” to determine compliance with the requirements of part 60. Because videos constitute “any credible evidence or information” that may be used to determine compliance with opacity requirements under Method 9 under the federal regulations, it is inappropriate for the proposed consent decree not to require cameras and digital technology that are consistent with the Environmental Protection Agency’s Method Alt-082, which would facilitate use of videos to determine compliance or for enforcement purposes. This is an alternative method to Method 9, and it has been available for some time to measure opacity through digital camera images. This should also be required in the Title V permit.

**RESPONSE:** Please refer to the Response to Comment #62 above. As to whether or not the consent decree provisions “go far enough”, that is outside of the scope of this renewal permit.

64. **COMMENT:** Ten years ago, a video method was approved by EPA for demonstration of federal opacity limits. The method involves a technology known as “Digital Camera Opacity Technique,” or DCOT. Such technology has been used by the Environmental Protection Agency for measuring opacity under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for facilities in ferroalloy production. In doing so, the Environmental Protection Agency remarked favorably on the advantage of DCOT over Method 9.

It is inappropriate and wasteful for the proposed consent decree to state that videos cannot be used to determine compliance, given advances of technology. DCOT is an important advance over

Method 9, and it is not a new idea. The Title V permit should incorporate EPA Method Alt-082 and DCOT to determine compliance with opacity standards.

**RESPONSE:** Please refer to the Response to Comment #62 above. The other provisions of the consent decree are outside of the scope of this renewal permit.

65. **COMMENT:** For emissions of VOC/HAPs (Methanol) from pot coat from the Edgar Thomson Plant, the Department proposes an hourly emissions limitation of 7.28 lbs/hr and an annual emissions limitation of 31.89 tons/year, under Emissions Unit Level Term and Condition V.O (Pot Coat Winter Grade), page 122. But these emissions limitations do not ensure that the methanol product is used only when needed. There is a non-methanol product that is apparently used during periods of warmer temperatures. The Department should limit the use of the methanol product to only those periods of time when antifreeze properties are necessary. The remainder of the time, the facility should use the non-methanol product, which is available from the supplier, and which will reduce emissions of Hazardous Air Pollutants that are harmful to neighboring communities. Currently the Edgar Thomson facility uses pot coat antifreeze to prevent steel from adhering to refractory brick. The draft permit limits the methanol content to 7%. *See Draft Permit for Edgar Thomson Plant, page 122.* But the material safety data sheet indicates that the winter product contains 5-10% methanol, which straddles the emissions limitation.

While it may not be feasible to use the non-methanol product for all 8,760 hours of the year, the facility could cut down considerably on its emissions of Hazardous Air Pollutants by minimizing its winter pot coat use and using the non-winter product except when the winter product is necessary. The Department should limit the use of the methanol product to only those periods of time when antifreeze properties are absolutely necessary. (1 Commenter)

**RESPONSE:** Since it is difficult to predict when weather conditions will be present requiring winter-grade pot coat, the Department cannot set a timeframe, particularly one that may allow the facility to use the pot coat antifreeze more frequently than on an as-needed basis. The material safety data sheet (MSDS) indicates that the winter product contains 5-10% methanol and using 7% to estimate the worst-case potential emissions is reasonable. The reported actual emissions in 2020 & 2021, which were based on actual pot coat usage is 15.78 tons and 14 tons respectively, and the facility will continue to report the monthly pot coat usage.

66. **COMMENT:** The Draft Permit subjects the blast furnaces and casthouses to hourly (lbs/hr) and annual (tons/year on a rolling basis) NO<sub>x</sub>, CO, VOC, PM (condensable), and HCl emission limits that must be met at all times. *See Draft Permit Conditions V.A.1.(m) and (p).* The Draft Permit states that the emission limits for Blast Furnace No. 1 and Casthouse and Blast Furnace No. 3 and Casthouse apply to emissions exhausting at the shared Casthouse Baghouse.

The permittee is required to conduct NO<sub>x</sub>, CO, and SO<sub>2</sub> emissions tests on both blast furnaces' casthouse baghouses every two years and VOC and HCl emissions testing on each blast furnace casthouse baghouse every four years. This testing is far too infrequent to ensure emissions meet hourly and annual limits.

The requirements related to the inspection and operation of the Continuous Parametric Monitoring Systems (CPMS) for the blast furnaces' casthouse emission control system baghouse do not cure deficient monitoring, testing, and reporting requirements for NO<sub>x</sub>, CO, VOCs, PM (condensable),

and HCl limits. As a general matter, baghouses are primarily designed to control emissions of PM (filterable), not NO<sub>x</sub>, CO, all VOCs, PM (condensable), or HCl. The Department should require that the Applicant use NO<sub>x</sub>, CO, VOC, and HCl CEMS to demonstrate continuous compliance with the hourly and annual NO<sub>x</sub>, CO, VOC, and HCl limits for the blast furnaces. Also, The Department ought to require the permittee to use PM CEMs to demonstrate compliance with all hourly and rolling annual PM (condensable) limits. (1 Commenter)

**RESPONSE:** The potential emission in the draft permit is based on worst case scenario and the maximum capacity/throughput of the equipment. The actual emission reported in 2021 for PM is significantly lower at 0.03 tons/yr. Requiring a PM CEM for a pollutant where emissions are low is infeasible, and the Department believes that the biennial stack testing will demonstrate compliance with the emissions limit. The Department also feels that regular testing combined with recordkeeping and reporting of gas use is sufficient to demonstrate compliance with the gaseous emissions limits. See the Technical Support Document for a detailed evaluation of monitoring requirements.

67. **COMMENT:** The Draft Permit requires the permittee to conduct emission tests for PM (filterable), PM (condensable), PM<sub>10</sub>, PM<sub>2.5</sub>, NO<sub>x</sub>, and CO every two years and VOC and HCl emissions testing every four years. *See* Draft Permit Conditions V.B.2.(a) and (b). These testing requirements are too infrequent to assure compliance with the blast furnace stoves' hourly and rolling annual emissions limits.

The Department ought to require the permittee to use PM CEMs on the blast furnace stove stacks to demonstrate compliance with all hourly and rolling annual PM limits. The Department should also require the permittee to install and operate NO<sub>x</sub>, CO, VOC, and HCl CEMS, which are commercially available. At a minimum, the Department should revise the Draft Permit to include additional testing, monitoring, and reporting requirements sufficient to assure compliance the hourly and annual PM (filterable), PM (condensable), PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>x</sub>, CO, VOC, HCl, and Total HAP emissions limits. (1 Commenter)

**RESPONSE:** The Department feels that regular testing combined with recordkeeping and reporting of fuel and fuel consumption is sufficient to demonstrate compliance with the limits. See the Technical Support Document for a detailed evaluation of monitoring requirements. See also the Response to Comment #66 above.

68. **COMMENT:** The Blast Furnace Gas Flare ("BFG") is subject to hourly (lbs/hr) and annual (tons/year rolling) emission limits for PM, PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>x</sub>, CO, and SO<sub>2</sub>. Draft Permit Condition V.C.1.(d). The Draft Permit imposes minimal requirements related to the operation of this flare, including monitoring the continuous presence of a flame using a thermocouple or other equivalent device; observing visible emissions on a weekly basis; and conducting monthly visual inspections of the exhaust system. Draft Permit Conditions V.C.1.(c), C.3.(a) and (b). None of these requirements are sufficient to assure compliance with short-term emissions limits.

The Department should impose monitoring requirements to assure compliance with the operational requirements that the Draft Permit imposes on this flare to the extent they are applicable to the BFG. Specifically, 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 hourly emissions rates for PM, PM<sub>2.5</sub>, PM<sub>10</sub>, NO<sub>x</sub>, CO, and SO<sub>2</sub> are consistently 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 ideal 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.C.3.(a) and (b), occur more frequently, either daily, as required by 40 CFR §63.670(h), or hourly. At a minimum, the Department must revise the Draft Permit to include sufficient monitoring, testing, and reporting requirements for the hourly and annual emissions limits for the BFG. (1 Commenter)

**RESPONSE:** Blast Furnace Gas Flare is designed to function as a safety device and combust excess blast furnace gas that cannot be used as fuel in its Blast Furnace Stoves and Riley Boilers. The flare operates infrequently, unlike the petroleum refinery flares that operate continuously, and therefore, NESHAP 40 CFR §63.670(e) and (m) is applicable to the Petroleum Refineries flare that operates at all times and not the blast furnace gas flare at Edgar Thomson. In addition, condition V.C.6 requires the facility to operate the flare according to a flare minimization plan, and the Department believes that the monitoring and work practice requirements in the permit assures compliance with the terms and conditions of the permit section. See the Technical Support Document for a detailed evaluation of monitoring requirements. See also the Response to Comments #59 and #66 above.

69. **COMMENT:** The Draft Permit prohibits the operation of the Vacuum Degasser “without a properly operating flare on the exhaust.” The monitoring requirements state that U.S. Steel must perform monthly visible emissions from the Vacuum Degasser operations and may even “skip to quarterly monitoring after six consecutive months of compliance.” *Id.* V.G.3.a.1. In addition, the permit requires monthly “visual” inspections of “the exhaust system and control/safety device.” Monthly visible emissions observations are too infrequent to ensure compliance with a limit that requires proper operation of a flare at all times. Similarly, limited monthly visible inspections are both too infrequent for limits that must be met at all times and are also generally insufficient to ensure a flare is operating properly given the variables that affect flare operations.

The Draft Permit also prohibits the concentration of sulfur oxides expressed as sulfur dioxide in the effluent gas from the Vacuum Degasser from exceeding the lesser of the potential to emit or 500 ppm (dry volumetric basis) at any time. The monitoring requirements state that U.S. Steel must measure the sulfur concentration of all coke oven gas used for combustion of flaring at the facility at least once every twenty-four hours. However, the Draft Permit states that coke oven gas measurements taken at the U.S. Steel Clairton facility may satisfy this requirement. The Draft Permit does not state how frequently measurements are taken at the Clairton facility, what the “current operating scenario” is, or explain why measurements taken at the Clairton facility are sufficient to assure compliance with the Edgar Thomson Plant emission limit. At a minimum, the Department must specify how frequently sulfur concentration measurements of coke oven gas are taken at the Clairton facility and provide an explanation as to why this is sufficient to assure compliance with the “at any time” limit applicable to the Edgar Thomson facility.

**RESPONSE:** The Vacuum Degasser uses desulfurized COG fuel, which is produced in Clairton and the Department believes that it is appropriate to have the concentration of the coke oven gas measured at Clairton. The Department believes that the monitoring and work practice requirements in the permit assure compliance with the terms and conditions of the permit section and a properly operating vacuum degasser and flare system will not emit visible emissions that violate the Article XXI opacity standard.



In addition, the reported emissions inventory for the source in the last five (5) years is less than 2 tons, which is not a source of significant emissions. See the Technical Support Document for a detailed evaluation of monitoring requirements.

70. **COMMENT:** The Draft Permit subjects the Basic Oxygen Process shop (“BOP”) to hourly (lbs/hour) and annual (tons/year on rolling basis) emission limits of NO<sub>x</sub>, CO, and VOCs. Draft Permit Condition V.D.1.(l). The Draft Permit also subjects the F&R BOP Secondary Emission Control System and the BOP Mixer and Desulfurization process to hourly and annual emissions limits of VOCs. See Draft Permit Condition V.D.1.(m) and (p).

The Draft Permit requires performance tests for the BOP Mixer and Desulfurization Baghouse once every five years. The Draft Permit requires NO<sub>x</sub>, CO, and VOC emissions tests on the BOP Shop venturi scrubber once every two years. These requirements are too infrequent to assure compliance with these sources’ hourly or annual emissions limits for NO<sub>x</sub>, CO, and VOCs. The Draft Permit is not clear as to whether any testing or monitoring requirements are applicable to emissions from stacks S007 and S008.

The Draft permit also requires the permittee to install, operate, and maintain a CPMS on the BOP secondary baghouse system; the installation, operation, and maintenance of a leak detection system on the mixer baghouse; daily, weekly, monthly, and quarterly inspections of various parts and operations of the BOP secondary and mixer baghouses; and the installation, operation, and maintenance of a CPMS on the venturi scrubber. However, baghouses, as described above, are primarily designed to control emissions of PM and certain HAPs. Similarly, venturi scrubbers are primarily used to control PM emissions.

The Department should require the Applicant to install and operate NO<sub>x</sub>, CO, and VOC CEMS for BOP Shop stacks. At a minimum, the Department should revise the Draft Permit to include additional monitoring, testing, and reporting requirements for the hourly and annual limits for these pollutants for the BOP Shop emission sources. (1 Commenter)

**RESPONSE:** Condition V.D.2.f requires the facility to perform biennial testing of the gaseous emissions. The Department believes that the testing frequency and proper operating practices, combined with recordkeeping and reporting of operations is sufficient to demonstrate compliance with the limits. See the Technical Support Document for a detailed evaluation of monitoring requirements. See also the response to Comment #66 above..

71. **COMMENT:** Condition V.F.1.c. The Draft Permit establishes annual emissions limits (tons/year on rolling basis) for NO<sub>x</sub>, CO, and VOC emissions from the Caster Tundish Preheaters. The Draft Permit imposes no testing requirements on emissions from this source. The Draft Permit does require the permittee to measure the monthly quantity of natural gas and coke oven gas combusted by the Caster Tundish Preheaters. However, neither the Draft Permit nor the Review Memo describe how the monthly measurement of the quantity of natural gas and coke oven gas combusted will track NO<sub>x</sub>, CO, and VOC emissions on an annual basis. There is no explanation as to how this requirement will assure compliance with NO<sub>x</sub>, CO, and VOCs on an annual basis. The Department should revise the permit to supplement the testing and monitoring requirements. (1 Commenter)

**RESPONSE:** The potential emissions from the Dual Strand Continuous Caster in condition V.F.1.c are from an existing installation permit, are significantly lower than the major threshold emissions limit, and the actual reported emissions inventory within the last five (5) years for any of the criteria pollutant is below 5 tons. Therefore, there is no basis to require emission testing.

72. **COMMENT:** Condition V.H.1.g. The Draft Permit sets hourly and annual emissions limits for PM, CO, VOCs, and HCl from the three Riley Boilers. The Draft Permit requires the permittee to perform PM emissions tests once every two years on the Riley Boilers and emissions tests for CO, VOCs, and HCl once every four years. As described above, requirements for testing that occur on an annual basis are not considered sufficient to assure compliance with hourly emissions limits. The Draft Permit does require the permittee to take notations of visible emissions from the boilers at least once a week with the option of changing to monthly after six consecutive months of compliance with the weekly monitoring. CO, many VOCs, and HCl cannot be detected visibly, and this monitoring frequency is not reasonably related to the hourly emissions limits for PM from this source. As a result, these monitoring and testing requirements do not assure compliance with the Riley Boilers' hourly and annual emissions limits for PM, CO, VOCs, and HCl.

The Department ought to require the permittee to install CO, VOC, PM, and HCl CEMS on the Riley Boiler stacks. At a minimum, the Department must include additional testing and monitoring requirements for these emission limits that assure continuous compliance.

**RESPONSE:** The potential emissions limit for the CO and VOC are 4.76 tons and 1.85 tons respectively. Requiring a CEM for a pollutant where emissions are low is infeasible. For CO, VOC, PM, and HCl, the Department feels that regular testing combined with recordkeeping and reporting of fuel use is sufficient to demonstrate compliance with the emissions limits. See the Technical Support Document for a detailed evaluation of monitoring requirements. See also Response to Comment #66 above.

73. **COMMENT:** The Draft Permit sets hourly and annual emission limits for particulate matter (PM) – total PM as well as PM<sub>10</sub> and PM<sub>2.5</sub> individually. See Condition V.K.1.(b). The Draft Permit only requires the permittee to monitor for total dissolved solid (TDS) of the recirculating water at least once per month for the purpose of the emission inventory. Draft Permit Condition V.K.3. The monthly frequency of this monitoring does not have a reasonable relationship to the hourly averaging time required to determine compliance. The Department provided no clear and documented rationale to describe how monthly water monitoring for TDS would allow the permittee to monitor for PM emissions on an hourly basis. Thus, the Department should revise the permit to address this deficiency. (1 Commenter)

**RESPONSE:** Please refer to response to comment #53 above.

74. **COMMENT:** The Draft Permit establishes hourly (lbs/hour) and annual (tons/year on rolling basis) emission limits of SO<sub>2</sub> from multiple sources: The Blast Furnaces, the Blast Furnace Stoves, the Blast Furnace Gas Flares, BOP Shop, BOP Process (roof), Caster Tundish Preheaters, and the Riley Boilers. See Conditions V.A.1.(m), (p), and (r); V.B.1.(f); V.C.1.(d); V.D.1.(l) and (n); V.F.1.(c); and V.H.1.(g). The Site Level Terms and Conditions section of the Draft Permit requires the permittee to measure the H<sub>2</sub>S content of the blast furnace gas combusted at the facility at least once every calendar quarter. This quarterly requirement has no reasonable relationship with the hourly or annual emission limits for SO<sub>2</sub> from any of the above referenced sources and therefore does not

assure compliance with those limits. The Draft Permit also requires the permittee to perform SO<sub>2</sub> stack tests on the Casthouse Baghouses once every two years, emissions tests for SO<sub>2</sub> from the Blast Furnace Stoves once every two years, SO<sub>2</sub> emissions tests on the BOP Shop venturi scrubber once every two years, and SO<sub>2</sub> emission stack tests on the boilers once every two years. The frequencies of these requirements are not reasonably related to the hourly or annual emission limits in the Draft Permit. Therefore, the testing and monitoring requirements for SO<sub>2</sub> emission limits for these sources is not sufficient to assure continuous compliance.

The Department should require the permittee to install SO<sub>2</sub> CEMS for the Blast Furnace Stove stacks, the Blast Furnace Casthouse Baghouse stacks, each of the BOP Shop Baghouse and Venturi Scrubber stacks, and the Riley Boiler stacks. SO<sub>2</sub> CEMS are commercially available.

At a minimum, the Department must revise the Draft Permit to include sufficient testing and monitoring requirements for the hourly and annual SO<sub>2</sub> emission limits for these sources. (1 Commenter)

**RESPONSE:** The SO<sub>2</sub> emissions are based on Edgar Thomson SO<sub>2</sub> SIP Installation Permit 0051-I006, dated September 14, 2017, and it is part of the attainment demonstration for sulfur dioxide (SO<sub>2</sub>). The Department believes that the testing and monitoring requirements contained in the permit with proper operating practices will assure compliance with the permit conditions. See the Technical Support Document for a detailed evaluation of monitoring requirements. The consent decree signed on December 16, 2022, requires the installation of SO<sub>2</sub> CEMS on the Riley Boilers. This requirement has been incorporated into the permit under condition V.H.6. See also the response to Comment #66 above.

75. **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 PM, heavy metals (primarily manganese and lead), VOCs, and SO<sub>2</sub> emissions that impact the community and to ensure compliance with the facility-wide emissions limitations for those pollutants. Reviewing the facility's 2020 Air Emissions Report, it remains a significant source of these pollutants.

Fenceline monitoring programs at other industrial facilities like refineries and chemical plants have been successful in identifying otherwise hidden emissions and alerting plant operators to pollutant concentrations at property boundaries that pose a health risk to nearby communities.

The Department has the authority to include conditions requiring fenceline monitoring for benzene and should revise the Draft Permit to include such conditions.

**RESPONSE:** The permit contains many emission limitations, operation and maintenance requirements and work practice standards that were including NESHAP Subpart FFFF for Integrated Iron and Steel regulations that requires the facility to monitor and reduce emissions 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 Department has an air monitor in North Braddock and Liberty that monitors the air around Braddock and Clairton region to ensure that the facility is 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 believes the monitoring requirements specified by the permit will demonstrate compliance. In addition, the Department cannot arbitrarily require the facility to install fence-line monitoring during permit renewal process.

76. **COMMENT:** Following the catastrophic fire at the U.S. Steel Clairton Coke Works on December 24, 2018, U.S. Steel released benzene, hydrogen sulfide, and other pollutants from Edgar Thomson at much higher levels than normal. Using ACHD's source-by-source breakdown for emissions by plant, were 67 pounds per day from the Edgar Thomson Plant. ACHD should require increased monitoring of all pollutants released during emergencies, malfunctions, or upset events so that these emissions are adequately monitored and reported and the public and ACHD have a clearer understanding and warning of the hazards they face during those events. (1 Commenter)

**RESPONSE:** Article XXI §2108.01.c & Condition IV.8 requires U.S. Steel to report breakdowns of any air pollution control equipment, process equipment, or other source of air contaminants and identify the specific material(s) which are being or are likely to be emitted and the estimated quantity. The facility reported the breakdown of No. 2 & No. 5 control rooms and identified emissions and toxic qualities on December 31, 2018, and the Department issued an enforcement order #190202 and #190202A on February 28, 2019, and March 12, 2019, respectively. The enforcement order 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.

77. **COMMENT:** Single Source Determination: description of the three facilities (U.S. Steel Corporation, Edgar Thompson Works, Magnus Products LLC, and TMS International LLC facilities)' single source status is inconsistent between review memos. Please ensure all three review memos clarify ACHD's determination that the facilities are considered a single major source for both Title V and New Source Review purposes and explain the basis of the determination. Criteria should include adjacency, common control, and SIC code per ACHD Article XXI §2101.20 and 40 CFR §70.2 definition of major source and 40 CFR §52.21(b) definition of stationary source. (1 Commenter)

**RESPONSE:** TMS International LLC is a major source of HAP and is therefore a Title V source. Magnus Products LLC is a single source with U.S. Steel Edgar Thomson. The Technical Support Document has been updated to reflect this.

78. **COMMENT:** Potential to Emit Limits: the draft permit incorporates potential to emit (PTE) lb/hr and tpy emissions limits for various sources and pollutants. The review memo and associated spreadsheets explain how limits were calculated; however, the underlying regulatory authority for including these limits in the title V permit is unclear. For instance, see Table V-A-1 Blast Furnace No. 1 Emission Limitations on page 45 of the draft Edgar Thomson permit. The two citations for the table only reference operating permit application requirements and a particulate pound per production limit for iron/and or steel making (different from units of measurement in table). (1 Commenter)

- a) Please ensure the underlying authority and origin for all emissions limits newly incorporated into the permit (including but not limited Table V-A-1) are identified in the permit and explained in the review memo. See ACHD Article XXI §2103.12(g)(1) and 40 CFR §70.6(a)(1)(i)
- b) Note: Title V permits function to assure compliance with underlying applicable requirements, and do not impose substantive new requirements beyond those necessary to assure compliance. See 40 CFR §70.1(b). Emissions limits should be established via an underlying, federally enforceable authority before incorporation into a title V operating permit or they must be identified as state-only/local-only requirements under an identifiable state/local 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<sub>x</sub>, VOC and CO emissions. The facility was required to perform series of emission testing to develop emission factors that can be applied to quantify condensable PM, NO<sub>x</sub>, SO<sub>x</sub> and CO emissions. Most of the facility's processes were installed over 100 years ago and do not have any underlying installation permit; these limits are not new; they are based on U.S. Steel-ET operation. The Department believes that it is appropriate to have a potential pound/hour and tons/year limit in the Title V operating permit partly because of modeling for significant impact levels, to determine regulatory applicability or as an enforceable limit in the State Implementation Plan. See response to comment #1 above.

79. **COMMENT:** Draft permit, Condition V.H.3.a (pg. 106): “The permittee shall install, calibrate, maintain, and operate a CEM for Riley Boilers No. 1, 2 and 3, and record the output of each system, for measuring nitrogen oxide emissions discharged to the atmosphere.” The permit does not specify quality control procedures for CEMS. We recommend using either part 75 or part 60 CEMS QA/QC procedures, as appropriate (See Appendix F to Part 60 - Quality Assurance Procedures, and Appendix A to Part 75-Specifications and Test Procedures). (1 Commenter)

**RESPONSE:** The Department made the requested change by incorporating the QA/QC procedures under condition V.H.6.b.

80. **COMMENT:** Throughout the permit, vague language (“a trained individual”) is used for visual emission observations. For each condition related to visual emission monitoring please specify the test method (i.e., Method 9, Method 22 etc.). (1 Commenter)

**RESPONSE:** The Department amended the following conditions to specify EPA Method 22: V.A.3.a, V.B.3.a, V.C.3.a, V.D.3.u, V.E.3.p, V.F.3.c, V.G.3.a, V.H.3.f, and V.I.3.a.

81. **COMMENT:** The draft permit describes the facility's obligation to conform with the greenhouse gas reporting requirements of 40 CFR Part 98; however, the review memo indicates that this regulatory requirement does not apply to the facility. Please clarify this discrepancy. (1 Commenter)

**RESPONSE:** The Department has clarified the greenhouse gas reporting requirements of 40 CFR Part 98. See response to comment #13 above.

82. **COMMENT:** The review memo, page 19, indicates that the facility's Riley Boilers are exempt from the boiler MACT requirements of 40 CFR Part 63 Subpart DDDDD pursuant to “40 CFR

63.7506(b)(2)”. However, this citation does not appear to exist within Subpart DDDDD. Please clarify the applicability of the Subpart incorporate requirements in the permit as appropriate. Note that the regulatory text for this subpart has been updated several times. (1 Commenter)

**RESPONSE:** The Department made the requested change.

83. **COMMENT:** Review memo page 3 indicates that all references to startup, shutdown and malfunction (SSM) have been removed because the US EPA has revised the NESHAP, Subpart FFFFF by eliminating startup, shutdown and malfunction requirements, effective January 11, 2021. However, there are still many conditions in the draft permit that point to the requirements of SSM. For example, on draft permit page 53, condition V.A.4.d.2 “The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.” Please clarify this discrepancy. (1 Commenter)

**RESPONSE:** The Department has made the requested changes by removing any reference to §63.6(e)(3)(iii), §63.6(f)(1), §63.6(h)(1), and §63.10(d)(5)(i) relating to the startup, shutdown, and malfunction (SSM) plan.

84. **COMMENT:** For the two emergency generators Gen-1 and Gen-2, please indicate in the review memo that NSPS subpart IIII is applicable (per the permit) and clarify the applicability of NESHAP subpart ZZZZ. If NESHAP subpart ZZZZ is applicable, please add requirements to the permit as appropriate. (1 Commenter)

85. **RESPONSE:** The Department has clarified the applicability of NESHAP subpart ZZZZ.

86. **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, particulate matter beginning 6/25/2020, and a 5/17/2022 consent decree. See <https://echo.epa.gov/detailed-facility-report?fid=110001116934> and

[https://echo.epa.gov/enforcement-case-report?activity\\_id=3601583467](https://echo.epa.gov/enforcement-case-report?activity_id=3601583467).

- 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 with any requirements, a compliance schedule is required at the time of operating permit issuance. See ACHD Article XXI §2103.12(d) and 40 CFR §70.6(c)(3).

**RESPONSE:** The sulfur dioxide violation leading to the HPV is related to the December 24, 2018, fire that rendered the U.S. Steel-Clairton 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 H<sub>2</sub>S concentration and SO<sub>2</sub> emission limits. The Enforcement case remains in litigation and/or negotiation due to the civil penalty to be agreed on or awarded in court. The facility is currently in compliance with all conditions of the proposed permit.

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. The violation-causing action has been corrected to the satisfaction of the Department.

The May 17, 2022, consent decree was finalized on December 16, 2022 and is between the Department of Justice/ACHD and U.S. Steel to resolve the notification requirements violation, opacity, record keeping and certain NESHAP Subpart FFFFF provisions. Based on the consent decree, U.S. Steel has performed certain actions to address the violations alleged in the Complaint. However, as referenced above, 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 in the Consent Decree. A section has been added to the Technical Support Document to address this, and conditions have been added to the permit (IV.29.d, V.H.6.d, and V.I.6.b-d) to address specific requirements of the Consent Decree.

87. **COMMENT:** The review memo (pg. 3, paragraph 4) refers to NESHAP subpart FFFF. It should refer to subpart FFFFF. (1 Commenter)

**RESPONSE:** The Department has made the requested change.

88. **COMMENT:** Draft permit Condition V.H.1.h (pg. 105): “NO<sub>x</sub> emissions from each Riley Boilers No. 1, 2 or 3 shall not exceed the limitations in Table V-H-1 below.” It appears the condition should refer to Table V-H-2. (1 Commenter)

**RESPONSE:** The Department has made the requested change.

89. **COMMENT:** The page numbers listed in the draft permit’s Table of Contents do not match the document. (1 Commenter)

**RESPONSE:** The Department has made the requested change.

90. **COMMENT:** ACHD should lower pollution limits from Edgar Thomson by: (76 Commenters)

- a) Dramatically reduce emissions of several particularly dangerous pollutants coming from Edgar Thomson, such as manganese, lead, and cancer-causing chromium.
- b) Require U.S. Steel to develop and implement a plan to bring the facility into full and sustained compliance with its Clean Air Act requirements, rather than continuing to just violate and pay another fine, or “pay to pollute;” and
- c) Require real-time monitoring of sulfur dioxide emissions.

**RESPONSE:** The permit contains many emission limitations, operation and maintenance requirements and work practice standards, including NESHAP Subpart FFFFF regulations that requires the facility to monitor and reduce emissions to ensure that where the area is in attainment of the National Ambient Air Quality Standards, that they will not be violated. The facility is currently in compliance with all conditions of this permit.

The permit requires the facility to perform testing biennially to demonstrate compliance with the permit limits including sulfur dioxide. The permit also includes requirements for monitoring and recordkeeping to demonstrate compliance where continuous emission monitors (CEMs) are not required. See the Technical Support Document for a detailed evaluation of monitoring requirements. The Department believes that these testing and monitoring requirements sufficiently demonstrate compliance and does not see any reason to require real-time monitoring of sulfur dioxide or require the installation of SO<sub>2</sub> CEMs beyond what is required by the December 16, 2022 consent decree (see comment No. 74 above).

91. **COMMENT:** U.S. Steel should be required to replace unreliable equipment and temporarily pause operations at the Edgar Thomson Works if pollution control equipment is not functioning properly, and lower the emission of bad chemicals, in particular PM<sub>2.5</sub> and Lead from Edgar Thomson Works. (15 Commenters)

**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. Please refer to the Response to Comment No. 90 above.

92. **COMMENT:** I have developed asthma as a result of living in Allegheny County from the poor air quality here often the worst in the Nation. Please act. Nothing is more fundamental than basic human health to breath clean air. Create a better permitting system beyond mere paying of fines. (1 Commenter)

**RESPONSE:** ACHD appreciates your participation in the public comment process. ACHD prioritizes air quality as one of Allegheny County's most important public health priorities as identified in the Plan for a Healthier Allegheny 2023-27. The ACHD Air Quality Program will continue to review and inspect the facility to ensure they maintain compliance with permitting requirements, including adherence to all local, state, and federal air quality regulations.

93. **COMMENT:** The currently proposed Title V permit for U.S. Steel's Edgar Thomson Plant is insufficient to protect public health. The Allegheny County Health Department (ACHD) should: (62 Commenters)

- a) Include additional requirements that are more stringent and more specific than "applicable requirements".
- b) Require video cameras and digital images to be used to determine compliance and for enforcement purposes.
- c) Require fence-line monitoring for particulate matter, heavy metals, volatile organic compounds, and sulfur compounds.

**RESPONSE:** The Department has included 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.10 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.

94. **COMMENT:** Please do not allow this plant to continue to pollute. They have shown they are not able to operate in compliance with the Clean Air Act. Please shut them down. Too much is at risk and too many chances have been given. You should deny the Title V permit since they cannot reliably demonstrate consistent compliance. (1 Commenter)

**RESPONSE:** Please refer to the Response to Comment No. 91 above.

95. **COMMENT:** I am writing to support efforts to better regulate industrial air pollutants in Allegheny County, in general, and the Edgar Thomson Works, in particular. (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.

96. **COMMENT:** Impose the strongest pollution limits possible AND if industry cannot meet these requirements that protect our health, it is NOT time to fine, it's time to shut them down. It's time to bring U.S. Steel's Edgar Thomson into full, sustained compliance with its Clean Air Act requirements. It's time to require that they reduce emissions of dangerous pollutants such as manganese, lead, and cancer-causing chromium. (4 Commenters)

**RESPONSE:** Please refer to the Response to Comments No. 91 and 95 above.

97. **COMMENT:** I am proud to call Pittsburgh home, but as long as facilities such as the U.S. Steel Edgar Thomson Facility continue to pollute our air, the health of my family and our neighbors will continue to suffer. I ask that you please take this into consideration as you set your monitoring/reporting protocols and leverage steep fines for infractions by companies who continue to disregard the regulations and pollute air. (1 Commenter)

**RESPONSE:** ACHD appreciates your participation in the public comment process. ACHD prioritizes air quality as one of Allegheny 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. Please refer to the Response to Comment No. 95 above.

98. **COMMENT:** U.S. Steel must become compliant with the Clean Air Act. Paying to pollute just doesn't cut it. Make U.S. Steel comply or shut them down. (1 Commenter)

**RESPONSE:** Please refer to the Response to Comments No. 91 and 95 above.

99. **COMMENT:** The ACHD has failed the people of Pittsburgh, and most especially those living in the Mon Valley. Enforcement of regulations and fines are a rap on the knuckles of U.S. Steel, their cost of doing business. The real cost has been in peoples' shortened lives and poor health. Will this new round of discussions about ET produce cleaner air for the hundred thousand souls in the Mon Valley? I'm not holding my breath (1 Commenter)

**RESPONSE:** Please refer to the Response to Comments No. 91 and 95 above.

100. **COMMENT:** Please enforce our existing laws whenever possible and make U.S. Steel more responsible for the health effects on its immediate neighbors in the Mon valley (1 Commenter)

**RESPONSE:** Please refer to the Response to Comments No. 91 and 95 above.

101. **COMMENT:** Condition IV.2 The measurement method for the Visible Emissions §2104.01.a is not included. Article XXI D-1 2104.01 Visible Emissions at (d) does reference Article XXI §2107.11 as the measurement methods for Article XXI D-1 §2104.01 a. Visible Emissions. Either include 2104(d) or include an appropriate reference for a measurement method or methods for (IV. 2. 2104.01a.). (1 Commenter)

**RESPONSE:** The Department has referenced the Article XXI §2107.11 under condition IV.2 of the permit.

102. **COMMENT:** Conditions V.E.1.d, V.E.1.e and V.E.2.h. While condition V.E.1.e has an associated testing method for opacity in condition V.E.2.h, Condition V.E.1.d does not have an associated testing method. Add the observation method for condition V.E.1.d. (1 Commenter)

**RESPONSE:** The Department has referenced the associated test method in condition V.E.1.d,

103. **COMMENT:** There are thirteen "Error" messages relating to "Reference Source not found" on pages 41, 48, 54, 58, 72, 83, 89, 94, three on 95, two on 108 of the Permit. This should be remedied. (1 Commenter)

**RESPONSE:** The Department appreciate the comment. All cross-references have been updated.

104. **COMMENT:** ACHD should strengthen the U.S. Steel Edgar Thomson Works Title V permit to reduce emissions from this facility to the maximum amount possible to better protect impacted residents from harmful health effects of air pollution from this facility. (1 Commenter)

**RESPONSE:** Please refer to the Response to Comments No. 91 and 95 above.

105. **COMMENT/RESPONSE:** General Condition III.1 was amended to include the requirements of §2101.11.b; Site Level Condition IV.3 was amended to combine the requirements of IV.3 and IV.10; and Site Level Condition IV.10 was deleted.

106. **COMMENT/RESPONSE:** The blast furnace gas flare emissions table has been deleted from the permit because the flare is designed to flare excess blast furnace gas and function as a safety device,

so there is no limit on the excess gas that could be flared. In addition, the limit was based on the flare throughput/capacity, which is an over-estimation.

### List of Commenters

Name	Affiliation
Brett Tunno	U.S. Steel Corporation
Riley Burger	Environmental Protection Agency
Christopher D. Ahlers	Clean Air Council
John K . Baillie	Group Against Smog and Pollution
Hafeez Ajenifuja	Allegheny County Health Department

Citizen Commenters			
Kathy Testoni	Eugene Mariani	Jennifer Lydon	H. Modic
Wayne Albright	Elfrieda Bechek	Margaret Mahoney	Isla Modic
Brian MacWhinney	Shelley Ross	Mary Schinhofen	Laxmi Velankar
Kathryn Westman	Sanford Leuba	Patti Barilla	Greg Kochanski
Barbara Brandom	Fred Kraybill	Mindy Payne	Catherine Maihoefer
Katelyn Haas-Conrad	Kathleen Krebs	Tyler Devogel	Paul Brown
Preston Shimer	Elizabeth Rotz	Barbara Brandom	Tom O'Brien
Patricia Laffey	Renee Abrams	Kathleen Connor	Robert Nishikawa
Mary Jo Knox	William Doran	David Mendis	Mary Weidner
Frank Ferguson	Sabrina Wojnaroski	Milena Dwyer	Olivia Perfetti
Timothy Resciniti	Selma Weiss	Andrea Schultz	Lauri K
jill diskin	Mary Weidner	Catrina Luttinger	Alyssa Cleve
Mike Stout	Gregory Sinn	Ira Monarch	Claude LaVallee
Janice Peischl	Robert Sroufe	Bob Nishikawa	William Doran
Barbara Matthews	Rebecca Studer	Lauren Allen	Rene abrams
Robert Smith	sean nolan	Tom Trok	Timothy Kelly
kathy ober	Claude LaVallee	Julia Micklo	Fred Kraybill
Lauri K	Hudson Wagner	Beth Zamborsky	Elizabeth R
Christine Graziano	April Clisura	Anaís Peterson	Steven Karas
Dianne Peterson	Will	Mary Zuccaro	Katie Wolff
Stephanie Ulmer	Derek Gilliam	Barbara Litt	Anne Jckson
Fran Harkins	Robert Gibb	Alexander Downing	Adam Peterson
Sean Nolan	Don Hawkins	Chris Beam	Judy McAuley
Suzanne Seppi	Evelyn Och	Sebastian Peleato	Barbara Brandom
Deborah gentile	Mary Knox	Kenneth Zenkevich	George Stewart
Clara Kitongo	Richard Headley	Kathleen Krebs	Harry Hochheiser
Regina Brooks	Dolores Fifer	Matthew Baily	Zachary Littleberry
Nancy DelPresto	kajsa ingelsson	Gail Neustadt	Melanie Meade

Citizen Commenters			
Brad Rea	Eugene Mariani	Ross Carmichael	Lynda Kolesar
Joseph Wyzkoski	Benjamin Tu	Douglas Metzler	K Danowski
Samuel Gespass	Laura Horowitz	Judy Squires	John Balicki
Katelyn Haas-Conrad	Angela Lusk	Kathryn Roecklein	Garret Wassermann
John Hrabar	Michelle Pepitone	Colin Dean	Don Hawkins
Eugene Mariani	Jennifer Goeckeler-Fried	Jay Walker	Al Ferrucci
Savannah Pailloz	Mari McShane	Theron Gilliland, Jr.	Korawich Kavee
Donald Naragon	Jacob Klinger	Richard Spiegel	Jessica Bellas
Robert Hillman	Zelda Curtiss	Kenneth Bickel	Brian Joos
brittany bennett	Emily Willner	Kirsten Rokke	Seth Peasley
Jon Hanrahan	Tom Pike	Stephanie Sorensen	Constantina Hanse
Zachary Michaels	Travis Ford	Brian Nuckols	Evelyn Och
Matthew Rubin	Martin Taylor		