**BEFORE THE DIRECTOR**
**ALLEGHENY COUNTY HEALTH DEPARTMENT**
**542 4TH AVENUE**
**PITTSBURGH, PENNSYLVANIA 15219**

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| UNITED STATES STEEL CORPORATION, a Delaware corporation,<br><br>Appellant,<br><br>v.<br><br>ALLEGHENY COUNTY HEALTH DEPARTMENT, Air Quality Program<br><br>Appellee. | ) | Enforcement Order #180601 |

**UNITED STATES STEEL CORPORATION'S POST-HEARING BRIEF**

## I. INTRODUCTION

The case demonstrates the fundamental unfairness involved when a government agency ignores the same laws it uses to impose extreme penalties on a regulated company. Just like United States Steel Corporation ("U.S. Steel") has to comply with highly complex and voluminous environmental regulations, the Allegheny County Health Department ("Department") has to follow the law when it enforces them. It did not do that here.

The Department imposed penalties that could result in millions of dollars of financial harm and a partial plant shutdown based on alleged air emissions violations that were recorded by individuals who performed inspections using their naked eyes. These inspections, however, did not comply with the legally required procedures that exist so that inspections are done in an accurate, consistent and reliable manner. The Department further disregarded the law when it fabricated a new air emissions standard on U.S. Steel without the legal authority to do so.

The enforcement order is unlawful, and the penalties included in it are unreasonable and excessive. U.S. Steel is requesting that it be vacated in its entirety.

## II. EVIDENCE

Exhibit A to this brief identifies the exhibits that were admitted into evidence during the hearing in this appeal.

## III. PROPOSED FINDINGS OF FACT

### A. The Clairton Cork Works

1. U.S. Steel's Clairton Coke Works ("Clairton"), which is located in Clairton, Pennsylvania, started operating in 1901 and is currently the largest metallurgical coke plant in North America. (Tr. 813). Clairton produces coke that is used in the steel-making process. (Tr. 813-14).

2. U.S. Steel employs approximately 1,200 men and women at Clairton and, on a typical day, there are also approximately 300 to 400 contract employees working at the plant. (Tr. 813).

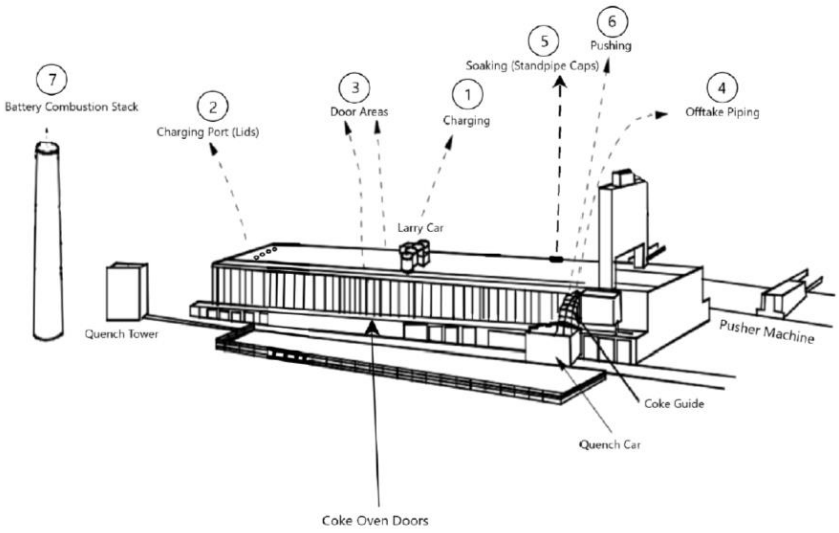
### B. The coke making process and associated emissions points

3. There are ten coke "batteries" at Clairton that are referred to as Batteries 1, 2, 3, 13, 14, 15, 19, 20, B and C. (Tr. 813, 913; Ex.[1] 40, p. 3). These batteries are comprised of 708 individual coke ovens that are used to turn coal into coke. (Tr. 813, 913; Ex. 40, p. 3).

4. There are numerous discrete areas (referred to as emissions points) at the coke batteries where air emissions can occur during the coke making process. (*See* Tr. 426, 837). These emissions points are subject to air emissions limits that are found in federal and county regulations, both of which are enforced by the Department. (Tr. 91-92). Clairton is subject to most stringent regulations in the country. (Tr. 91, 425-26, 836, 945).

5. The emissions points that are relevant to this appeal are depicted in the coke battery diagram below. (*See* Tr. 426; 837; Ex. 40, p. 2).

[1] Unless otherwise noted, all exhibit reference refer to U.S. Steel's exhibits that were admitted during the hearing.




6. Coke is produced by loading coal into the coke ovens using a larry car, a vehicle that travels on the top of the battery and loads coal into the ovens through openings called "charging ports" or "lids." (*See* numbers 1 and 2 above). (Tr. 413, 815, 820-23). The process of loading coal into the ovens is called "charging." (*See* number 1 above). (Tr. 815, 820-21).

7. After coal is charged into the ovens, the charging ports are covered with lids and the coal is baked in an oxygen free environment at approximately 1,800 degrees Fahrenheit for approximately 18 hours. (Tr. 816). Each coke battery has a combustion stack, a very tall type of chimney, through which emissions generated during the combustion of coke oven gas and other fuels used to heat the battery are exhausted to the outside air. (*See* number 7 above). (Tr. 819).

8. Gas generated inside the coke ovens during the coking process travels from the coke ovens into a system of pipes located on top of the batteries, which are called offtakes. (*See* number 4 above) (*See* Tr. 827). By design, relatively small volumes of coke oven gas may be temporarily released through a standpipe cap located at the top of the oven (a process known as "soaking" – *see* number 5 above) prior to "pushing" coke from the battery (*see* number 6 above), which completes the coking cycle in the battery. (Tr. 829-30).

9. Each oven is equipped with two "doors," which are located on each side of the oven. (*See* number 3 above) (Tr. 815-16, 824-25). One door is located on the side of the oven (known as the "push side") where the coke, once ready, is mechanically pushed (using a pusher machine) so that the coke discharges out of the door on the opposite side of the oven, called the "coke side." (Tr. 815).

10. U.S. Steel employs workers who specialize in preventing air emissions from the points described above using industry best practices. (Tr. 822-28).

**C. Stack emissions and fugitive emissions**

11. The air emissions that come from the ten battery stacks at Clairton (number 7 above) are referred to as "stack" emissions. (*See* Tr. 94-95). Battery stack emissions are

measured on a continuous basis using scientific measuring equipment called a continuous opacity monitor system (COMS), and these measurements must comply with federal and county standards. (Tr. 32-33, 95, 177).

12. Air emissions from the numerous other of other emissions points at the coke batteries (numbers 1-6 above) are referred to as "fugitive" emissions. (Tr. 426). Unlike stack emissions, fugitive emissions are not measured with scientific measuring equipment. (Tr. 177, 426, 837). Instead, fugitive emissions from the batteries are inspected by inspectors who look for emissions using their naked eyes. (Tr. 177, 426, 837). These inspectors perform two types of fugitive emissions inspections: 1) where they look for the presence of visible emissions and 2) where they estimate the opacity[2] of visible emissions. (Tr. 619-20, 742-45, 820).

**D. The applicable regulatory scheme**

**a. The Clean Air Act and "criteria pollutants"**

13. The Clean Air Act identifies six "criteria pollutants" for which EPA sets health-based standards called National Ambient Air Quality Standards (NAAQS). (Tr. 16, 19, 918). The emissions standards for criteria pollutants apply to geographic areas, like a county, not to specific facilities, like Clairton, and air monitors are used to determine if a regulated geographic area meets these standards. (Tr. 918).

14. Air quality in the Allegheny County has significantly improved over the last decade and it gets better each year. (Tr. 18-20, 249). The Department has an air monitor called the Liberty Monitor, however, which currently shows that Allegheny County is exceeding the NAAQS for two criteria pollutants: sulfur dioxide (SO2) and fine particulate matter (PM 2.5). (Tr. 18-20, 249).

15. These pollutants, SO2 and PM 2.5, are the only pollutants that are identified in the Enforcement Order. (Ex. 1, pp. 26-28). U.S. Steel is not the only source that emits SO2 and PM 2.5 and the Department has not done any study to determine that any alleged fugitive air emissions from Clairton have caused specific PM 2.5 or SO2 increases at the Liberty Monitor. (*see* Tr. 72-73, 244-245).

16. When an area like Allegheny County exceeds the NAAQS for a pollutant, it is required to develop a plan for bringing the area back in to attainment with that standard, which is called a nonattainment State Implementation Plan (SIP). (Ex. 17; Tr. 918-19). The Department recently finalized and submitted its SO2 SIP, which was prepared after U.S. Steel worked with the Department to develop strategies to reduce SO2 and the EPA recently proposed for approval. (Tr. 27, 240, 920; Ex. 17; 83 Fed. Reg. 58206).

**b. CAA – hazardous air pollutants / NESHAP**

[2] Opacity readings involve looking through a plume of smoke and estimating, using a scale of zero to one hundred percent, how much background light comes through the plume. (Tr. 743). One hundred percent opacity, for example, means you cannot see through the smoke plume. (Tr. 743).

17. Hazardous air pollutants (HAPs)[3] are regulated differently than criteria pollutants. (Tr. 925). The Clean Air Act identifies approximately 187 HAPs, which include benzene, toluene, ethylbenzene and xylene (collectively "BTEX"). (Tr. 249, 917-18, 925). There are no HAPs identified in the Enforcement Order. (Ex. 1.)

18. Because every industry uses different technology and produces different HAPs, the Clean Air Act directs the Environmental Protection Agency (EPA) to develop industry-specific standards, known as National Emission Standards for Hazardous Air Pollutants ("NESHAP"). (Tr. 19-20, 925-26). Unlike NAAQS for criteria pollutants, which apply to geographic areas, NESHAP standards apply specifically to individual facilities, like Clairton. (Tr. 25, 925-26).

19. The NESHAPs were initially developed for the coke making industry based on an analysis of the maximum achievable control technology (MACT) in this industry, and the analysis involved studying the top performing coke plants to develop standards for the rest of the industry. (Tr. 925-26, 930). These standards were created through a collaborative process that included various agencies (including the Department), manufacturers (including U.S. Steel), and environmental groups. (Tr. 182, 249-50, 927).

20. Before the coke battery NESHAPs were enacted, there was also a rulemaking process that allowed for public comment. (Tr. 928-30; Ex. 46; Ex. 47). The final NESHAPs included air emissions standards for charging, doors, lids and offtakes. (Tr. 927; 929; Ex. 47).

21. The NESHAPs also included an option for facilities to select more stringent limits that were developed based on a study of the lowest achievable emissions rate (LAER) in the coke making industry. (Tr. 930-31). These LAER limits were developed from emissions data from the best performing coke battery that was studied as part of the NESHAP rulemaking process, which was Clairton. (Tr. 930-31). U.S. Steel ultimately chose to have the LAER track NESHAP standards apply to all batteries at Clairton. (Tr. 931).

22. After the NESHAP standards are developed, the CAA requires EPA to perform a residual risk review to determine if the NESHAP rules are protective of public with an ample margin of safety. (Tr. 931). EPA performed the required residual risk review of the HAPs that are emitted from coke batteries (which include BTEX), and determined that the LAER track NESHAP standards were protective of public health with an ample margin of safety. (Tr. 932-33; Ex. 48; Ex. 49). Calculating revised NESHAP standards to reflect this risk level is a highly technical process, requiring emissions characterization, exposure modeling/monitoring, and toxicological analysis. EPA performed each of these in determining the NESHAP coke battery door leak limit. See 70 Fed. Reg. 19992, 20013 (2005).

23. The Pennsylvania Air Pollution Control Act (APCA), 35 P.S. Section 4001 *et seq*, provides authority to the Department to enact regulations pursuant to the CAA to implement its SIP. The APCA also provides that emissions standards specifically for

[3] HAPs are sometimes also referred to as "air toxics." (Tr. 250-51).

coke oven batteries meeting LAER standards in the federal NESHAPs cannot be more stringent than the federal standards until at least 2020. 35 P.S. Section 4006.6(d)(2).

**c. Article XXI**

24. The Department's Air Pollution Control Regulations, which include regulations applicable to coke batteries, are found in Article XXI.

25. Before a county air pollution regulation becomes effective, the Department has to go through a rulemaking process, which involves approval by a number of levels of government. (Tr. 187). This process involves the Department meeting with the companies that are affected by the proposed regulation and then submitting the proposed regulation for public comment/public hearing and obtaining approval from the Department's Air Advisory Committee, the Board of Health, County Council and the County Executive. (Tr. 232-43, 923).

**d. The Title V Operating Permit**

26. The Department issued U.S. Steel a Title V Operating Permit, which is a comprehensive document that includes all of the federal and county regulations that apply to Clairton and sets forth the manner in which testing and monitoring is to be performed to ensure compliance. (Tr. 92, 236, 936-37; Ex. 30).

**E. Prior agreements between the Department and U.S. Steel**

**a. The 2016 Consent Judgment**

27. Prior to issuing the Enforcement Order, U.S. Steel and the Department negotiated two agreements that are relevant to this appeal. The first was a 2016 Consent Judgment that was entered as an order by the Honorable Christine Ward of the Allegheny County Court of Common Pleas. (Tr. 263-64; Ex. 1, Ex. B).

28. In the 2016 Consent Judgment, the Department and U.S. Steel "agreed that the most effective surrogate for environmental performance across the entire facility [i.e. Clairton] is plume opacity from the battery combustion stacks." (Ex 1, Ex B, p. 4, ¶ 26; *see also* Tr. 492). Plume opacity from the battery combustion stacks refers to battery stack / COMS compliance. (Tr. 264-65, 948-49).

29. One of the reasons battery stack / COMS compliance is the most effective surrogate for environmental performance at Clairton is because the stacks are much taller than the batteries and, because of the height difference, stack emissions are more likely to leave Clairton's property, which is over 3 miles long. (Tr. 948-49).

30. The parties agreed in the 2016 Consent Judgment that U.S. Steel would reach a 98.5% compliance target for battery stack / COMS. (Tr. 841, 946-47; Ex. 1, Ex. B, p. 10, ¶¶ B(1)-(2)). The 2016 Consent Judgment is still in effect and, if U.S. Steel fails to meet the 98.5% compliance target for battery stack / COMS, U.S. Steel must pay monetary penalties that were agreed to in the 2016 Consent Judgment. (Tr. 125, 490, 841).

31. Since entering into the 2016 Consent Judgment, U.S. Steel's battery stack / COMS compliance rate has improved significantly, to above 99%. (Tr. 950-52). The time

period during which U.S. Steel has achieved a 99% or greater compliance rate for the most effective surrogate for environmental performance across Clairton is the same time period for which the Department seeks severe sanctions and penalties in the Enforcement Order. (Tr. 952). In fact, in the first quarter of 2018, U.S. Steel's battery stack / COMS compliance rate was calculated by the Department to be 99.384%, which the Department recognizes is a high compliance rate. (Tr. 493).

32. In addition to battery stack / COMS, the 2016 Consent Judgment also covers fugitive emissions from pushing and soaking (on Batteries 1, 2, and 3) and contains agreed-to monetary penalties for any violations. (Tr. 94-95, 238, 265, 492, 831; Ex. 1, Ex. B, p. 17, ¶¶ C, E).

**b. The 2018 Consent Order**

33. Prior to issuing the Enforcement Order, the Department also issued an Administrative Order that sought penalties for alleged fugitive emissions violations for the third quarter of 2017 other than pushing and soaking (on Batteries 1, 2, and 3). (Tr. 1, 239; Ex. 3).

34. The Department and U.S. Steel settled the Administrative Order through a negotiated 2018 Consent Order. (Ex. 52). As part of that settlement, the Department agreed "to waive any and all claims against [sic] it would have against U. S. Steel respecting the violations which are the subject of the March 6, 2018 Administrative Order." (Ex. 52, ¶ 6). According to the Department, the "subject matter" of the Administrative Order was the battery fugitive emissions points that were not already covered by the 2016 Consent Judgment. (Tr. 239-240; Ex. 3, p. 1).

35. Notwithstanding that the Department settled and waived any claim for alleged violations of battery fugitive emissions points from the third quarter of 2017, the Department subsequently asserted additional claims for violations of battery fugitive emissions points from this quarter in the Enforcement Order. (Ex. 1, pp. 10-12; Ex. 52, ¶ 6; Tr. 451-453). The Department claims that it mistakenly forgot to include additional alleged violations when it issued the Administrative Order that the parties subsequently resolved through the 2018 Consent Order. (Tr. 451-453; Ex. 52). The waiver provision in the 2018 Consent Order does not contain any exceptions that allow the Department to seek additional penalties based on the Department's mistakes.

**F. The Enforcement Order**

36. On June 28, 2018, the Department issued the Enforcement Order. (Ex. 1). The Enforcement Order includes a monetary penalty for alleged violations of the following battery fugitive emissions points from the third quarter of 2017 through the first quarter of 2018: doors (opacity), soaking (opacity), lids (visible emissions), offtakes (visible emissions), charging (visible emissions) and doors (visible emissions). (Ex. 1; Ex. 14[4]; *see* Tr. 428-29). The Enforcement Order does *not* include any alleged battery stack / COMS violations or any pushing and soaking (on Batteries 1, 2, and 3) fugitive emissions violations because these emissions points are governed by the 2016 Consent

[4] The specific fugitive emissions exceedances the Department alleges in the Enforcement Order were summarized by the Department in Ex. 14.

Judgment. (Tr. 94-95, 238, 265, 492, 831; Ex. 1, p. 1, ¶ 40). The Enforcement Order also cites Article XXI, Section 2109.03 as the basis for its penalty. Ex. 1 at p. 26. The Enforcement Order does not cite Section 2109.04 anywhere as its basis, however, the Department is now seeking to rely on this section.

37. Notwithstanding that the 2016 Consent Judgment governs soaking violations on Batteries 1, 2 and 3, the Enforcement Order lists a violation for soaking for Battery 2. Ex. 1, p. 19, ¶ 65). The Department later admitted at hearing that the inclusion of such soaking violation was an error on its part. (Tr. 498).

**G. Hot Idling**

38. In addition to the monetary penalty for alleged fugitive emissions violations, the Enforcement Order includes a corrective action, which requires U.S. Steel to meet two different standards that the Department made up. (Tr. 92-93). If U.S. Steel does not meet either of these two standards, it is required to hot idle its two worst performing batteries. (Ex. 1, pp. 27-28).

39. Hot idling means that you continue to heat a battery without putting any coal into the battery and without producing any coke. (Tr. 855). Hot idling causes significant thermal damage to a coke battery that can result in deteriorated environmental performance if the coke battery is able to be put back into production. (Tr. 855).

40. Hot idling is a severe sanction. When the Department was preparing the Enforcement Order, it knew that, because of their age, hot idling Batteries 1, 2 or 3 (the oldest batteries at Clairton) could lead to a permanent destruction of the batteries. (Tr. 150-52, 256, 806-07). U.S. Steel also expects that hot idling its older batteries would permanently destroy the batteries. (Tr. 855).

41. If hot idling two batteries resulted in a permanent destruction of the batteries, it would cost U.S. Steel $400,000,000 or more depending on the specific batteries at issue, which is approximately 400 times the size of the penalty in the enforcement order. (Tr. 859). In addition, if U.S. Steel was required to hot idle two batteries it would have to purchase replacement coke to make up for lost production, which would cost approximately $170,000,000 depending on the specific batteries at issue. (Tr. 860-61). Hot idling two batteries would also likely result in 50 to 60 employees at Clairton losing their jobs. (Tr. 858).

42. When deciding on the hot idle sanction in the Enforcement Order, the Department did not consider the impact on jobs in the community, nor did the Department consider what it could potentially cost U.S. Steel if it were required to hot idle. (Tr. 152).

**a. The baseline compliance demonstration portion of the corrective action**

43. The first standard the Department created in the Enforcement Order is a baseline compliance demonstration pursuant to which the Department calculated U.S. Steel's overall compliance rate for the first quarter of 2018 using both stack and fugitive emissions data and then set this compliance rate as the baseline. (Tr. 107, 253, 840). U.S. Steel has to i) exceed the baseline compliance rate in the first quarter of 2019, and then ii) exceed its first quarter of 2019 compliance rate in the second quarter of 2019.

(Tr. 93, 108-09, 840-41; Ex. 1, p 27, ¶ 3). If U.S. Steel does not meet both requirements, the Enforcement Order requires U.S. Steel to hot idle two batteries. (Tr. 109). The Enforcement Order does not have any exception or possibility for discretion if there are some unforeseen problems or malfunctions that cause U.S. Steel to exceed the baseline. (*See* Ex. 1).

44. The baseline calculation includes battery stack / COMS, pushing and soaking (from Batteries 1, 2, and 3) compliance data, even though there are no alleged violations of these emissions points in the Enforcement Order and these emissions points are already governed by the 2016 Consent Judgment. (Tr. 107-108, 118, 123, 253, 498-99, 840; Ex. 1, Ex. B). Therefore, U.S. Steel's battery stack / COMS, pushing or soaking (on Batteries 1-3) compliance rates could all be the reason U.S. Steel does not meet the baseline and is required to hot idle two batteries. (Tr. 499-500). Thus, U.S. Steel could be double penalized for the same violations by being subject to penalties pursuant to the 2016 Consent Judgment *and* the hot idle sanction in the Enforcement Order. (Tr. 500-02).

45. In fact, half of the baseline is made up of battery stack / COMS compliance, even though there are no alleged violations for these emissions points in the Enforcement Order and these emissions points are already governed by the 2016 Consent Judgment. (Tr. 108, 118, 123, 253, 498-99, 840). Before the Department issued the Enforcement Order, at least some individuals within the Department questioned whether it was appropriate to include battery stack compliance in the baseline calculation given that battery stack / COMS compliance was the subject of the 2016 Consent Judgment. (Tr. 124-25; Ex. 20). The Department, nevertheless, included it.

46. The Department issued the Enforcement Order before it ever calculated U.S. Steel's baseline compliance percentage. (Tr. 502). In other words, when it issued the Enforcement Order, the Department did not know what U.S. Steel's baseline compliance percentage was. (Tr. 109).

47. When the Department calculated the baseline for the first time, after it had already issued the Enforcement Order, it learned that the baseline is 98.152%, which was significantly higher than the Department expected it to be when it issued the Enforcement Order. (*See* Tr. 502). The Department concedes that 98.152% is a fairly high compliance rate. (Tr. 502-03).

48. The battery stack / COMS compliance portion of the baseline (which makes up half of the baseline) is 99.384%, which is significantly higher than the compliance target of 98.5% that was agreed-to in the 2016 Consent Judgment. (Tr. 168, 267-69; Ex. 5). Therefore, including battery stack / COMS compliance in the baseline significantly increased the baseline. (Tr. 841). Given how close 99.34% is to 100%, there is very little room for U.S. Steel to improve, and if U.S. Steel's battery stack / COMS compliance drops to 98.5%, the rate agreed to in the 2016 Consent Judgment, it is going to be very detrimental to U.S. Steel's ability to exceed the baseline. (Tr. 841). In essence, the baseline calculation punishes U.S. Steel for improving its battery stack /COMS compliance rate above the 98.5% compliance rate agreed to in the 2016 Consent Judgment. (Tr. 169, 843).

49. The Department understands that no source is 100% compliant. (Tr. 105, 837). Things like mechanical breakdowns, ambient weather conditions, ambient temperature and coal moisture can all impact U.S. Steel's ability to reaching 100% compliance. (Tr. 105, 838). Given the size of Clairton, there are approximately 6,300 different emissions points at the coke batteries that depend on mechanical equipment that can potentially break down. (Tr. 105-106).

50. Prior to January 10, 2018, the Department's policy was that it expected sources to be between 85% and 95% compliant, and the Department used a coke oven penalty policy that equated reasonable compliance to a compliance rate above 95%. (Tr. 100-101, 517-20; Ex. 11, p. 2 at "Compliance Frequency, 0"). US Steel's compliance rate, which has been above 98%, was above the Department's violation target that existed in the third quarter of 2017, the fourth quarter of 2017 or the beginning of the first quarter of 2018, the three quarters at issue in the Enforcement Order. (Tr. 103-104).

51. In early 2018, the Department created a new penalty policy that became effective on January 10, 2018. (Tr. 95, 97). The new penalty policy raised the Department's expected compliance rate to 99% and increased penalties by 60% on average. (Tr. 100-101, 105). The idea behind creating a publicly available penalty policy is to give companies *advance* notice of the kind of penalties that can exist in a particular situation to deter *future* violations. (Tr. 96-99). The Department, however, retroactively applied the new penalty policy to alleged violations and severe sanctions that are at issue in the Enforcement Order. (*See* Tr. 96-99).

**b. The Battery B coke side door leak standard portion of the corrective action**

52. The second standard the Department created in the Enforcement Order is a monthly door leak limit that only applies to one side of one of the batteries at Clairton. (Ex. 1, p. 27, ¶ 4). Per the Enforcement Order, if the doors on the coke side of Battery B have more than 10 door leaks per month, on a yard-equivalent basis, during any of the first six months in 2019, U.S. Steel has to hot idle two batteries, which may or may not include the Battery B. (Tr. 133-34, 509; Ex. 1, p. 27, ¶¶ 4-5).[5]

53. The Department made up this new door leak standard in the Enforcement Order even though there are existing federal and county door leak standards for the Battery B doors and are there no allegations in the Enforcement Order that U.S. Steel exceeded any of these standards. (Ex. 1; Tr. 283, 848). Prior to issuing the Enforcement Order, U.S. Steel was not aware that the Department had any concerns with door leaks from the Battery B coke side doors. (Tr. 848-49). The first time U.S. Steel learned about the 10-door leak per month standard was when it received the Enforcement Order. (Tr. 849).

[5] Because of its layout, door inspections for the coke side doors on Battery B take place very close to the doors instead of where inspections typically take place, farther away in an area called the yard. (Tr. 846-47; Ex. 40, p. 5). There is a "yard-equivalent" calculation that can be performed on the data from these close-up inspections to convert them to the equivalent of yard inspections. (Tr. 847-48, 906-07; Ex. 35 (section 12.5.3).

54. The Enforcement Order only identifies two pollutants – PM 2.5 and SO2 – both of which are criteria pollutants. (Ex. 1). Door leaks from the Battery B coke side doors do not produce any significant PM 2.5 or SO2 emissions. (Ex. 41; Ex. 42)

55. Battery B, on its coke side, has an air emissions control device referred to as a "shed," which captures particulate matter (including PM 2.5) from door leak emissions through the use of a bag house that filters out particulate matter before the emissions are released into the ambient air. (Tr. 45-46, 193, 505). No other batteries at Clairton have a shed. (Tr. 257, 505-06).

56. The Department's recent SO2 SIP includes a table (Table 3-3) that identifies every emissions source at Clairton that significantly contribute SO2. (Tr. 241; Ex. 17, pp. 12-13). Door leaks, because they are not contributors of SO2, are not listed in the SO2 SIP. (Tr. 241; Ex. 17, pp. 12-13). In addition, as part of the SO2 SIP process, the Department also issued a permit to U.S. Steel that identified sources at Clairton that significantly contributed SO2 emissions. (Tr. 921-22; Ex. 45, p. 4, Table 2-1). Door leak fugitive emissions points were not identified as a source that significantly contributes to SO2. (Tr. 921-22; Ex. 45, p. 4, Table 2-1).

57. Possibly because the evidence shows that door leaks from the Battery B coke side doors do not produce significant levels of PM 2.5 or SO2 emissions, the Department is now taking the position that it created the door leak standard because it is concerned that HAP emissions are not captured by the shed, notwithstanding that the Enforcement Order does not identify any HAPs. (Ex. 1; Tr. 46, 257; ACHD Post-Hearing Brief at p. 30).

58. When the NESHAPs were reviewed by EPA, EPA specifically studied the HAPs that can be emitted from coke oven door leaks as part of its residual risk review and determined that the LAER track standards, which apply to Clairton, were protective of public health with an ample margin of safety. (Tr. 932-34; Ex. 48; Ex. 49). U.S. Steel is 100 percent compliant with the NESHAP door leak regulations, which means that, based on EPA's extensive studies, any HAPs that are emitted from door leaks are within the level that is protective of public health. (Tr. 934).

59. In fact, EPA concluded that the lowest emissions rate for door leaks that is achievable through technology was 4%, which translates to 90 door leaks per month (yard equivalent basis) on the coke side of Battery B. (Tr. 955-56; Ex. 51). The door leak standard in the Enforcement Order is nine times more stringent than the NESHAP standard, which EPA determined was the lowest achievable emissions rate. (Tr. 953-56; Ex. 51).[6]

60. The B Battery door leak standard in the Enforcement Order did not go through any rulemaking process. (Tr. 93, 127, 243, 923). The was no chance for public comment on the Battery B door leak standard, nor did U.S. Steel have an ability to review the limit with the Department before it was issued. (Tr. 128, 513-14, 923-24).

[6] Because of the extreme temperatures inside a coke oven, the doors seal to the oven frame via a metal-to-metal seal, which can result in leakage. (Tr. 850). Given this technology, U.S. Steel does not believe it is technologically feasible to meet a 10-door leak per standard on a consistent basis. (Tr. 853-54).

61. Instead, the Department's process for developing the door leak standard was, according to the Department, "pretty simple." (Tr. 512). The Department's Enforcement Chief simply looked at a single page of door leak data going back to January of 2016 and felt that 10 door leaks per month was repeatable. (Tr. 132-33, 506, 512; Ex. 7, response to RFP 14; Ex. 8). This data which the Department relied upon to develop the door leak standard shows that there was never a six-month period during which U.S. Steel met the door leak standard that is in the Enforcement Order. (Tr. 134, 506-07).[7]

62. The Department's simple process for developing the door leak standard in the Enforcement Order did not involve any determination of the specific pollutants found in door leak emissions, empirical analysis, analysis of technological feasibility, analysis to determine the impact the standard would have on ambient air quality, or health-based risk emissions standard analysis or other risk assessment to see if the standard was necessary to protect public health. (Tr. 134, 262, 338-39, 505, 512-514). In fact, there was no analysis done to determine what ambient air effect the B-Battery door leak standard would have on HAPs emissions or any other emissions. (Tr. 251, 262).

63. If U.S. Steel meets the baseline compliance demonstration described above but it has 11 door leaks in a single month (yard equivalent basis) on the coke side of Battery B, per the Enforcement Order, it is required to hot idle two batteries. (Tr. 133-34, 509; Ex. 1, p.27 ¶¶ 4-5). Even the Department's Enforcement Officer, who developed the standard, conceded under oath that the standard is excessive.[8] (Tr. 504, 515-17).

## G. Inspection methods

64. Because fugitive emissions inspections are done by inspectors who use only their naked eyes (not scientific equipment), there are strict procedures, called inspection methods (or test methods), that exist so that inspections are done in a standard, reliable, consistent and correct manner. (Tr. 135, 620-21, 743-44, 749, 820). The parties agree that inspection methods are important. (Tr. 135, 620-21, 743-44, 749, 820).

65. Three inspection methods are relevant to this appeal: Method 9 (for opacity), Method 303 (for visible emissions) and the Source Test Manual (STM) inspection methods (for visible emissions). (Ex. 22; Ex. 35; Ex. 36).

66. Method 9 is an inspection method for estimating opacity that is found in a federal regulation. (Tr. 136, 622; Ex. 36). Because estimating opacity can result in human error, Method 9 has strict procedures that the Department expects its inspectors will follow. (Tr. 137-138, 441). In order to become certified to perform Method 9 inspections, an individual has to pass a test and be recertified every six months. (Tr. 136).

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[7] After the Enforcement Order was issued, the Department looked at data going back to January of 2014. (Tr. 507-08; Department Ex. 11). If the B-Battery door leak standard was effective in January of 2014, U.S. Steel would have been required to hot idle during every consecutive calendar six-month period in which data is available. (Tr. 509-12).

[8] During the hearing in this appeal, the Department argued that the word "excessive" was ambiguous. (Tr. 515-517).

67. Method 303 is an inspection method for doing visible emissions inspections that is also found in a federal regulation. (Ex. 35). Similar to Method 9, in order to become certified to perform Method 303 inspections, an individual has to pass a test to become certified. (Tr. 565-66).

68. The STM is a guidance document created by the Department that describes inspection methods for visible emissions inspections. (Tr. 316; Ex. 22). The inspections methods in the STM differ from the visible emissions inspection methods in Method 303. (Tr. 435, 623, 754).

**a. The Department and Keramida inspectors**

69. The Department employs two full-time coke oven inspectors who perform inspections for Article XXI requirements at Clairton five days a week. (Tr. 305, 564, 623, 741-42). The Department's inspectors do opacity inspections for doors and soaking and they do visible emissions inspections for charging ports (lids), offtakes, doors, pushing and soaking. (Tr. 618-19). The Department inspectors record their inspections on standardized paper forms. (Tr. 746; Exs. 55-69)

70. The Department's inspectors are both certified to perform Method 9 inspections for opacity and they claim that they used Method 9 to perform the inspections related to the alleged opacity violations at issue in the Enforcement Order (soaking and door opacity). (Tr. 138, 565, 594, 621, 742, 745, 750, 767, 780, 798).

71. The Department's inspectors do not follow Method 303 for visible emissions inspections. (Tr. 434, 602, 623). Instead, they claim to follow the inspection methods contained in the STM. (Tr. 435, 623). Neither inspector has had any formal training on the STM inspection methods nor does the Department require any testing or certification process in order to perform inspections pursuant to the STM. (Tr. 622-24).

72. The Department also contracts with a private company called Keramida to inspect all ten batteries at Clairton seven days a week, 365 days a year. (Tr. 63, 139, 250, 431, 678, 683-84).

73. The Keramida inspectors do not follow, nor have they had any training on, the inspection methods in the STM. (Tr. 431, 436, 717-18, 720-22, 724-26, 733-34). Instead, the Keramida inspectors perform visible emissions inspections using Method 303. (Tr. 63, 139, 250, 697).

74. All of Keramida's inspectors are certified under Method 303 and they are not permitted to, nor do they, deviate from this inspection method. (Tr. 697, 699, 717, 720, 725-26, 730-31, 733-34). In fact, Keramida's inspectors are regularly audited to make sure they are following Method 303. (Tr. 697-98).

75. The violations alleged in the Enforcement Order are based on inspections from both the Department's and Keramida's inspectors. (Tr. 331, 435, 495).[9]

[9] Given that they perform inspections on every battery during every day of the year, Keramida inspectors perform substantially more inspections that the Department's inspectors. (*See e.g.* Ex. 5) (showing that the

**b. The inspections that found the alleged opacity violations in the Enforcement Order did not comply with Method 9**

76. The Enforcement Order includes two types of alleged opacity violations: soaking and doors. (Ex. 1; Ex. 14; *see* Tr. 428-29, 483-84, 632, 650-51, 783). These alleged violations are based on inspections from the Department's inspectors that, according to the Department, complied with Method 9. (Tr. 138, 484, 565, 594, 621, 632, 742, 745, 750, 767, 780, 798).

77. The Department's inspectors testified that they do opacity readings in a blink of an eye, which takes a single second or less. (Tr. 632-33, 764, 783). The speed in which the Department's inspectors do opacity readings allowed them, for example, to record eight high opacity door violations in a single minute, all of which were included in the Enforcement Order. (Tr. 636; Ex. 67, p. 2; Ex. 14, p. ACHD010413). In addition, the Department's opacity inspections for soaking never exceed five minutes in total, which is the maximum amount of time provided for on the Department's soaking inspection form. (Tr. 484, 646, 650-52, 785; Ex. 58; Ex. 64)

78. Method 9 does not provide for opacity to be determined based on a single "blink of an eye" reading that takes a second or less, nor does it permit opacity to be determined based on inspections that are five minutes or less. (Tr. 940; Ex. 36 at p. 312). EPA has performed studies on Method 9 and concluded that, because there is a lot of subjectivity involved when inspectors are using their naked eyes to estimate opacity, it is important that inspectors take more than a single reading. (Tr. 938-39; Ex. 38 at p. 6 ("positive error is reduced by increasing the number of observations in either averaging time or in the number of averages")). Method 9, therefore, requires that inspectors must take multiple readings (each at 15 second intervals) for a six-minute period and then average those readings together to do a single Method 9 inspection. (Tr. 939; Ex. 36 at p. 312; Ex. 38 at p. 4 ("Two central features of Method 9 involve taking opacity readings of plumes at 15-second intervals and averaging 24 consecutive readings (6 minutes).")).

79. In addition, to perform a valid inspection pursuant to Method 9, inspectors must record where they were standing during the inspection, the sun position, the wind speed, a description of the sky condition, and what was in the background behind the plume. (Ex. 36).

80. For door and soaking opacity inspections, the Department's inspectors did not record where they were standing during the inspection, the sun position, the wind speed, a

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Department's inspectors performed 1,559 inspections in the first quarter of 2018, whereas Keramida inspectors performed 3,960 inspections). The Enforcement Order includes a section entitled "Ongoing and Deteriorating Issues," in which the Department identified what it alleges were deteriorating compliance trends at Clairton. (Tr. 494-95; Ex. 1, pp. 2-6). The "Ongoing and Deteriorating Issue" section, however, was based on incomplete and misleading data because it only includes data from the Department's inspectors who, on average, perform fewer inspections and find more violations. (Tr. 495-96; Ex. 1, pp. 2-6).

description of the sky condition, or what was in the background behind the plume. (Tr. 641-643, 652-53, 666, 768-70).

81. Method 9 also requires that the accuracy of the method be taken into account when determining possible violations. (Ex. 36 at p. 311)). The Department admits that it did not make such an adjustment to the violations or penalties in the Enforcement Order. (Tr. 441).

**c. The inspections that found the alleged visible emissions violations in the Enforcement Order did not comply with the STM**

82. The Enforcement Order includes four types of alleged Article XXI visible emissions violations: charging ports (lids), offtakes, charging and doors. (Ex. 1; Ex. 14). The alleged violations are based on inspections from both the Department's and Keramida's inspectors. (Tr. 331, 435, 495). These inspections did not comply with the STM.

83. Article XXI § 2107.07, titled "COKE OVEN EMISSIONS," requires the Department to use the STM inspection methods to measure emissions from coke oven. It states: "Unless otherwise specified in the applicable regulation, measurements of emissions from coke ovens and coke oven batteries shall be performed as specified in Chapter 109 of the Allegheny County Source Testing Manual, entitled '"Determination of Emissions from Coke Ovens.'"

84. None of the Keramida inspections on which the Department based alleged violations were performed pursuant to the STM inspection methods because the Keramida inspectors only perform inspections pursuant to Method 303. (Tr. 331, 435). Not only are the visible emissions inspections methods in the STM completely different than the visible emissions inspection methods in Method 303, Method 303 inspections require a 30-day average of the inspection results. (Tr. 435, 440-41, 623, 754; Ex. 35 at pp. 662-664 ; Ex. 30). None of the alleged violations in the Enforcement Order use 30-day averages. (Tr. 441).

85. The Department's inspectors also failed to perform their visible emissions inspections pursuant to the STM. The STM inspection methods for inspecting visible emissions from coke oven batteries are in Chapter 109 of the STM, which specifically incorporates an EPA inspection method referred to as "Method 109" and cited as 40 CFR, Part 61 Appendix B. (Tr. 444; Ex. 22, Ch. 109).[10] Even though Method 109 is required as part of the STM inspection methods, the Department's inspectors admitted that they did not follow Method 109 and, in fact, have never had any training on Method 109. (Tr. 444, 625-26, 756).

86. Moreover, the Department's inspectors did not follow other portions of its STM for door leak inspections, charging ports, offtakes, charging. (Tr. 446-451, 475, 478-83, 523-26). If the Department had followed the terms of the STM for door leak

[10] Method 109 is included as Exhibit 33. (Ex. 33, p. 13600). This method was proposed by EPA in 1987 but never became a final rule. The Department, however, has kept Method 109 are a required part of the STM inspection methods even though the Department revised the STM several times since 1987. (Ex. 22, cover page and Ch. 109).

inspections, there would have been fewer violations in the Enforcement Order. (Tr. 450-451, 479-83, 523-26).

87. The Department states that it does not need to follow test methods such as Method 9, Chapter 109 of the STM or Method 303 to determine compliance with visible emissions standards for coke oven batteries. (Department's Post-Hearing Brief at p. 14; Tr. 487-488).

**H. The Enforcement Order contains several calculation mistakes**

88. Notwithstanding that the violations alleged in the Enforcement Order are based on inspections that did not follow proper inspection methods, as noted above, the Enforcement Order also contains alleged violations that were based on calculation mistakes and, thus, are not actually violations. The Department knew about some of the mistakes months before the hearing, but did not revise or amend the Enforcement Order, and the Department admitted during the hearing that the Enforcement Order contained additional mistakes. (Ex. 15; Tr. 452-478).

89. Some of these mistakes occurred because the Department simply accepted Keramida's inspection results without checking the underlying data and calculations that were used to determine the results. (456). Keramida made calculation errors that caused the Department to include alleged violations in the Enforcement Order that were not actual violations. (Tr. 456-57, 686-88; Ex. 15). These errors were never removed from the Enforcement Order. (*Compare* Ex. 15 (identifying calculation mistakes); Ex. 14 (including all alleged violations, including the ones that were calculation mistakes).[11]

## III. STANDARD OF REVIEW

In appeals of an order or penalty issued by the Department, the Department bears the burden of proving by a preponderance of evidence that its order was lawful and was a reasonable exercise of its discretion in issuing the order.[12] Art. XXI, Section 1105.C.7.a; *In re: 916 2nd Street,*

[11] The Department impermissibly attempts to change its penalty calculation and the number of violations alleged in the Enforcement Order through conclusory statements in its Post-Hearing Brief, which is not evidence. The evidence in this case consists of the hearing record where the Department had the burden of proof and U. S. Steel had the constitutionally protected right to challenge the Department's allegations through discovery, cross-examination and presentation of its own evidence.

[12] The Department avers in its brief that it is subject to a "substantial evidence" standard. It cites to two cases which were heard by the Commonwealth Court in its appellate jurisdiction. The Department's characterization of the applicable evidentiary standard it must meet is erroneous. For purposes of this hearing, which is not currently under appellate jurisdiction, it must meet a preponderance of the evidence standard. *See*, e.g., *In re: Vilka Bistro*, No. ACHD-18-003 (January 2, 2019) (applying a preponderance of the evidence standard to the Department's issuance of a penalty*); In re: 916 2nd Street, McKees Rocks, PA 15136*, No. ACHD-18-029 at *4 (December 21, 2018) (applying a preponderance of the evidence standard to the Department's issuance of an administrative order).

*McKees Rocks, PA 15136*, No. ACHD-18-029 at *4 (December 21, 2018); *Robinson Coal Co. v. Dept. of Envtl. Prot.*, 2015 EHB 130, 153.[13] There is no evidentiary burden on appellant to disprove violations or other factual allegations made by the Department in connection with its Enforcement Order. Rather, it is the Department who must affirmatively prove each violation and other material factual allegations underlying its order and penalty to uphold the order. *McDonald Land & Mining Co., Inc. v. Dept. of Envtl. Res.*, 1994 EHB 705. Failure of the Department to meet its burden with respect to each of these is grounds for vacating the order. *Id.*

## IV. ARGUMENT

### A. The Department has not proven any violations because its inspections failed to follow any proper test methods

A critical component of proving a violation is to demonstrate that applicable test methods were followed.[14] In this case, the inspections on which the Department relies to issue severe penalties did not follow applicable test methods. This became clear during the hearing based on the Department inspectors testifying that they did not always follow the specified test methods. The ACHD went so far as to take the unsupportable position that it need not follow any test methods. (¶ 87). The Department's position is contrary to the law.

Just like regulated entities must comply with environmental regulations, agencies that enforce those regulations must follow the legally required test methods when determining compliance and alleging violations. The failure of an agency to follow the required test method

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[13] Pennsylvania Environmental Hearing Board cases regarding standard of review interpret 25 Pa. Code § 1021.122, which is virtually identical to Art. XXI § 1105.C.7. The Environmental Hearing Board's cases are publicly available at: http://ehb.courtapps.com/public/opinionAndAdjudicationVolumes.php.

[14] Test methods, like the fugitive emissions inspections methods at issue in this case, are sometimes referred to as "compliance determination methods" because they are methods used to determine compliance with applicable laws or regulations.

precludes it from proving violations. See, e.g., *North American Coal Corp. v. Commonwealth*, 279 A.2d 356 (Pa. Commw. Ct. 1971); *Bortz Coal Co. v. Commonwealth*, 279 A.2d 388 (Pa. Commw. Ct. 1971); *PQ Corp. v. Dept. of Envtl. Prot.*, 2017 EHB 975. Pennsylvania courts have unequivocally and repeatedly emphasized the necessity of following the applicable test methods for determining compliance. In *North American Coal* the court determined that the Air Pollution Control Commission failed to meet its burden of proving that emissions of coal dust from two stacks exceeded applicable limits.

> [W]e believe it to be important to establish at an early date that the regulatory agencies of this State must prove their case. We want to make it clear that visual tests do constitute admissible evidence as a test, but nevertheless when recognized scientific test [methods] are available and practical, courts must insist upon their use and presentation.

279 A.2d at 360-361 (emphasis added). As applied to coke ovens, the Commonwealth Court similarly held in in *Bortz Coal*, that an agency must establish that it followed applicable methods to establish liability, particularly where an order to shutdown a facility was involved:

> [W]here there are available established methods for determining violations, those methods must be used.
>
> * * * *
>
> The Commonwealth here, in effect, is ordering the shutdown of Bortz's coke ovens. This is no small matter. To permit the Commission to order an abatement based solely upon the visual tests and observations of one employe [sic] strikes at the heart of fairness envisioned in every judicial process known to our system of jurisprudence.

279 A.2d at 398-399 (emphasis added).

Pennsylvania courts are not alone in requiring that regulatory agencies strictly follow specified test methods to prove violations. *See e.g. Donner Hana Coke Corp. v. Costle*, 464 F. Supp. 1295 (W.D.N.Y. 1979) (agency may not deviate from Method 9 requirements in attempting to prove violations of New York's state opacity limit); *State v. Perry Printing Corp*, 381 N.W. 2d

619 (Wisc. Ct. App. 1985) (holding that test methods are critical to protect an evaluation from arbitrariness, and that "if an evaluator departed from the established procedure, the court dismissed the claim based on the evaluator's reading"); *International Paper Co. v. Town of Jay*, 665 A.2d 998 (Me. 1995) (holding that a regulation strictly providing for a reference compliance determination method must be adhered to for establishing penalties and that the only way to depart from such methods would be to amend the regulation); *U.S. v Mountain State Carbon LLC,* No. 5:12-CV-10, 2014 WL 3548662 (N.D.W.V July 17, 2014) (a visible emissions observation departing from Method 9, as written, is invalid and may not be used to demonstrate a violation of a standard which directs Method 9 to be followed for compliance determination purposes).

The Department has not followed the applicable test methods to determine Clairton's compliance. Therefore, it has failed to prove the violations it alleges. It is critical that a permittee, especially one like Clairton that is the most strictly regulated coke plant in the entire country, be able to understand exactly what its compliance obligations are at all times, and how exactly compliance will be determined. On the other hand, if an agency with enforcement power is allowed to make up otherwise unspecified compliance determination methods on an ad hoc basis, it is fundamentally unfair to the regulated community. *See, e.g., United Refining v. Dept. of Envtl. Prot.,* 2006 EHB 846:

> A standard is not a law unless it is equally binding on both the regulated and the regulator … A law that purports to bind regulated entities but not the government is no law at all…If we are to be a government of laws, there should not be any doubt about what constitutes the law. The regulated community should be able to clearly understand that certain conduct is prohibited and can result in sanctions… Still further, if a requirement is important enough to have the force of law such that a violation of the requirement can result in punitive measures, it should be clear that not only is the requirement binding, but there should be no doubt that it has been subject to proper regulatory review as well…
>
> *Id*. at 849.

See also *In re Barr Twp.*, 1974 EHB 205, 212 ("When governmental action is ambiguous and does not sufficiently apprise those to whom it is directed of their responsibilities, it is necessarily arbitrary, capricious or unreasonable"). The Department may not make up its own compliance determination methods; it must adhere to those reference methods specified in regulations and/or permits. It did not. Therefore, the Department failed to satisfy its burden of proving any of the alleged soaking violations.

**1. Opacity standards - The Department failed to prove any violations of opacity standards.**

***a. The Department's inspections did not follow Method 9 to determine compliance with the soaking opacity standard.***

The Department did not prove any violation of the soaking opacity standard because it did not follow Method 9, the required test method. Section 2105.21.i of Article XXI contains "soaking"[15] opacity standards:

> At no time shall soaking emissions from a standpipe cap opening exceed twenty percent (20%) opacity. An exclusion from this opacity limit shall be allowed for two (2) minutes after a standpipe cap is opened. Compliance with this standard shall be determined through observing the standpipe from a position where the observer can note the time the oven is dampered off and, following the two minute exclusion, read the soaking emissions from the open standpipe in accordance with Method 9. (emphasis added).[16]

This rule unambiguously provides that Method 9 (entitled "Visual Determination of the Opacity of Emissions from Stationary Source") is the required test method for soaking emissions inspections. Method 9 is an inspection method for estimating opacity that is found in a federal regulation. (¶ 66). Because estimating opacity can result in human error, Method 9 has strict

[15] Soaking is defined as "that period in the coking cycle that starts when an oven is dampered off the collecting main and vented to the atmosphere through an open standpipe prior to pushing and ends when the coke begins to be pushed from the oven." Enforcement Order at p. 6; 40 CFR § 63.7352.

[16] Clairton's TVOP does not include any soaking opacity standards because the soaking regulation was enacted after the TVOP was issued.

procedures that must be followed. (*Id*.). Method 9 requires that inspectors take multiple readings at 15-second intervals for a six-minute period and then average those readings together to constitute a single Method 9 inspection, which is compared against the emission standard. (¶ 78). Method 9 also requires inspectors to record where they were standing during the inspection, the sun position, the wind speed, a description of the sky condition, and what was in the background behind the plume. (¶ 79).

The Department has alleged 55 violations of the soaking standard in Section 2105.21.i of Article XXI, with these alleged soaking violations making up approximately 20% of the total number of alleged violations in the Enforcement Order. (Ex. 14). None of these alleged violations were based on inspections that complied with Method 9. The Department's inspectors testified that they do opacity readings in a blink of an eye, which takes a single second or less. (¶ 77). The Department's inspectors also spend five minutes or less in total doing soaking inspections. (Tr. 651-653; Ex. 58; Ex. 64). Method 9, however, does not provide for opacity to be determined based on a single "blink of an eye" reading that takes a second or less, nor does it permit opacity to be determined based on inspections that are five minutes or less. (¶ 78).

In fact, the United States Environmental Protection Agency (EPA) specifically recognized that the data averaging component was a critical aspect to accurately determining opacity under Method 9. The EPA revised Method 9 in response to a court remand[17] to EPA to address the court's question as to the accuracy of Method 9, and in doing so, the EPA stated:

> Provisions have been added which specify that determination of opacity requires averaging 24 readings taken at 15 second intervals. The purpose for taking 24 readings is both to extend the averaging time over which the observations are made, and to take sufficient readings to insure acceptable accuracy.

[17] *Portland Cement Assn v. Ruckelshaus*, 486 F.2d 375 (D.C. Cir 1973)("The critical question is how accurate can opacity observations be." The court remanded to EPA for "further consideration and explanation by EPA on remand, and a showing on the records that 10% opacity measurements can be made with reasonable accuracy").

39 Fed. Reg. 39872, 39873 (November 12, 1974).

EPA's Method 9 Field Manual further states:

> [P]ositive error is reduced by increasing the number of observations in either averaging time or in number of averages. Both techniques improve the accuracy of the method.

(Ex. 38, p. 6 ; *See also* ¶ 78; Tr. 938-939).

Moreover, the Department's inspectors did not record where they were standing during the inspection, the sun position, the wind speed, a description of the sky condition, or what was in the background behind the plume, all of which are required under Method 9. (Tr. 653, 785). Method 9 also requires that the accuracy of the method be taken into account when determining possible violations. (Ex. 36 at p. 311). The Department did not make such an adjustment to the violations or penalties in the Enforcement Order, again failing to follow Method 9.

Because the Department did not follow Method 9 in determining Clairton's compliance with the soaking emissions standard, it has failed to prove that violations of the soaking standard occurred.

***b. The Department's inspections did not follow Method 9 for determining compliance with the visible emissions standards for door opacity.***

The Department cannot prove any violation of the door opacity standard because it did not follow Method 9, the required test method. When a Title V Permit, which was prepared by the Department, contains a required test method for demonstrating compliance, the Department cannot satisfy its burden of proving violations if it does not follow the required test method. *PQ*, 2017 EHB 975 (agency may not use any test method except for the method contained in the permit, noting that it would be "unfair to blindside" the permittee with significant penalties by imposing a

different method than explicitly provided for in the permit). Clairton's Title V Permit[18] and Section 2105.21.b.4 of Article XXI provide for a maximum opacity limit for visible emissions from coke oven doors. A representative provision of the limit is at Section 2105.21.b.4, which is restated in Clairton's permits:

> Emissions from the door areas of any coke oven [may not] exceed an opacity of 40% at any time 15 or more minutes after such oven has been charged.[19]

Clairton's Title V Permit specifies the required test method for all applicable visible emissions limitations for coke oven doors for each battery. *See*, e.g., Ex. 30, Condition V.A.3.b.1 (p. 51):

> b. Except as otherwise provided, a daily performance test shall be conducted each day, 7 days per week for each coke oven battery, the results of which shall be used in accordance with procedures in Conditions V.A.3.c below through V.A.3.f below to determine compliance with each of the applicable visible emission limitations for coke oven doors… [§2103.12.h.6.; §2103.12.i; §63.309(a)])…
>
> 1. Each performance test is to be conducted according to the procedures and requirements in Method 303 in Appendix A to 40 CFR Part 63 or Methods 9 and 22 in Appendix A to 40 CFR Part 60 (where applicable).

(emphasis added).

Consistent with the TVOP requirement, the Department's inspectors testified that they performed door opacity inspection using Method 9.[20] (¶ 76). But they did not.

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[18] See Ex. 30, conditions V.A.1.m (Batteries 1-3) (p. 48), V.C.1.l (Batteries 13-15) (p. 79), V.E.1.n (Batteries 19-20) (p. 110) and V.G.1.l (Battery B) (p. 142); Installation Permit (Ex. 50) condition V.A.1.d (Battery C) (p. 21).

[19] This provision is identical for each battery except Battery C, whose door opacity emissions limit is 30% as specified in Condition V.A.1.d of its Installation Permit. *See* Ex. 50.

[20] Unlike soaking, the Article XXI regulation for door opacity does not specify the test method for doing opacity inspection. This test method is specified in the Title V Permit and is Method 9, the method the Department's inspectors claimed they followed. (*See*, e.g., Ex. 30 at p. 51).

As discussed above, Method 9 requires the performance of 24 individual readings of opacity at 15-second intervals over a period of 6 minutes, each of which are averaged to arrive at a single opacity number to compare with the applicable opacity standard for compliance determination. (¶ 78). The Department's door opacity inspection forms show that it did not take the average of each of the readings it obtained during its observations. For example, one of the Department's inspectors testified that she found 8 door opacity violations in one minute. (Tr. 636). This is an impossibility if averaging as specified were used (and misconstrues the standard's language to overstate the number of exceedances as discussed further below).

Moreover, the Department's inspectors did not record where they were standing during the inspection, the sun position, the wind speed, a description of the sky condition, or what was in the background behind the plume, all of which are required under Method 9. (Tr. 642, 788). Method 9 also requires that the accuracy of the method be taken into account when determining possible violations. (Ex. 36 at p. 311). The Department did not make such an adjustment to the violations or penalties in the Enforcement Order, again failing to follow Method 9.

The Department's use of individual readings without implementing the opacity averaging component of Method 9 reflects an arbitrary and unlawful departure from the applicable compliance determination method for door opacity as specified in Clairton's permits. For these reasons, the Department has failed to meet its burden of proving the door opacity violations it alleges in its Enforcement Order based upon Method 9, the required test method.

**2. The Department failed to prove any violations of visible emissions standards for charging, door leaks, lids, and offtakes.**

***a. The Department did not follow the test method required under Article XXI for performing visible emissions inspections.***

The Department failed to prove through a valid test method that violations of the charging, percent door leaks, lids and offtakes visible emissions standards occurred. As the party bearing the burden of proof in this case, the Department must prove that it followed the applicable test method in arriving at its alleged violations. *See McDonald*, 1994 EHB 705. Article XXI, Section 2107.07 requires that the Department use the STM inspection methods:

> Unless otherwise specified in the applicable regulation, measurements of emissions from coke ovens and coke oven batteries shall be performed as specified in Chapter 109 of the Allegheny County Source Testing Manual, entitled "Determination of Emissions from Coke Ovens".
> (emphasis added).

The alleged charging, percent door leaks, lids and offtakes visible emissions violations in the Enforcement Order were based on inspections from the Department and from Keramida, and none of these inspections complied with the STM inspection methods. (¶ 75).

First, none of the Keramida inspections were performed pursuant to Chapter 109 of the STM inspection methods because the Keramida inspectors only perform inspections pursuant to Method 303. (¶¶ 73-74). Not only are the visible emissions inspection methods in Chapter 109 of the STM entirely different than the visible emissions inspection methods in Method 303, Method 303 inspections require a 30-day average of the inspection results. (¶ 84; Tr. 435, 440-41; 623, 754; Ex. 35 at pp. 662-664). None of the alleged violations in the Enforcement Order use 30-day averages. (Tr. 441).

The Department's inspectors also failed to perform their visible emissions inspections pursuant to the STM. The STM inspection methods for inspecting visible emissions from coke oven batteries are in Chapter 109 of the STM, which specifically incorporates an EPA inspection method referred to as "Method 109" and cited as 40 CFR, Part 61 Appendix B. (Tr. 444; Ex. 22,

Ch. 109).[21] Even though Method 109 is required as part of the STM inspection methods, the Department's inspectors admitted that they did not follow Method 109 and, in fact, have never had any training on Method 109. (¶ 85). In addition, the Department's inspectors did not follow other portions of its STM for door leak inspections, charging ports, offtakes, charging. (¶ 86).

The Department failed to prove, or even allege, that it indeed followed the proper test method. Perhaps even more troubling, the Department appears to take the position that it *need not* follow any reference method to determine compliance with the visible emissions standards. (¶ 87). In fact, the Department goes so far as to request that this tribunal nullify the entire STM in the event it is found that the STM is binding. *Id.* The Department's failure to follow any proper method establishes that it has not proven liability for the violations it alleges in the Enforcement Order.

***b. The Department did not follow the test method required under U. S. Steel's Title V Permit for performing visible emissions inspections.***

The Department provided that a different test method be used for performing visible emissions inspections than the STM inspection methods required under Article XXI when it issued U. S. Steel's Title V Permit. The Title V Permit requires that Method 303 be used to determine compliance. The Department did not follow Method 303 either.

As noted earlier, the failure of an agency to follow particular compliance determination methods specified in a binding permit demonstrates that the agency has failed to meet its burden of establishing liability for alleged violations relying upon such flawed compliance determination data. *PQ*, 2017 EHB 975. Clairton operates pursuant to Title V Operating Permit #0052 as issued

[21] Method 109 is included as Exhibit 33. (Ex. 33, p. 13600). This method was proposed by EPA in 1987 but never became a final rule. The Department, however, has kept Method 109 are a required part of the STM inspection methods even though the Department revised the STM several times since 1987. (Ex. 22, cover page and Ch. 109).

by the Department. (¶ 26). The purpose of the Title V permitting program is to "clarify, in a single document, which requirements apply to a source, to "enable[] the source, States, EPA, and the public to understand better the requirements to which the source is subject…" 57 Fed. Reg. 32250 (1992). Conditions of permits are legally binding and fully enforceable. *See* 42 U.S.C. § 7661c; Art. XXI § 2102.03.c.

To this end, not only does Clairton's Title V Permit contains visible emissions standards for each battery's charging, doors, lids, and offtakes, *see* Ex. 30, pp. 48-49, 79, 110-111, 142, but it also specifies what particular test method is to be used in order to determine compliance at each individual battery with each of the above visible emissions limits for charging, percent door leaks, lids and offtakes. As an example, the Title V Permit monitoring provision applicable to Batteries 1, 2 and 3 provides:[22]

> b. Except as otherwise provided, a daily performance test shall be conducted each day, 7 days per week for each coke oven battery, the results of which shall be used in accordance with procedures in Conditions V.A.3.c below through V.A.3.f below to determine compliance with each of the applicable visible emission limitations for coke oven doors, topside port lids, offtake systems, and charging operations. [2103.12.h.6; 2103.12.i; 63.309(a)]…
>
> 1. Each performance test is to be conducted according to the procedures and requirements in Method 303 in Appendix A to 40 CFR Part 63 or Methods 9 and 22 in Appendix A to 40 CFR Part 60 (where applicable).
>
> d. Using the observations obtained from each performance test, the Department shall compute and record, in accordance with the procedures and requirements of Method 303 in Appendix A of 40 CFR Part 63, for each day of operations on which a valid emissions value (or set of values) is obtained: [§2103.12.h.6.; §2103.12.i; §63.309(d)]
>
> 1)The 30-run rolling average of the percent leaking coke oven doors, topside port lids, and offtake systems on each coke oven battery, using the equations in sections 4.5.3.2, 5.6.5.2, and 5.6.6.2 of Method 303 in Appendix A of 40 CFR 63;

[22] *See also* Conditions V.C.3.b (pp. 81-82); V.E.3.b (pp. 113-114); V.G.3.b (p. 145).

Ex. 30 at Condition V.A.3.b - d (pp. 51 - 52) (emphasis added).

The above permit conditions requires that Method 303 "shall be used to determine compliance." This compliance determination method applies to "each of the applicable visible emission limitations for coke oven doors, topside port lids, offtakes systems and charging operations." Notably, the condition cites to *both* Article XXI and federal NESHAP provisions as its basis. Thus, as written, the Title V Permit provides that compliance with the Article XXI limits for doors, lids, offtakes and charging shall be based on Method 303 performance tests.

The Department's inspectors admittedly do not follow Method 303 for visible emissions inspections. (¶ 71).[23] And while the Keramida inspectors do perform Method 303 inspections, the Department did not rely on Keramida's final Method 303 readings before finding the violations in the Enforcement Order. The visible emissions inspection methods in Method 303 (and as stated in U. S. Steel's Title V Permit above) require a 30-day average of the inspection results. (¶ 84). The Department, however, ignored this requirement in Method 303 and found violations in the Enforcement Order on a *per-inspection* basis (i.e. without performing the required 30-day average) which is plainly contrary to the binding conditions specified in the permit to implement Method 303 for compliance determination purposes. (Tr. 441).[24]

The Department has committed the same error that was committed in *PQ*. It has equally failed to establish liability for any of the violations it alleges because it failed to introduce data based on the prescribed compliance test methods. The Department, therefore, did not meet its

[23] In fact, one of the Department's two inspectors has never even been certified to perform Method 303 inspections. (Tr. 750-51).

[24] The Department also acknowledged that Keramida's Method 303 inspections, when using the required 30-day rolling averages, did not show any violations of the federal NESHAP standards. Tr. 431; 40 C.F.R. § 63.309(d).

burden of proving liability for the alleged violations in the Enforcement Order. The Enforcement Order should be vacated.

**B. The Department has not met it burden of proving the underlying violations in the Enforcement Order because the Enforcement Order overstates the number of alleged violations.**

This appeal can and should end with the Department's failure to follow proper inspection methods. The Department, however, committed additional errors that prevent it from proving liability for the alleged violations in the Enforcement Order.

The visible emissions limitations in Article XXI for charging, door leaks and opacity, lids and offtakes apply to each battery, rather than individual coke ovens. For instance, with respect to door leaks, Section 2105.21.b states:

> No person shall operate, or allow to be operated, <u>any battery</u> of coke ovens in such manner that:
>
> …
>
> 4. Emissions from the door areas of any coke oven exceed an opacity of 40% at any time 15 or more minutes after such oven has been charged.

(emphasis added).

Therefore, for instance, if during an inspection an inspector observed (using an appropriate test method) more than one door areas on a single battery that exceeded the 40% opacity standard, the unambiguous text of Article XXI demonstrates that this would count as one violation – i.e., that the entire battery had doors exceeding the opacity standard. The Department, however, used its inspection data to significantly overstate the number of alleged violations by finding independent violations for each coke *oven*, not each coke *battery* as provided for in the regulation. *See, e.g.* Ex. 14, Tr. 636-638; Ex. 67, p. 2 (ACHD inspector testifying, and inspection sheet for

Battery 1 on 1-5-18 confirming, that she found 12 or 13 violations of the door opacity standard within a 5-minute reading during a single inspection of Battery 1)[25].

The Department's Enforcement Order is unlawful and unreasonable because the number of violations did not actually occur.

**C. The Department and U.S. Steel previously settled penalties for the third quarter of 2017 through the 2018 Consent Order.**

In addition, the Department is impermissibly seeking penalties in the Enforcement Order for violations alleged to have occurred during the third quarter of 2017 even though the Department previously resolved the alleged fugitive emissions violations during this time period through a consent order. (¶ 35). The terms of a consent order and agreement are "binding as to future litigation in accordance with the language of the agreement." *FR&S, Inc. v. DEP*, 1998 EHB 336. The Department entered a Consent Order dated May 7, 2018, which resolved visible emissions exceedances occurring during the third quarter 2017. (*Id*.). The Department cannot backtrack on its own instrument's express provision settling violations occurring during third quarter 2017. For this additional reason, the Department cannot prove liability for any of the alleged violations in the Enforcement Order from the third quarter of 2017.

**D. The penalties assessed in the Enforcement Order are unreasonable and unlawful.**

In addition to the Department's failure to satisfy its burden of proving liability for the violations alleges in the Enforcement Order, the penalties assessed in the Enforcement Order are unreasonable and unlawful in light of the alleged violations. Penalties that are excessive in light of the specific violations alleged in an enforcement order are unreasonable and unlawful. *See Dept. of State v. Bewley*, 1 Pa. Commw. 85, 94 ("a reviewing court can and will act to modify an

[25] In fact the ACHD alleged 13 violations by also double-counting a single oven (A-30) based on the opacity reading at the coke side and another on the push side. See Ex. 14 (p. ACHD 010413) and Ex. 67, p.2.

order of the Commission where the findings of fact do not 'fit' the statutory violations"); *U.S. Steel Corp. v. Dept. of Envtl. Res.*, 7 Pa. Commw. 429 (finding that a penalty assessed was excessive in light of the gravity of facts in the record).

The Enforcement Order includes extreme sanctions that include a million-dollar penalty and hot idling requirements that could lead to hundreds of millions of dollars in costs and lost jobs. There is simply no basis for including such extreme sanctions in the Enforcement Order.

The basis for the Enforcement Order and the extreme sanctions contained in it is that Clairton's air emissions compliance rates have allegedly been deteriorating. (Ex. 1, pp. 2-6). Department did not prove these allegations, nor do they support the extreme sanctions in the Enforcement Order. The "Ongoing and Deteriorating Issue" allegations in the Enforcement Order were based on incomplete and misleading data because these allegations only included data from the Department's inspectors who, on average, perform fewer inspections and find more violations than the Keramida inspections, who inspections were also used for the alleged violations in the Enforcement Order. (Tr. 495-96; Ex. 1, pp. 2-6). In fact, Department issued the Enforcement Order before it even knew what the compliance rates were at Clairton, and when the Department calculated the compliance rates after it had issued the Enforcement Order, the Department learned that the compliance rates were substantially higher than expected. (Tr. 502).

When the Department calculated the baseline for the first time, after it had already issued the Enforcement Order, it learned that U.S. Steel's compliance rate in the first quarter of 2018 was 98.152%. (¶ 47). The Department concedes that 98.152% is a fairly high compliance rate, which must be true given that the Department understands that no source is 100% compliant, especially a source that is subject to the most string regulations in the country. (Tr. 105, 502-03; 837). In fact, U. S. Steel's compliance rate is substantially above the 85%-95% compliance rate the

Department expected before it unilaterally changed its position, with no explanation, in the middle of the last of the three quarters at issue in the Enforcement Order. Moreover, in the 2016 Consent Judgment, the Department and U.S. Steel agreed that the most effective surrogate for environmental performance across the Clairton Plant is battery stack / COMS compliance, and the Department calculated U.S. Steel's battery stack / COMS compliance rate during the penalty period at issue to be 99.384% (which is higher than both the 98.5% required by the 2016 Consent Judgement and even the Department's new 99% compliance target in its 2018 penalty policy). This evidence demonstrates that the Enforcement Order is not addressing a situation that warrants the extreme sanctions included in it, especially the hot idle sanction that could lead to hundreds of millions of dollars in costs and lost jobs.

Hot idling is an extreme measure that can be tantamount to a shutdown. Alleged non-compliance is not necessarily sufficient to support such an extreme injunctive measure. In *Dept. of Envtl. Res. v. Mill Service, Inc.*, 347 A.2d 503 (Pa. Commw. 1975), the court acknowledged that under the Clean Streams Law, the agency had wide discretion to issue an order under language substantially similar to Article XXI § 2109.03.a.1 (Enforcement Orders) in the event that a facility was not in compliance with the applicable statute. *Id.* at 505. However, the court noted that the agency is required to select from the various remedies available to it "one that is reasonable and appropriate under the circumstances." *Id.* Similarly, in *Keystone Cement Co. v. DER*, 1992 EHB 590, the Board granted a petition for supersedeas, based on the Board's finding that an order suspending a facility's permits was excessive and incurred such irreparable harm that outweighed other considerations. Considering all factors involved, the Department had various options to include as a remedy. Its choice of imposing a hot idle requirement was an abuse of discretion.

Moreover, Article XXI § 2101.02 requires the Department to take into account economic and industrial concerns in developing emissions standards for sources within the County. Section 2 of the APCA also instructs that its policy is to "protect the air resources of the Commonwealth to the degree necessary for the … (iv) development, attraction and expansion of industry, commerce and agriculture…" 35 P.S. § 4002(a). The Department admittedly did not consider the economic impacts of its Enforcement Order, such as the impacts on employment or costs. By completely ignoring these economic factors, the Department's action was contrary to the overarching requirements of Article XXI which requires the Department to consider economic impacts.

The evidence as a whole demonstrates that the Department did not satisfy its burden of proving that the penalties assessed in the Enforcement Order are reasonable and lawful in light of the alleged violations. This case simply does not support millions of dollars of potential penalties and a shut down sanction.

1. ***The Penalty Assessment's 10 leak/month standard for Battery B is legally unauthorized and unreasonable.***

The Department lacks the authority to impose the new standard for coke side doors on B Battery included at Paragraph 4 (p.27) of the Enforcement Order. The Department has relied on two sections of Article XXI to support its B Battery standard. First, the Department issued Enforcement Order expressly citing to section 2109.03 entitled "Enforcement Orders." After it became clear that there were no alleged any violations regarding B Battery coke side doors in the Enforcement Order, the Department scrambled to find authority elsewhere. The Department's second attempt was section 2109.04 entitled "Order Establishing a Different or More Restrictive Standard," which was not referenced anywhere in the Enforcement Order. However, the Department did not satisfy any of the perquisite findings upon which 2109.04 authorizes such an

order. The Department's inclusion of the B battery standard exceeded the authority of the Department

The Department does not have authority under 2109.03 to issue an order with a more stringent standard if it has not proven, let alone even alleged, any violation regarding the source of emissions subject to the more stringent standard. In essence, the Department imposed a more stringent standard on a source (B Battery coke side doors) that was in 100% compliance with the existing federal and Article XXI door leak standards. The ACHD's authority to issue an order under 2109.03 is limited to orders that address violations and are necessary to aid in the enforcement of Article XXI. Without any alleged violations, the Department's reliance on 2109.03 fails.

It appears that the Department abandoned any argument that its B Battery coke side door standard was authorized under 2109.03 and now seeks to rely on 2109.04. *See, e.g.,* Post-Hearing Brief at pp. 26-31. The fact that the Department did not include any reference to 2109.04 in the Enforcement Order or any findings as to the reason for the new B Battery standard suggests that the Department developed these arguments long after it had issued the Enforcement Order and only in defense of the appeal of the Enforcement Order. The Department, nevertheless, also failed to satisfy any of the conditions listed in 2109.04 to support the B Battery coke side door standard.

In order to have a basis to issue an order under 2109.04, the Department must make one of three findings: (1) emissions from the source are causing or significantly contributing to the exceedance of an ambient air quality standard; (2) emissions violate the requirements of 2101.12 (related to interstate pollution);[26] or (3) emissions may otherwise reasonably be anticipated to

[26] This element, which relates to interstate pollution, is not applicable to this case.

endanger the public health, safety and welfare. The Department did not and cannot make any of these findings.

The Department did not allege a single violation of any ambient air quality standard based on door leak emissions from the coke side of Battery B in its Enforcement Order. (¶ 53). Battery B's coke side door leaks are not an appreciable source of PM 2.5 or SO2 emissions. Battery B is equipped with a shed and baghouse that effectively control particulate and door leaks from Battery B do not contain any significant levels of SO2. (¶¶ 56-57). The Department did not conduct any type of analysis to show the impact of B Battery coke side door emissions on the NAAQS. (¶ 62). The Department does not know what, if any, effect the new door leak standard would have any ambient air emissions. (¶ 62). Faced with these facts, the Department cannot seriously suggest that it has found that the emissions from B Battery coke side doors have caused or contributed to an exceedance of the PM2.5 or SO2 NAAQS.

With respect to the third possible finding under 2109.04, the Department goes to great lengths to craft an argument that the HAPs emitted from B battery coke side doors endanger the public health. By making this argument, the Department fails to recognize that the EPA has previously addressed the risk to human health from coke battery emissions under the NESHAPs. (¶ 58). U.S. Steel is 100 percent compliant with the NESHAP door leak regulations, which means that, based on EPA's extensive studies, any HAPs that are emitted from door leaks are within the level that is protective of public health. (¶ 58). Clearly, the Department's finding of harm to public health is contrary to EPA's NESHAP rulemaking and is not supportable.

Regardless of the Department's alleged finding of endangerment to public health based on HAP emissions, the Department has again failed to follow the law. The APCA and the CAA prohibit the establishment of standards for HAPs that are more stringent than the federal NESHAPs

for those coke batteries meeting LAER standards (which Clairton is) until 2020, unless the Department performed specific health risk-based analyses, which it did not do.[27] 35 P.S. § 4006.6(d)(2); (¶¶ 21, 62).

This limitation in the APCA makes sense because the federal NESHAP standards were developed as a product of a comprehensive and periodic risk assessment analysis by EPA as directed under Section 112(d) and (f)(2) of the Clean Air Act. Under these provisions, EPA is required to promulgate initial technology-based emissions standards for sources such as coke oven batteries, reflecting performance achieved by the best performing existing sources. (¶ 21; 42 USC Section 7412 (d)(8)). EPA then performs periodic follow-up analyses every eight years to determine whether more stringent standards are required "to provide an ample margin of safety to protect public health" and address any residual risk. (¶ 22). Calculating revised NESHAP standards to reflect this risk level is a highly technical process, requiring emissions

[27] Section 6.6 of the APCA, 35 P.S. § 4006.6 states:

> (d)(2) In the case of coke oven batteries, the department may not impose health risk-based emission standards more stringent than Federal requirements until eight (8) years after promulgation of maximum achievable control technology (MACT) standards and not until the year 2020 for coke oven batteries which satisfy the requirements of section 112(i)(8)(A)of the Clean Air Act.
>
> (3) Notwithstanding the limitation in clause (2), where the operation of a coke oven battery would result in serious, substantial and demonstrable harm to public health, welfare and the environment, the department may impose health risk-based emission standards by regulation which utilize proven, commercially available and economically available methods of technology. (ii) After January 1, 1998, the department shall only impose health risk-based emission standards adopted pursuant to section 112(f) of the Clean Air Act…

Section 112(i)(8)(A) of the Clean Air Act, 42 USC Section 7412, states:

> Any coke oven battery that complies with the [LAER] emission limitations established under subsection (d)(8)(C) … shall not be required to achieve emission limitations promulgated under subsection (f) until January 1, 2020.

characterization, exposure modeling/monitoring, and toxicological analysis. (*Id.*). EPA performed each of these in determining the NESHAP door leak limits. *See* 70 Fed. Reg. 19992, 20013 (2005).

In stark contrast to the comprehensive analytical approach used by EPA in developing the NESHAP standards for coke oven doors, the Department's new door leak standard for Battery B is not grounded in any such health-based analysis. The Department made no demonstration that the 10 leak standard was one scientifically derived as necessary to be protective of public health, to reduce the ambient concentration of pollutants, or to reflect an acceptable degree of risk. (¶ 62). The Department simply made up a door leak standard that is about 9 times more stringent than the federal NESHAP standards applicable to Battery B's door leaks, which is prohibited by the APCA. 35 P.S. § 4006.6(d)(2).

**2. The Penalty Assessment's requirement to show an increase in "rate of compliance" over "two successive quarters" above an arbitrary baseline is unreasonable.**

The baseline calculation requirement in the Enforcement Order is arbitrary and unreasonable since it penalizes Clairton for matters that were judicially resolved in the 2016 Consent Judgment and it may lead to absurd results that would impose a hot idle sanction.

The Enforcement Order requires Clairton to determine its overall "rate of compliance" with visible emissions standards over "two successive quarters" and compare it against the "rate of compliance" from the first quarter of 2018 and the first of the two successive quarters. (¶ 43). If the "rate of compliance" during the first successive quarter is lower than that during first quarter of 2018, or if the rate achieved during the second successive quarter is lower than that during the first successive quarter, then Clairton must hot idle two of its batteries, without exception. (*Id.*)

The text of the Enforcement Order misstates the effect the baseline can have on penalties. Paragraph 48 of the Enforcement Order states:

> By this Enforcement Order, the Department is not taking any action specifically regarding any alleged failures to meet any requirements regarding pushing or combustion stacks (as determined by a continuous opacity monitoring system), or soaking on Batteries 1, 2, and 3. Such actions are taken separately through provisions of the March 24, 2016 Consent Judgment.

Contrary to the above statement, the baseline calculation includes battery stack / COMS, pushing and soaking (from Batteries 1, 2, and 3) compliance data and the compliance rates for these emissions points could all be the reason U.S. Steel does not meet the baseline and is penalized by being required to hot idle two batteries. (¶ 44).[28] This is unreasonable. U.S. Steel could be double penalized for the same violations by being subject to penalties pursuant to the 2016 Consent Judgment *and* the hot idle sanction in the Enforcement Order. (*Id.*).

In fact, half of the baseline is made up of battery stack / COMS compliance, even though there are no alleged violations for these emissions points in the Enforcement Order and these emissions points are already governed by the 2016 Consent Judgment. (¶ 48). The battery stack / COMS compliance portion of the baseline is 99.384%, which is significantly higher than the compliance target of 98.5% that was agreed-to in the 2016 Consent Judgment. (¶ 48).[29] Therefore, including battery stack / COMS compliance in the baseline significantly increased the baseline, which punishes U.S. Steel for improving its battery stack /COMS compliance rate above the rate agreed to in the 2016 Consent Judgment. (¶ 48). This is unreasonable and effectively works to displace the 2016 Consent Judgment, which already contains a comprehensive framework for addressing combustion stack performance, including a schedule of stipulated penalties in the event

[28] For example, even if Clairton were to achieve 100% with the charging, doors, lids, offtakes and soaking standards, it could be required to hot idle two batteries, solely due to combustion stack performance.

[29] The Department issued the Enforcement Order before it ever calculated U.S. Steel's baseline compliance percentage, so it would not have known that the compliance percentages were so high when it was preparing the Enforcement Order. (¶ 46).

of violations. (¶ 48). Allowing the Enforcement Order to further trigger hot idling based on combustion stack performance impermissibly sidesteps the binding terms of the 2016 Consent Judgment.[30]

Paragraph 3 of the Total Penalty Assessment may also lead to absurd results. For instance, U.S. Steel is essentially penalized if it achieves a high rate of compliance in its first of two successive quarters, since it would be more difficult to surpass such a high rate in the second quarter. The compliance rate that U.S. Steel must meet in its first of two quarters is already stringent because Paragraph 3's baseline is a rate that the Department acknowledged was unexpectedly high. (¶ 47). And, if U.S. Steel were to achieve a 100% compliance in its first quarter, it would have to hot idle two batteries since it is impossible to achieve more than 100% compliance during the second successive quarter. The potential for these unreasonable results demonstrates that the baseline requirement in Paragraph 3 is arbitrary and unenforceable.[31]

[30] The Department has suggested that any arguments against the inclusion of opacity standards within the compliance rate metric within the Enforcement Order must be raised under the dispute resolution procedure within the 2016 Consent Judgment. Ex. 1, Attachment A at p. 19. However, the dispute resolution procedure only applies to resolution of disputes "regarding matters included in" the 2016 Consent Judgment. U.S. Steel is not challenging the 2016 Consent Judgment's required measures for addressing stack opacity exceedances or its schedule of stipulated penalties in this appeal. It is challenging the inclusion of combustion stack opacity compliance rates specifically within the "two successive quarters" requirement of Paragraph 3 of the Total Penalty Assessment, which is not a matter included in the 2016 Consent Judgment. Therefore, the Department's argument that the 2016 Consent Judgment's Dispute Resolution framework be applied here is meritless.

[31] The baseline requirement also leads to absurd results because it includes an arbitrary methodology for determining the two worst performing batteries. The batteries at Clairton have different emissions limits. (Tr. 254). C Battery, which is the newest battery, has the tightest emissions limits of all of the batteries. (Tr. 254). The Department did a sample calculation, using the methodology in the Enforcement Order, to determine the two worst performing batteries in the first quarter of 2018. (Tr. 521-22; USS Ex. 6). One of the two batteries identified was C Battery, which surprised the Department because it is the newest battery with the most advanced technology and traditionally highest COMS compliance rate. (Tr. 522; 835-36).

## E. Conclusion

For the foregoing reasons, U.S. Steel requests that the Department's Enforcement Order be vacated in its entirety.

Respectfully submitted,

/s/ *Mark K. Dausch*
Michael H. Winek, Esq. (PA ID# 69464)
Mark K. Dausch, Esq. (PA ID# 205621)

Babst, Calland, Clements & Zomnir, P.C.
Two Gateway Center, 6th Floor
Pittsburgh, PA 15222
(412) 394-5400
mwinek@babstcalland.com
mdausch@babstcalland.com

David W. Hacker, Esq. (PA ID# 91236)
United States Steel Corporation
600 Grant Street, Suite 1500
Pittsburgh, PA 15219
(412) 433-2919
dwhacker@uss.com

## CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served via electronic mail this 7th day of March, 2019 upon the following persons:

Max Slater, Esq.
Administrative Hearing Officer
Allegheny County Health Department
542 4th Avenue
Pittsburgh, PA 15219
Max.Slater@AlleghenyCounty.us

Allegheny County Health Department
Air Quality Program
301 39th Street, Bldg. 7
Pittsburgh, PA 15201-8102
(412) 578-8124
Jason.Willis@AlleghenyCounty.us

*/s/ Mark K. Dausch*