BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Petition Nos. III-2023-5 and III-2023-6

In the Matter of

United States Steel Corporation, Clairton Coke Works

Permit No. 0052-OP22

Issued by the Allegheny County Health Department

ORDER GRANTING IN PART AND DENYING IN PART PETITIONS FOR OBJECTION TO A TITLE V OPERATING PERMIT

I. INTRODUCTION

The U.S. Environmental Protection Agency (EPA) received a petition dated March 6, 2023 (the EIP Petition) from Environmental Integrity Project (EIP), Clean Air Council (CAC), and Pennsylvania's Future (PennFuture) (the Petitioners) and a petition dated March 6, 2023 (the GASP Petition) from the Group Against Smog and Pollution (GASP) (the Petitioner), pursuant to section 505(b)(2) of the Clean Air Act (CAA or Act), 42 United States Code (U.S.C.) § 7661d(b)(2). The Petitions request that the EPA Administrator object to operating permit No. 0052-OP22 (the Permit) issued by the Allegheny County Health Department (ACHD) to the U.S. Steel Mon Valley Works Clairton Plant (Clairton) in Allegheny County, Pennsylvania. The operating permit was issued pursuant to title V of the CAA, 42 U.S.C. §§ 7661–7661f, and Article XXI § 2103.01 *et seq.* of ACHD's Rules and Regulations. *See also* 40 Code of Federal Regulations (C.F.R.) part 70 (title V implementing regulations). This type of operating permit is also known as a title V permit or part 70 permit.

Based on a review of the Petitions and other relevant materials, including the Permit, the permit record, and relevant statutory and regulatory authorities, and as explained in Section IV of this Order, EPA grants in part and denies in part the Petitions requesting that the EPA Administrator object to the Permit. Specifically, EPA grants Claims A, B, F, G, J, and K of the EIP Petition, and Claim I of the GASP Petition, grants in part and denies in part Claims C, D, and E of the EIP Petition, and denies Claim I of the EIP Petition.[1]

II. STATUTORY AND REGULATORY FRAMEWORK

[1] The EIP Petition includes Claims A – G and I – K, but does not include a Claim H. The GASP Petition includes a single claim, labeled Claim I.

A. Title V Permits

Section 502(d)(1) of the CAA, 42 U.S.C. § 766la(d)(1), requires each state to develop and submit to EPA an operating permit program to meet the requirements of title V of the CAA and EPA's implementing regulations at 40 C.F.R. part 70. The Commonwealth of Pennsylvania submitted a title V program governing the issuance of operating permits on behalf of Allegheny County on November 9, 1998, and amended the submitted program on March 1, 2001. EPA granted full approval of Allegheny County's title V operating permit program in 2001. 66 Fed. Reg. 55112-55115 (November 1, 2001). This program, which became effective on December 17, 2001, is codified in Article XXI § 2103.01 *et seq.* of ACHD's Rules and Regulations.

All major stationary sources of air pollution and certain other sources are required to apply for and operate in accordance with title V operating permits that include emission limitations and other conditions as necessary to assure compliance with applicable requirements of the CAA, including the requirements of the applicable implementation plan. 42 U.S.C. §§ 7661a(a), 7661b, 7661c(a). The title V operating permit program generally does not impose new substantive air quality control requirements, but does require permits to contain adequate monitoring, recordkeeping, reporting, and other requirements to assure compliance with applicable requirements. 40 C.F.R. § 70.1(b); 42 U.S.C. § 7661c(c). One purpose of the title V program is to "enable the source, States, EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements." 57 Fed. Reg. 32250, 32251 (July 21,1922). Thus, the title V operating permit program is a vehicle for compiling the air quality control requirements as they apply to the source's emission units and for providing adequate monitoring, recordkeeping, and reporting to assure compliance with such requirements.

B. Review of Issues in a Petition

State and local permitting authorities issue title V permits pursuant to their EPA-approved title V programs. Under CAA § 505(a) and the relevant implementing regulations found at 40 C.F.R. § 70.8(a), states are required to submit each proposed title V operating permit to EPA for review. 42 U.S.C. § 7661d(a). Upon receipt of a proposed permit, EPA has 45 days to object to final issuance of the proposed permit if EPA determines that the proposed permit is not in compliance with applicable requirements under the Act. 42 U.S.C. § 7661d(b)(1); *see also* 40 C.F.R. § 70.8(c). If EPA does not object to a permit on its own initiative, any person may, within 60 days of the expiration of EPA's 45-day review period, petition the Administrator to object to the permit. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

Each petition must identify the proposed permit on which the petition is based and identify the petition claims. 40 C.F.R. § 70.12(a). Any issue raised in the petition as grounds for an objection must be based on a claim that the permit, permit record, or permit process is not in compliance with applicable requirements or requirements under part 70. 40 C.F.R. § 70.12(a)(2). Any

arguments or claims the petitioner wishes EPA to consider in support of each issue raised must generally be contained within the body of the petition.[2] *Id.*

The petition shall be based only on objections to the permit that were raised with reasonable specificity during the public comment period provided by the permitting authority (unless the petitioner demonstrates in the petition to the Administrator that it was impracticable to raise such objections within such period or unless the grounds for such objection arose after such period). 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d); *see also* 40 C.F.R. § 70.12(a)(2)(v).

In response to such a petition, the Act requires the Administrator to issue an objection if a petitioner demonstrates that a permit is not in compliance with the requirements of the Act. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(c)(1).[3] Under section 505(b)(2) of the Act, the burden is on the petitioner to make the required demonstration to EPA.[4] The petitioner's demonstration burden is a critical component of CAA § 505(b)(2). As courts have recognized, CAA § 505(b)(2) contains both a "discretionary component," under which the Administrator determines whether a petition demonstrates that a permit is not in compliance with the requirements of the Act, and a nondiscretionary duty on the Administrator's part to object where such a demonstration is made. *Sierra Club v. Johnson*, 541 F.3d at 1265–66 ("[I]t is undeniable [that CAA § 505(b)(2)] also contains a discretionary component: it requires the Administrator to make a judgment of whether a petition demonstrates a permit does not comply with clean air requirements."); *NYPIRG*, 321 F.3d at 333. Courts have also made clear that the Administrator is only obligated to grant a petition to object under CAA § 505(b)(2) if the Administrator determines that the petitioner has demonstrated that the permit is not in compliance with requirements of the Act. *Citizens Against Ruining the Environment*, 535 F.3d at 677 (stating that § 505(b)(2) "clearly obligates the Administrator to (1) determine whether the petition demonstrates noncompliance and (2) object *if* such a demonstration is made" (emphasis added)).[5] When courts have reviewed EPA's interpretation of the ambiguous term "demonstrates" and its determination as to whether the demonstration has been made, they have applied a deferential standard of review. *See, e.g.*, *MacClarence*, 596 F.3d at 1130–31.[6] Certain aspects of the petitioner's demonstration burden are discussed in the following paragraph. A more detailed discussion can be found in the preamble to EPA's proposed petitions rule. *See* 81 Fed. Reg. 57822, 57829–31 (August 24, 2016); *see also In the Matter of Consolidated Environmental Management, Inc., Nucor Steel Louisiana*, Order on Petition Nos. VI-2011-06 and VI-2012-07 at 4–7 (June 19, 2013) (*Nucor II Order*).

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[2] If reference is made to an attached document, the body of the petition must provide a specific citation to the referenced information, along with a description of how that information supports the claim. In determining whether to object, the Administrator will not consider arguments, assertions, claims, or other information incorporated into the petition by reference. *Id*.

[3] *See also New York Public Interest Research Group, Inc. v. Whitman*, 321 F.3d 316, 333 n.11 (2d Cir. 2003) (*NYPIRG*).

[4] *WildEarth Guardians v. EPA*, 728 F.3d 1075, 1081–82 (10th Cir. 2013); *MacClarence v. EPA*, 596 F.3d 1123, 1130–33 (9th Cir. 2010); *Sierra Club v. EPA*, 557 F.3d 401, 405–07 (6th Cir. 2009); *Sierra Club v. Johnson*, 541 F.3d 1257, 1266–67 (11th Cir. 2008); *Citizens Against Ruining the Environment v. EPA*, 535 F.3d 670, 677–78 (7th Cir. 2008); *cf. NYPIRG*, 321 F.3d at 333 n.11.

[5] *See also Sierra Club v. Johnson*, 541 F.3d at 1265 ("Congress's use of the word 'shall' . . . plainly mandates an objection *whenever* a petitioner demonstrates noncompliance." (emphasis added)).

[6] *See also Sierra Club v. Johnson*, 541 F.3d at 1265–66; *Citizens Against Ruining the Environment*, 535 F.3d at 678.

EPA considers a number of criteria in determining whether a petitioner has demonstrated noncompliance with the Act. *See generally Nucor II Order* at 7. For example, one such criterion is whether a petitioner has provided the relevant analyses and citations to support its claims. For each claim, the petitioner must identify (1) the specific grounds for an objection, citing to a specific permit term or condition where applicable; (2) the applicable requirement as defined in 40 C.F.R. § 70.2, or requirement under part 70, that is not met; and (3) an explanation of how the term or condition in the permit, or relevant portion of the permit record or permit process, is not adequate to comply with the corresponding applicable requirement or requirement under part 70. 40 C.F.R. § 70.12(a)(2)(i)–(iii). If a petitioner does not identify these elements, EPA is left to work out the basis for the petitioner's objection, contrary to Congress's express allocation of the burden of demonstration to the petitioner in CAA § 505(b)(2). *See MacClarence*, 596 F.3d at 1131 ("[T]he Administrator's requirement that [a title V petitioner] support his allegations with legal reasoning, evidence, and references is reasonable and persuasive.").[7] Relatedly, EPA has pointed out in numerous previous orders that general assertions or allegations did not meet the demonstration standard. *See, e.g.*, *In the Matter of Luminant Generation Co., Sandow 5 Generating Plant*, Order on Petition Number VI-2011-05 at 9 (January 15, 2013).[8] Also, the failure to address a key element of a particular issue presents further grounds for EPA to determine that a petitioner has not demonstrated a flaw in the permit. *See, e.g.*, *In the Matter of EME Homer City Generation LP and First Energy Generation Corp.*, Order on Petition Nos. III-2012-06, III-2012-07, and III-2013-02 at 48 (July 30, 2014).[9]

Another factor EPA examines is whether the petitioner has addressed the state or local permitting authority's decision and reasoning contained in the permit record. 81 Fed. Reg. at 57832; *see Voigt v. EPA*, 46 F.4th 895, 901–02 (8th Cir. 2022); *MacClarence*, 596 F.3d at 1132–33.[10] This includes a requirement that petitioners address the permitting authority's final decision and final reasoning (including the state's response to comments) where these documents were available during the timeframe for filing the petition. 40 C.F.R. § 70.12(a)(2)(vi). Specifically, the petition must identify where the permitting authority responded to the public comment and explain how the permitting authority's response is inadequate to address (or does not address) the issue raised in the public comment. *Id*.

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[7] *See also In the Matter of Murphy Oil USA, Inc.*, Order on Petition No. VI-2011-02 at 12 (September 21, 2011) (denying a title V petition claim where petitioners did not cite any specific applicable requirement that lacked required monitoring); *In the Matter of Portland Generating Station*, Order on Petition at 7 (June 20, 2007) (*Portland Generating Station Order*).

[8] *See also Portland Generating Station Order* at 7 ("[C]onclusory statements alone are insufficient to establish the applicability of [an applicable requirement]."); *In the Matter of BP Exploration (Alaska) Inc., Gathering Center #1*, Order on Petition Number VII-2004-02 at 8 (April 20, 2007); *In the Matter of Georgia Power Company*, Order on Petitions at 9–13 (January 8, 2007) (*Georgia Power Plants Order*); *In the Matter of Chevron Products Co., Richmond, Calif. Facility*, Order on Petition No. IX-2004–10 at 12, 24 (March 15, 2005).

[9] *See also In the Matter of Hu Honua Bioenergy*, Order on Petition No. IX-2011-1 at 19–20 (February 7, 2014); *Georgia Power Plants Order* at 10.

[10] *See also, e.g.*, *Finger Lakes Zero Waste Coalition v. EPA*, 734 Fed. App'x *11, *15 (2d Cir. 2018) (summary order); *In the Matter of Noranda Alumina, LLC*, Order on Petition No. VI-2011-04 at 20–21 (December 14, 2012) (denying a title V petition issue where petitioners did not respond to the state's explanation in response to comments or explain why the state erred or why the permit was deficient); *In the Matter of Kentucky Syngas, LLC*, Order on Petition No. IV-2010-9 at 41 (June 22, 2012) (denying a title V petition issue where petitioners did not acknowledge or reply to the state's response to comments or provide a particularized rationale for why the state erred or the permit was deficient); *Georgia Power Plants Order* at 9–13 (denying a title V petition issue where petitioners did not address a potential defense that the state had pointed out in the response to comments).

The information that EPA considers in determining whether to grant or deny a petition submitted under 40 C.F.R. § 70.8(d) generally includes, but is not limited to, the administrative record for the proposed permit and the petition, including attachments to the petition. 40 C.F.R. § 70.13. The administrative record for a particular proposed permit includes the draft and proposed permits; any permit applications that relate to the draft or proposed permits; the statement required by § 70.7(a)(5) (sometimes referred to as the 'statement of basis'); any comments the permitting authority received during the public participation process on the draft permit; the permitting authority's written responses to comments, including responses to all significant comments raised during the public participation process on the draft permit; and all materials available to the permitting authority that are relevant to the permitting decision and that the permitting authority made available to the public according to § 70.7(h)(2). *Id.* If a final permit and a statement of basis for the final permit are available during the agency's review of a petition on a proposed permit, those documents may also be considered when determining whether to grant or deny the petition. *Id*.

If EPA grants a title V petition, a permitting authority may address EPA's objection by, among other things, providing EPA with a revised permit. 42 U.S.C. § 7661d(b)(3), (c); 40 C.F.R. § 70.8(d); *see id*. § 70.7(g)(4); 70.8(c)(4); *see generally* 81 Fed. Reg. 57822, 57842 (August 24, 2016) (describing post-petition procedures); *Nucor II Order* at 14–15 (same). In some cases, the permitting authority's response to an EPA objection may not involve a revision to the permit terms and conditions themselves, but may instead involve revisions to the permit record. For example, when EPA has issued a title V objection on the ground that the permit record does not adequately support the permitting decision, it may be acceptable for the permitting authority to respond only by providing an additional rationale to support its permitting decision.

When the permitting authority revises a permit or permit record in order to resolve an EPA objection, it must go through the appropriate procedures for that revision. The permitting authority should determine whether its response is a minor modification or a significant modification to the title V permit, as described in 40 C.F.R. § 70.7(e)(2) and (4) or the corresponding regulations in the state's EPA-approved title V program. If the permitting authority determines that the modification is a significant modification, then the permitting authority must provide for notice and opportunity for public comment for the significant modification consistent with 40 C.F.R. § 70.7(h) or the state's corresponding regulations.

In any case, whether the permitting authority submits revised permit terms, a revised permit record, or other revisions to the permit, and regardless of the procedures used to make such revision, the permitting authority's response is generally treated as a new proposed permit for purposes of CAA § 505(b) and 40 C.F.R. § 70.8(c) and (d). *See Nucor II Order* at 14. As such, it would be subject to EPA's 45-day review per CAA § 505(b)(1) and 40 C.F.R. § 70.8(c), and an opportunity for the public to petition under CAA § 505(b)(2) and 40 C.F.R. § 70.8(d) if EPA does not object during its 45-day review period.

When a permitting authority responds to an EPA objection, it may choose to do so by modifying the permit terms or conditions or the permit record with respect to the specific deficiencies that EPA identified; permitting authorities need not address elements of the permit or the permit

record that are unrelated to EPA's objection. As described in various title V petition orders, the scope of EPA's review (and accordingly, the appropriate scope of a petition) on such a response would be limited to the specific permit terms or conditions or elements of the permit record modified in that permit action. *See In The Matter of Hu Honua Bioenergy, LLC*, Order on Petition No. VI-2014-10 at 38–40 (September 14, 2016); *In the Matter of WPSC, Weston*, Order on Petition No. V-2006-4 at 5–6, 10 (December 19, 2007).

III. BACKGROUND

A. The Clairton Facility

The U.S. Steel Mon Valley Works Clairton Plant in Allegheny County, Pennsylvania is the largest by-products coke plant in the United States. The facility was built in 1901, and U.S. Steel has operated the facility since 1904. The facility operates seven coke batteries, seven quench towers, and six boilers, among other emission units. The facility produces approximately 13,000 tons of coke per day from the distillation of more than 18,000 tons of coal. The coke by-products plant of the facility produces approximately 145,000 gallons of crude coal tar, 55,000 gallons of light oil, 50 tons of anhydrous ammonia, and 35 tons of elemental sulfur each day from the coke oven gas produced by the coking process. The coke produced is then used in blast furnace operations in the production of molten iron for steel production. The Clairton facility is a major source of carbon monoxide (CO), nitrogen oxides (NO_x), particulate matter (PM), PM_{10}, $PM_{2.5}$, sulfur dioxide (SO_2), volatile organic compounds (VOCs), and Hazardous Air Pollutants (HAPs). The facility is subject to several ACHD rules and regulations, New Source Performance Standards (NSPS), and National Emission Standards for Hazardous Air Pollutants (NESHAPs).

EPA conducted an analysis using EPA's EJScreen[11] to assess key demographic and environmental indicators within a five-kilometer radius of the Clairton plant. This analysis showed a total population of approximately 30,452 residents within a five-kilometer radius of the facility, of which approximately 17 percent are people of color and 31 percent are low income. In addition, EPA reviewed the EJScreen Environmental Justice Indices, which combine certain demographic indicators with 13 environmental indicators. The following table identifies the Environmental Justice Indices for the five-kilometer radius surrounding the facility and their associated percentiles when compared to the rest of the State of Pennsylvania.

EJ Index	Percentile in State
Particulate Matter 2.5	79
Ozone	61
Diesel Particulate Matter	69
Air Toxics Cancer Risk	89
Air Toxics Respiratory Hazard	69
Toxic Releases to Air	78

[11] EJScreen is an environmental justice mapping and screening tool that provides EPA with a nationally consistent dataset and approach for combining environmental and demographic indicators. *See https://www.epa.gov/ejscreen/what-ejscreen*.

Traffic Proximity	55
Lead Paint	74
Superfund Proximity	24
RMP Facility Proximity	75
Hazardous Waste Proximity	71
Underground Storage Tanks	60
Wastewater Discharge	71

B. Permitting History

U.S. Steel first obtained a title V permit for the Clairton plant in 2012. On September 26, 2016, U.S. Steel submitted an application for a renewal of its title V permit. ACHD published notice of a draft permit on January 13, 2022, subject to a public comment period that ran until February 28, 2022, and was extended to March 15, 2022. On September 28, 2022, ACHD submitted the Proposed Permit, along with its responses to public comments (RTC), to EPA for its 45-day review. ACHD withdrew the proposed permit from EPA's review on October 18, 2022, and resubmitted the Proposed Permit and RTC to EPA for its 45-day review on November 16, 2022. EPA's 45-day review period ended on January 3, 2023, during which time EPA did not object to the Proposed Permit. ACHD issued the final title V renewal permit for the Clairton Plant on November 21, 2022.

C. Timeliness of Petition

Pursuant to the CAA, if EPA does not object to a proposed permit during its 45-day review period, any person may petition the Administrator within 60 days after the expiration of the 45-day review period to object. 42 U.S.C § 7661d(b)(2). EPA's 45-day review period expired on January 3, 2023. Thus, any petition seeking EPA's objection to the Permit was due on or before March 6, 2023. The Petitions were received March 6, 2023, and, therefore, EPA finds that the Petitioners timely filed the Petitions.

IV. DETERMINATIONS ON CLAIMS RAISED IN THE EIP PETITION

Claim A: The Petitioners Claim That "The Renewal Permit Does Not Include Sufficient Testing, Monitoring, or Reporting Requirements that Assure Compliance with PM and PM_{10} Emission Limits for Several Boilers."

Petitioners' Claim: The Petitioners claim that the Permit fails to establish testing, monitoring, or reporting requirements that assure compliance with hourly and annual PM and PM_{10} emission limits for four boilers. The Petitioners claim that the Permit requires that the facility conduct stack tests for PM and PM_{10} once every two years and does not include any other testing or monitoring requirements for PM and PM_{10} for the boilers. EIP Petition at 8 (citing Permit Conditions V.GG.2.d, V.HH.2.e, V.II.2.c, and V.JJ.2.b). The Petitioners argue that ACHD provided no rationale or "reasoned explanation as to how biennial stack tests assure continuous compliance with hourly and 12-month rolling emission limits" as required by 40 C.F.R. § 70.7(a)(5). *Id*. at 8, 9–10.

The Petitioners argue that biennial stack tests do not assure compliance with hourly and annual emission limits because the frequency of monitoring must be "reasonably related to the averaging time to determine compliance with a limit." *Id*. at 9 (citing 40 C.F.R. §70.6(a)(3)(i)(B); *Sierra Club v. EPA*, 536 F.3d 673, 676–77 (D.C. Cir. 2008)). The Petitioners claim that EPA has previously determined that annual stack testing alone may be insufficient to assure compliance with an hourly emission limit. *Id.* at 9 (citing *In the Matter of Northeast Maryland Waste Disposal Authority*, Order on Petition No. III-2019-2, at 9 (Dec. 11, 2020) (*MCRRF Order*)). The Petitioners also cite comments from EPA Region 3 to argue that ACHD should revise the permit to include annual stack testing and periodic monitoring to provide data from "the relevant time period that are representative of the source's compliance with permit limits." *Id.* at 10 (citing EPA Comments at 1).

In response to ACHD's statements that 2018 stack test results of the boilers showed compliance with PM and PM_{10} emission limits, the Petitioners argue that past stack tests are "irrelevant" to the sufficiency of testing requirements because "Title V requires that the frequency of testing and monitoring must be reasonably related to the emission limit's averaging time and, as discussed above, even annual stack testing alone is insufficient to assure compliance with an hourly limit." *Id.* at 11 (citing 40 C.F.R. § 70.6(a)(3)(i)(B); *MCRRF Order* at 9). In response to ACHD's statement that it reserves the right to require additional testing in the future, the Petitioners argue that testing, monitoring, and reporting requirements must be included in the title V permit itself. *Id.* at 11 (citing *In the Matter of Valero Refining-Texas, L.P. Valero Houston Refinery*, Order on Petition No. VI-2021-8 at 23 (Jun. 30, 2022) (*Valero Houston Order*)). Finally, the Petitioners argue that ACHD is incorrect in its statement that a requirement to operate a Continuous Emission Monitoring System (CEMS) can only be established through an enforcement order, and that instead ACHD has "an affirmative obligation" to establish testing and monitoring requirements that "assure continuous compliance with emission limits." *Id.* at 11 (citing *Sierra Club*, 536 F.3d at 677–78).

EPA's Response: For the following reasons, EPA grants the Petitioners' request for an objection on this claim.

As identified by the Petitioners, the Permit establishes PM and PM_{10} emission limits for the boilers that are expressed as hourly (lb/hr) and annual (tons/year) limits. The Permit requires testing at least once every two years for boilers 1, 2, R1, and R2, and at least once every four years for boilers T1 and T2,[12] and contains no other monitoring requirements for PM and PM_{10} emissions for any of the boilers. Permit Conditions V.GG.2.d, V.HH.2.e, V.II.2.c, and V.JJ.2.b.

In its RTC, ACHD stated that the "boilers have shown compliance with PM in recent time. The 2018 stack test result of boilers 1, 2, R, R2, T1 & T2 and the reported emissions inventory are significantly lower than the potential to emit." RTC at 44. ACHD also included a table comparing the results of a 2018 stack test for each of the boilers to the boilers' emission limits,

[12] The Petitioners state that all boilers are required to perform stack tests for PM and PM_{10} once every two years; however, Condition V.JJ.2b establishes a requirement to perform stack tests for PM once every four years for boilers T1 and T2. The Permit does not contain any testing requirements for PM_{10} for boilers T1 or T2.

during which PM emissions for each boiler were between approximately 8–20 percent of their hourly and annual emission limits. *Id.* at 45.

The Petitioners have demonstrated that the record is unclear as to whether biennial stack testing for PM and PM_{10} assures compliance with the hourly and annual emission limits. The CAA requires that all permits "set forth . . . monitoring . . . requirements to assure compliance with the permit terms and conditions." 42 U.S.C. § 7661c(c); *see* 40 C.F.R. § 70.6(c)(1); ACHD Rules and Regulations Article XXI § 2103.12(h)(1). Additionally, if the permit's underlying applicable requirement does not contain periodic monitoring, the title V permit must include "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit." 40 C.F.R. § 70.6(a)(3)(i)(B); ACHD Rules and Regulations Article XXI § 2103.12(i)(2). In this case, the requirement underlying the boilers' PM and PM_{10} emission limits is ACHD Rules and Regulations Article XXI §2105.03, which does not contain specific testing or monitoring requirements.

As a general matter, EPA agrees with the Petitioners that the time period associated with monitoring or other compliance assurance provisions must bear a relationship to the limits with which the monitoring assures compliance. *See* 40 C.F.R. § 70.6(a)(3)(i)(B); *In the Matter of Georgia-Pacific Consumer Operations LLC, Crossett Paper Operations*, Order on Petition Nos. VI-2018-3 and VI-2019-12 at 18–19 (Feb. 22, 2023) (*Crossett Order*); *MCRRF Order* at 9. However, the determination of whether testing and monitoring is adequate in a particular circumstance is a case-by-case, context-specific determination, and EPA has not indicated that in all cases testing and monitoring must exactly mirror the averaging times of associated emission limits.

EPA has described five factors permitting authorities may consider as a starting point in determining appropriate monitoring for a particular facility:

> (1) the variability of emissions from the unit in question; (2) the likelihood of a violation of the requirements; (3) whether add-on controls are being used for the unit to meet the emission limit; (4) the type of monitoring, process, maintenance, or control equipment data already available for the emission unit; and (5) the type and frequency of the monitoring requirements for similar emission units at other facilities.

In the Matter of CITGO Refining and Chemicals Company, L.P., Order on Petition No. VI-2007-01 at 7–8 (May 28, 2009) (*CITGO Order*).

ACHD justifies its selected testing and monitoring frequency by presenting evidence that the likelihood of a violation of the PM and PM_{10} emission limits (the second factor listed in the *CITGO Order*) is low by presenting results from 2018 stack tests of the boilers. RTC at 44–45. The Petitioners argue that ACHD's reference to past stack tests is "irrelevant," but that is not the case. EIP Petition at 11. Past performance of units may be useful in the consideration of the likelihood of a violation of permit requirements, which is a factor that may be considered in determining appropriate monitoring for a particular facility.

However, as the Petitioners correctly point out, this response does not fully explain ACHD's basis for the testing frequency and lack of any monitoring for the boilers. Importantly, ACHD's response did not address the mismatch between the time frame of the emission limits and the Permit's compliance assurance provisions. Since the Permit lacks any monitoring in between stack tests, it is unclear how compliance with hourly and annual emission limits will be demonstrated. The results of a single stack test showing emissions significantly below the units' limit suggest that the units have operated within their emission limits in the past, but those data alone do not necessarily mean that periodic stack tests and no other associated monitoring constitute "requirements sufficient to assure compliance with the terms and conditions of the permit." 40 C.F.R. § 70.6(c)(1); ACHD Rules and Regulations Article XXI § 2103.12(h)(1). The cited stack tests took place in 2018, and ACHD has not demonstrated that the test results are representative of the units' current operations or provided any information regarding the variability of the units' emissions. Certain operating parameters may also influence emission rates, and it is unclear whether any such parameters should be monitored to assure that the units are in compliance with hourly and annual emission limits. It is also unclear why ACHD determined that biennial stack testing is appropriate for most of the boilers, but that stack testing every four years is appropriate for boilers T1 and T2.

Although ACHD stated that it "reserves the right to require additional emissions testing sufficient to assure compliance with the terms and conditions of the permit, if it is deemed necessary," RTC at 44, this does not resolve the question whether the testing and monitoring required by the Permit is sufficient to assure compliance. EPA has explained in previous orders that it is the permitting authority's responsibility to ensure that the title V permit itself sets forth monitoring sufficient to assure compliance with all applicable requirements. 42 U.S.C. § 7661c(c), 7661c(a); 40 C.F.R. § 70.6(a), (a)(3), (c); *see also Valero Houston Order* at 22–23.

Finally, in response to the Petitioners' comments requesting the installation of a CEMS for PM and PM_{10}, ACHD claimed that "it would require an enforcement order to require installation of a new CEM[S] and cannot be done through the permit renewal process." RTC at 44. This is not the case. Nothing in the CAA or EPA's part 70 regulations prevents permitting authorities from requiring the use of CEMS through the title V permitting process or restricts the addition of certain monitoring requirements to enforcement orders. In fact, EPA has generally determined that "statutory and regulatory provisions establish a floor on the monitoring that *must* be included in a title V permit, not a ceiling on the monitoring that *may* be included." *In the Matter of Cargill, Inc. Blair Facility*, Order on Petition No. VII-2022-9 at 15–16 (Feb. 16, 2023) (emphasis in original). The Petitioners do not allege in the Petition that it is necessary to install and operate a CEMS in order to assure compliance with the limits at issue, so EPA need not reach that issue here. However, if ACHD determines that operation of a CEMS is necessary to assure compliance with all applicable requirements, it could incorporate such requirements through the title V process.

Since the permit record is not clear as to whether the Permit assures compliance with all applicable requirements, EPA grants this claim.

Direction to ACHD: ACHD must revise the Permit and/or the permit record to ensure that the Permit contains sufficient testing and monitoring to assure compliance with the PM and PM_{10}

emission limits for the boilers identified by the Petitioners and addressed in EPA's response to this claim, and that the selected testing and monitoring is adequately justified in the permit record. ACHD may be able to accomplish this in various ways. For example, ACHD could revise the Permit to establish a closer relationship between the time periods associated with emission limits and the testing and monitoring associated with those limits, or add additional parametric monitoring with time periods aligned with the emission limits. Absent such a change to the Permit, ACHD must specifically explain further why biennial testing or testing once every four years and no additional monitoring are sufficient to assure compliance with hourly and annual emission limits, and how compliance will be determined in the time between stack tests. If ACHD determines that no additional monitoring is required because, *e.g.*, it is impossible for the source to violate an emission limit, ACHD must explain the technical basis for this conclusion, and should consider including any assumptions underlying this conclusion (such as specific operating parameters) as enforceable permit terms.

Claim B: The Petitioners Claim That "The Renewal Permit Does Not Include Testing, Monitoring, or Reporting Requirements that Ensure Compliance with the Emission Limits for CO, VOCs, Benzene, HCl, and Naphthalene from the Coke Oven Battery C Combustion Stack."

Petitioners' Claim: The Petitioners claim that the Permit fails to establish testing, monitoring, and reporting requirements that assure compliance with hourly and annual emission limits for CO, VOCs, benzene, HCl, and naphthalene from the coke oven battery C combustion stack. The Petitioners claim that the Permit requires the facility to conduct stack tests for CO and VOCs once every two years, contains no testing requirements for benzene, HCl, or naphthalene, and contains no other monitoring requirements for CO, VOCs, benzene, HCl, or naphthalene. EIP Petition at 12 (Citing Permit Conditions V.I.1.dd and V.I.2.i). The Petitioners argue that ACHD provided no rationale or "reasoned explanation as to how biennial stack tests assure continuous compliance with hourly and 12-month rolling emission limits" as required by 40 C.F.R. § 70.7(a)(5). EIP Petition at 12, 14–15.

The Petitioners acknowledge that ACHD added biennial testing requirements for CO and VOCs in response to their comments but argue that this does not address their concerns, restating their arguments in Claim A regarding the need for a relationship between averaging time for emission limits and the frequency of testing and monitoring. *Id.* at 13–15. The Petitioners argue that ACHD's statement that the facility's 2021 emissions inventory showing battery C's emissions as lower than the unit's potential to emit (PTE) does not provide adequate justification for the testing and monitoring in the Permit, because "Title V requires that the frequency of testing and monitoring must be reasonably related to the emission limit's averaging time." *Id.* at 14 (citing 40 C.F.R. § 70.6(a)(3)(i)(B)). The Petitioners also repeat their arguments from Claim A that ACHD's statement that it reserves the right to require additional testing and monitoring is insufficient, and that ACHD's statement that a requirement to operate a CEMS can only be added through an enforcement order is incorrect. *Id.* at 14–15.

Finally, the Petitioners claim that despite ACHD's statement in its RTC that it removed the benzene and HCl emission limits from the final Permit, the Permit still contains those limits. Since those emission limits are in the Permit, the Petitioners argue that ACHD failed to respond

to their comments regarding those pollutants and that the Permit is flawed because it contains no testing, monitoring, recordkeeping, or reporting requirements for benzene, HCl, or naphthalene. *Id.* at 15.

EPA's Response: For the following reasons, EPA grants the Petitioners' request for an objection on this claim. It is unclear from the permit record whether the Permit contains testing and monitoring sufficient to assure compliance with hourly and annual emission limits for CO, VOCs, benzene, HCl, and naphthalene.

Condition V.I.1.dd establishes emission limits for CO, VOCs, benzene, HCl, and naphthalene, among other pollutants, expressed as hourly limits (measured in lb/hr) and annual limits (measured in tons/year). Condition V.I.2.i requires the facility to "have CO and VOC emissions stack tests performed on the C Battery combustion stack . . . at least once every two years." The Petitioners correctly note that there are no testing requirements for benzene, HCl, or naphthalene, nor does the Permit contain monitoring requirements for any of the pollutants named in the Petition.

CO and VOCs

The Petitioners have demonstrated that the record is unclear as to whether biennial stack testing for CO and VOCs assures compliance with the hourly and annual emission limits. As discussed in the response to Claim A, all permits "shall set forth . . . monitoring . . . requirements to assure compliance with the permit terms and conditions." 42 U.S.C. § 7661c(c); *see also* 40 C.F.R. § 70.6(c)(1); ACHD Rules and Regulations Article XXI § 2103.12(h)(1).

As a general matter, EPA agrees with the Petitioners that the time period associated with monitoring or other compliance assurance provisions must bear a relationship to the limits with which the monitoring assures compliance. *See* 40 C.F.R. § 70.6(a)(3)(i)(B); *Crossett Order* at 18–19; *MCRRF Order* at 9. However, the determination of whether testing and monitoring is adequate in a particular circumstance is a case-by-case, context-specific determination, and EPA has not indicated that in all cases testing and monitoring must exactly mirror the averaging times of associated emission limits. When considering appropriate monitoring for a particular facility, a permitting authority may begin by considering the five factors described in *CITGO Order* at 7–8.

In responding to the Petitioners' comments regarding the frequency or absence of testing and monitoring for CO and VOCs, ACHD referenced historic emissions inventories for the facility. Specifically, ACHD stated that "the 2021 emissions inventory shows the reported batteries CO emissions is [*sic*] significantly lower than the potential to emit," and that the "stack testing frequency is reasonable based on the potential emission and history [VOC] emissions inventory submissions." RTC at 45–47. It appears that ACHD intended the comparison between historic emissions and PTE as an indication of a low likelihood of a violation of the requirements. However, ACHD did not provide quantitative support for that assertion, nor did it describe the relationship between the battery's emission limits and PTE. The unit's PTE may have some relevance to the likelihood of a violation of emission limits, but the unit must demonstrate compliance with emission limits as set forth in the Permit, rather than its PTE. For example, if a

unit has a PTE that exceeds its emission limit for a given pollutant, the unit could still exceed the permitted limit while operating below its PTE. In this case, it is unclear what the relationship is between battery C's PTE and its CO and VOC emission limits.

Even if ACHD had provided a quantitative comparison between historic emissions and the emission limits, it is not clear that such a comparison would resolve the problem at hand. As discussed in the response to Claim A, ACHD's response did not address the mismatch between the time frame of the compliance assurance provisions and the relevant hourly and annual emission limits; nor does the Permit contain any monitoring requirements that may be used to calculate emissions to determine compliance with hourly and annual emission limits in between stack tests. Finally, as discussed in the response to Claim A, ACHD's statement that it may require additional testing and monitoring is insufficient, and its claim that a CEMS can only be required through an enforcement order is incorrect.

Naphthalene

With regards to naphthalene, the Petitioners correctly identify an absence of testing and monitoring requirements for naphthalene at battery C. ACHD did not respond to the Petitioners' public comment as it applied to naphthalene, and the reasoning behind ACHD's decision not to include any testing or monitoring requirements is therefore unclear. As discussed in EPA's response to Claim A, each title V permit must "set forth. . . monitoring. . . requirements to assure compliance with the permit terms and conditions." 42 U.S.C. § 7661c(c); *see also* 40 C.F.R. § 70.6(c)(1); ACHD Rules and Regulations Article XXI § 2103.12(h)(1). Additionally, the rationale for the selected monitoring requirements must be clear and documented in the permit record. 40 C.F.R. § 70.7(a)(5). Further, permitting authorities have a responsibility to respond to significant comments. 40 C.F.R. § 70.7(h)(6). This principle applies to significant comments on the adequacy of monitoring. *CITGO Order* at 7.[13] Since ACHD has provided no explanation for its rationale for the lack of testing and monitoring for naphthalene, EPA grants this claim as it applies to the naphthalene emission limits for battery C.

Benzene and HCl

With regards to the emission limits for benzene and HCl, the Petitioners have identified a discrepancy between ACHD's statements in the RTC and the contents of the Permit itself. Although ACHD stated that the benzene and HCl limits "were erroneously included in the table and have been removed," this is not the case. RTC at 49. Condition V.I.1.dd of the final Permit includes limits for benzene and HCl, and the Petitioners have correctly identified that the Permit does not include any testing or monitoring requirements for benzene or HCl. Although it seems that ACHD did not intend to include these limits in the final permit, the fact that the limits exist in the Permit and the underlying applicable requirements do not have associated testing or monitoring means that they must be supported by "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit." 40 C.F.R. § 70.6(a)(3)(i)(B); ACHD Rules and Regulations Article XXI § 2103.12(i)(2). Because ACHD has retained the emission limits for benzene and HCl in the final

[13] *See also* 85 FR 6431, 6436, 6440 (February 5, 2020) (describing what constitutes a "significant comment" on a title V permit).

permit without an explanation for not including any testing or monitoring requirements, EPA grants this claim as it applies to the benzene and HCl emission limits for battery C.

Direction to ACHD: ACHD must revise the Permit and/or the permit record to ensure that the Permit contains sufficient testing and monitoring to assure compliance with the emission limits for CO, VOCs, and naphthalene for coke oven battery C identified by the Petitioners and addressed in EPA's response to this claim, and that the selected testing and monitoring is adequately justified in the permit record. ACHD may be able to accomplish this in various ways. For example, ACHD could revise the Permit to establish a closer relationship between the time periods associated with emission limits and the testing and monitoring associated with those limits, or add additional parametric monitoring with time periods aligned with the emission limits. Absent such a change to the Permit, ACHD must specifically explain why biennial testing and no additional monitoring of CO and VOC and no testing or monitoring of benzene, HCl, and napthalene are sufficient to assure compliance with hourly and annual emission limits, and how compliance will be determined in the time between stack tests. If ACHD determines that it is impossible for the source to violate an emission limit, ACHD must explain the technical basis for this conclusion, and should consider including any assumptions underlying this conclusion (such as specific operating parameters) as enforceable permit terms. ACHD must also clarify whether the benzene and HCl emission limits should be present in the Permit, and either revise the Permit to remove them or revise the Permit and/or permit record as described above to ensure that the Permit contains sufficient testing and monitoring to assure compliance with the emission limits.

Claim C: The Petitioners Claim That "The Renewal Permit Does Not Include Testing, Monitoring, or Reporting Requirements that Ensure Compliance with the Emission Limits for CO from the Coke Oven Battery Combustion Stacks and Boilers."

Petitioners' Claim: The Petitioners claim that the Permit fails to establish testing, monitoring, and reporting requirements that assure compliance with hourly and annual emission limits for CO from nine coke oven battery combustion stacks and six boilers. The Petitioners claim that the Permit requires the facility to conduct stack tests for CO every two years for the coke oven battery combustion stacks and boilers 1, 2, R1, and R2, and every four years for boilers T1 and T2, and that the Permit contains no other testing or monitoring requirements. EIP Petition at 16 (citing Permit Conditions V.A.2.d, V.C.2.d, V.E.2.d, V.G.2.d, V.GG.2.c, V.HH.2.d, V.II.2.a, and V.JJ.2.b). The Petitioners argue that ACHD provided no rationale or "reasoned explanation as to how biennial stack tests assure continuous compliance with hourly and 12-month rolling emission limits" as required by 40 C.F.R. § 70.7(a)(5). *Id.* at 16–17.

The Petitioners repeat their arguments from Claim A regarding the need for a relationship between averaging time for emission limits and the frequency of testing and monitoring. *Id.* at 17. The Petitioners also repeat their arguments from Claim B that ACHD's statement that the facility's 2021 emissions inventory showing the units' CO emissions as lower than their PTE does not provide adequate justification for the testing and monitoring in the Permit. Finally, the Petitioners repeat their arguments from Claim A that ACHD's statement that it reserves the right to require additional testing and monitoring is insufficient, and that a requirement to operate a CEMS can only be added through an enforcement order is incorrect. *Id.* at 18–19.

EPA's Response: For the following reasons, EPA grants in part and denies in part the Petitioners' request for an objection on this claim.

As an initial matter, to the extent that these claims relate to coke oven batteries 1, 2, and 3, Condition IV.35 of the Permit requires the facility to permanently shut down these units no later than June 1, 2023. These units should no longer be in operation per the Permit's requirements. Accordingly, the Petitioners' claim with respect to those units and permit terms is denied as moot.

To the extent that these claims relate to coke oven batteries and boilers that are permitted to continue operation, the Petitioners have demonstrated that the record is unclear as to whether the Permit contains testing and monitoring sufficient to assure compliance with hourly and annual emission limits for CO. As identified by the Petitioners, the Permit contains CO emission limits for each of the coke oven batteries and boilers that are expressed as hourly (lb/hr) and annual (tons/year) limits. Permit Conditions V.A.1.w, y, v, V.C.1.v, x, z, V.E.1.bb, cc, V.G.1.v, V.GG.1.h, V.HH.1.i, V.II.1.g, and V.JJ.1.h. The Permit requires the facility to perform emissions testing for CO at least once every two years for the coke oven batteries and boilers. Permit Conditions V.A.2.d, V.C.2.d, V.E.2.d, V.G.2.d, V.GG.2.c, V.HH.2.d, V.II.2.a, and V.JJ.2.b. The Permit does not contain any monitoring requirements for the coke oven batteries, but does contain a requirement that each of the boilers monitor the volume of coke oven gas and natural gas combusted in each boiler on a daily basis. Permit Conditions V.GG.3.b, V.HH.3.b, V.II.3, and V.JJ.3.

In response to the Petitioners' comments regarding CO, ACHD stated that "[t]he 2021 emissions inventory shows the reported batteries CO emissions is [*sic*] significantly lower than the potential to emit." RTC at 46. In response to comments from the facility, ACHD explained the origins of a number of emission limits newly added to the Permit in this permit renewal, including the CO emission limits for the coke oven batteries and boilers:

> [T]he Department removed all the AP-42 emission factor-based limits and required the facility to "perform emissions testing and evaluations for NO_x, CO & VOC to develop emission factors that can quantify NO_x, CO & VOC emissions", and results of the stack testing associated with the renewal permit application were used to set the limits for this permit. In addition, these are not new limits, they are maximum potential emissions associated with the maximum capacity and operation of the source(s) and indicate worst case emissions due to normal operation of the source and do not restrict the permittee's operations. Consequently, hourly and annual emission limits are considered by the ACHD to be effective means by which to assure continuous compliance at facilities.

Id. at 3.

The Petitioners have demonstrated that the record is unclear as to whether the Permit contains testing and monitoring requirements sufficient to assure compliance with CO emission limits. As

discussed in the response to Claim A, all permits "shall set forth . . . monitoring . . . requirements to assure compliance with the permit terms and conditions." 42 U.S.C. § 7661c(c); *see also* 40 C.F.R. § 70.6(c)(1); ACHD Rules and Regulations Article XXI § 2103.12(h)(1). As a general matter, EPA agrees with the Petitioners that the time period associated with monitoring or other compliance assurance provisions must bear a relationship to the limits with which the monitoring assures compliance. *See* 40 C.F.R. § 70.6(a)(3)(i)(B); *Crossett Order* at 18–19; *MCRRF Order* at 9. However, the determination of whether testing and monitoring is adequate in a particular circumstance is a case-by-case, context-specific determination, and EPA has not indicated that in all cases testing and monitoring must exactly mirror the averaging times of associated emission limits.

As discussed in EPA's response to Claim A, there are several factors a permitting authority may consider when determining appropriate testing and monitoring requirements for a source, including the likelihood of a violation of an emission limit. *CITGO Order* at 7. In this case, ACHD appears to indicate that the CO emission limits for these units were established such that the units' emissions cannot exceed their limits.[14] If this is the case, and the units are unable to violate any of the emission limitations they are subject to, then infrequent testing and monitoring may be sufficient to assure compliance. However, more information is needed to understand how these limits were established and whether any additional measures are needed to ensure that compliance with each limit can be demonstrated. The Technical Review Memo associated with the Permit states that the emission limits in question were based on stack tests from 2012, 2014, and 2015. Technical Review Memo at 13–18, 28–30. However, it contains no information to demonstrate that the stack tests are representative of the units' current and future performance, and it is unclear whether the units' emissions are variable in a way that may not be captured in a single stack test or if there are any operating parameters that may impact emissions between stack tests that should be monitored. Overall, the permit record does not contain enough quantitative technical details to support ACHD's statement that the emission limits were based on the units' "maximum potential emissions."

It is also unclear whether the monitoring currently required in the Permit is sufficient to assure compliance with emission limits. Periodic stack tests will provide information to determine if the units are still operating within their emission limits, but ACHD does not explain how compliance will be demonstrated in between stack tests except for the conclusory statement that the existence of the short-term limits assures compliance with those limits. RTC at 3. Even if the limits were established to create a low likelihood of violation, the Permit must include "requirements sufficient to assure compliance with the terms and conditions of the permit." 40 C.F.R. § 70.6(c)(1); ACHD Rules and Regulations Article XXI § 2103.12(h)(1).

Finally, as discussed in the response to Claim A, ACHD's statement that it may require additional testing and monitoring is insufficient, and its claim that a CEMS can only be required through an enforcement order is incorrect.

[14] ACHD did not specifically state this intention, but its statement in the RTC that the limits "are maximum potential emissions associated with the maximum capacity and operation of the source(s) and indicate worst case emissions due to normal operation of the source and do not restrict the permittee's operations," RTC at 3, suggests that ACHD believes the source will not exceed its emission limits during normal operations.

Direction to ACHD: ACHD must revise the Permit and/or the permit record to ensure that the Permit contains sufficient testing and monitoring to assure compliance with the emission limits for the coke oven batteries (except batteries 1, 2, and 3) and boilers identified by the Petitioners and addressed in EPA's response to this claim, and that the selected testing and monitoring is adequately justified in the permit record. ACHD may be able to do this in various ways. For example, ACHD could revise the Permit to establish a closer relationship between the time periods associated with emission limits and the testing and monitoring associated with those limits, or add additional parametric monitoring with time periods aligned with the emission limits. Absent such a change to the Permit, ACHD must specifically explain why biennial testing and no additional monitoring (except the requirement for the boilers to monitor the volume of coke oven gas and natural gas on a daily basis) are sufficient to assure compliance with hourly and annual CO emission limits, and how compliance will be determined in the time between stack tests. If ACHD determines that it is impossible for the source to violate an emission limit, ACHD must explain the technical basis for this conclusion, and should consider including any assumptions underlying this conclusion (such as specific operating parameters) as enforceable permit terms.

Claim D: The Petitioners Claim That "The Renewal Permit Does Not Include Testing, Monitoring, or Reporting Requirements that Ensure Compliance with the Emission Limits for VOCs from the Coke Oven Battery Combustion Stacks and Boilers."

Petitioner's Claim: The Petitioners claim that the Permit fails to establish testing, monitoring, and reporting requirements that assure compliance with hourly and annual emission limits for VOCs from nine coke oven battery combustion stacks and six boilers. The Petitioners claim that the Permit requires the facility to conduct stack tests for VOC every two years for the coke oven battery combustion stacks, contains no testing requirements for VOCs for the boilers, and contains no other monitoring requirements for VOCs. EIP Petition at 19–20 (citing Permit Conditions V.A.2.d, V.C.2.d, V.E.2.d, V.G.2.d, V.GG.2.c, V.HH.2.d, V.II.2.a, and V.JJ.2.b). The Petitioners argue that ACHD provided no rationale or "reasoned explanation as to how biennial stack tests assure continuous compliance with hourly and 12-month rolling emission limits" as required by 40 C.F.R. § 70.7(a)(5). *Id.* at 20, 22.

The Petitioners repeat their arguments in Claim A regarding the need for a relationship between averaging time for emission limits and the frequency of testing and monitoring. *Id.* at 20–21. The Petitioners argue that ACHD's statement that VOC PTE and emissions from the units are lower than the major source threshold for VOC is "irrelevant" because "Title V requires that the frequency of testing and monitoring must be reasonably related to the emission limit's averaging time." *Id.* at 22 (citing 40 C.F.R. § 70.6(a)(3)(i)(B)). The Petitioners also repeat their arguments from Claim A that ACHD's statement that it reserves the right to require additional testing and monitoring is insufficient, and that a requirement to operate a CEMS can only be added through an enforcement order is incorrect. *Id.* at 22–23.

The Petitioners acknowledge that ACHD added biennial stack testing requirements for VOCs for the coke oven batteries in the final Permit in response to their comments, but argue that biennial testing "is not sufficient under title V." *Id.* at 22. The Petitioners also claim that between the draft

and final permit, ACHD "removed requirements to conduct stack testing for VOCs emissions for two of the boilers." *Id.* at 22.

EPA's Response: For the following reasons, EPA grants in part and denies in part the Petitioners' request for an objection on this claim.

As an initial matter, to the extent that these claims relate to coke oven batteries 1, 2, and 3, Condition IV.35 of the Permit requires the facility to permanently shut down these units no later than June 1, 2023. These units should no longer be in operation per the Permit's requirements. Accordingly, the Petitioners' claim with respect to those units and permit terms is denied as moot.

To the extent that these claims relate to coke oven batteries and boilers that are permitted to continue operation, the Petitioners have demonstrated that the record is unclear as to whether the Permit contains testing and monitoring sufficient to assure compliance with hourly and annual emission limits for VOCs. As identified by the Petitioners, the Permit contains VOC emission limits for each of the coke oven batteries and boilers that are expressed as hourly (lb/hr) and annual (tons/year) limits. Permit Conditions V.A.1.w, y, v, V.C.1.v, x, z, V.E.1.bb, cc, V.G.1.v, V.GG.1.h, V.HH.1.i, V.II.1.g, and V.JJ.1.h. The Permit requires the facility to perform emissions testing for VOCs at least once every two years for the coke oven batteries, but contains no VOC testing requirements for any of the boilers. Permit Conditions V.A.2.d, V.C.2.d, V.E.2.d, V.G.2.d. The Permit does not contain any monitoring requirements for the coke oven batteries, but contains requirements that each of the boilers monitor the volume of coke oven gas and natural gas combusted in each boiler on a daily basis. Permit Conditions V.GG.3.b, V.HH.3.b, V.II.3, and V.JJ.3.

In response to the Petitioners' comments regarding VOCs, ACHD stated:

> The stack testing frequency is reasonable based on the potential emissions and historic emissions inventory submissions and the Department reserves the right to require additional emissions testing or monitoring sufficient to assure compliance with the terms and conditions of the permit, if it is deemed necessary. The Department has incorporated VOC testing requirements in the permit for batteries 1, 2, 3, 13, 14, 15 and C. For the facility's boiler, the potential to emit in the permit and the historical annual emissions inventory is significantly lower than the VOC major threshold and there is no basis for requiring VOC CEM for a source that is not a source of significant emissions. In addition, it would require an enforcement order to require installation of a new CEM and cannot be done through the permit renewal process. The Department reserves the right to require additional emissions testing or monitoring sufficient to assure compliance with the terms and conditions of the permit.

RTC at 47. ACHD also explained that it removed requirements to test for VOC emissions for the boilers in response to a request from the facility that the testing requirements be removed because "Article XXI does not require testing for VOC and the VOC emissions are well below

100 tons per year threshold for requiring testing in 2108.02.b." *Id.* at 17. ACHD Rules and Regulations Article XXI § 2108.02.b states:

> [A]ny person who operates . . . any piece of equipment or process which has an allowable emission rate . . . of 100 or more tons per year of particulate matter, sulfur oxides or volatile organic compounds shall conduct . . . such emissions tests as are necessary to demonstrate compliance with the applicable emission limitation(s).

In response to comments from the facility, ACHD explained the origins of a number of emission limits newly added to the Permit in this permit renewal, including the VOC emission limits for the coke oven batteries and boilers:

> [T]he Department removed all the AP-42 emission factor-based limits and required the facility to "perform emissions testing and evaluations for NO_x, CO & VOC to develop emission factors that can quantify NO_x, CO & VOC emissions", and results of the stack testing associated with the renewal permit application were used to set the limits for this permit. In addition, these are not new limits, they are maximum potential emissions associated with the maximum capacity and operation of the source(s) and indicate worst case emissions due to normal operation of the source and do not restrict the permittee's operations. Consequently, hourly and annual emission limits are considered by the ACHD to be effective means by which to assure continuous compliance at facilities.

RTC at 3.

The Petitioners have demonstrated that the record is unclear as to whether the Permit contains testing and monitoring requirements sufficient to assure compliance with VOC emission limits. As discussed in the response to Claim A, all title V permits "shall set forth . . . monitoring . . . requirements to assure compliance with the permit terms and conditions." 42 U.S.C. § 7661c(c); *see also* 40 C.F.R. § 70.6(c)(1); ACHD Rules and Regulations Article XXI § 2103.12(h)(1). As a general matter, EPA agrees with the Petitioners that the time period associated with monitoring or other compliance assurance provisions must bear a relationship to the limits with which the monitoring assures compliance. *See* 40 C.F.R. § 70.6(a)(3)(i)(B); *Crossett Order* at 18–19; *MCRRF Order* at 9. However, the determination of whether testing and monitoring is adequate in a particular circumstance is a case-by-case, context-specific determination, and EPA has not indicated that in all cases testing and monitoring must exactly mirror the averaging times of associated emission limits.

As discussed in EPA's response to Claim A, there are several factors a permitting authority may consider when determining appropriate testing and monitoring requirements for a source, including the likelihood of a violation of an emission limit. *CITGO Order* at 7. In this case, ACHD appears to indicate that the VOC emission limits for these units were established such

that the units' emissions cannot exceed their limits.[15] If this is the case, and the units are unable to violate any of the emission limitations they are subject to, then infrequent testing and monitoring may be sufficient to assure compliance. However, more information is needed to understand how these limits were established. The Technical Review Memo associated with the Permit states that the emission limits in question were based on stack tests from 2012, 2014, and 2015. Technical Review Memo at 13–18, 28–30. However, it contains no information to demonstrate that the stack tests are representative of the units' current and future performance, and it is unclear whether the units' emissions are variable in a way that may not be captured in a single stack test or if there are any operating parameters that may impact emissions between stack tests that should be monitored. Overall, the permit record does not contain enough quantitative technical details to support ACHD's statement that the emission limits were based on the units' "maximum potential emissions."

It is also unclear whether the monitoring currently required in the Permit is sufficient to assure compliance with emission limits. Periodic stack tests will provide information to determine if the units are still operating within their emission limits, but ACHD does not explain how compliance will be demonstrated in between stack tests except for the conclusory statement that the existence of the short-term limits assures compliance with those limits. RTC at 3. Even if the limits were established to create a low likelihood of violation, the Permit must include "requirements sufficient to assure compliance with the terms and conditions of the permit." 40 C.F.R. § 70.6(c)(1); ACHD Rules and Regulations Article XXI § 2102.12(h)(1). With regard to the removal of VOC testing requirements for the boilers, the fact that ACHD's regulations do not require stack testing for units emitting less than 100 tons/year of VOC does not mean that there are no circumstances under which stack testing for such units would be appropriate, or that this Permit need not contain testing or monitoring in order to assure compliance. ACHD did not explain its basis for determining that no testing or monitoring is necessary for these units specifically.

Finally, as discussed in the response to Claim A, ACHD's statement that it may require additional testing and monitoring is insufficient, and its claim that a CEMS can only be required through an enforcement order is incorrect.

Direction to ACHD: ACHD must revise the Permit and/or the permit record to ensure that the Permit contains sufficient testing and monitoring to assure compliance with the emission limits for the coke oven batteries (except batteries 1, 2, and 3) and boilers identified by the Petitioners and addressed in EPA's response to this claim, and that the selected testing and monitoring is adequately justified in the permit record. ACHD may be able to do this in various ways. For example, ACHD could revise the Permit to establish a closer relationship between the time periods associated with emission limits and the testing and monitoring associated with those limits, or add additional parametric monitoring with time periods aligned with the emission limits. Absent such a change to the Permit, ACHD must specifically explain why biennial testing and no additional monitoring for the batteries, and no testing or monitoring except the

[15] ACHD did not specifically state this intention, but its statement in the RTC that the limits "are maximum potential emissions associated with the maximum capacity and operation of the source(s) and indicate worst case emissions due to normal operation of the source and do not restrict the permittee's operations," RTC at 3, suggests that ACHD believes the source will not exceed its emission limits during normal operations.

requirement for the boilers to monitor the volume of gas combusted are sufficient to assure compliance with hourly and annual VOC emission limits, and how compliance will be determined in the time between stack tests. If ACHD determines that it is impossible for the source to violate an emission limit, ACHD must explain the technical basis for this conclusion, and should consider including any assumptions underlying this conclusion (such as specific operating parameters) as enforceable permit terms.

Claim E: The Petitioners Claim That "The Renewal Permit Does Not Include Testing, Monitoring, or Reporting Requirements that Ensure Compliance with the Emission Limits for NO_x from the Coke Oven Battery Combustion Stacks and Boilers."

Petitioners' Claim: The Petitioners claim that the Permit fails to establish testing, monitoring, and reporting requirements that assure compliance with hourly and annual emission limits for NO_x from nine coke oven battery combustion stacks and four boilers. The Petitioners claim that the Permit requires the facility to conduct stack tests for NO_x for each coke oven battery and boiler every two years, and that the Permit contains no other testing or monitoring requirements. EIP Petition at 23–24 (citing Permit Conditions V.A.2.d, V.C.2.d, V.E.2.d, V.G.2.d, V.II.2.a, and V.JJ.2.b). The Petitioners argue that ACHD provided no rationale or "reasoned explanation as to how biennial stack tests assure continuous compliance with hourly and 12-month rolling emission limits" as required by 40 C.F.R. § 70.7(a)(5). *Id.* at 24–25.

The Petitioners repeat their arguments in Claim A regarding the need for a relationship between averaging times for emission limits and the frequency of testing and monitoring. *Id.* at 25. The Petitioners argue that ACHD's statement that NO_x emission limits were based on prior stack tests results is "irrelevant" because "Title V requires that the frequency of testing and monitoring must be reasonably related to the emission limit's averaging time." *Id.* at 26 (citing 40 C.F.R. § 70.6(a)(3)(i)(B)). The Petitioners also repeat their arguments from Claim A that ACHD's statement that it reserves the right to require additional testing and monitoring is insufficient, and that a requirement to operate a CEMS can only be added through an enforcement order is incorrect. *Id.* at 26–27.

EPA's Response: For the following reasons, EPA grants in part and denies in part the Petitioners' request for an objection on this claim.

As an initial matter, to the extent that these claims relate to coke oven batteries 1, 2, and 3, Condition IV.35 of the Permit requires the facility to permanently shut down these units no later than June 1, 2023. These units should no longer be in operation per the Permit's requirements. Accordingly, the Petitioners' claim with respect to those units and permit terms is denied as moot.

To the extent that these claims relate to coke oven batteries and boilers that are permitted to continue operation, the Petitioners have demonstrated that the record is unclear as to whether the Permit contains testing and monitoring sufficient to assure compliance with hourly and annual emission limits for NO_x. As identified by the Petitioners, the Permit contains NO_x emission limits for each of the coke oven batteries and boilers that are expressed as hourly (lb/hr) and annual

(tons/year) limits. Permit Conditions V.A.1.w, y, v, V.C.1.v, x, z, V.E.1.bb, cc, V.G.1.v, V.II.1.g, and V.JJ.1.h. The Permit requires the facility to perform emissions testing for NO_x at least once every two years for the coke oven batteries and boilers R1, R2, T1, and T2. Permit Conditions V.A.2.d, V.C.2.d, V.E.2.d, V.G.2.d, V.II.2.a, and V.JJ.2.b. The Permit does not contain any monitoring requirements for the coke oven batteries, but contains a requirement that each of the boilers monitor the volume of coke oven gas and natural gas combusted in each boiler on a daily basis. Permit Conditions V.II.3, and V.JJ.3.

In response to the Petitioners' comments, ACHD stated:

> The batteries [*sic*] combustion stacks NO_x emissions were based on stack test result and the maximum coke oven gas and natural gas usage, and Condition IV.14.a requires the facility to perform stack testing once every two years for any piece of equipment or process which has an allowable emission rate, of 100 or more tons per year. Conditions V.A.2.e, V.C.2.e, V.E.2.f, V.G.2.g and V.I.2.v of the draft permit clearly state that the ACHD has the right to require additional emissions testing to ascertain compliance with the terms and conditions of this permit. This implies that the ACHD may require any kind of testing (continuous emissions monitoring or stack testing) or monitoring and work practice to demonstrate compliance. In addition, the Department believes that the NO_x testing frequency on the boilers is sufficient to demonstrate compliance and does not see any reason to require the facility to install NO_x CEM[S] on the batteries and boilers R1, R2, T1, and T21 to demonstrate compliance.

RTC at 48. In response to comments from the facility, ACHD explained the origins of a number of emission limits newly added to the Permit in this permit renewal, including NO_x emission limits for the coke oven batteries:

> [T]he Department removed all the AP-42 emission factor-based limits and required the facility to "perform emissions testing and evaluations for NO_x, CO & VOC to develop emission factors that can quantify NO_x, CO & VOC emissions", and results of the stack testing associated with the renewal permit application were used to set the limits for this permit. In addition, these are not new limits, they are maximum potential emissions associated with the maximum capacity and operation of the source(s) and indicate worst case emissions due to normal operation of the source and do not restrict the permittee's operations. Consequently, hourly and annual emission limits are considered by the ACHD to be effective means by which to assure continuous compliance at facilities.

Id. at 3.

The Petitioners have demonstrated that the record is unclear as to whether the Permit contains testing and monitoring requirements sufficient to assure compliance with NO_x emission limits. As discussed in the response to Claim A, all title V permits "shall set forth . . . monitoring . . . requirements to assure compliance with the permit terms and conditions." 42 U.S.C. § 7661c(c); *see* 40 C.F.R. § 70.6(c)(1); ACHD Rules and Regulations Article XXI § 2103.12(h)(1). As a

general matter, EPA agrees with the Petitioners that the time period associated with monitoring or other compliance assurance provisions must bear a relationship to the limits with which the monitoring assures compliance. *See* 40 C.F.R. § 70.6(a)(3)(i)(B); *Crossett Order* at 18–19; *MCRRF Order* at 9. However, the determination of whether testing and monitoring is adequate in a particular circumstance is a case-by-case, context-specific determination, and EPA has not indicated that in all cases testing and monitoring must exactly mirror the averaging times of associated emission limits.

As discussed in EPA's response to Claim A, there are several factors a permitting authority may consider when determining appropriate testing and monitoring requirements for a source, including the likelihood of a violation of an emission limit. *CITGO Order* at 7. In this case, ACHD appears to indicate that the emission limits for NO_x for the coke oven batteries were established such that the units' emissions cannot exceed their limits.[16] If this is the case, and the units are unable to violate any of the emission limitations they are subject to, then infrequent testing and monitoring may be sufficient to assure compliance. However, more information is needed to understand how these limits were established and whether any additional measures are needed to ensure that compliance with each limit can be demonstrated. The Technical Review Memo associated with the Permit states that the emission limits in question were based on stack tests from 2012, 2014, and 2015. Technical Review Memo at 13–18. However, it contains no information to demonstrate that the stack tests are representative of the units' current and future performance, and it is unclear whether the units' emissions are variable in a way that may not be captured in a single stack test or if there are any operating parameters that may impact emissions between stack tests that should be monitored. Overall, the permit record does not contain enough quantitative technical details to support ACHD's statement that the emission limits were based on the units' "maximum potential emissions."

It is also unclear whether the monitoring currently required in the Permit is sufficient to assure compliance with emission limits. Periodic stack tests will provide information to determine if the units are still operating within their emission limits, but ACHD does not explain how compliance will be demonstrated in between stack tests except for the conclusory statement that the existence of the short-term limits assures compliance with those limits. RTC at 3. Even if the limits were established to create a low likelihood of violation, the Permit must include "requirements sufficient to assure compliance with the terms and conditions of the permit." 40 C.F.R. § 70.6(c)(1); ACHD Rules and Regulations Article XXI § 2102.12(h)(1).

Since the NO_x emission limits for boilers R1, R2, T1, and T2 were established in Installation Permit 0052-I020b, which does not describe the technical basis for the emission limits, the permit record contains no information regarding the likelihood of violation of these limits, or any other potentially relevant factors. Therefore, it is unclear whether the testing and monitoring currently required in the Permit is sufficient to assure compliance with the boilers' NO_x emission limits.

[16] ACHD did not specifically state this intention, but its statement in the RTC that the limits "are maximum potential emissions associated with the maximum capacity and operation of the source(s) and indicate worst case emissions due to normal operation of the source and do not restrict the permittee's operations," RTC at 3, suggests that ACHD believes the source will not exceed its emission limits during normal operations.

Finally, as discussed in the response to Claim A, ACHD's statement that it may require additional testing and monitoring is insufficient, and its claim that a CEMS can only be required through an enforcement order is incorrect.

Direction to ACHD: ACHD must revise the Permit and/or the permit record to ensure that the Permit contains sufficient testing and monitoring to assure compliance with the emission limits for the coke oven batteries (except batteries 1, 2, and 3) and boilers identified by the Petitioners and addressed in EPA's response to this claim, and that the selected testing and monitoring is adequately justified in the permit record. ACHD may be able to do this in various ways. For example, ACHD could revise the Permit to establish a closer relationship between the time periods associated with emission limits and the testing and monitoring associated with those limits, or add additional parametric monitoring with time periods aligned with the emission limits. Absent such a change to the Permit, ACHD must specifically explain why biennial testing and no additional monitoring (except the requirement for the boilers to monitor the volume of coke oven gas and natural gas on a daily basis) is sufficient to assure compliance with hourly and annual NO_x emission limits, and how compliance will be determined in the time between stack tests. If ACHD determines that it is impossible for the source to violate an emission limit, ACHD must explain the technical basis for this conclusion, and should consider including any assumptions underlying this conclusion (such as specific operating parameters) as enforceable permit terms.

Claim F: The Petitioners Claim That "The Renewal Permit Does Not Include Sufficient Testing, Monitoring, or Reporting Requirements to Ensure Compliance with the SO_2 Emission Limits for the Coke Oven Battery Combustion Stacks and Boilers During Periods of Malfunction, Breakdown, and Repair."

Petitioners' Claim: The Petitioners claim that the Permit fails to assure compliance with SO_2 limits during periods of monitor malfunction, breakdown, and repair because it does not contain monitoring or testing requirements for such periods. EIP Petition at 27–28.

The Petitioners state that the Permit requires the facility to "'continuously' monitor and record the H_2S grain loading and fuel rate in order to calculate sulfur dioxide emissions except for periods of [monitor] malfunction, breakdown, and repair." *Id.* at 27 (citing Permit Conditions IV.33.b–c). Permit Condition IV.33.e requires the facility to propose a procedure for measuring the H_2S content of gas emitted during periods of monitor malfunction, breakdown, and repair. The Petitioners argue that the requirement to propose a plan is inadequate because all applicable requirements, including requirements necessary to assure compliance with emission limits, must be included in the Permit itself. *Id.* at 28–29 (citing *Valero Houston Order* at 23). The Petitioners argue that the alternative monitoring procedure is a plan "necessary to implement requirements under the Clean Air Act," and that such plans are applicable requirements that must be included in title V permits and made available for public review. *Id.* at 29 (citing *Valero Houston Order* at 25–26).

The Petitioners argue that ACHD "makes no effort to explain" how the Permit assures compliance with SO_2 emission limits for the coke oven battery combustion stacks and the boilers during periods of monitor malfunction, breakdown, and repair. *Id.* at 29.

EPA's Response: For the following reasons, EPA grants the Petitioners' request for an objection on this claim.

Title V permits must include monitoring, recordkeeping, and reporting conditions necessary to assure compliance with all applicable requirements and permit terms. 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(c)(1); ACHD Rules and Regulations Article XXI § 2103.12(h)(1). These required elements of a title V permit can either be included on the face of the title V permit, or, in certain circumstances, may be incorporated by reference into the title V permit.[17]

Permit Condition IV.33.b states that the facility shall measure the H_2S grain loading and flow rate of the fuel as combusted. Permit Condition IV.33.c states that "[e]xcept for monitor malfunctions, associated repairs, and required quality assurance or control activities . . . the permittee shall continuously monitor and record the H_2S concentration (in grains(gr)/100 dscf) of the [gas] combusted and the fuel flow rate." Permit Condition IV.33.e states: "The permittee shall propose, for Department approval, a procedure for measuring the H_2S content of the gas during periods of monitoring malfunction or breakdowns."[18] The Permit does not include or incorporate this alternative procedure.

In its RTC, ACHD failed to acknowledge or address the Petitioners' significant comment regarding the Permit's lack of the alternative monitoring procedure applicable during periods of monitor breakdown or malfunction.[19] 40 C.F.R. § 70.7(h)(6). This alone presents grounds for EPA to grant this claim. 40 C.F.R. 70.8(c)(3)(iii).

Additionally, the fact that ACHD imposed the requirement to prepare and submit this monitoring procedure suggests that ACHD determined that such procedure was necessary to assure compliance with the relevant SO_2 emission limits (as the Petitioners claim). As EPA has explained in previous Orders, any conditions necessary to assure compliance with applicable requirements and permit terms must either be included in, or properly incorporated into, the title V permit. 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(c)(1). This includes any monitoring procedures or plans developed by the permittee.[20] Therefore, the Permit does not appear to include all conditions necessary to assure compliance with the SO_2 emission limits. Accordingly, EPA grants Claim F of the EIP Petition.

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[17] *See, e.g.*, White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program (March 5, 1996) (discussing incorporation by reference).

[18] The underlying requirement for this Permit Condition is Installation Permit 0052-I017 Condition V.A.3.c., which required the facility to propose the alternative measurement procedure on or before March 31, 2018.

[19] Instead of addressing this issue, ACHD's RTC simply states: "The boilers and coke batteries combustion stacks SO2 emissions are based on Clairton SO2 SIP Installation Permit 0052-I017, dated September 14, 2017, and it is part of the attainment demonstration for sulfur dioxide (SO2). The Department believes that the testing and monitoring requirements contain in the permit is sufficient to assure compliance with the permit conditions." RTC at 51.

[20] EPA has explained that plans (or portions of plans) developed by a permittee that are necessary to impose or assure compliance with an applicable requirement need be included (or incorporated) in a title V permit. *See, e.g.*, *Valero Houston Order* at 25–26.

Direction to ACHD: In responding to this Order, ACHD must respond to the comment addressing the Permit's lack of monitoring during periods of monitor malfunctions and breakdowns. Provided this monitoring requirement is necessary to assure compliance with the SO_2 limit, ACHD must further amend the Permit to include the terms of the alternative H_2S monitoring procedure required by Permit Condition IV.33.e.[21] This procedure may be included directly in the Permit or incorporated by reference as appropriate.

Claim G: The Petitioners Claim That "The Renewal Permit Does Not Include Sufficient Monitoring or Testing Requirements that Assure Compliance with the Emissions Limits for PM, SO_2, NO_x, or VOCs for the Quench Towers."

Petitioners' Claim: The Petitioners claim that the Permit fails to establish testing, monitoring, and reporting requirements that assure compliance with hourly and annual emission limits for PM, PM_{10}, $PM_{2.5}$, SO_2, NO_x, and VOCs from seven quench towers, and for PM (condensable) from four quench towers. The Petitioners claim that the Permit requires the facility to conduct stack tests for PM, PM_{10}, $PM_{2.5}$, SO_2, and VOCs every two years for each tower, but contains no testing requirements for NO_x for any tower or PM (condensable) for the four towers with emision limits for condensable PM. EIP Petition at 30. The Petitioners also claim that the Permit contains no other monitoring requirements for any pollutant for any tower. EIP Petition at 30 (citing Permit Conditions V.K.2.e, V.L.2.e, V.M.2.e, V.N.2.e, and V.O.2.e). The Petitioners argue that ACHD provided no rationale as to "how biennial stack tests assure continuous compliance with short-term emission limits for the quench towers as required by 40 C.F.R. § 70.7(a)(5)." *Id.* at 31.

The Petitioners repeat their arguments in Claim A regarding the need for a relationship between averaging time for emission limits and the frequency of testing and monitoring. *Id.* at 31. The Petitioners argue that ACHD's statement that the emissions from each unit are lower than the major source threshold is "irrelevant" because "Title V requires that the frequency of testing and monitoring must be reasonably related to the emission limit's averaging time." *Id.* at 32–33 (citing 40 C.F.R. § 70.6(a)(3)(i)(B)).

EPA's Response: For the following reasons, EPA grants the Petitioners' request for an objection on this claim.

Permit Conditions V.K.1.d, e, V.L.1.i, V.M.1.i, V.N.1.d, e, and V.O.1.e establish emission limits for PM_{10}, $PM_{2.5}$, SO_2, NO_x, and VOCs for quench towers 1, B, 5A, 7A, 5, 7, and C, all of which are expressed as hourly (lb/hr) and annual (tons/year) limits. Conditions V.K.1.d and e and V.N.1.d and e, which apply to towers 1, B, 5, and 7, also include hourly and annual emission limits for PM (condensable).

Permit Conditions V.K.2.e, V.L.2.e, V.M.2.e, V.N.2.e, and V.O.2.e require the facility to perform emissions tests for PM_{10}, $PM_{2.5}$, SO_2, and VOCs at least once every two years to demonstrate compliance. The Permit does not contain any testing requirements for NO_x or PM

[21] Given that the underlying installation permit required that this procedure be proposed to ACHD by March 31, 2018, *see supra* note 18, EPA expects that including or incorporating this procedure should be straightforward.

(condensable), and does not contain any monitoring requirements for PM_{10}, $PM_{2.5}$, PM (condensable), SO_2, NO_x, or VOCs.

In response to the Petitioners' comments, ACHD stated:

> The quench tower limits was [*sic*] estimated using the stack test result in lb/tons of coke and the amount of coke quench and as shown in the quench towers emissions table, the limits are significantly lower than the major emissions limit threshold and, therefore; the Department sees no reason to require the installation of CEM.

RTC at 54. Additionally, as quoted in the responses to claims C, D, and E, several emission limits that apply to the quench towers were incorporated during this Permit renewal based on "results of the stack testing associated with the renewal permit application," and were described by ACHD as "maximum potential emissions associated with the maximum capacity and operation of the source(s) and indicate worst case emissions due to normal operation of the source and do not restrict the permittee's operations." *Id.* at 3. Of the limits discussed in this Claim, emission limits for all pollutants for towers 5 and 7, emission limits for all pollutants except for SO_2 for towers 1 and B, and the NO_x emission limits for towers 5A and 7A were newly established in this permit renewal and developed based on the methods described by ACHD quoted above. Emission limits for all pollutants for tower C, emission limits for SO_2 for towers 1 and B, and emission limits for PM_{10}, $PM_{2.5}$, VOC and SO_2 for towers 5A and 7A, applied to the facility prior to this permit renewal and were not altered as part of the renewal.

The Petitioners have demonstrated that the record is unclear as to whether the Permit contains sufficient testing and monitoring to assure compliance with all of the emission limits for PM_{10}, $PM_{2.5}$, PM (condensable), SO_2, NO_x, and VOC at the quench towers. As discussed in the response to Claim A, all title V permits "shall set forth . . . monitoring . . . requirements to assure compliance with the permit terms and conditions." 42 U.S.C. § 7661c(c); *see also* 40 C.F.R. § 70.6(c)(1); ACHD Rules and Regulations Article XXI § 2103.12(h)(1).

As a general matter, EPA agrees with the Petitioners that the time period associated with monitoring or other compliance assurance provisions must bear a relationship to the limits with which the monitoring assures compliance. *See* 40 C.F.R. § 70.6(a)(3)(i)(B); *Crossett Order* at 18–19; *MCRRF Order* at 9. However, the determination whether testing and monitoring is adequate in a particular circumstance is a case-by-case, context-specific determination, and EPA has not indicated that in all cases testing and monitoring must exactly mirror the averaging times of associated emission limits.

Regarding the newly established emissions limits based on "maximum potential emissions" as described above, as discussed in EPA's response to Claim A, there are several factors a permitting authority may consider when determining appropriate testing and monitoring requirements for a source, including the likelihood of a violation of an emission limit. *CITGO Order* at 7. In this case, ACHD appears to indicate that the newly established emission limits for

the quench towers, were established such that the units' emissions cannot exceed their limits.[22] If this is the case, and the units are unable to violate these emission limitations, then infrequent testing and monitoring may be sufficient to assure compliance. However, as discussed in EPA's responses to Claims C, D, and E, more information is needed to understand how these limits were established. The Technical Review Memo associated with the Permit states that the new emission limits were based on stack tests from 2011 and 2014, but contains no information about the representativeness of those stack tests to the units' current and future performance, the methods used to calculate the limits, or other quantitative technical details to support the suggestion that the units cannot exceed their emission limits in the course of normal operations. Technical Review Memo at 25–27.

It is also unclear whether the monitoring currently required, for these newly established limits, in the Permit is sufficient to assure compliance with emission limits. Periodic stack tests will provide information to determine if the units are still operating within their emission limits, but the ACHD does not explain how compliance will be demonstrated in between stack tests except for the conclusory statement that the existence of the short-term limits assures compliance with those limits. RTC at 3. Even if the limits were established to create a low likelihood of violation, the Permit must include "requirements sufficient to assure compliance with the terms and conditions of the permit." 40 C.F.R. § 70.6(c)(1); ACHD Rules and Regulations Article XXI § 2103.12(h)(1).

Regarding the emission limits that applied to the facility prior to this Permit renewal, it is unclear whether the Permit contains sufficient testing and monitoring to assure compliance. The permit record contains no information regarding the likelihood of violation of these limits, or any other potentially relevant factors, and in its RTC ACHD did not attempt to explain how biennial emissions testing with no associated monitoring would be used to determine compliance with emission limits in between stack tests. ACHD states that the emission limits are below the "major emissions limit threshold" and that installation of a CEMS is not necessary, but this is not entirely accurate and does not address the mismatch between the averaging time of emission limits and compliance assurance provisions or the lack of any monitoring provisions. Emission limits for PM_{10}, $PM_{2.5}$, and VOCs for quench towers 5A, 7A, and C are above 100 tons/year, the "major emissions limit threshold" ACHD seems to be referring to. *See* Permit Conditions V.L.1.i, V.M.1.i, and V.O.1.e. Even where emission limits are below 100 tons/year, that does not assure that the units are complying with the applicable emission limitations. Ultimately, since ACHD has not provided enough information to determine whether the Permit assures compliance with all applicable requirements, EPA grants this claim.

Direction to ACHD: ACHD must revise the Permit and/or the permit record to ensure that the Permit contains sufficient testing and monitoring to assure compliance with the emission limits for the quench towers identified by the Petitioners and addressed in EPA's response to this claim, and that the selected testing and monitoring is adequately justified in the permit record. ACHD may be able to accomplish this in various ways. For example, ACHD could revise the Permit to

[22] ACHD did not specifically state this intention, but its statement in the RTC that the limits "are maximum potential emissions associated with the maximum capacity and operation of the source(s) and indicate worst case emissions due to normal operation of the source and do not restrict the permittee's operations," RTC at 3, suggests that ACHD believes the source will not exceed its emission limits during normal operations.

establish a closer relationship between the time periods associated with emission limits and the testing and monitoring associated with those limits, or add additional parametric monitoring with time periods aligned with the emission limits. Absent such a change to the Permit, ACHD must specifically explain why biennial testing and no additional monitoring are sufficient to assure compliance with hourly and annual PM_{10}, $PM_{2.5}$, SO_2, and VOC emission limits, why no testing or monitoring is sufficient to assure compliance with hourly and annual NO_x or PM (condensable) limits, and how compliance will be determined in the time between stack tests. If ACHD determines that it is impossible for the source to violate an emission limit, ACHD must explain the technical basis for this conclusion, and should consider including any assumptions underlying this conclusion (such as specific operating parameters) as enforceable permit terms.

Claim I: The Petitioners Claim That "The Renewal Permit Does Not Include Sufficient Testing, Monitoring, or Reporting Requirements that Assure Compliance with Applicable Requirements for the Coke Oven Battery Bypass/Bleeder Stack Flare Systems."

Petitioners' Claim: The Petitioners claim that the Permit requires the facility to install, operate, and maintain a bypass/bleeder stack flare system that achieves at least 98 percent destruction efficiency of coke oven emissions, controls 120 percent of normal gas flow generated by each battery, and is designed for a net heating value of 240 Btu/scf. . EIP Petition at 33–34. The Petitioners argue that the Permit's requirements to conduct Method 22 testing every two hours and to maintain a continuously operable pilot light are inadequate to assure continuous compliance with these requirements, specifically the requirement for 98 percent destruction efficiency. EIP Petition at 33–34 (citing Permit Conditions V.A.1.a–e, V.C.1. a–e. V.E.1. a–e, V.G.1. a–e, and V.I.1. a–e).

The Petitioners reference a previous Order in which EPA directed a permitting authority to impose more stringent monitoring on a flare to ensure a 98 percent destruction efficiency. *Id.* at 35 (citing *In the Matter of BP Amoco Chemical Company Texas City Chemical Plant Galveston County, Texas*, Order on Petition No. VI-2017-6 (Jul. 20, 2021) (*BP Amoco Order*)). In that Order, the Petitioners claim that EPA agreed that an assumed 98 percent VOC and benzene destruction efficiency for a flare at a chemical plant was insufficient to assure compliance with emission limits based on evidence that flares of that design and use often did not meet a 98 percent destruction efficiency. *Id.* at 35 (citing *BP Amoco Order* at 20). The Petitioners argue that ACHD's statements that the flares operate on an emergency basis and are different than flares at petroleum refineries are "not relevant as to whether the Renewal Permit includes adequate testing and monitoring requirements," and that ACHD's statement that the flares operate with a VOC destruction efficiency of 99 percent is unsupported. *Id.* at 37.

The Petitioners argue that ACHD should require the facility to continuously measure emissions during flare events or continuously monitor parameters such as flow and net heating value to assure that the Permit requirements are met, mirroring requirements in EPA's regulations for flares at petroleum refineries. *Id.* at 35.

EPA's Response: For the following reasons, EPA denies the Petitioners' request for an objection on this claim.

Permit Condition V.A.1.a requires the facility to "install, operate and maintain a bypass/bleeder stack flare system in each battery that is capable of controlling 120 percent of the normal gas flow generated by each battery, which shall thereafter be operated and maintained." Condition V.A.1.d requires the bypass/bleeder flare system to be "designed for a net heating value of 240 Btu per standard cubic feet (Btu/scf)," and Condition V.A.1.e states that each flare "shall have a continuously operable pilot flame that is present at all times as determined by a thermocouple or any other equivalent device." Condition V.A.1.c states:

> As an alternative to the installation, operation, and maintenance of a flare system as required in Conditions V.C.1.a above and V.C.1.b above, the owner or operator may petition the Administrator and the Department for approval of an alternative control device or system that achieves at least 98 percent destruction or control of coke oven emissions vented to the alternative control device or system.

Conditions V.C.1, V.E.1, V.G.1, and V.I.1 set forth identical requirements for the other coke oven batteries.

As an initial matter, to the extent that this claim relates to flare systems at coke oven batteries 1, 2, and 3, Condition IV.35 of the Permit requires the facility to permanently shut down these units no later than June 1, 2023. These units should no longer be in operation per the Permit's requirements. Accordingly, the Petitioners' claim with respect to those units and permit terms is denied as moot.

To the extent this claim relates to emission units that are permitted to continue operating, the Petitioners have failed to demonstrate that the Permit lacks monitoring to assure compliance with any applicable requirement. The permit terms identified by the Petitioners set forth requirements to install, operate, and maintain flare systems that are capable of controlling 120 percent of normal gas flow, are designed with a heating value of 240 Btu/scf, and have a continuously operable pilot flame as determined by a thermocouple or equivalent device. However, the Permit, and the underlying NESHAP regulation the Petitioners cite to, 40 C.F.R. § 63.307, do not include an automatic or universal requirement that such a system achieve at least 98 percent destruction efficiency, which is the requirement for which the Petitioners claim the Permit does not include sufficient monitoring. Instead, the 98 percent destruction efficiency applies only if the facility petitions the Administrator and ACHD for use of an alternative control system, which would then be required to achieve at least 98 percent destruction or control of emissions. *See* 40 C.F.R. § 63.307(d). The Petitioners have not suggested, much less demonstrated, that Clairton has petitioned ACHD for approval of any such alternative control system, and there is no indication that the 98 percent destruction efficiency is a requirement applicable to any units at the facility.[23]

[23] The Petitioners' argument that all flares at the coke oven batteries are inherently required to achieve at least a 98 percent destruction efficiency is unpersuasive. *See* EIP Petition at 33 n. 16. 40 C.F.R. § 63.307 does not establish a 98 percent destruction efficiency requirement, but instead establishes other limits on operating parameters, as previously explained. Although EPA has concluded that complying with these operating limits may, in certain circumstances, also assure certain destruction efficiencies, the requirements expressly identified in EPA's rules—not implied or assumed destruction efficiencies—are the "applicable requirements" with which title V permits must assure compliance.

As discussed above, title V permits are required to contain applicable requirements as well as conditions to assure compliance with all requirements that actually apply at the time of permit issuance. 40 C.F.R. § 70.6(a)(1). Here, the Petitioners have raised concerns with monitoring associated with an operating parameter (*i.e.*, 98 percent destruction efficiency) that applies to an alternative control system, which the Petitioners have not demonstrated actually exists. Since the Petitioners have not identified an applicable requirement for which monitoring is necessary, EPA denies this claim to the extent it requests monitoring to assure that the flares achieve a 98 percent destruction efficiency.

To the extent that the Petitioners claim the Permit does not contain sufficient testing and monitoring to assure compliance with the requirements that do apply to the flare systems, the claim is also denied. The Petitioners do not provide any reasoning for why they claim the Permit is insufficient to assure compliance with these requirements, providing only a conclusory statement that the Permit "must still contain sufficient testing and monitoring to assure continuous compliance with the requirement to control 120 percent of the normal gas flow generated by each battery and the net heating value of 240 Btu/scf, which it does not do." EIP Petition at 36. As stated by ACHD, the coke oven battery flares are distinct from flares used at petroleum refineries, and so the fact that EPA has previously determined that a flare at a petroleum refinery required additional monitoring to assure compliance has no bearing on whether the flares at Clairton are able to meet their gas flow control and net heating value requirements when properly installed, operated, and maintained. Since the Petitioners have not provided any evidence that the Permit fails to assure compliance with these applicable requirements, the claim is denied. 40 C.F.R. § 70.12(a)(2)(iii).

Claim J: The Petitioners Claim That "The Renewal Permit Does Not Include Sufficient Testing, Monitoring, or Reporting Requirements that Assure Compliance with Applicable Requirements for the Ammonia Flare."

Petitioners' Claim: The Petitioners claim that the Permit contains insufficient testing and monitoring to assure compliance with requirements for an ammonia flare to achieve 98 percent destruction efficiency, establish minimum residence time, and meet hourly and annual emission limits for SO_2, NO_x, CO, VOCs, and ammonia. EIP Petition at 38 (citing Permit Conditions V.KK.1.a, c, and d). The Petitioners state that the facility must continuously monitor and record the temperature of the flare when in operation and conduct tests every five years to determine VOC destruction efficiency and mass emission rates, but argue that these requirements are insufficient to assure compliance. *Id*. (citing Permit Conditions V.KK.2.a and V.KK.2.b).

The Petitioners repeat their arguments in Claim A regarding the need for a relationship between averaging times for emission limits and the frequency of testing and monitoring, claiming that temperature is only one parameter impacting destruction efficiency, and that ACHD "has provided no rationale as to how the Renewal Permit assures continuous compliance with these applicable requirements." *Id.* at 39–40. The Petitioners reference the *BP Amoco Order*, arguing that in past cases "EPA has directed a state agency . . . to impose more stringent monitoring and operating requirements on flares to assure that they are achieving compliance." *Id.* at 40. To assure compliance with the ammonia flare's operational requirements and mass emission limits,

the Petitioners argue that ACHD must require the facility to continuously measure emissions or continuously monitor flare parameters required to assure compliance with permit requirements during flare events. *Id*.

The Petitioners argue that ACHD's statement that the flare operates infrequently and is restricted in annual operating hours does not justify what they claim are insufficient monitoring requirements, and reiterate their argument that "the frequency of testing and monitoring must be reasonably related to the emission limit's averaging time." *Id.* at 41 (citing 40 C.F.R. § 70.6(a)(3)(i)(B)). The Petitioners also argue that ACHD "makes no attempt to explain how testing once every 5-years will assure compliance with operational requirements that must be met at all times when the flare is operating and short-term emission limits." *Id.* at 41–42 (citing 40 C.F.R. § 70.7(a)(5)). Finally, the Petitioners reiterate the argument that ACHD's statement that it may require additional testing or monitoring is "irrelevant" because "testing, monitoring, and reporting requirements must be included in the Title V permit itself." *Id.* at 42 (citing *Valero Houston Order* at 23).

EPA's Response: For the following reasons, EPA grants the Petitioners' request for an objection on this claim.

Permit Condition V.KK.1.d establishes emission limits for the ammonia flare for SO_2, NO_x, CO, VOC, and ammonia, expressed as hourly (lb/hr) and annual (ton/year) limitations. The facility is also required to maintain a minimum destruction efficiency of 98 percent; maintain a minimum temperature of 1,570 degrees Fahrenheit with a residence time of 0.50 seconds when the flare is being used; perform emissions testing once every five years to determine VOC destruction efficiency and mass emission rates of NO_x, SO_2, and ammonia; and "continuously monitor and record the temperature of the flare with a tolerance of +/- 10 degrees Fahrenheit when the equipment is in operation." Permit Conditions V.KK.1.a and c, V.KK.2.a, and V.KK.3.b.

ACHD stated:

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

RTC at 51.[24]

[24] ACHD's reference to 40 C.F.R. § 63.670 is in response to a request from the Petitioners in public comment that ACHD include monitoring and testing requirements found in that regulation in this section of the Permit. The Petitioners do not request that EPA direct ACHD to require the ammonia flare at the Clairton facility to meet the 40 CFR § 63.670 standards for petroleum refinery flares, and ACHD is correct in its response that those requirements do not apply to the ammonia flare at this facility.

The Petitioners have demonstrated that it is unclear whether monitoring flare temperature alone and performing emissions tests once every 5 years is sufficient to assure compliance with hourly and annual emission limits and operating requirements. As discussed in EPA's response to Claim A, each title V permit "shall set forth . . . monitoring . . . requirements to assure compliance with the permit terms and conditions." 42 U.S.C. § 7661c(c); *see also* 40 C.F.R. § 70.6(c)(1); ACHD Rules and Regulations Article XXI § 2103.12(h)(1).

In this case, ACHD has not explained its rationale for requiring the facility to monitor only the temperature of the ammonia flare. ACHD provided no reasoning for why it believes that continuous temperature monitoring and periodic testing will provide enough information to determine compliance with hourly and annual emission limits and operational standards that apply whenever the flare is in operation. As discussed in Claim B, the rationale for the selected monitoring requirements must be clear and documented in the permit record, and permitting authorities have a responsibility to respond to significant comments related to the adequacy of monitoring. 40 C.F.R. § 70.7(a)(5); *CITGO Order* at 7.

Finally, as discussed in EPA's response to Claim A, ACHD's statement that it may require additional testing and monitoring as it sees fit is insufficient, because it is the permitting authority's responsibility to ensure that the title V permit itself sets forth monitoring sufficient to assure compliance with all applicable requirements. 42 U.S.C. § 7661c(c), 7661c(a); 40 C.F.R. § 70.6(a), (a)(3), (c); *Valero Houston Order* at 22–23. Since it is unclear whether the Permit sets forth testing and monitoring sufficient to assure compliance with the ammonia flare's applicable requirements, EPA grants this claim.

Direction to ACHD: ACHD must revise the Permit and/or the permit record to ensure that the Permit contains sufficient testing and monitoring to assure compliance with the emission limits and operational requirements for the ammonia flare as identified by the Petitioners and addressed in EPA's response to this claim. ACHD may be able to accomplish this in various ways. For example, ACHD could specifically explain why monitoring the temperature of the flare while it is in operation and testing the unit every five years provides enough information to assure compliance with the applicable requirements and emission limits. If ACHD determines that additional monitoring is necessary to assure compliance with all operational requirements and emission limits that apply to the ammonia flare, it must revise the Permit to include such requirements and establish a closer relationship between the time periods associated with emission limits and the testing and monitoring associated with those limits.

Claim K: The Petitioners Claim That "Despite the Department's Statement that a NO_x CEMS is Required for the Coke Oven Battery C Combustion Stack, the Renewal Permit Does Not Clearly Require NO_x CEMS for this Source."

Petitioners' Claim: The Petitioners claim that the Permit does not clearly state that a NO_x CEMS is required for the coke oven battery C combustion stack, despite statements from ACHD that a NO_x CEMS is required for this unit and Permit conditions that establish requirements associated with a NO_x CEMS. EIP Petition at 42 (Citing Permit Conditions V.I.2.h, V.1.2.g, RTC at 55).

The Petitioners claim that since the Permit does not contain an explicit requirement to operate a NO_x CEMS, it does not include any NO_x testing requirements for battery C. EIP Petition at 42. The Petitioners contend that all requirements applicable to the facility must be "clear and unambiguous" in the Permit. *Id.* at 42–44 (citing *Valero Houston Order* at 23–31; *Granite City I Order*; *In the Matter of ETC Texas Pipeline, LTD WAHA Gas Plant*, Order on Petition No. VI-2020-3 at 17–19 (Jan. 28, 2022) (*WAHA Order*)). In contrast, the Petitioners identify requirements for boilers 1 and 2 as clearly requiring the operation of a NO_x CEMS. *Id.* at 44.

Although they recognize ACHD's statement in the RTC that battery C is required to operate a NO_x CEMS,[25] the Petitioners contend that the Permit is still flawed because it "does not clearly require NO_x CEMS or contain other necessary testing and monitoring requirements." *Id.* at 45.

EPA's Response: For the following reasons, EPA grants the Petitioners' request for an objection on this claim.

Permit Condition V.I.1.dd establishes hourly and annual NO_x emission limits for battery C. In response to comments questioning the monitoring associated with these limits, ACHD stated that "Battery C and Boilers 1 and 2 are required to use continuous NO_x emissions monitors." RTC at 55.

However, as the Petitioners correctly state, the Permit does not contain any terms specifically requiring the installation and operation of a NO_x CEMS at battery C to assure compliance with these limits. Instead, Permit Condition V.I.2.h states that "[t]he permittee shall perform Relative Accuracy Test Audits (RATA) of the NO_x CEMS as specified in 25 PA Code §§ 139.101 - 139.111." Permit Condition V.I.2.g states that "[t]he emissions testing performed to satisfy the RATA requirements for NO_x continuous emission monitoring systems (CEMS) shall be used to satisfy the testing requirements in this Condition."

In contrast, Permit Sections V.GG and V.HH clearly require the facility to install and operate NO_x CEMS at boilers 1 and 2 consistent with ACHD's RTC. Permit Conditions V.GG.1.d and V.HH.1.d state that the boilers "shall have properly maintained and operated Continuous Monitoring Systems or approved alternatives for continuously monitoring the NO_x concentration in the exhaust gas, meeting all the requirements of §2108.03 at all times with the exception of emergency or planned outages, repairs or maintenance." Permit Conditions V.GG.1.c and V.HH.1.c state that "[t]he NO_x emissions shall be determined by a thirty (30) day rolling average and a twelve (12) month rolling average Continuous Emission Monitoring (CEM) data for the lbs/MMBtu and tons/yr emission limitation respectively."

Each title V permit must include "emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance." 40 C.F.R. § 70.6(a)(1); ACHD Rules and Regulations Article XXI § 2103.12(g). The Permit implies, and ACHD confirmed in its RTC, that the operation of a NO_x CEMS is necessary to assure compliance with applicable requirements for battery C. Because the

[25] The Petitioners also cite Condition V.G.1.v, which establishes NO_x emission limits for battery B, but do not refer to battery B in their analysis of this claim. EIP Petition at 42. Instead, the Petitioners' arguments regarding the sufficiency of NO_x testing and monitoring for battery B are addressed in Claim E.

Petitioners have demonstrated that the Permit is flawed in that it does not explicitly include the requirement for the facility to operate a NO_x CEMS at battery C, EPA grants this claim.

Direction to ACHD: ACHD must revise the Permit to ensure that it unambiguously includes the requirement for the facility to operate a NO_x CEMS at coke oven battery C. Permit Conditions V.GG.1.c and d and V.HH.1.c and d may provide examples of permit language that unambiguously require the facility to operate a NO_x CEMS for a particular unit.

V. DETERMINATIONS ON CLAIMS RAISED IN THE GASP PETITION

Claim I: The Petitioner Claims That "The TVOP Does Not Incorporate a Compliance Schedule as Required by 40 C.F.R. §§ 70.5(c)(8)(iii)(C) and 70.6(c)(3)."

Petitioner's Claim: The Petitioner claims that the Permit must include a compliance schedule because the facility was allegedly out of compliance with various emission standards at the time of permit issuance. GASP Petition at 5 (citing 40 C.F.R. § 70.5(c)(8)(iii)(C)). The Petitioner acknowledges that the Permit incorporates terms of a 2019 Settlement Agreement and Order[26] (2019 Order), but the Petitioner claims that the remedial measures required therein "have been implemented but have not achieved compliance" and that the 2019 Order therefore does not satisfy the requirements of 40 C.F.R. §§ 70.5(c)(8)(iii)(C) and 70.6(c)(3) for the Permit to incorporate a schedule "leading to compliance." *Id.* at 6–7.

The Petitioner argues that the facility was not in compliance when it submitted its permit renewal application in 2016, and that it has been continuously out of compliance with emission standards in Article XXI § 2105.21 of ACHD's Rules and Regulations throughout the period between permit application and issuance. *Id.* at 7. The Petitioner cites a 2016 Consent Judgement between U.S. Steel and ACHD following alleged emission standards violations between 2009 and 2016, and a series of four Enforcement Orders issued by ACHD for violations that occurred at the facility between 2017 and 2019. *Id.* at 8–9. To resolve U.S. Steel's appeal of the four 2018–2019 Enforcement Orders the parties entered into a Settlement Agreement and Order in 2019 which included a schedule of actions to be taken by the facility. *Id.* at 9. According to the Petitioner, all measures in the 2019 Order (with one exception)[27] were meant to have been implemented by November 1, 2021. *Id.* at 9 (citing 2019 Order at 3–7). The 2019 Order also included a schedule providing for the payment of stipulated penalties to ACHD for any future violations of Article XXI § 2105.21. *Id.* at 9–10 (citing 2019 Order at 20–22).

The Petitioner alleges that "[t]he measures undertaken pursuant to the June 28, 2019, Settlement Agreement and Order did not achieve compliance with the Article XXI § 2105.21 Emission Standards," citing six demands for stipulated penalties issued by ACHD between 2020 and 2022 for a range of 198 to 676 violations of Article XXI § 2105.21. *Id.* at 10–11. According to the Petitioner, the demand letters were based on violations of Article XXI § 2105.21.a–i (emissions from charging, coke oven door areas, charging port lids, offtake piping, pushing, and soaking,

[26] Settlement Agreement and Order between ACHD and U.S. Steel (June 28, 2019).

[27] The 2019 Order requires the facility to complete repairs of through walls at battery 15 no later than February 1, 2024. 2019 Order at 14. The Petitioner claims that "[t]here is nothing to suggest that the repair . . . will affect the compliance rate of any of the other batteries." GASP Petition at 9 n. 30.

and visible emissions from battery combustion stacks). *Id.* at 10.[28] The Petitioner also claims that a chart included by ACHD in the November 2022 demand letter showed that the facility's rates of compliance with emission standards have either worsened or "remained more or less the same," and that violations of emissions standards occurred during the first half of 2022 at all batteries except battery 15, which was idle during that time period *Id.* at 11–12.[29]

The Petitioner claims that although the Permit incorporates the 2019 Order and its "enforceable sequence of actions with milestones," it "does not qualify as a schedule of measures that will lead to compliance" with the Article XXI § 2105.21 emission standards. *Id.* at 12–13. The Petitioner argues that a compliance schedule is required for sources that are not in compliance with applicable requirements at the time of permit issuance, and that such schedules must include "a schedule of remedial measures, including an enforceable sequence of actions with milestones," and that such measures "must be 'supplemental to' and 'not sanction noncompliance with' existing requirements." *Id.* at 12 (citing 40 C.F.R. § 70.5(c)(8)(iii)(C)). The Petitioner argues that the above examples of emission standard violations and demands for stipulated payments equate to the Settlement Agreement and Order "effectively sanction[ing] U.S. Steel's continuing noncompliance." *Id.* at 13–14.

The Petitioner claims that in the RTC "ACHD did not contend that the [facility] was in compliance" and that at the time public comments were due in March 2022, the facility was described on the ACHD website as "Non-Compliant." *Id.* at 3. In response to ACHD's RTC, the Petitioner argues that although ACHD referenced the 2019 Order, it "did not assert that the measures . . . would yield compliance in the future or that it had plans to take legal action against U.S. Steel to require it to undertake any new measures aimed at achieving compliance." *Id*.

The Petitioner argues that EPA must direct ACHD to "develop a new schedule of enforceable remedial measures that will lead to compliance with the Article XXI, § 2105.21 Emission Standards and incorporate that schedule into the Permit." *Id.* at 14.

EPA's Response: For the following reasons, EPA grants the Petitioner's request for an objection on this claim.

For "sources that are not in compliance with all applicable requirements at the time of permit issuance," a title V permit must contain a compliance schedule that includes "a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance." 40 C.F.R. § 70.5(c)(8)(iii)(C); ACHD Rules and Regulations Article XXI §

[28] Citing Letter from Shannon Sandberg, ACHD Air Quality Acting Enforcement Chief, to Michael Rhoads, U.S. Steel Corp. (Jan. 14, 2020); Letter from Shannon Sandberg, Air Quality Manager, ACHD Air Quality Program Compliance and Enforcement Section, to John R. Michaud, U.S. Steel Corp. (May 28, 2020); Letter from Shannon Sandberg, Air Quality Manager, ACHD Air Quality Program Compliance and Enforcement Section, to Michael Rhoads, U.S. Steel Corp. (March 12, 2021); Letter from Shannon Sandberg, Air Quality Manager, ACHD Air Quality Program Compliance and Enforcement Section, to Michael Rhoads, U.S. Steel Corp. (June 4, 2021); Letter from Shannon Sandberg, Air Quality Manager, ACHD Air Quality Program Compliance and Enforcement Section, to Michael Rhoads, U.S. Steel Corp. (March 2, 2022); and Letter from Allason Holt, Program Manager - ACHD Compliance and Enforcement Program, to Michael Rhoads, U.S. Steel Corp. (Nov. 8, 2022).

[29] Citing Letter from Allason Holt, Program Manager - ACHD Compliance and Enforcement Program, to Michael Rhoads, U.S. Steel Corp. (Nov. 8, 2022).

2103.11(b)(8)(E)(i); *see also* 40 C.F.R. § 70.6(c)(3). The compliance schedule should "resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject . . . and shall not sanction noncompliance with the applicable requirements on which it is based." 40 C.F.R. § 70.5(c)(8)(iii)(C); *see also* ACHD Rules and Regulations Article XXI § 2103.11(b)(8)(E)(ii).

In previous Orders, EPA has stated that a compliance schedule is not necessary if a violation is intermittent, not ongoing, and has been corrected before the permit is issued. *See, e.g.*, *In the Matter of New York Organic Fertilizer Company*, Order on Petition No. II-2002-12 at 47–48 (May 24, 2004).[30]

The Petitioner has demonstrated that the permit record is not clear as to whether the source is or is not in compliance with all applicable requirements, specifically the emission standards in Article XXI § 2105.21.a–i and, thus, whether the Permit must include a compliance schedule that goes beyond the terms of the 2019 Order. The demands for stipulated payments and semi-annual compliance reports cited by the Petitioner suggest that Clairton has repeatedly violated various Article XXI § 2105.21 emission standards and requirements in ACHD Installation Permit #0052-I011b even after completing most of the remedial measures required by the 2019 Order, and accordingly that further actions to bring the facility back into compliance may be necessary.

ACHD did not provide a clear answer to the question of whether the facility is in compliance with all applicable requirements. In response to the Petitioner's public comment, ACHD stated:

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

RTC at 24 (emphasis added). The 2019 Order is incorporated into the Permit in Condition IV.32, which states, "[u]ntil terminated, the following Consent Decree and Consent Orders and Agreements and subsequent amendments and revisions that apply to U.S. Steel Clairton, are hereby incorporated by reference into this permit."

However, ACHD also stated:

> Based on the Partial Compliance Evaluation performed in May 2022, compliance monitoring check, and review of the records and reports, the facility is in compliance *with the applicable reporting requirements and the criteria pollutants*

[30] *See also In the Matter of Tesoro Refining and Marketing Co., Martinez, California Facility,* Order on Petition No. IX-2004-6 at 15, 17 (March 15, 2005); *In the Matter of Valero Refining Co., Benicia, California Facility*, Order on Petition No. IX-2004-07 at 14, 16 (March 15, 2005); *WAHA Order* at 8–9.

> *limits*. In addition, whenever there is a deviation or reported breakdowns, the Department ensures that the deviation or breakdown is corrected. If necessary, the Department will issue an enforcement action to ensure compliance with applicable requirements.

RTC at 56 (emphasis added).

Neither of ACHD's responses conclusively addresses whether the facility was "in compliance with all applicable requirements at the time of permit issuance," which is the standard that dictates whether a title V permit must include a compliance schedule. 40 C.F.R. § 70.5(c)(8)(iii)(C); ACHD Rules and Regulations Article XXI § 2103.11(b)(8)(E). ACHD's first quoted RTC statement above, which references "ongoing noncompliance" and the incorporation of a compliance schedule to "bring the source back into compliance," suggests that ACHD does not contest the Petitioner's claim that the facility was not in compliance with all applicable requirements at the time of permit issuance and that a compliance schedule was necessary. ACHD presents a potentially contradictory position within the second quoted RTC statement by suggesting that the facility is in compliance with certain requirements. However, recordkeeping requirements and criteria pollutant emission limits are only two categories of applicable requirements the facility must follow, and it is unclear whether ACHD intended this statement to serve as a determination that the facility was in compliance with all applicable requirements at the time of permit issuance including the specific requirements that now form the basis of this claim. Additionally, the statement that the facility was in compliance with recordkeeping requirements and emission limits for criteria pollutants does not refute the Petitioner's assertion that the facility was out of compliance with certain emission standards despite the measures already taken following the 2019 Order. Overall, the permit record is unclear as to whether the facility was in or out of compliance with the requirements of the relevant Article XXI § 2105.21 emission standards at the time of permit issuance.

To the extent the facility was out of compliance with certain applicable requirements at the time of permit issuance, it is also unclear whether the actions required by the 2019 Order and its associated compliance schedule (as incorporated into the Permit) are sufficient to "lead[] to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance." 40 C.F.R. § 70.5(c)(8)(iii)(C); ACHD Rules and Regulations Article XXI § 2103.11(b)(8)(i). As stated by the Petitioner, all of the remedial measures set forth in the 2019 Order have been completed by the facility, except for the repair of battery 15 through walls, which must be completed no later than February 1, 2024. 2019 Order at 14. ACHD did not explain how the remedial measures set forth in the 2019 Order will lead to compliance with all applicable requirements when most of the remedial measures have been completed, and the facility was potentially still not in compliance with a number of applicable requirements. Thus, it is not clear whether the "compliance schedule" from the 2019 Order satisfies the requirements governing compliance schedules.

Since the record is unclear as to whether the facility was in compliance with all applicable requirements at the time of permit issuance and whether or how the remedial measures required by the 2019 Order will lead to compliance with all applicable requirements, EPA grants this claim.

Direction to ACHD: ACHD must amend the permit record to clarify whether the source was not in compliance with any applicable requirements (and specifically, the Article XXI § 2105.21 emission standards identified by the Petitioner) at the time the Permit was issued and, if so, which applicable requirements the source was in violation of. When a source is not in compliance with all applicable requirements at the time of permit issuance, a permitting authority must include in the title V permit a schedule of compliance with remedial measures designed to lead to compliance. In this case, if the source was out of compliance with any applicable requirements at the time of permit issuance, ACHD must amend the permit record to explain how the remaining remedial measure required by the 2019 Order will lead to the source's compliance with all applicable requirements. If ACHD is unable to demonstrate that fulfillment of the terms of the 2019 Order will lead to compliance, it may need to consider developing a new compliance schedule that "include[s] a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance." 40 C.F.R. § 70.5(c)(8)(iii)(C); ACHD Rules and Regulations Article XXI § 2103.11(b)(8)(E).

V. CONCLUSION

For the reasons set forth in this Order and pursuant to CAA § 505(b)(2) and 40 C.F.R. § 70.8(d), I hereby grant in part and deny in part the Petitions as described in this Order.

Dated: SEP 1 8 2023

Michael S. Regan
Administrator