ALLEGHENY COUNTY HEALTH DEPARTMENT
Air Quality Program

SUMMARY OF PUBLIC COMMENTS AND DEPARTMENT RESPONSES ON THE PROPOSED ISSUANCE OF MCCONWAY & TORLEY OPERATING PERMIT 0275

[Notice of the opportunity for public comment appeared in the legal section of the Pittsburgh Post-Gazette on November 2, 2017. The public comment period ended on December 4, 2017.]

1. **COMMENT:** M&T agrees that Plant Wide Limits for the foundry should be set in TPY, below the major source thresholds.

   RESPONSE: The Department agrees with the comment. Production limits will be used to demonstrate that emissions remain below major source thresholds.

2. **COMMENT:** M&T agrees to perform Periodic testing of the six Baghouses evacuating the foundry building for six hours per baghouse and agrees to repeat this test at five year intervals. The tests will be performed on consecutive days.

   However, conducting these tests is a logistical challenge considering the physical plant. The six-baghouse test over two days requires two tractor trailer size equipment vans be located near the baghouses tested and supplied with power. About a dozen test company personnel and four company people are needed to monitor various aspects of the tests including the production rates at a number of places. Two test days means four days of disruption of plant traffic because of setup and tear down of the sampling apparatus. It also takes considerable planning and coordination to organize two full days of high production of all plant operations at the sametime.

   M&T suggests the next 6-Baghouse test next be done within one year of the date the Permit becomes final, and then at five-year intervals thereafter.

   RESPONSE: The Department partially agrees and partially disagrees with the comment. The permit has been revised so that the next 6-baghouse test shall take place within 180 days of the Operating Permit being issued instead of the 120 day period initially proposed. The Department does not agree that an entire year is needed to prepare for a facility-wide stack test that, as proposed, is less burdensome than the most recent facility-wide stack test.

3. **COMMENT:** The protocol for the 6-Baghouse test should be listed once as a Site Level Condition, not six times for six baghouses in the Emission Unit Section.

   RESPONSE: The Department agrees with the comment and has moved the 6-baghouse testing provisions to the Site Level Conditions Section.

4. **COMMENT:** M&T assumes all future tests for VOC will follow the procedure used in the November 2016 seven Baghouse tests, where THC as measured by EPA Method 25 will be corrected to VOC by subtraction of methane, ethane and acetone, and this will be clarified in the permit language for the six Baghouse tests.

   RESPONSE: The Department agrees with the comment and defers to the definition of Volatile Organic Compounds as provided by the EPA and the EPA Method 25A.

5. **COMMENT:** M&T requests that ACHD clarify language on where Baghouse Leak Detection Systems ("BLDS") are required: for the EAF baghouses only, or for Baghouses 9, 10, and 11. Clarifying language should be added at page 33, paragraph 3a, and page 44, paragraph 3d.

   RESPONSE: The Department agrees with the comment and has added the word "EAF" to clarify that the BLDS systems refer to the EAF baghouses (nos. 9, 10 and 11) only.

6. **COMMENT:** M&T requests the permit clarify that it has 60 days to submit a stack test report, as has been ACHD's practice for years. At page 19, paragraph l 3b, please change "20" to "60" days for the time to submit the test report.

   RESPONSE: The Department disagrees with the comment. The language in the permit refers to orders by the Department and is from Article XXI §2108.02.c. The Department will continue to handle the test reporting period on a case-by-case basis.

7. **COMMENT:** M&T suggests adding SO_X testing by autoanalyzer to the periodic 6-Baghouse testing as illustrated at paragraph 2a on page 30, (and in the five other corresponding paragraphs of the draft permit), rather than as part of particulate tests required for the baghouses. It is easier to test all gaseous pollutants together at one time.

   RESPONSE: The Department agrees with the comment and has moved the sulfur oxides testing requirements for the EAF baghouses to be part of the facility-wide testing.

8. **COMMENT:** The permits make repetitive and redundant references to the six-baghouse tests to be performed in the future. This should be in the permit once as a site level condition, and not repeated as an Emission Unit level condition six times for the six baghouses.

   RESPONSE: The Department agrees. See response to comment no. 3.

9. **COMMENT:** M&T requests ACHD to change the frequency of monitoring of fan amps from every fifteen minutes to every thirty minutes during the six-baghouse test, as repeated six times in the permit. This is referenced at page 33, paragraph i.5; page 43, paragraph j.5; page 63, paragraph i.5; page 66, paragraph i.5; page 69, paragraph i.5; page 72, paragraph i.5. This procedure was acceptable to ACHD in the seven-baghouse test (conducted on November 10-11, 2016), which requires a large test crew to perform. Fan Amps are not so critical they must be recorded every fifteen minutes. Fan amp measurements are a surrogate measure of airflow through the controls. The baghouse test crew measures the airflow during the stack test, every minute is a more direct and accurate measurement of airflow.

   RESPONSE: The Department agrees with the comment and has made the requested changes to the frequency of fan amps monitoring.

10. **COMMENT:** The permit references "6-Baghouse Tests" to refer to a stack test of all of the baghouses evacuating the foundry building. If M&T consolidates baghouses in the future, a permit revision on the repetitive references to the "6-Baghouse Tests" to change it to "5-Baghouse Tests"

if there are then five baghouses, would be needed in the future. Would ACHD consider changing "6-Baghouse Tests" to "Foundry Baghouse Tests" in the permit?

RESPONSE: The Department partially agrees and partially disagrees with the comment. The reference to "6-Baghouse" has been changed to "Facility-Wide Baghouses" to refer to the facility's baghouses with exhaust stacks that exit the building (currently baghouse nos. 2, 6, 9, 10, 11, and 12).

11. **COMMENT:** M&T recommends that ACHD not specify specific test methods, as these methods will change in the future. The permit should simply say, "use test methods approved by ACHD".

RESPONSE: The Department disagrees with the comment. Corrections were made to typographical errors to the EPA Test Methods. However, the Department will continue to approve alternate test methods on a case-by-case basis.

12. **COMMENT:** M&T has shown that Method 201A cannot be used at Baghouses 9, 10, and 2, because the physical setup of the ductwork does not provide the type of flow needed to use Method 201A. They propose to use Methods 5 or 7, and 202, as ACHD has approved in the past and requests the language at operating permit page 42, paragraph 2 d, page 69, paragraph 2 c, and page 72 paragraph 2 c, be revised to make this change.

RESPONSE: The Department agrees with the comment and has made the requested changes.

13. **COMMENT:** The Permits should not change emission limits or add provisions, limits or pollutants which are not in prior permits or do not have an air pollution impact. The draft operating permit contains a number of limits or requirements that did not appear in any prior permits and there are proposed limits for processes that have no direct emissions to the atmosphere.

RESPONSE: The Department disagrees with the comment. Many of the sources at facility were never permitted in the first place since they were existing sources or sources that did not require an Installation Permit. The sources will continue to be permitted on an individual case-by-case basis.

14. **COMMENT:** The Permits should not set emission limits based on AP-42 for the process units listed that do not discharge to the outside atmosphere. The foundry is maintaining a negative pressure in the foundry building by operation of the baghouses and maintaining the integrity of the building structure. All processes in the foundry are exhausted, (and for particulate sources, controlled), through one of six Baghouse or Dust Collector exhausts. These exhausts are the point of compliance for all operations inside the building, so imposing a limit on specific minor operations inside the building is double counting of emissions which are collected, and will be tested, at one of the six emission points.

RESPONSE: The Department partially agrees and partially disagrees with the comment. The facility's building is unique in that all emissions must exit through a baghouse where those emissions are determined by the overall grain loading rating of the baghouse. The individual emission limits have been removed for the Wisconsin Ovens, Bentonite Storage and Robotic Knuckle.

15. **COMMENT:** The draft permit contains recordkeeping provisions for finishing operations that are not related to air pollution emissions and were not in any prior permits. This permit already contains extensive recordkeeping of process parameters related to air pollution. Requirements to record

parameters not related to emissions are burdensome for all parties. The permit requires steel production rate information for most Cleaning and Finishing Operations, at the following pages:

A. Air Arc-Page 67, Paragraph 4a tonnage processed
B. Shot Blast-Page 69, Paragraph 4a tonnage processed
C. Spinner Hanger-Page 73, Paragraph 4a tonnage processed
D. Robotic Knuckle-Page 74, Paragraph 4a tonnage processed
E. Hand Grinding-Page 76, Paragraph 4a tonnage processed
F. Heat Treating Furnaces Page 78, Paragraph 4a tonnage processed

All of these sources except Heat Treating create some dust inside the building, but the dust emissions to the atmosphere are calculated as grain loading passing through dust collector filters, times airflow. The weight of a piece of steel that is, for example, shot blasted, is not related to particulate emissions to the atmosphere from the process. The emissions from Heat Treating come from the amount of natural gas burned, not the amount of steel heated in these units. M&T request these steel process weight recordkeeping provisions be removed from the draft permits at pages 29, 67, 69, 73, 74, 76 and 78.

RESPONSE: The Department partially agrees and partially disagrees with the comment. All of the processes listed in this comment create emissions for the facility. The record-keeping has been modified to record "attained tons" for the Air Arc Welding, Shot Blast, Spinner Hanger, Hand Grinding and Heat Treating Furnace units.

16. **COMMENT:** Many operations, most inside the foundry building, have three sets of Particulate Limits, PM, PM_{10}, $PM_{2.5}$, that are often the same numeric value, and for *de minimis* amounts of particulate emitted to the building interior, not emitted to the atmosphere. M&T requests the 3 redundant particulate limits be removed from the permit, or ACHD should describe them as FPM, FPM-10 and FPM- 2.5.

RESPONSE: The Department disagrees with the comment. The Department already specifies in testing conditions when total (filterable + condensable) particulate matter tests are required to satisfy particulate matter emissions limits. There are no changes to the permit due to this comment.

17. **COMMENT:** M&T does not think ACHD has a rational basis or the legal authority to set Emission Limits for small or insignificant sources that do not exhaust to atmosphere, but through one of the six baghouses (that have limits), and cannot be tested. M&T suggests the Emission Limits (based on AP-42 Emissions Estimates) be removed from the permit for:

A. Page 24 Charge Handling (Paragraph 1b) outside, but cannot be tested.
B. Page 57 Wisconsin Ovens, emits inside, cannot be tested.
C. Page 59 Bentonite Storage, emits inside, cannot be tested.
D. Page 61 Intermediate Sand Storage System (Mold Sand, emits inside, cannot be tested).
E. Page 74 Robotic Knuckle, emits inside, cannot be tested.
F. Page 77 Heat Treating, emits inside, cannot be tested.
G. Page 79 Ladle Preheaters, emits inside, cannot be tested.

RESPONSE: The Department partially agrees and partially disagrees with the comment. See response to comment no. 13. The gaseous heat treating furnace emissions are not small or insignificant and the gaseous emissions are based on the burner ratings and hours of operation. The Charge Handling is not a small or insignificant source and emits directly to the atmosphere. The Heat Treating furnaces and Ladle preheaters are not small or insignificant sources of gaseous emissions. The emission limits for the Wisconsin Ovens, Bentonite Storage, and Robotic Knuckle have been removed, as they emit into the foundry building and ultimately exhaust through one of the six facility baghouse stacks.

18. **COMMENT:** M&T agrees to maintain the foundry building under negative pressure by operation of the large Baghouse dust collectors. The six regulated points where emissions reach the atmosphere are the "Emission Units." ACHD should stop its old practice of setting limits for every interior process no matter how small. The individual process limits are no longer relevant to air pollutant emissions. The Emission Units are the Baghouses, not the processes. Even the "EAF" baghouses 9, 10, and 11 also draw emissions from other sources inside the foundry.

RESPONSE: The Department partially agrees and partially disagrees with the comment. See responses to comment nos. 13 and 17.

19. **COMMENT:** M&T asks ACHD to eliminate specific source limits for internal processes that would be exempt or trivial sources under Article XXI, §2102.04(a)5 and §2103.20(b) and the DEP Air Quality Permit Exemptions Policy, Document No. 275-2101-003, Rev. 8/10/2013.

RESPONSE: The Department disagrees with the comment. The exemption criteria cited from Article XXI refers to the requirements to obtain an Installation Permit. The Operating Permit contains all sources of emissions at the facility. There are no changes in the permit due to this comment.

20. **COMMENT:** The permit should contain, as a Site Level condition, a reference to the Operational Flexibility provisions of Section 2103.l4a of Article XXI.

RESPONSE: The Department disagrees with the comment. The regulation cited in the permit is applicable with or without inclusion in the Operating Permit. There are no changes in the permit due to this comment.

21. **COMMENT:** The permit should contain, as a Site Level condition, a reference to the Operational Flexibility provisions of Section 2103.l4c of Article XXI.

RESPONSE: The Department disagrees with the comment. See response to comment no. 20.

22. **COMMENT:** The permit should contain, as a Site Level condition, a reference to the Operational Flexibility provisions of Section 2103.22 of Article XXI.

RESPONSE: The Department disagrees with the comment. See response to comment no. 20.

23. **COMMENT:** M&T suggests the Permits should provide that particulate tests, where applicable, be done within the term of the permit, and then at less than five year intervals from the last test.

RESPONSE: The Department has clarified the conditions so that initial tests for the previously untested baghouses (nos. 2 and 6) be performed within 180 days of the issuance of the permit and at least once every five years.

24. **COMMENT (II, Table II-1):** Source (H-80 Core Machines) removed.

RESPONSE: The Department has removed the source from the permit.

25. **COMMENT (II, Table II-1):** Revise maximum capacity of alcohol wash from 9,537 to 10,000 lb/yr.

RESPONSE: The Department has made the requested change to the permit.

26. **COMMENT (III.12.b):** This is a requirement for Title V Permits. The dates do not match for this permit.

RESPONSE: The Certification of Compliance is a requirement for all sources. The Department has made the requested change to the dates.

27. **COMMENT (V.A.1.b):** Cannot test to determine compliance.

RESPONSE: The Department did not propose to test the Charge Handling process. There are no changes to the permit due to this comment.

28. **COMMENT (V.A.4.a.2):** Requirement not related to source.

RESPONSE: The Department agrees with the commenter and has removed the requirement to record gas usage related to this process.

29. **COMMENT:** The language on mercury and scrap handling at page 25, paragraph 6, to page 28 does apply to this facility, but does not need to be repeated three times in this permit for charge handling, again for EAF1, and again for EAF2. This language is on pages 25-30, and is repeated on pages 35 to 38 and again on pages 46 to 49. We suggest it should be in the permit once as a "Site Level" condition, rather than three times as an "Emission Unit" condition.

RESPONSE: The Department disagrees with the comment. The language has been incorporated to the applicable sources of 40 CFR Part 63 Subpart ZZZZZ. There are no changes to the permit due to this condition.

30. **COMMENT (V.B.1):** Tons Per Year and Pounds Per Hour Limits. This source should be called Baghouse 11. M&T substantially agrees with the annual TPY limits for EAF 1 Baghouse 11. We believe ACHD has used the initial design rated airflow included in the IP8 application. However, following installation the actual rated airflow is greater. During the 7 Baghouse test the measured airflow encountered was greater than 92,000 ACFM. The actual maximum airflow is closer to 95,000 ACFM. We believe PTE calculations should use the installed rated airflow, not the initial design airflow, to set potential emission limits.

Therefore, for FPM (which should be shown as FPM, not PM in the table at the top of page 30), the

limits should be 4.28 tpy, not 3.82 tpy, and 0.98 pounds per hour, not 0.87 lb/hr, using the calculation 0.0012 times 95,000 times 60 minutes per hour times 8,760 divided by 7,000 grains per pound divided by 2,000 for tons per year and 0.0012 times 95,000 times 60 minutes per hour divided by 7,000 grains per pound for pounds per hour.

The metal HAP limits are based on a federal standard from NESHAPS Subpart ZZZZZ of 0.06 lbs metal HAP per ton of scrap metal charged. The federal standard is to use EITHER a FPM limit or a Metal HAPS limit. ACHD did both, which M&T accepts. However, M&T objects to adding pounds per melt ton limits for Manganese, Chrome, NO_X, SO_X and VOC as overkill, redundant, unnecessary, burdensome, and beyond ACHD's legal authority. For Metal HAPs, our calculation is 0.06 times 92,500 tons is 2.78 tpy, not 0.45 tpy.

RESPONSE: The Department partially agrees and partially disagrees with the comment. The source is EAF #1. The particulate limit is based on grain loading limit and the DSCFM airflow. The maximum rated airflow of 95,000 ACFM will be used for the filterable PM hourly and annual emissions limits.

The particulate and metal HAPs limits are from Installation Permit No. 8, where BACT was applied to the new baghouse. The explanation for the derivation of the limits can be found in the technical support document for Installation Permit No. 8. Since the permit was issued, the source was tested and found to be both detectable and in compliance for all metal HAPs emission limits. Subsequent to the testing, new baghouse bags have been installed with a grain loading guarantee that was reduced from 0.0022 to 0.0012 gr./dscf.

Pounds per ton of melted steel limits are neither overkill, redundant or unnecessary. They quantify the ratio of emissions so that they can be compared to the facility-wide stack test results independent of the quantity of steel produced. Without such, future facility-wide stack tests could be in or out of compliance simply by melting too little or too much steel, respectively, compared to the 2016 facility-wide stack test. There are no changes to the permit due to this comment.

31. **COMMENT (V.B.1):** Pounds Per Ton Charged Limits. Federal regulations set a limit of 0.8 pounds FPM per ton of metal charged, or 0.06 pounds metal HAP per ton of metal charged. M&T has agreed to meet both standards. These numbers should be used in cells D-1 and D-8 of the page 30 emissions table. We think ACHD reduced the respective numbers given in federal regulations because M&T has installed better controls, and has achieved lower actual emission rates in tests. M&T hopes to continue to emit less than its permit limits. However, permit limits are supposed to be set at PTE, not actual emission rates and M&T should not be penalized for controlling emissions better than the federal standard by facing enforcement action on a permit limit that is 6.6 times lower than the federal standard. M&T does not understand what legal authority ACHD has to impose a significantly lower limit, or what studies ACHD undertook to justify this limit. M&T requests the federal limit of 0.8 pounds per melt ton Filterable Particulate and 0.06 pounds metal HAP per melt ton be used in EAF 1 limits.

M&T also objects to setting pounds per melt ton charged limits for PM_{10}, and $PM_{2.5}$, Chromium and Manganese as arbitrary limits based on limited actual emissions data. These limits should be set based on potential emissions and rated, not tested airflows, with escalation factors for limits set based on stack tests.

These limits are also redundant. Chrome and manganese are part of the metal HAP limit. In the case of Chromium and Manganese, the limits may be set at levels below the detection level of specified analytic methods. We believe ACHD set these permit limits without evaluation of whether the limits can be reliably quantified by stack tests. These tests are relatively expensive and this permit already requires a lot of other testing.

RESPONSE: See response to comment no. 30. The PM_{10}, $PM_{2.5}$, chromium and manganese emissions limits were indeed based in part off of stack test results with escalation/uncertainty factors built in. The Department may consider removing testing for speciated metal HAPs if future testing continues to show low mass emission rates for manganese and chromium.

32. **COMMENT (V.B.1):** The facility wide limits in tons per year shown in column 5 of the table on page 30 should be removed from this "Emission Unit" table of limits for EAF 1 Baghouse and put in a separate table as a Site Level condition. It is not logical to set facility limits in repetitive Emission Unit level permit limits, that is, to set facility limits in a table of emission limits for Baghouse 11.

RESPONSE: The Department disagrees with the comment. The Department views it necessary to include facility-wide emissions for each of the baghouses since those gaseous emissions are measured as a summation of all 6 baghouses exiting the facility.

33. **COMMENT (V.B.1):** The fifth column of the emission limit table on page 30 sets facility wide limits in tons per year and pounds per ton of metal charged for NO_X, CO and VOC. M&T does not object to facility wide limits in tpy set below major source thresholds.

M&T objects to setting emission limits for the entire facility in terms of pounds of criteria pollutant per tons steel charged. The commenter is not aware of any other steel facility in Allegheny County that has limits in terms of pollutant per ton of metal charged. The other permits examined use EAF furnaces in enclosed melt shops, and produce millions of tons of steel per year compared to M&T's 92,500 tons. Their emissions in TPY are many times higher than M&T's.

Adding an extra level of emissions limits in the form of pounds pollutant per melt ton, in addition to ton per year limits and pound per hour limits (as the other steelmakers have) is redundant, not supported by any calculations in the permit development documents, adds unnecessary complexity, and treats M&T differently than much larger facilities.

M&T requests ACHD to delete the plantwide limits in terms of pounds pollutant per melt ton, or describe the reason for the additional limits, why the reason is limited to this permit and has not been applied to other steel plants with closed shop melt shops, explain what assumptions and calculations ACHD made in setting these specific pounds per melt ton numbers, and explain ACHD's legal authority for setting a fourth type of emissions limit for this plant, which is a minor source of air pollutants.

RESPONSE: See response to comment nos. 30 and 31. Additionally, M&T's building is the only facility regulated by the Department that is under constant negative pressure where the (aggregate) gaseous emissions can only be measured by simultaneously testing the baghouses under controlled production conditions. Add to that, the complexity and uncertainty of the testing conditions necessitates that the pollutants be quantified as pounds of pollutant per ton of steel. This is the same

methodology (lb/ton of steel melted) that allows us to combine two separate days of testing two sets of baghouses into one functionally equivalent emission rate to compare to future testing.

34. **COMMENT (V.B.1):** M&T requests the Chrome and Manganese limits be removed from the permit as redundantt, unduly, expensive and not necessary. There are already limits on FPM, and metal HAPS, which include Chromium and Manganese. There are pounds per hour, tons per year and pounds per charge ton limits for metal HAPS. Adding separate limits for Chromium and Manganese is redundant, provides no air quality benefit and increases the already considerable expense of periodic stack testing for no benefit.

RESPONSE: See responses to comment nos. 30 and 31.

35. **COMMENT (V.C.1):** M&T substantially agrees with the annual TPY limits for EAF 2 Baghouses 9 and 10. ACHD used the values for EAF 1 Baghouse 11. However, rated airflow for each of the Baghouses is 45,000 ACFM. PTE calculations should use the installed rated airflow, to set potential emission limits.

Therefore, for FPM (which should be shown as FPM, not PM in the table at the top of page 30), the limits should be 4.05 tpy, not 3.82 tpy; and 0.93 lb/hr, not 0.87 lb/hr, using the following calculation: 0.0012 x 90,000 x 60 min/hr x 8,760 / 7,000 gr/lb / by 2,000 to calculate tons per year; and 0.0012 x 90,000 x 60 min/hr / 7,000 gr/lb to calculate pounds per hour. M&T would agree to use the corrected EAF 1 emission limits for FPM if this is the preferred ACHD procedure for setting permit limitations. As such, the limits should be 4.28 tpy and 0.98 poundsper hour

RESPONSE: The Department agrees with the commenter and has changed the filterable particulate matter hourly and annual emissions limits to be based on a total airflow of 90,000 ACFM.

36. **COMMENT (V.C.1):** CR6 Test Page 41, paragraph 2c. The CR6 test required on startup of EAF 2 was performed and the results were submitted. This was a one-time test, and paragraph 2c should be removed from the permit.

RESPONSE: The Department agrees with the commenter and has removed the requirement.

37. **COMMENT (V.D):** For the seven storage silos that exhaust in the building, these emissions will be controlled and counted at one of the six baghouse outlets. M&T requests the tables of permit limits for these small interior sources and the recordkeeping requirements and testing requirements be removed from the permit.

RESPONSE: The Department partially agrees and partially disagrees with the commenter. The emission tables have been removed from the permit. However, the restrictions, monitoring, recordkeeping, and reporting conditions shall remain in the permit. There were not any requirements to test the control devices attached to the units.

38. **COMMENT (V.D):** M&T requests that the seven storage silos that exhaust in the building be moved to miscellaneous portion of the permit, as these small sources emit inside the foundry building and not to the atmosphere.

RESPONSE: The Department disagrees with the commenter. The emissions are only low because of the control devices both attached to the units and from total building control of the facility.

39. **COMMENT (V.D):** The method of compliance for these internal sources (storage silos) exhausting through the six Baghouses is Visible Emissions readings on the six baghouses, as already required in the Permits. Paragraphs l.a, 1.d, 1.e, 1.f, 2, 4.a.1 and 5.a.1 should be removed from the permit. Sand throughput through a storage silo with a bin vent filter exhausting inside the foundry building does not affect dust emissions at one of the six baghouses.

RESPONSE: See response to comment nos. 37 and 38.

40. **COMMENT (V.E.2):** The emissions limits table and test requirements on page 54 should be deleted. The initial startup testing requirements taken from the old IP were completed years ago. Please delete paragraph 2a, 2b, and 2c. These units (Dakota scrubbers) vent to the inside of the foundry and emissions will be accounted for at one of the baghouse exits (most likely Baghouse 12). The emission limits for the internal scrubbers are not needed as there are already limits on chemical feedstocks, and the emissions will be limited at one of the Baghouse exit points. A third limit for a source that does not exhaust to atmosphere is redundant and burdensome.

RESPONSE: The Department partially agrees and partially disagrees with the commenter. The requirement to for emissions testing for these units has been removed since the sources vent internally and facility-wide VOC emissions testing will be occurring at a rate equal to or more frequent than the testing originally proposed for the scrubber units. The emission limits have been lowered to the combined maximum potential emissions measured in the February 2017 testing of the scrubber units plus a 25% uncertainty factor. This change was made so that the day-to-day operation of the core-making and scrubber units matches that of the conditions that they were tested under both in the individual scrubber tests and the facility-wide testing in November of 2016.

41. **COMMENT (V.E.2):** At page 54, paragraph 2.b.2, the amount of metal poured from the EAFs has nothing to do with the rate of coremaking or any emissions from the coremaking process. Cores are generally made for inventory and not for immediate use. Please delete paragraph 2.b.2.

RESPONSE: See response to comment no. 40.

42. **COMMENT (V.E):** The permits should reference the different water flow rates for the two scrubbers.

RESPONSE: The Department agrees with the commenter and has made the requested changes.

43. **COMMENT (IV.22):** The permit should clarify the resin quantity limit applies to parts A and B, and does not include the catalyst for the resin.

RESPONSE: The Department agrees with the commenter and has made the revision to the Site Level Condition 21.b.

44. **COMMENT (V.F):** M&T proposes that the Wisconsin Core Ovens be moved to the Miscellaneous section of the permit as the units exhaust internally and all emissions are collected, and accounted for through one of the six baghouses.

RESPONSE: The Department disagrees with the comment. See response to comment nos. 14 and 15.

45. **COMMENT (V.F):** M&T believes the emission limits set in the table for the Wisconsin Core ovens were set based on AP-42 emissions estimates, which are not to be used as permit limits. AP-42 is published by USEPA and is a common reference. However, the estimates in AP-42 are well known to have limitations. EPA says '"use of these factors as source specific permit limits... is not recommended by EPA" AP-42, 1995 Edition, Page 2. These emission limits should be deleted.

RESPONSE: The Department agrees with the commenter and has removed the conditions. The changes were made since the units vent internally and exhaust through one of the six baghouse stacks.

46. **COMMENT (V.F):** M&T objects to the proposed hexane limit based on AP-42 natural gas combustion emission estimates. The AP-42 hexane value is based on testing done on the West Coast and is known to be wrong for gas produced in the eastern United States, which does not contain much hexane. The proposed limit at 40 pounds per year is also trivial for air pollution purposes. M&T requests this limit be removed.

RESPONSE: The Department agrees with the commenter to remove the condition. See response to comment no. 45.

47. **COMMENT (V.F):** M&T requests page 58, paragraphs 2 and 6 be removed from the permit. These small natural gas fired units have no exhaust to the outside, and cannot have any visible emissions extending beyond the property line. There is no pollution control equipment to be maintained. Any emissions from this source will have to exit the foundry through one of the six Baghouses, that have a visible emissions limit.

RESPONSE: The Department partially agrees and partially disagrees with the commenter. The condition for visible emissions observation has been removed. Paragraph V.F.6.b remains in the permit.

48. **COMMENT (V.G):** The Bentonite Clay Storage Silos have built-in dust control bin vent filters for the control of particulate emissions that cannot be tested. These dust control bins vent inside the foundry building. The six foundry baghouses are a second control device for the Bentonite Clay Storage Silos. Any emissions leaving the bin vent filters are collected and controlled. They will have limits through one of the six baghouses exit points which have limits of their own. M&T requests page 59, paragraphs 1 and 2 be removed.

RESPONSE: The Department partially agrees and partially disagrees with the commenter and has removed the emissions table. The bin vent filter remains a control device on the unit. There are no other changes to the permit due to this comment.

49. **COMMENT (V.G):** M&T proposes emission limits from the internal silos be removed, and the Bentonite Storage Silos "process" be moved to the Miscellaneous section of the permits.

RESPONSE: See response to comment no. 48. The Bentonite Storage Silos will remain under the "Emission Units" section of the permit.

50. **COMMENT (V.G):** M&T requests page 60, paragraph 4.a.1 be removed from the permit. The quantity of bentonite stored each year has no impact on the negligible pollutant or dust emissions from this source. The emissions are calculated as airflow times particulate grain loading, and not throughput quantity.

RESPONSE: The Department disagrees with the commenter. The Bentonite Storage Silo remains a source of (particulate) emissions.

51. **COMMENT (V.G):** M&T requests page 60, paragraphs 2 and 6 be removed from the permit. These small natural gas fired units have no exhaust to the outside, and cannot have any visible emissions extending beyond the property line. There is no pollution control equipment to be maintained. Any emissions from this source will have to exit the foundry through one of the six Baghouses, that have a visible emissions limit.

RESPONSE: See response to comment no. 47. The condition for visible emissions observation has been removed. Paragraph V.G.6.b remains in the permit.

52. **COMMENT (V.H):** The control device for mold making, sand storage and handling, and shakeout, is mostly Baghouse 12, but also the other five baghouses controlling the foundry building.

RESPONSE: The Department agrees with the commenter. However, there are no changes to the permit regarding this comment.

53. **COMMENT (V.H):** This Emissions Unit is Baghouse 12, not a few of the process units that discharge through Baghouse 12. Baghouse 12 also evacuates other areas of the plant not listed on page 61.

RESPONSE: The Department partially agrees and partially disagrees with the comment. The processes listed generate emissions and are thus Emission Units.

54. **COMMENT (V.H):** M&T believes the emission limit table on page 61 contains numerous calculation errors. ACHD used the total of the Baghouse 5 and Baghouse 8 emissions, from the 7 Baghouse test. Since November 2016, Baghouse 5 and Baghouse 8 were replaced by Baghouse 12, installed in May 2017. Baghouse 12 has almost a 30% greater design airflow than the total design airflows of Baghouse 5 and Baghouse 8. This increase in airflow was considered in setting the Installation Permit emission limits for Baghouse 12. Therefore, the current proposed permit limitations for the tested gasses, NOx, VOC, and CO should be increased by 30 percent.

A compliance stack test of Baghouse 12 was performed in August 2017. M&T suggests these limits should be recalculated based on the newer Baghouse 12 test data or using the sum of current proposed limits based on the sum of the Baghouse 5 and Baghouse 8 results from the 7 Baghouse test, plus 30% for the increase in airflow through Baghouse 12 (compared to the sum of airflows from Baghouse 5 and Baghouse 8).

RESPONSE: The Department partially agrees and partially disagrees with the comment. The CO and NO_X hourly and annual potential emission limits for Baghouse 12 were adjusted to account for the larger airflow to Baghouse 12 compared to the airflow during the testing of Baghouses 5 and 8, which Baghouse 12 has since replaced. This does not change the facility-wide limits for CO and NO_X, which remain as derived from the November 2016 facility-wide testing.

The VOC potential emissions from Baghouse 12 and facility-wide emissions remain unchanged. The results of the VOC emissions testing for Baghouse 12 showed the same hourly results as the November 2016 facility-wide testing. This would tend to demonstrate that the VOC emissions do not migrate throughout the facility to the degree that combustion emissions of CO and NO_X emissions can migrate between baghouse collection points. Additionally, further escalation to the individual Baghouse 12 hourly VOC emissions would exceed the total VOC hourly emissions obtained in the November 2016 facility-wide testing.

The Department had already intended to apply the results of the Baghouse 12 emissions testing to the Phenol and Napthalene emissions with a 25 percent uncertainty factor applied (see draft for technical support document). However, it appears that only a 15% uncertainty factor was applied. The Department has made the correction. There are no additional uncertainty factors applied since the data was taken from a standard 3-run emissions test instead of the conditions accounted for in the 2-day November 2016 facility-wide testing.

55. **COMMENT (V.H):** The VOC limits for Baghouse 12 do not account for the emissions of VOC from limited quantities of VOC containing Core Release Agent, Mold Release Agent and Alcohol Wash, and should be adjusted upward. The draft permit allows the facility to use limited quantities of these VOC-containing materials. During the 7 Baghouse test, only the VOC-containing core release agent was used. NO-VOC versions of the other materials were used during the 7 Baghouse and Baghouse 12 tests. (M&T has continued to try less polluting raw materials when possible.) However, the NO-VOC versions of these other two materials are creating product quality issues, so M&T requests permission to use limited quantities of VOC containing materials. The limits are shown on page 62 of the permit.

RESPONSE: The Department partially agrees and partially disagrees with the comment. The Department continues to allow the usage of the Alcohol wash, low-VOC Core Release and Mold Release agents. However, the facility-wide limits to CO, NO_X and VOC refer to the controlled testing conditions where only the low-VOC Core Release was used. The Department has revised condition IV.25 to specify the conditions under which facility-wide testing shall take place. The additional potential VOC emissions created by the low-VOC Mold Release and Alcohol Wash that were not accounted for in the November 2016 facility-wide testing will be accounted for the in facility-wide emissions table in Section VIII.

56. **COMMENT (V.H):** Phenol and Naphthalene limitations should be calculated by using the Baghouse 12 test results plus 25% and ACHD's standard escalation factor for stack test results. (See Track Changes version of draft permits.)

The core making production rate is not directly related to the mold making and steel making production rates. Cores are made based on the speed of the core making equipment. Core are made for just in time use and also put into storage for use at a later time. As such, core making may only

operate a few hours per day. During the 7 Baghouse test, M&T attempted to normalize core making production with mold making and steel making production, so the 7 Baghouse test results would be representative of the annual facility production capabilities.

RESPONSE: See response to comment no. 54.

57. **COMMENT (V.H):** The facility Wide Limits listed for this process/emission unit do not belong in column 4 on Facility Limits, and we request column 4 be removed from this table.

RESPONSE: See response to comment no. 32.

58. **COMMENT (V.H):** The Intermediate Sand Storage Silos should be moved from this '"Process" to the Miscellaneous Section of the permit. They have bin vent filters, discharge to the inside of the building, and the emissions will be accounted for when they leave the building at one of the six baghouses.

RESPONSE: The Department disagrees with this comment, as the Intermediate Sand Storage Silos are connected Baghouse no. 12.

59. **COMMENT (V.I):** The permit should clarify the Emission Limits are for Baghouse 6, not just the Shot Blast Unit. Baghouse 6 controls the cleaning and finishing operations generally. The shot blast is one of the cleaning and finishing operations.

RESPONSE: The Department agrees with the comment and has made the correction to condition V.I.1.c.

60. **COMMENT (V.I):** This process (Air Arc Welding Tables) is inside the foundry, in its own enclosure with dust evacuated to Baghouse 6 and 5 other dust collectors.

RESPONSE: The Department agrees with the comment. However, there are no changes to the permit regarding this comment.

61. **COMMENT (V.I):** The calculations for the emission limitations in the draft permit are inaccurate and the calculations supporting the numbers in the draft permit were not supplied with the draft permit materials. They appear to be based on an old draft permit. The calculation for PM should be based on grain loading times rated airflow. The calculation for VOC should be based on the 7 Baghouse test results, with the usual stack test escalation factors.

62. **RESPONSE:** The Department agrees with the comment. The particulate emissions have been changed to account for an "existing" baghouse grain loading limit of 0.0052 gr./dscf. The NO_X, VOC and CO limits were already based on the November 2016 facility-wide testing results.

63. **COMMENT (V.I):** The VOC limitation in the draft permits do not include full use of Alcohol wash, core and mold release agents as discussed elsewhere in these comments.

RESPONSE: See response to comment no. 55.

64. **COMMENT (V.I):** On page 65, 120 Days is not sufficient time to organize a six Baghouse test as explained in the General Comments. M&T proposes a year to satisfy this requirement, as they would like to keep similar conditions to the last facility wide condition done in November 2016.

RESPONSE: See response to comment no. 2.

65. **COMMENT (V.I):** The Permit should clarify the language to show the Particulate Limits are at Baghouse 6 and in the form of FPM.

RESPONSE: The Department agrees with the comment and has added condition V.I.b.

66. **COMMENT (V.I):** No current permit requires recordkeeping data for steel tonnage and use of welding rods for this unit. Steel tonnage processed and welding rods used are not related to emissions. ACHD does not have the authority to add additional process recordkeeping requirements are not related to air emissions. The dust emissions from this process are calculated as grain loading times airflow and are not related to weight of steel. M&T requests this recordkeeping provision be removed.

RESPONSE: The Department disagrees with the comment. The Air Arc Welding tables are a source of particulate emissions directly controlled by a baghouse. See response to comment no. 15.

67. **COMMENT (V.J):** The permit should clarify the Emission Limits are for Baghouse 2, not just the Shot Blast Units. Baghouse 2 evacuates the Cleaning and Finishing area, the shot blasts are one operation in this area

RESPONSE: The emission limits are already listed as those for Baghouse no. 2, which includes that of Shot Blast Unit no. 2.

68. **COMMENT (V.J):** The Shot Blast Units are controlled by small dust collectors. Shot Blast 1 is then connected to Baghouse 12 and Shot Blast 2 is connected to Baghouse 2.

RESPONSE: Condition V.J.1.d has been modified.

69. **COMMENT (V.J):** The calculations for the emission limitations in the draft permit are not accurate. The calculation for PM should be based on grain loading times rated airflow. The FPM limit should be based on grain loading and flow. (38,000 cfm and 0.0052 gr/scf, estimated.)

RESPONSE: The Department agrees with the comment and has made the requested changes to the permit.

70. **COMMENT (V.J):** The VOC calculations should be from the 7 Baghouse test. The current VOC limitations do not include full use of Alcohol wash, core and mold release agents, as discussed elsewhere in these comments. The limits shown in the draft appear to be based on an old draft permit.

RESPONSE: See response to comment no. 55.

71. **COMMENT (V.J):** The current VOC limitation does not include full use of Alcohol wash, core and mold release agents as discussed elsewhere in these comments.

RESPONSE: See response to comment no. 55.

72. **COMMENT (V.J):** The current permits do not require recordkeeping data for steel tonnage for this unit. The Department does not have the authority to add additional process recordkeeping requirements are not related to air emissions.

RESPONSE: See response to comment nos. 15 and 66.

73. **COMMENT (V.J):** The particulate limits from this operation should be described as, FPM, FPM_{10}, and $FPM_{2.5}$.

RESPONSE: The Department partially agrees and partially disagrees with the comment. Condition V.J.1.b has been added to clarify that the particulate matter emissions are measured as filterable emissions.

74. **COMMENT (V.J):** Baghouse 2 has a rectangular duct and Method 201A cannot be used to test this Baghouse. M&T requests Method 201A be deleted, and Method 5 specified in the Permits.

RESPONSE: The Department agrees with the comment and has made the requested change.

75. **COMMENT (V.K):** The permit should clarify the Emission Limits are for Baghouse 2, not just the Spinner Hanger process.

RESPONSE: The Department agrees with the comment and has made the requested change.

76. **COMMENT (V.K):** The Baghouse 2 Spinner Hanger Blast proposed limits are not accurate. ACHD did not provide its calculations for Baghouse 2 in the draft permit materials.

RESPONSE: See response to comment no. 77. The technical support document has been modified to show the calculation methodology for the emissions from the Spinner Hanger Blast unit and Baghouse no. 2.

77. **COMMENT (V.K):** The FPM limit should be based on grain loading and airflow. The permits should specify the limits for Baghouse 2, not the Spinner Hanger, which should be a Miscellaneous Source. (38,000 cfm and 0.0052 gr/scf.) The VOC calculations should be from the 7 Baghouse test with a contingency escalation factor. The current VOC limitation do not include full use of Alcohol wash, core and mold release agents as discussed elsewhere in these comments.

RESPONSE: See responses to comment nos. 69 and 70.

78. **COMMENT (V.K):** No current permit requires recordkeeping data for steel tonnage for this unit. The Department does not have the authority to add additional process recordkeeping requirements are not related to air emissions.

RESPONSE: See response to comment no. 15.

79. **COMMENT (V.K):** This process does not generate condensable particulates, the permit should specify limits as FPM, FPM_{10}, and $FPM_{2.5}$.

RESPONSE: Condition V.K.1.b has been added to clarify that the particulate matter emissions are measured as filterable emissions.

80. **COMMENT (V.K):** Baghouse 2 has a rectangular duct and Methods 201A cannot be used to test this Baghouse. M&T requests Method 201A be deleted, and Method 5, Method 7 and Method 202 be specified in the Permits for this operation.

RESPONSE: The Department agrees with the comment and has made the requested change.

81. **COMMENT (V.K):** The permit should clarify the Emission Limits are for Baghouse 2, not just the Knuckle Machine. Baghouse 2 evacuates the Cleaning and Finishing area.

RESPONSE: The Department disagrees with the comment, as the Knuckle Machines are not listed as exhausting (directly) to Baghouse no. 2.

82. **COMMENT (V.L):** The Robotic Knuckle Machine is inside the foundry and has its own enclosure with small dust collectors that emit to the inside of the foundry.

RESPONSE: The Department agrees with the comment and has modified the description of the control device for the process unit.

83. **COMMENT (V.L):** The emission limitations are not appropriate as these units cannot be tested and there is no way to monitor compliance at this internal source. All emissions will be accounted for at one of the six baghouses.

RESPONSE: The Department agrees with the comment and has removed the emissions table from the permit.

84. **COMMENT (V.L):** The testing requirements section should be removed, because neither the Department nor M&T can test emissions from a unit that does not have a stack. This source should be removed as a separate process and moved to the Miscellaneous section of the Permits.

RESPONSE: The Department disagrees with the comment. The Department reserves the right to require emissions testing in the future. This is a standard condition for emission units. The units are currently already their own separate process and are in the appropriate section.

85. **COMMENT (V.L):** No permit requires recordkeeping data for steel tonnage for this unit. The Department does not have the authority to add additional process recordkeeping requirements are not related to air emissions. M&T requests the steel recordkeeping provision be removed from the permits.

RESPONSE: See response to comment no. 15

86. **COMMENT (V.L):** In the alternative (the section remaining in the permit and not moved to the Miscellaneous Section), the limits should be set as FPM, FPM_{10}, and $FPM_{2.5}$.

RESPONSE: See response to comment no. 79.

87. **COMMENT (V.M):** M&T asks paragraph 2 be deleted as these units do not have a stack, exhaust inside the foundry building and cannot be tested. Hand Grinding should be listed as a Miscellaneous Source.

RESPONSE: See response to comment no. 84.

88. **COMMENT (V.M):** No permit requires recordkeeping data for steel tonnage for this unit. The steel tonnage processed here is not related to air pollutant emissions. The Department does not have the authority to add additional process recordkeeping requirements are not related to air emissions. M&T asks the recordkeeping provision be removed from the permit.

RESPONSE: See response to comment no. 15.

89. **COMMENT (V.N):** The natural gas fired heat treating units exhaust to the inside of the foundry building.

RESPONSE: The Department agrees with the comment and has modified the description to note such.

90. **COMMENT (V.N):** The emission limits are really emissions estimates based on AP-42. AP-42 estimates are not intended to be used as permit limits, according to AP-42.

RESPONSE: The Department partially agrees and partially disagrees with the comment. The NO_X and CO emissions are based on the burner emissions guarantee on the Heat Treating Furnaces. The facility-wide NO_X and CO were derived from testing while the Heat Treating Furnaces with said installed burners were operating. Future facility-wide testing shall occur while the Heat Treating Furnaces are operating.

91. **COMMENT (V.N):** These furnaces do not have stacks that can be tested.

RESPONSE: See response to comment no. 90. The units exhaust internally and are ultimately exhausted through one of the facility-wide baghouses.

92. **COMMENT (V.N):** These emissions will be accounted for when they leave the foundry building at one of the six Baghouse exit points.

RESPONSE: The Department agrees with the comment. Language clarifying their usage during the facility-wide testing has been added to Section IV.25.c.

93. **COMMENT (V.N):** ACHD does not have the authority to require installation of individual process gas meters, for each process in the plant.

RESPONSE: The Department has not required individual gas meters to be installed at the Heat Treating Furnaces. The natural gas usage can be measured by recording the hours of operation and the known heat input to each unit.

94. **COMMENT (V.N):** No permit requires recordkeeping data for steel tonnage for this unit and this requirement is not reasonable. Emissions are based on gas consumed, not steel processed. The Department does not have the authority to add additional process recordkeeping requirements that are not related to air emissions.

RESPONSE: The comment appears to refer in part to a requirement that does not exist for the Heat Treating Furnaces. See response to comment no. 93.

95. **COMMENT (V.O):** The Ladle Preheaters are small interior sources that do not have a stack, cannot be tested, and the emissions will be accounted for at one of the six baghouse exhaust points. M&T requests the emissions table be removed from the permits and this source be moved to the Miscellaneous section of the permit.

RESPONSE: The Department disagrees with the comment. The NO_X emissions are not insignificant and are based on the installed burners. Emissions from the unit emit internally and are ultimately exhausted through the facility-wide baghouses.

96. **COMMENT (V.O):** In the alternative, M&T requests page 79, paragraph 02 be removed and the Method of Compliance be defined to be calculation of emission by use of AP-42 and vendor emission factors, based on hours of operation and natural gas consumed.

RESPONSE: The Department partially agrees and partially disagrees with the comment. See responses to comment no. 84 and 93.

97. **COMMENT (V.O):** M&T requests paragraph 4a be revised to delete the limits for this insignificant source, or state M&T will record hours of operation and natural gas consumed. Oxygen is not a fuel, and the fuel to oxygen ratio is fixed by the manufacturer and does not vary at this operation.

RESPONSE: See response to comment no. 96. The Department has removed the word “fuel” from conditions V.O.4.a and V.O.5.a.1).

98. **COMMENT (V.):** A number of sources defined as separate sources, with emissions set as if they discharged to the atmosphere, are in fact small sources, usually without stacks, that exhaust to theinterior of the foundry building. The emissions from these sources will be regulated whenthey leave the foundry building at one of the six baghouses exhaust points. The following"Sources" identified in the draft permits should be included in the "Miscellaneous"section of the Permits. Emission Limits and Method of Compliance Determinations are not reasonable or necessary for these minor operations.

A. Core Room Sand Handling
B. 08-2 Sand Handling
C. Wisconsin Core Ovens
D. Bentonite Storage

E. Mold Making Intermediate Sand Storage Silos
F. Air Arc (Baghouse 6)
G. Shot Blasts (Baghouse 2)
H. Spinner Hanger Blasts
I. Robotic Knuckle Machines
J. Hand Grinding Stations
K. Heat Treating Furnaces
L. Ladle Preheaters

RESPONSE: See responses to comment nos. 14, 15 and 17.

99. **COMMENT (V.III):** M&T comments on the Emissions Limitation summary table are shown on the track changes version of the draft Operating Permit 275 and draft IP-14 submitted with these comments. M&T's calculations of the appropriate limits are provided. M&T incorporates its comments as described earlier in this document. For example, the VOC limit should be 14.94 tons per year to allow for usage of limited quantities of VOC containing Core Wash, Alcohol Wash, and Mold and Core release agents.

RESPONSE: See response to comment no. 55.

100. **COMMENT (V.III):** The HAP limits should specify "Volatile" HAPs as well as the Metal HAPs listed in the table. M&T requests deletion of the Chromium and Manganese HAP limits as they are already included in Metal HAPs, the quantities are small, and the numeric limits shown on the drafts are not accurate.

RESPONSE: See responses to comment nos. 30, 31 and 55.

101. **COMMENT (II):** Core-making emissions units must be identified consistently in the Permit.

RESPONSE: The Department has corrected the typographical errors in Table II-1.

102. **COMMENT (II, V.E):** Core-making emissions units must reflect actual site conditions.

RESPONSE: See responses to comment nos. 24 and 101. The process description, control device description and condition V.E.1.a has been modified.

103. **COMMENT (V.E):** Core-making control equipment must reflect actual site conditions.

RESPONSE: See response to comment no. 102.

104. **COMMENT (V.E):** All core-making terms must be updated, amended, and/or reexamined.

RESPONSE: See response to comment nos. 101, 102 and 103.

105. **COMMENT (V.B & V.H):** Table V-B-1 lists EAF No. 1 Baghouse Mass Emissions Limitations (via Baghouse No. 11) and Table V.H.1 lists Baghouse No. 12 Emissions Limitations. The gaseous

emissions limitations contained in Tables V-B-1 and V.H.1 are based on their respective columns in the "detailed emissions calculations" spreadsheet referenced in ACHD's Technical Support Document. That spreadsheet lists the Baghouse No. 11 non-methane, non-ethane VOC emissions with acetone subtraction as 0.792 lb/hr and 2.34 ton/yr. The same VOC limits for Baghouse No. 12 are 2.271 lb/hr and 6.490 ton/yr. Based on the sum of the NMNEVOC with acetone subtraction emissions limits equaling the plant-wide limit of 7.94 ton/yr, it appears these figures provide the VOC emissions limits throughout the Permit. However, both Table V-B-1 and Table V.H.1 do not reflect VOC limits based on the NMNEVOC with acetone subtraction. Specifically, Table V-B-1 lists the Baghouse No. 11 VOC emission limits as 2.90 lb/hr and 8.59 ton/yr. It appears that these emissions limits are the VOC limitation calculated prior to subtraction for methane, ethane, and acetone. Table V.H.1 appears correctly to use 2.27 lb/hr as the hourly VOC emissions limit but the tons per year figure erroneously is listed as 6.68 ton/yr. The correct figure should be 6.49 ton/yr; it appears that 6.68 ton/yr is the NMNEVOC calculation without acetone subtraction.

RESPONSE: The Department agrees with the comment. The VOC limits for Baghouse no. 11 in the draft permit were those including methane, ethane and acetone. The hourly and annual VOC limits for Baghouse 11 have been changed to 0.79 lbs/hr and 2.34 tons/yr. Likewise, the VOC limit for Baghouse 12 did not include acetone subtraction and has been changed to 6.49 tons/yr. The facility-wide VOC limits (as measured through facility-wide baghouse testing) remain unchanged, as the individual baghouse limits provide for an additional uncertainty factor for potential emissions migration between baghouses.

106. **COMMENT (V.):** As drafted, the Permit does not require testing capable of establishing operating parameters sufficient to assure compliance with all emission limits. For example, the Facility's core-making process is subject to limits on emissions of VOCs and HAPs as listed in Table V.E. Although the Permit requires that VOC emissions from that process be tested once every five years, it does not require that HAP emissions from the process be tested or monitored. To assure compliance with the Permit's emissions limits for HAPs from the core-making process, those emissions must be monitored or tested. If the emissions are not monitored, the Facility must be required to perform an emission test that establishes operating parameters for the core- making process that indicate compliance with limits on emissions of HAPs and monitor such parameters on a basis sufficient to assure compliance with the emission limits.

Similarly, emissions from the Facility's air arc welding tables, shot blast units, and spinner hanger blast unit are subject to hourly and annual limits, but are not monitored, and are tested only once every five years. Although the Facility is required to record "fan motor amperes for all baghouses" during the tests, those records are not used to establish operating parameters for the baghouses associated with those processes, and the Facility is not required to monitor fan motor amperes for those baghouses. Accordingly, the required testing is not sufficient to assure compliance with the hourly and annual emission limits. The Permit must be revised either to require that emissions from the air arc welding tables, shot blast units, and spinner hanger blast unit be monitored, or that the emission test for those sources establish operating parameters that indicate compliance with emission limits, and the Facility monitor those parameters.

RESPONSE: The Department partially agrees and partially disagrees with the comment. Since the issuance of Installation Permit no. 9 (IP9), on which the core-making emission limits are based, the facility has demonstrated constant negative pressure in the foundry building and performed a facility-

wide test for VOC and HAPs emissions. Testing specific to the Dakota Scrubbers to fulfill terms in IP9 occurred in February of 2017 and showed VOC emissions significantly below the IP9 limits (0.039+0.44 lbs/hr measured emissions versus a limit of 5.45 lbs/hr). The Department does not see fit to require additional testing on this unit since the low VOC emissions would indicate equally low HAPs. Additionally, as stated above, facility-wide testing for HAPs was performed in November of 2016 that encompassed all of the core-making operations and showed VOC and HAPs emissions to be significantly lower than previously estimated by the Department. Compliance with the VOC and HAPs emissions limits is attained through limiting the resin and core release throughput to the units (see Site Level Conditions IV.21 and IV.22), restrictions regarding the Dakota Scrubber units (see Condition V.E.1), and additional monitoring requirements on the control devices see (Condition V.E.3).

The Department has added a provision to install operate, monitor, record and report differential pressure drops on Baghouse nos. 2 and 6, similar to what is required on Baghouse 12. The Department believes that this, along with testing, will show continuous compliance with the particulate matter emission limits for Baghouse nos. 2 and 6. Additional opacity limits were added to Baghouse nos. 2 and 6.

107. **COMMENT (V.A.1):** Section V.A.1.a of the Permit prohibits fugitive emissions from the charge handling process that are visible "at or beyond the facility's property line at any time." However, the Permit does not require fugitive emissions from the charge handling process to be monitored regularly by an observer. Without such monitoring, the Facility's compliance with the prohibition against visible fugitive emissions cannot be assured. The Permit must be revised to include a requirement that fugitive emissions from the charge handling process be monitored, at least periodically, at or beyond the Facility's property line.

Section V.A.1.b of the Permit limits PM_{10} emissions from the charge handling process to 0.41 pounds per ton of metal processed. However, the Permit does not require any monitoring of PM_{10} emissions from that process. Without such monitoring, the Facility's compliance with the applicable per ton emission limit cannot be assured. The Permit must be revised to include monitoring that is sufficient to assure compliance with the per ton limit on the charge handling process's PM_{10} emissions.

RESPONSE: The Department disagrees with the comment. The facility is required to "conduct Charge Handling operations to minimize fugitive emissions in a manner such that emissions from these operations are not visible at or beyond the facility property line at any time." Compliance with this condition is attained through proper operations at the process and notations of recording of any visible emissions (Condition V.A.4.a.2)). Compliance with the PM_{10} emission limits is likewise obtained through proper operation of the Charge Handling process and continuous negative pressure inside of the foundry building, where the potential to create fugitive emissions during the Charge Handling is the greatest.

108. **COMMENT (V.D.1.b):** Section V.D.1.b of the Permit imposes a 0.02 grains/dscf limit on PM emissions from the Facility's sand storage and sand surge silos; compliance with that limit purportedly is to be determined by weekly visible inspections. It is not possible for compliance with a limit that is expressed in terms of a fraction of a grain/dscf to be determined by a visible inspection. The Permit must be revised to include monitoring of PM emissions from the sand storage silos and sand surge silos that is sufficient to assure compliance with the 0.02 grains/dscf limit.

RESPONSE: The Department disagrees with the comment. The visual inspection required by Condition V.D.3 refers to inspection of the operations and control equipment of the Sand Storage and Sand Surge Silos. The PM grain limit is a manufacturer's guarantee and proper operation of the unit as per the vendor's specifications assure compliance with that limit.

109. **COMMENT (V.E.1.g):** Section V.E.1.g of the Permit imposes limits on the opacity of flue and fugitive emissions from the Facility's core-making systems, but does not require that the opacity of such emissions be monitored. Without monitoring, the Facility's compliance with those limits cannot be determined. The Permit should be revised to require that the opacity of the flue and fugitive emissions from the core-making systems be monitored periodically by a certified observer.

RESPONSE: The Department partially agrees and partially disagrees with the comment. The core-making systems vent internally to the foundry building, which is under constant negative pressure. The emissions then exit one of the baghouse stacks, which have restrictions on the maximum allowable opacity at each stack. See response to comment no. 106.

110. **COMMENT (V.E.1.h):** Section V.E.1.h of the Permit prohibits malodorous emissions from the Facility's core- making systems that are perceptible at or beyond the Facility's property line, but does not require monitoring to assure that the Facility complies with the prohibition. Permit Section IV.10 states that the permittee "shall perform such observations as may be deemed necessary along facility boundaries to insure that malodorous matter beyond the facility boundary in accordance with Article XXI §2107.13 is not perceptible," but as a site-level condition it is unlikely that such a generalized requirement would be followed for emissions-unit level term. To assure compliance, the Permit should be revised to include a requirement that monitoring for malodors occur regularly at or beyond the Facility's fence line.

RESPONSE: The Department partially agrees and partially disagrees with the comment. Condition V.E.1.h is specific to the new core-making equipment that was installed in Installation Permit no. 9. Condition IV.10 applies to the entire facility. The Department has added daily fence line odor monitoring to the Site Level Conditions.

111. **COMMENT (V.H):** Section V.H.1.b of the Permit imposes a limit on the opacity of emissions from the Facility's mold making system, sand handling/preparation/reclamation, shakeout, shot blast unit no. 1, and intermediate sand storage silos, but does not require that the opacity of such emissions be monitored. Without monitoring, the Facility's compliance with those limits cannot be determined. The Permit should be revised to require that the opacity of emissions from the Facility's mold making system, sand handling/preparation/reclamation, shakeout, shot blast unit no. 1, and intermediate sand storage silos be monitored periodically by a certified observer.

RESPONSE: See response to comment no. 107. The foundry building is under constant negative pressure. All emissions from the processes listed are captured and exhausted through baghouse no. 12 or one of the other 5 baghouse exhaust stacks. The baghouse stacks have restrictions on the maximum allowable opacity at each stack.

112. **COMMENT (V.D.1):** Section V.D.1 of the Permit imposes hourly limits on PM emissions from the Facility's sand storage silos, sand surge silos, and OB2 sand handling operations, but only requires

that records be kept of those units' sand throughput on daily and annual bases. Unless the Facility tracks and records the units sand throughput on an hourly basis, it will not be possible to determine the Facility's compliance with the Permit's hourly emission limits. The Permit should be revised to include a requirement that the Facility record sand throughput for the sand storage silos, sand surge silos, and OB2 sand handling operations on an hourly basis so that the Facility's compliance with hourly limits on those units' PM emissions can be determined.

RESPONSE: See response to comment no. 17. The hourly and annual emission limits have been removed as all vent internally to the foundry building and are further controlled by one of the facility-wide baghouses before exiting the foundry building.

113. **COMMENT (V.G.1.d):** Section V.G.1.d of the Permit imposes hourly limits on PM emissions from the Facility's bentonite storage silo operations, but only requires that records be kept of the bentonite throughput for those operations on an annual basis. Unless the Facility tracks and records the operations' bentonite throughput on an hourly basis, it will not be possible to determine the Facility's compliance with the Permit's hourly emission limits. The Permit should be revised to include a requirement that the Facility record bentonite throughput for the bentonite storage operations on an hourly basis so that the Facility's compliance with hourly limits on those operations' PM emissions can be determined.

RESPONSE: See response to comment no. 112.

114. **COMMENT (V.H.1.a):** Section V.H.1.a of the Permit limits sand usage by the Facility's mold making system, sand handling/preparation/reclamation, shakeout, shot blast unit no. 1, and intermediate sand storage silos on a daily average basis, but only requires that records be kept of those units' sand usage on monthly and annual bases and hours of operation on a monthly basis. Unless the Facility tracks and records the units sand usage on an hourly basis, it will not be possible to determine the Facility's compliance with the Permit's hourly limit on sand usage. The Permit should be revised to include a requirement that the Facility record sand usage by the mold making system, sand handling/preparation/reclamation, shakeout, shot blast unit no. 1, and intermediate sand storage silos on an hourly basis so that the Facility's compliance with the hourly sand usage limit can be determined.

RESPONSE: The Department partially agrees and partially disagrees with the comment. The hourly limit for the Mold Making and Sand Handling sand usage is calculated on a daily average basis. Daily record keeping and reporting requirements have been added to the Section V.H.4 and V.H.5.

115. **COMMENT (V.):** Section V.L.1.b imposes hourly limits on PM emissions from the Facility's robotic knuckle machines, but only requires that records be kept of the throughput to those machines on monthly and annual bases. Unless the Facility tracks and records throughput to the machines on an hourly basis, it will not be possible to determine the Facility's compliance with the Permit's hourly emission limits. The Permit should be revised to include a requirement that the Facility record throughput to the robotic knuckle machines on an hourly basis so that the Facility's compliance with hourly limits on those machines' PM emissions can be determined.

RESPONSE: The hourly and annual PM emission limits have been removed since the source vents internally. Additionally, the emissions are relatively small and are further controlled by one of the facility-wide baghouses before exiting the foundry building.

116. **COMMENT (V.):** As noted above, the absence of continuous monitoring requirements necessarily means that the only method of assuring compliance with emissions limitations in the Permit is to have accurate reporting of parameters that allow emissions to be estimated. In the past, McConway & Torley, has submitted reports to ACHD on a semiannual basis that include these parameters. ACHD must consider additional reporting or an increased frequency of reporting in light of McConway & Torley's failure to accurately report monthly Electric Arc Furnace melt production totals for the past 18 months.

RESPONSE: The Department disagrees with the comment. The previous reporting requirements that were accumulated from multiple permits are now combined into one permit and structured in a manner that is more appropriate for facility-wide operation where multiple units share the same production inputs (steel, sand, resin, etc.). The facility has corrected the prior reporting errors. Any failure to meet the reporting requirements of this permit will be considered a violation.

117. **COMMENT (V.):** Article XXI § 2104.04 addresses Odor Emissions. As is standard with all permits, a site-level condition contained in Permit Section IV.3 states, "[n]o person shall operate, or allow to be operated, any source in such manner that emissions of malodorous matter from such source are perceptible beyond the property line." Although the Permit lists the citation for this language as Article XXI §2104.04, specifically the text comes from Section 2104.04.*a* (emphasis added).

Absent from the emissions unit level terms and conditions for the Wisconsin Core Ovens contained in Permit Section V.F is any mention of the stricter odor emissions requirements of Article XXI §2104.04.b. These requirements go beyond the terms contained in Section §2104.04.a by requiring that "core ovens" have installed and in operation, "an incinerator with a residence time of at least 0.50 seconds at a temperature of at least 1,400°F for putrescible and non-chemical materials or a temperature of at least 250°F above the auto-ignition temperature of any chemical refuse, or such other emissions control system as is approved in writing by the Department as equivalent to an incinerator in terms of odor control." The Permit must be amended to add this term as an emissions unit level condition to Section V.E, as well as all other necessary reporting, monitoring, and testing requirements to ensure compliance.

RESPONSE: The Department disagrees with the comment. By definition, a core oven is a high temperature oven in which foundry cores are baked. The cores formed using warm/hot box resin systems are baked or cured in a high temperature oven to cure the resin or activate the catalyst. All cores made at M&T use the no bake and cold box resin system and are completely cured within seconds at ambient temperature following sand, resin, and catalyst mixing within the core making machines. Some of these cores are then dipped in a zirconium sand wash, depending upon casting tolerances. The coated cores are dried in the low temperature Wisconsin Ovens to remove all remaining moisture before storage and mold making assembly activities, as no water can be present in the molds during casting because it can instantaneously convert to steam and cause an explosion. According to Wisconsin oven, these types of ovens are often referred to as sand or core drying ovens because of their low operating temperatures. Water vapor is the only process-related emission during drying.

118. **COMMENT (V.):** Installation Permit 0275-I007, Section IV.21 required McConway & Torley to "provide access and an electric power supply for a PM_{10} sampler on the premises at a mutually agreed

upon location." This sampler has provided data for the "Lawrenceville Toxic Metals Study," which has been monitoring levels of Manganese, Lead, and Chromium at the Facility for over six years. Per the Public Comments and Response section of the most recent ACHD Air Monitoring Network Plan, "ACHD plans to continue the Lawrenceville Toxics Metals Study during 2018." The response went on to note that the monitor is on private property – the McConway & Torley Facility – and is therefore subject to being terminated. Although the Monitoring Plan could not guarantee continued access, the new Permit can and should.

First, the Study uncovered a legitimate public health concern: elevated levels of manganese in the ambient air near the Facility. ACHD has a duty to continue studying this issue until it can say with certainty that the risk of adverse health impacts has passed. ACHD has not stated publicly that it knows the source of the elevated levels of manganese. Give the industrial history of Central Lawrenceville, there might be a single source or multiple contributing sources. In any event, McConway & Torley is a known source that continues to emit manganese. Maintaining the right to monitor at the Facility would be essential to continuing this monitoring and research project.

In addition, ACHD has not publicly stated a reason for the decline in the rolling 12-month concentration over the past several years. If ACHD is relying on reduced emissions from McConway & Torley as the primary driver of the lower ambient concentrations that could easily change. Although McConway & Torley has upgraded its baghouse equipment at the Facility since the Study began, the most recent monthly EAF melt data available shows that the Facility is operating at under half of it allowable capacity.

Finally, continued variability in the daily concentration data is cause for concern. In the past year, both chromium and manganese have shown an extraordinary variance day-to-day. The individual concentrations do not reach those normally associated with critical adverse health impacts, but as noted above, ACHD has yet to explain with any degree of certainty the reasons for this variance.

For these reasons, the need for the study to continue seems clear. Thus, ACHD should continue to require McConway and Torley to provided power and access for the PM_{10} sampler as was required in the terms of Installation Permit 0275-I007.

RESPONSE: The Department disagrees with the comment. Condition IV.21 in Installation Permit no. 9 states that: "*The sampler location and power supply shall be maintained by the permittee for 36 consecutive months after monitoring begins or until the Department notifies the permittee in writing that the monitor can be removed before this date.*" The monitor has now collected more than seven (7) years-worth of data.

Program staff are required to continuously operate and maintain a large network of criterial pollutant monitors which consumes a majority of field staff resources. Program management must limit the number and duration of special studies to preserve limited staff resources to ensure that the EPA grant funded air monitoring network continues to produce data of acceptable quality. By necessity, most special studies are planned to last one year. The special study to monitor HAP metals at McConway & Torley has been ongoing since May 2011. The manual sampler requires staff to visit every three days to install and remove sampling media. Additional time is consumed with sample shipping, monitor maintenance and calibration and monthly data reporting. An estimated 1,000 man hours have

been dedicated to this study, which is many times beyond the staff resources dedicated to any other special study ever conducted by the Air Quality Program. This seems excessive considering that the running average concentrations of the three metals being reported have been and continue to be well below the health-based screening limits set forth in the study design. For more information, see the most recent data report at: http://www.achd.net/air/pubs/pdf/042318_LawrencevilleToxicMetals.pdf

119. **COMMENT (V.):** An operating permit must specify each term and condition to which the facility is subject. Unless such terms and conditions are specified in the permit, it will difficult or impossible to determine whether the facility is complying with them. For example, the capture and collection systems for the Facility's electric arc furnaces must meet "accepted engineering standards, such as those published by the American Conference of Governmental Industrial Hygienists." The Permit should set forth the engineering standards that apply to those systems. It will be impossible to determine whether the Facility is complying with whatever engineering standards apply to the systems if they are not specified and set forth.

Similarly, Section V.H.3.c of the Permit requires the Facility to "operate and maintain gauges for the Baghouse No. 12 with differential pressure ranges and accuracies that are approved in writing by the Department." The operating parameters to which Baghouse No. 12 is subject should be set forth in the Permit itself, so that the Facility's compliance with them can be determined readily. If such parameters are not yet known and must be established based on testing, the Permit should say so explicitly.

RESPONSE: The Department disagrees with the comment. The language regarding the accepted engineering standards is from CFR Part 63 Subpart ZZZZZ. The engineering standards refer to the design of the intakes/hoods for the baghouse collectors, which was already approved by the Department. The differential pressure drop ranges are those that reflect normal operation of the baghouses. Compliance with operating within the normal pressure drop ranges can be determined through the required monitoring, recording and reporting requirements and comparing those results with the ranges already established.

120. **COMMENT (V.):** Fence-line monitoring should continue and be a requirement of the final operating permit.

RESPONSE: See response to comment no. 118.

121. **COMMENT (V.):** Emissions testing in the operating permit should be more frequent than every five years.

RESPONSE: The Department disagrees with the comment. The facility has consistently demonstrated compliance for filterable particulate and metal HAPS emissions limits during baghouse testing and with VOC emissions limits during scrubber testing. They are not, by definition, a major source of any single pollutant of combined pollutants. The Department considers proper operation and maintenance of the control devices in accordance with manufacturer's specification at all times, along with the recordkeeping and reporting requirements set forth in this permit, to be indicative of continuous compliance.

122. **COMMENT (V.):** The Odor complaints need to be addressed.

RESPONSE: See response to comment no. 110

123. **COMMENT (V.):** More communication and study is needed by the Health Department on the potential health effects of air pollutants to Lawrenceville residents.

RESPONSE: The comment is beyond the scope of the draft Operating Permit.

124. **COMMENT (V.):** The Allegheny County Health Department (ACHD) recently prepared a Draft Synthetic Minor Operating Permit for McConway & Torley LLC (M&T) (ACHD, 2017a). It is my understanding that the draft permit is open for public comment through December 4, 2017. I have been retained by M&T to provide an independent assessment of any health risks associated with emissions from the M&T facility. In this letter, I provide comments focused on levels of manganese (Mn), chromium, and benzene in ambient air in the Lawrenceville, PA area and how these levels compare to concentrations of these substances in air that are known to be protective of human health.

Based on my analysis, I conclude that levels of Mn, chromium, and benzene in ambient air in the Lawrenceville, PA community do not pose a risk to human health. My conclusions, summarized below, are consistent with ACHD's conclusions that this permit does not create risks to human health, as explained in the Lawrenceville Toxic Metals Study (ACHD, 2017b).

M&T Air Monitor: The air monitor located on the M&T property provides valuable data from which to conduct a human health risk assessment. There are 760 measurements from the M&T monitor from 2011-2017, covering more than six years of ambient air data (*i.e.*, Mn data have been collected every 3 days from 2011-2017). The wind direction at the M&T facility varies and the winds blow from the facility to the M&T monitor (*i.e.*, from the north, northwest, or west) on many days. Therefore, the ambient measurements collected at the M&T monitor provide representative data for use in human health risk assessment.

Manganese: The average Mn air concentration measured from 2011-2017 at the monitor located on the M&T property (0.06 μg/m3) (ACHD, 2017b) is well below (five times lower, or 20% of) the most current and scientifically supported long-term Mn inhalation health-based screening level of 0.3 μg/m3 (ATSDR, 2012). In addition, levels of Mn in air measured at the M&T monitor have decreased since 2014. Notably, quarterly average Mn levels measured from 2016 through 2017 range from 0.028 to 0.038 μg/m3, with an average of 0.035 μg/m3. Given the frequency of Mn data collection and the consistently low levels of Mn measured in air (*i.e.*, 99% of time at or below the most current chronic Mn inhalation screening level), one can reasonably assume that the Mn levels are also low when the wind blows from the facility to the M&T monitor. The average Mn air concentration from the M&T monitor is also well below (33-fold lower) concentrations that have been found to not affect normal levels of Mn in the brain (10 μg/m3 Mn) (Schroeter *et al.*, 2011; Yoon *et al.*, 2011), and well below (100-fold lower) levels estimated to not cause adverse effects in the general population, including sensitive individuals and children (33 μg/m3) (ATSDR, 2012).

Chromium: The M&T monitor provides representative data from which to conduct a human health risk assessment from chromium (*i.e.*, there are 760 measurements from the M&T monitor from 2011-2017, covering more than six years of ambient air data). If one assumes that Cr VI is 5% of the average total chromium concentration measured at the M&T facility from 2011-2017 (0.0135 μg/m3), the

chromium air concentration does not result in a cancer risk that is greater than the US EPA acceptable risk range of 1 in 10,000 to 1 in 1,000,000.

Benzene: The levels of benzene emitted by M&T are very low and contribute little (1%) to the overall level of benzene emissions in Allegheny County (US EPA, 2017a). Benzene emissions estimates from the 2011 US EPA National Air Toxics Assessment (NATA) data files (US EPA, 2017a) indicate that the majority of emissions are contributed by automobiles (48%), nonroad sources (*e.g.*, lawn and garden equipment, construction and recreational equipment) (23%), and residential wood stoves (14%). Further, from the 2011 US EPA NATA assessment, the estimated levels of benzene in ambient air from all point sources (*i.e.*, facility emissions) and from all sources combined (including automobiles),1 from the 15 census tracts within a one-mile radius of the M&T facility, are low and are not likely to contribute to a cancer risk higher than what is acceptable under US EPA risk assessment guidelines.

RESPONSE: The Department appreciates the comment/analyses.

125. **COMMENT (V.):** Industry has an important and necessary role to play in protecting the environment and maintaining our high quality of life, while also contributing to the economy. McConway & Torley's investment of tens of millions of dollars in improved emissions control technology and engagement with Allegheny County Health Department throughout the permitting process is a prime example of these continuing efforts.

Extensive testing of the facility's control equipment has demonstrated a significant improvement of emissions. These improvements, coupled with years of data and studies of potential health impacts from the facility conducted by the Health Department, have provided a fact-based foundation that the operating permit should maintain current production levels.

McConway & Torley has been a member of the Lawrenceville community for more than 150 years and has made substantial financial investments to protect public health and ensure compliance with changing environmental regulations. I strongly urge you to support a new operating permit that ensures that McConway & Torley can continue to responsibly contribute to our local economy and support jobs and a growing workforce for many years to come.

RESPONSE: The Department appreciates the comment. However, there are no changes in the permit due to this comment.

126. **COMMENT (V.):** I was disappointed to see that the Health Department will stop requiring the use of a fence line monitor. The data collected from this monitor is important to helping ensure McConway and Torley are not violating their permit and the health of the residents living in the shadow of the foundry is protected. I urge you to not only keep the current monitor you have in place but to expand oversight by requiring additional monitors that record the presence of errant emissions downwind.

I was happy to see that there has been a steady decline in manganese and chromium pollution. However, during this trend there were still unexplained short and long-term spikes of toxic metal pollution that were consistently two to five times the average reading. The reasoning behind these extreme spikes must be explained before a permit is finalized so that the appropriate control measures are required to ensure that they no longer happen.

I'm also concerned that the effectiveness of the pollution control systems relies on the entire facility maintaining an airtight seal. It's important that this permit outline what the contingency plan if this seal is broken and to require the continuous monitoring of atmospheric pressure site-wide.

RESPONSE: See response to comment no. 118 and comment no. 124. EPA Method 204 testing has verified that the facility maintains negative pressure in the foundry building by operating all of the baghouses at facility during any foundry operations.

127. **COMMENT (V.):** I am a homeowner living at 4730 Hatfield Street and want to express my opposition to the McConway & Torley increased Air Quality Permit. Even though I live downwind of the facility, I smell noxious gases coming from the factory every other day. This often is accompanied by sore throat, burning eyes, and respiratory distress. My neighbors and crowd sourced applications (like Smell Pittsburgh) indicate the same.

Further, the current (and only) magnesium *[sic]* measurement device is downwind from the facility. How can an accurate reading be taken from one sensor that is away from the prevailing wind? It can't. I cannot fathom how this is even being considered by your department, whose mission is to protect our county's citizens from harmful effects of environmental hazards. Allowing this air quality permit will be in violation of your mission. Please oppose it.

RESPONSE: The Department appreciates the comment. The purpose of this permit is to set enforceable conditions that can allow the Department to protect the environment.

128. **COMMENT (V.):** 1. That the ACHD reconsider its lenient expansion of pollution allowances in the operating permits for McConway & Torley, Neville Chemical, and TMI International at the U.S. Steel plant and all other operating permits in the county. These allowances should be reduced, not expanded. Additionally, fines to cover the external costs of their pollution should be dramatically increased to pay for the subsequent social, ecological and health-related costs of the particulates and VOCs released into our atmosphere.

2. That the ACHD publish a public explanation of their current approach towards operating permits for area polluters. Recognizing my ignorance in this area, it's possible that the ACHD is doing their due diligence in protecting and supporting our ecology, my two-year old son, and the millions of residents for whom it is responsible. I don't know very much about appropriate permitting, federal standards, or the limitations of the ACHD to regulate or enforce said permits. Please improve your transparency around these issues and educate us further so that we can critique or support your work accurately.

RESPONSE: The Department appreciates the comment; however, it is beyond the scope of the draft Operating Permit.

129. **COMMENT (V.):** I would like to express my concerns about the influence that the emissions at the M&T plant have on our community. While I am encouraged by the findings on the private pollution sensor on the premises of the foundry, I must admit that I do not trust those readings because they do not come from a truly independent source. On a daily basis I can smell the emissions from the plant (especially when they are pouring metal into the sand molds in the late afternoon). Plus we are only

getting readings of PM_{10} particulate matter and not the more harmful $PM_{2.5}$ particulate matter. Without readings from multiple sensors controlled by the county health department and not a private company contracted by Trinity Industries, I worry that I cannot trust the validity of the reported emissions. I would request that ACHD install their own independent monitors at multiple points around the premises to provide truly independent measures.

RESPONSE: The Allegheny County Health Department maintains 17 separate monitoring areas throughout the county, including several monitors in Lawrenceville. Each of these is audited by the US EPA.

130. **COMMENT (V.):** Your proposed operating permit would let McConway & Torley generate over four times the amount of steel each year while increasing the amounts of $PM_{2.5}$, Nitrogen Oxides, Sulfur Oxides, and Carbon Monoxide they emit. This is insane and shameful. Why are you rewarding them with four-fold increased production? They should be required to lower not increase the amounts of $PM_{2.5}$, Nitrogen Oxides, Sulfur Oxides, and Carbon Monoxide they emit. The pollution limits of their operating permit should be based on keeping the tens of thousands of people who live near the foundry safe and healthy rather than on what McConway & Torley find economic and convenient to keep out of our air. They have positive cash flow. Let them spend more of it on keeping the air clean. The new operating permit should require regular continuous monitoring of the following emissions: $PM_{2.5}$, PM_{10}, Nitrogen Oxides, Sulfur Oxides, Carbon Monoxide, VOCs, Benzene, Metal HAPs, Chromium, and Manganese.

RESPONSE: The Department disagrees with the comment. See response to comment no. 118. The production levels are unchanged with respect to the current Installation Permits under which McConway & Torley currently operates. Continuous monitoring of the emissions is unwarranted since they are, by definition, not a major source of any criteria pollutant, VOC or HAP.

131. **COMMENT (V.):** The current draft of the operating permit for McConway & Torley LLC, proposed by the Allegheny County Health Department does not provide for enough monitoring for the plant to show compliance for the proposed emissions limits. Further, emissions monitoring is not required for the limits the permit places on PM_{10} and fugitive emissions, according to Group Against Smog and Pollution.

Insofar as the permit sets hourly limits, it does not compel monitoring or record keeping to meet the set limits. So if the permit does not force monitoring and recording, how do the Health Department and area citizens know that the company is in compliance? We here in Allegheny County have a right to clean air. Fine particulate matter along with other toxic emissions from this and other plants cannot be "thrown to the winds" of poor monitoring followed by poor enforcement. The permit needs to lay out stringent monitoring requirements and record keeping to allow accountability for emissions limits. This would empower the Allegheny County Health Department and concerned citizens to breathe the clean air we deserve.

RESPONSE: See response to comment nos. 101-119.

132. **COMMENT (V.):** I live around the corner, at 4904 Hatfield St. The frequent smells coming from the factory are at the top of my list in regards to a degradation of my quality of life. Many times a week, I can smell a sweet, noxious odor, kind of like the smell from an electric welder. Sometimes, the smell

is so bad that my eyes water and it has given me headaches. There are times where I've come home after work, and I'm not able to even sit in my backyard, because the smell is so strong. I'm an active 40 year old, and it scares me to know what I'm breathing in as I'm walking around, riding my bike, or jogging in the neighborhood.

While I'm glad to know that they are dealing with the fine particulates, this issue of the odor doesn't seem to be dealt with and it's not clear what we are actually breathing in. *My comment is to request better enforcement of odor complaints, and to work with McConway and Torley to mitigate these smells. Additionally, I would like to see a requirement for more frequent emissions testing.* Every five years seems to be a long time between testing, especially considering that it's not clear what is in the smell that we are breathing in.

Finally, it seems important that the Lawrenceville community is aware of the possible health impacts of the air pollution. It was discouraging that the health of our neighbors was not considered during the initial public meeting, and *I would like to see some health and wellness research done to ensure that we are safe*. Are there higher instances of asthma and cancer within the immediate blocks from the factory? Nobody seemed to have the answer to that, which seems like the minimal level of scrutiny that the Allegheny County Health Department should take.

RESPONSE: See response to comments no. 110 and no. 121 regarding odor monitoring and frequency of testing. The remaining comment is beyond the scope of the draft Operating Permit.

133. **COMMENT (V.):** I agree with most of the commenters this evening that McConway and Torley is an economic asset to Pittsburgh. I think it's important that they have made significant investments in their internal infrastructure to reduce the plant's harmful emissions to the environment. I feel, however, that there is a need for continued monitoring of air quality in the area around the plant. Irregularities in emission levels must be tracked accurately to ensure public safety. We can't rely on industry to police itself, it must be regularly done by the ACHD and in a way that the data over months and years is easily accessible to the public.

RESPONSE: See response to comment no. 129.

134. **COMMENT (V.):** I commend the ACHD for working to get better data on emissions from this plant and to reduce emissions overall with the draft permit. However, I urge you to include tools for monitoring and enforcing compliance with the standards set in the permit. Anyone who looks at the history of air emissions in this region can see that many companies will happily pay fines for the ability to continue to pollute; they consider it a cost of doing business. We need real tools to keep them accountable and operating within their permit limits.

This facility is located in a dense urban area where it would never be sited following modern standards because the exposure risk is just too high for too many people; please do your utmost to ensure that the duty to protect this population from adverse health impacts is carried out.

RESPONSE: The Department appreciates the comment. The purpose of this permit is to set enforceable conditions that can allow the Department to protect the environment.

135. **COMMENT (V.):** While I know that M&T has said that they have reduced emissions, they have not released data on the more dangerous fine particulate matter $PM_{2.5}$. I do not trust them to take accurate readings themselves and would feel better about an objective third party doing the monitoring.

RESPONSE: See response to comment no. 129.

136. **COMMENT (V.):** Please test more frequently than every 5 years. Please require continued use and inspection of metals monitor on property border. Please engage epidemiologists in a public health study.

RESPONSE: See responses to comment nos. 120-123.

137. **COMMENT (V.):** Despite the lower emissions limits in this permit, the draft still leaves residents exposed. As currently written, this operating permit does not require sufficient monitoring to ensure compliance. As noted by GASP, the permit places limits on PM_{10} and fugitive emissions, without requiring emissions monitoring. Elsewhere, the permit sets hourly limits, without requiring ongoing monitoring or recordkeeping to ensure those limits are met. By relying on infrequent testing and insufficient record-keeping, Allegheny County Health Department and local residents won't be able to see whether McConway & Torley is upholding its end of the deal. The best limits still won't help protect the health of community members, unless we have to tools to ensure those limits are actually met.

RESPONSE: See response to comment nos. 101-119

138. **COMMENT (V.):** For over 150 years, Pittsburghers have been forced to breathe the emissions from the McConway & Torley steel foundry, one of the dirtiest polluters in the country. Allegheny County Health Department needs to finally listen to years of community concerns and hold this facility to a standard emphasizing public health.

Located less than a mile from Arsenal Middle School, this facility releases dangerous neurotoxins such as manganese and a history of emitting at unsafe levels. At least 6 times between 2011 and 2015, the Health Department measured manganese levels above the EPA safe limit. It is past time for them to be held to a standard that prioritizes the health of our community.

RESPONSE: The Department disagrees with the comment. See comment no. 124.

139. **COMMENT (V.):** The foundry maintains full building enclosure of air pollutants and is under constant negative pressure pulling air into the facility and then filtering it before discharge through one of the 6 dust collectors on site. M&T agreed to voluntarily limit steel melting capacity at 92,500 tons and voluntarily decreased filterable particulate emissions at its large dust collectors to 1/2 the EPA's Best Available Control Technology limits. Recent comprehensive emission testing shows that M&T's actual plant wide emissions of Benzene are 12 times below the major source threshold limit. This corrects all previous estimates of emissions that were historically grossly overestimated using outdated emission factors.

RESPONSE: The Department appreciates the comments. However, there are no changes to the Operating Permit due to this comment.

140. **COMMENT (V.):** The first time the residents of Lawrenceville were informed of or given a chance to ask questions about the new McConway and Torley permit was on Nov. 16 [2017]. Just a little over 2 weeks ago. Between that date and today, we were all busy celebrating Thanksgiving. Now you expect us to have had the time to research, write and be ready to present our case against the permit. The timing makes me wonder.

The last permit which you decided to scrap because of complaints from the workers and the company HAD wide spread support in Lawrenceville and Millvale. We had several meetings before that hearing which makes me wonder ...why the rush now. Please give us the time to respond. Please extent the period for public comment.

RESPONSE: The 30-day public comment period for air quality permits is standard throughout the county. The previous draft permit was never issued because significant changes in operation of the foundry building which allowed for previously unmeasurable emissions to be measured occurred shortly after the permit went into public comment (see technical support document for details). Thus, a new draft permit was created that reflected the new operations and data available.

141. **COMMENT (V.):** I merely ask that you encourage the facility to act with some sense of accountability going forward by incentivizing adequate self-reporting and requiring the installation and maintenance of monitoring equipment. While I am sure this avenue has been proposed, it would be good to know that the strict failure-to-report penalties included in the Clean Air Act could potentially be utilized in the event of a violation. Additionally, given its location within a high-density population area, I would like to stress that inasmuch as the company may be allowed to consider cost factors in its control technology, I ask that these don't take primacy over public health concerns.

A cursory glance at the revisions of the 2015 draft assessment seems to indicate that you have incorporated adequate control measures for HAPs without creating conditions that may motivate any efficient breach of the terms of the permit. However, the radically-increased production allowance between the two versions gives me some pause as to the accompanying heightened criteria pollutant allowance with regards to carbon monoxide, sulfur oxides, nitrogen oxides and particulate matter.

RESPONSE: See response to comment nos. 116 and 140. Additionally, refer to the technical support document for emissions calculations.

142. **COMMENT (V.):** Permanently require fence line monitoring. It is my understanding that after one year, McConway & Torley will no longer be required to host a fence line monitor that records these instances of toxic trespass. Why would the Health Department voluntarily cede data that helps them do their job? Instead, I urge you to require yet another monitor that bolsters transparency by measuring ALL errant emissions, upwind and down.

While it is nice to see a downward trend in average manganese and chromium pollution, it is very concerning that this average seems to include a significant amount of outlier data points that appear to represent not only times of non-production, but also of severe pollution spikes! The reasoning behind these extreme spikes must be understood and explained before a permit is finalized so that the appropriate control measures are put in place to prevent any and all future short and long-term spikes in heavy metal pollution.

I'm also concerned that the effectiveness of the pollution control systems relies on the entire facility maintaining an airtight seal. It's important that this permit outline what the contingency plan if the facility loses the required level of negative pressure, and to require the continuous monitoring of atmospheric pressure site-wide.

RESPONSE: See response to comments no. 118 and no. 126, and comment no. 124.

143. **COMMENT:** As a result of our experience and expertise in Ventilation and the Air Pollution Control fields, my team and I are very familiar with dust collection and related facility emissions. For the last 18 years, the Schust team has worked extensively with McConway & Torley (M&T) to ensure that they meet and exceed the latest codes and requirements. We provide equipment inspections, maintenance repairs, engineering services, and installation of ventilation and air quality control devices, all of which play a part in M&T's overall emission control program. Over the years, M&T has continued to make investments into their facility through a continual process of preventative maintenance and operational improvements, including two new state of the art dust collectors, to ensure that they are capturing and limiting emissions to the fullest extent. I am confident when I say that M&T is using the most current and state-of-the-art equipment in order to control emissions.

RESPONSE: The Department appreciates the comments. However, the comments are beyond the scope of the draft Operating Permit.

144. **COMMENT:** "The mission of the Allegheny County Health Department is to protect, promote, and preserve the health and well-being of all Allegheny County residents, particularly the most vulnerable." I think that anyone would agree with the assertion that children and seniors are some of our most vulnerable residents, of which there are many living in the area immediately around M&T. During an informational meeting, ACHD staff were transparent about the unique nature of our situation. There are no other, similar minor contributors to pollution in such a densely populated residential area. This was one of the reasons for the dramatic changes in the original draft operating permit to the one that we are speaking of today. There was not sufficient data from a similar operation to properly estimate the numbers.

ACHD and M&T had to conduct a test to achieve realistic estimates of these levels. However, the typical current operations of M&T are far below what this test demonstrates and permit allows. Though ACHD may be able to estimate levels that are within EPA guidelines based on this single test, ACHD has no way of knowing the health impacts of M&T operating consistently at the full capacity this permit allows. It is the responsibility of ACHD to ensure monitoring, not only of the levels emitted but of the health impacts on nearby residents.

"The Allegheny County Health Department Air Quality Program is responsible for protecting the public's health by regulating air pollutants within Allegheny County, enforcing federal pollution standards, and permitting industrial sources of air pollution." How can ACHD propose to protect the public's health without data and knowledge of the impacts of such a relatively large operation in a dense residential neighborhood? I would refer ACHD to the testimony made by Lawrenceville United for details on the types of monitoring and oversight that the neighbors desire to ensure peace of mind. Our community and neighborhood will be the better for some diligence and care in this matter. Specifically, I encourage ACHD to require fence line monitoring and more frequent testing than on a

five-year basis. I have young neighbors going through crucial development stages. Five years to identify an issue could be too late for them if there is, in fact, a public health impact.

RESPONSE: See response to comment nos. 118-124 and 126.

145. **COMMENT:** While the company's recent upgrades to reduce toxic emissions are commendable, the need for close monitoring for pollutants and stringent enforcement of air quality standards remains. I urge ACHD to issue a timely permit that addresses the recommendations of 12 concerned citizen groups that presented a letter to the director at the board meeting on 9/14/2017. These recommendations include use of the most stringent level for assessing manganese, the US EPA Integrated Risk Information System (IRIS), continuation and expansion of fence line monitoring (including placement of a monitor downwind from the facility and initiation of monitoring for benzene). This permit must prioritize our health!

RESPONSE: See response to comment no. 118 and comment no. 124.

146. **COMMENT:** The commenter expressed concern regarding the facility, the timing of the public comment period and the location of the air quality monitor.

RESPONSE: See response to comments no. 118, 126, 124, and 140.

147. **COMMENT:** A commenter requested a continuation of fence-line monitoring, emissions testing more frequently than once every five years, investigation of odors and the need for epidemiological studies in and around Lawrenceville.

RESPONSE: See response to comments no. 110 and no. 121 regarding odor monitoring and frequency of testing. See response to comment no. 118 and comment no. 124 regarding the fence-line monitoring. The request for and epidemiological study is beyond the scope of the Operating Permit.

148. **COMMENT:** The commenter requested no extension of the 30-day public comment period and noted that the facility was not in operation the previous day when odor complaints were noted.

RESPONSE: The Department appreciates the comments. No changes to the permit were made due to these comments.

149. **COMMENT:** The commenter made a statement regarding the location of the fence-line monitor.

RESPONSE: See response to comment no. 118 and comment no. 124.

150. **COMMENT:** Several commenters expressed support for the facility and approval of an Operating Permit.

RESPONSE: The Department appreciates the comments. However, there are no changes to the permit due to these comments.

LIST OF COMMENTERS

Comment Numbers	Name	Affiliation
1-100	Harry Klodowski	McConway & Torley
101-119	Ned Mulcahy	Group Against Smog & Pollution (GASP)
120-123	David Breingan Matt Galluzzo	Lawrenceville United Lawrenceville Corporation
124	Lisa Bailey, PhD	Gradient McConway & Torley
125	Matt Smith	Greater Pittsburgh Chamber of Commerce
126	Jay Walker Chris West	Citizens
127	Kathryn Hefferman	Citizen
128	Tim Cook, Rachel Cook, Robin Cook	Citizens
129	Tim Verstynen	Citizen
130	Joe Cornibe	Citizen
131	Judy Delestienne	Citizen
132	Eric Boerer	Citizen
133	Paul Bowden	Citizen
134	Jessica McPherson	Citizen
135	Andrea Weinstein	Citizen
136	Jude Vachon	Citizen
137	Zachary Barber	Penn Environment
138	17 Community Leaders	Citizens
139	Scott Buterbaugh	McConway & Torley
140	Jo Anne Buchanan	Citizen
141	Brendan Turley	Citizen
142	Adam Tuznik	Citizen
143	Ray Tedford	Schust Engineering
144	Phoebe Irwin	Citizen
145	Mary Dawn Edwards	Citizen
146	Thomas Crown	Citizen
147	Nancy Gifford	Citizen
148	Joe Pezze	Hillcrest Group
149	Mark Hospodar	Citizen
150	Mike Filoni	Allegheny Valley Railroad
	Greg Vogt	IBEW Local 5, Pittsburgh
	James Gandy	M&T Employee
	Josh Keller	J. Poli Inc.
	Scott Meadows	M&T Employee
	Shawn Pratt	M&T Employee
	Ken Love	M&T Employee
	Eric Taylor	M&T Employee

	Chaz Youngblood	M&T Employee
	Geno Direnna	M&T Employee
	John Carano	M&T Employee
	Seth Engot	M&T Employee
	Doug Hillard	M&T Employee
	Jesse Scanga	M&T Employee
	Mauricio Torress	M&T Employee
	Terrell Thompson	M&T Employee
	Ed Bradford	M&T Employee
	Melvin Henderson	M&T Employee
	Ronald Swan	M&T Employee
	Walter Bates	M&T Employee
	Josh Keller	M&T Employee
	Todd Crosby	M&T Employee
	Stephen Michalowski	M&T Employee
	David Johnson	M&T Employee
	Doug Hillard	M&T Employee
	Thomas Seidelson	Damon & Co.
	Ryan Moore	Steel Founder's Society of America
	Dave Almesy	Shulteis Contracting
	Thomas Peduto	Willow Creek Env.
	Mark Weiland	Shock Electric & Crane Service LLC.
	Keith Goldstrohm	Wojanis
	Kyle Shoop	Metals Upstream
	Thomas D. Licker	Conviber, Inc.
	Derek Duncan	American High Performance Seals
	Joseph Jezik Jr.	Jezco Welding
	James Biel	Controls Service & Repair, Inc.
	Justin Inwood	System One
	Matthew M. Valkovic	Pirtek Monroeville
	Kenneth Grove	Cintar Inc.
	Eric P. Goldstein	AMG Resources
	Richard Stanizzo, Jr.	Pittsburgh Regional Building Trades Council
	Warren Wenner, Jr.	Pitt Penn Industrial Supply
	John Lazaro	All Welp Equipment Repair, Inc.