BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Petition No. III-2024-22

In the Matter of

Neville Chemical Company

Permit No. 0060-OP24

Issued by the Allegheny County Health Department

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

I. INTRODUCTION

The U.S. Environmental Protection Agency (EPA) received a petition dated September 20, 2024, (the "Petition") from Environmental Integrity Project, Clean Air Council, PennFuture, and Food & Water Watch (the "Petitioners"), pursuant to Clean Air Act (CAA) § 505(b)(2), 42 United States Code (U.S.C.) § 7661d(b)(2). The Petition requests that the EPA Administrator object to operating permit No. 0060-OP24 (the "Permit") issued by the Allegheny County Health Department (ACHD) to the Neville Chemical Company facility (the "Neville facility") in Allegheny County, Pennsylvania. The Permit was issued pursuant to title V of the CAA, 42 U.S.C. §§ 7661–7661f, and ACHD's Rules and Regulations Article XXI § 2103.01 *et seq*. *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 Petition 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, the EPA grants in part and denies in part the Petition and objects to the issuance of the Permit. Specifically, the EPA grants in part and denies in part Claim 1, grants Claims 2 and 3, and denies Claim 4.

II. STATUTORY AND REGULATORY FRAMEWORK

A. Title V Permits

CAA § 502(d)(1), 42 U.S.C. § 7661a(d)(1), requires each state to develop and submit to the EPA an operating permit program to meet the requirements of title V of the CAA and the EPA's implementing regulations at 40 C.F.R. part 70. The Commonwealth of Pennsylvania submitted a title V operating permit program on behalf of Allegheny County in 1998 and amended the submitted program in 2001. The EPA granted full approval of Allegheny County's title V operating permit program in 2001. 66 Fed. Reg. 55112 (Nov. 1, 2001). Allegheny County's 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 operating permit 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, 1992). 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 operating permit 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 the EPA for review. 42 U.S.C. § 7661d(a). Upon receipt of a proposed permit, the EPA has 45 days to object to final issuance of the proposed permit if the EPA determines that the proposed permit is not in compliance with applicable requirements under the CAA. 42 U.S.C. § 7661d(b)(1); *see also* 40 C.F.R. § 70.8(c). If the EPA does not object to a permit on its own initiative, any person may, within 60 days of the expiration of the 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 40 C.F.R. part 70. 40 C.F.R. § 70.12(a)(2). Any arguments or claims the petitioner wishes the EPA to consider in support of each issue raised must generally be contained within the body of the petition.[1] *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 CAA requires the Administrator to issue an objection if a petitioner demonstrates that a permit is not in compliance with the requirements of the CAA. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(c)(1).[2] Under CAA § 505(b)(2), the burden is on the petitioner to make the required demonstration to the EPA.[3] 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 CAA, and a nondiscretionary duty on the Administrator's part to object if 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 CAA. *Citizens Against Ruining the Environment*, 535 F.3d at 677 (stating that CAA § 505(b)(2) "clearly obligates the Administrator to (1) determine whether the petition demonstrates noncompliance and (2) object *if* such a

[1] 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*.

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

[3] *See also 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.

demonstration is made" (emphasis added)).[4] When courts have reviewed the 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.[5] 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 the EPA's proposed petitions rule. *See* 81 Fed. Reg. 57822, 57829–31 (Aug. 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*").

The EPA considers a number of criteria in determining whether a petitioner has demonstrated noncompliance with the CAA. *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 40 C.F.R. 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 40 C.F.R. part 70. 40 C.F.R. § 70.12(a)(2)(i)–(iii). If a petitioner does not identify these elements, the 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.").[6] Relatedly, the 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 (Jan. 15, 2013).[7] Also, the failure to address a key element of a particular issue presents further grounds for the 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*

[4] *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)).

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

[6] *See also In the Matter of Murphy Oil USA, Inc.*, Order on Petition No. VI-2011-02 at 12 (Sept. 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*").

[7] *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 (Apr. 20, 2007); *In the Matter of Georgia Power Company*, Order on Petitions at 9–13 (Jan. 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 (Mar. 15, 2005).

Corp., Order on Petition Nos. III-2012-06, III-2012-07, and III-2013-02 at 48 (July 30, 2014).[8]

Another factor the 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.[9] 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*.

The information that the 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 40 C.F.R. § 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 EPA'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 the EPA grants a title V petition and objects to the issuance of a permit, a permitting authority may address the EPA's objection by, among other things, providing the 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. at 57842 (describing post-petition

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

[9] *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 (Dec. 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).

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 the EPA has issued a title V objection on the grounds 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 to resolve an EPA objection, it must go through the appropriate procedures for that revision. If a final permit has been issued prior to the EPA's objection, the permitting authority should determine whether its response to the EPA's objection requires 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 operating permit program. If the permitting authority determines that the revision 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 revisions, 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 the 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 the 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 the EPA identified; permitting authorities need not address elements of the permit or the permit record that are unrelated to the EPA's objection. As described in various title V petition orders, the scope of the 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 (Sept. 14, 2016); *In the Matter of WPSC, Weston*, Order on Petition No. V-2006-4 at 5–6, 10 (Dec. 19, 2007).

III. BACKGROUND

A. The Neville Chemical Company Facility

The Neville facility is located on Neville Island on the Ohio River, in Allegheny County, Pennsylvania. The Neville facility manufactures synthetic hydrocarbon resins, plasticizers, and plasticizing oils used in, *e.g.*, coatings, adhesives, ink, roofing, and rubber.

Emission units at the Neville facility include five heat polymerization stills (controlled by a thermal oxidizer), two natural gas boilers, six still process heaters, three packaging center heaters, a catalytic resin and polyoil neutralization emission unit, and a continuous still. Additionally, there are other emission units and controls not relevant to this Petition.

The Neville facility is a major source of volatile organic compounds (VOC) and a nonmajor source of particulate matter (PM), PM <10 µm in diameter (PM_{10}), PM <2.5 µm in diameter ($PM_{2.5}$), nitrogen oxides (NO_x), sulfur oxides (SO_x), carbon monoxide (CO), and hazardous air pollutants (HAP). In addition to title V, the Neville facility is subject to various ACHD rules and regulations, New Source Performance Standards, National Emission Standards for Hazardous Air Pollutants, and other requirements.

B. Permitting History

Neville Chemical Company first obtained a title V permit for the Neville facility in 2015, which ACHD subsequently renewed in 2020. On February 1, 2024, ACHD published notice of a draft renewal permit and technical support document (TSD), subject to a public comment period that ended on March 12, 2024. On June 6, 2024, ACHD submitted the proposed renewal permit, along with its responses to public comments (RTC), to the EPA for its 45-day review. The EPA's 45-day review period ended on July 22, 2024, during which time the EPA did not object to the proposed renewal permit. On June 18, 2024, ACHD issued the final Permit for the Neville facility (along with final versions of the TSD and RTC).

C. Timeliness of Petition

Pursuant to the CAA, if the 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). The EPA's 45-day review period ended on July 22, 2024. Thus, any petition seeking the EPA's objection to the Permit was due on or before September 20, 2024. The Petition was submitted September 20, 2024. Therefore, the EPA finds that the Petitioners timely filed the Petition.

IV. EPA DETERMINATIONS ON PETITION CLAIMS

The section of the Petition titled "Grounds for Objection" includes four claims, which are described in subsections IV.B through IV.E (subsection IV.A contains background relevant to all four claims). This Order addresses the Petitioners' claims as follows:

- Petition Subsection IV.B: Claim 1
- Petition Subsection IV.C: Claim 2
- Petition Subsection IV.D: Claim 3
- Petition Subsection IV.E: Claim 4

A. Claim 1. The Petitioners Claim That "The Renewal Permit fails to include adequate testing, monitoring, recordkeeping, or reporting requirements sufficient to assure continuous compliance with the hourly and long-term emission limits for PM, NOx, SOx, CO, VOC, and HAPs from P001 (heat polymerization stills and thermal oxidizer)."

Petition Claim: The Petitioners note that the Permit specifies short-term (hourly) and long-term (annual) emission limits for PM, NO_x, SO_x, CO, VOC, and HAP on unit P001 (heat polymerization stills and thermal oxidizer). The Petitioners claim that (1) the Permit fails to include adequate testing, monitoring, recordkeeping, or reporting requirements sufficient to assure continuous compliance with these emission limits and (2) neither the Permit nor ACHD's RTC provide a "clear rationale for why ACHD believes the monitoring requirements currently in place are sufficient." Petition at 9–10.

In support of all four of the Petitioners' claims, the Petitioners state that "[e]ach permit issued under [Title V] shall set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions." *Id*. at 6–7 (quoting 42 U.S.C. § 7661c(c) (alteration in Petition); citing 40 C.F.R. § 70.6(c)(1); ACHD Rules and Regulations Art. XXI § 2103.12(h)(1)). The Petitioners further assert that emission limits must be enforceable as a practical matter and thus must specify how emissions will be measured or determined for purposes of demonstrating compliance. *Id. at* 7 (citing *In the Matter of Hu Honua Bioenergy Facility,* Order on Petition No. IX-2011-1 at 10 (Feb. 7, 2014); *In the Matter of Orange Recycling and Ethanol Production Facility, Pencor-Masada Oxynol, LLC,* Order on Petition No. II-2001-05 at 7 (Apr. 8, 2002)). Additionally, the Petitioners claim that "[a]s a general matter, 'the time period associated with monitoring or other compliance assurance provisions must bear a relationship to the limits with which the monitoring assures compliance.'" *Id.* (quoting *In the Matter of United States Steel Corporation, Clairton Coke Works*, Order on Petition Nos. III-2023-5 and III-2023-6 at 9 (Sept. 18, 2023) ("*U.S. Steel Clairton Order*"); citing 40 C.F.R. § 70.6(a)(3)(i)(B)). The Petitioners further claim that the permitting authority's rationale for monitoring requirements must be "clear and documented in the permit record" and that "permitting authorities have a responsibility to respond to significant comment." *Id.* at 8 (citing 40 C.F.R. § 70.7(a)(5); *In the Matter*

of CITGO Refining and Chemicals Co., L.P., West Plant, Order on Petition No. VI-2007-01 at 7 (May 28, 2009) ("*CITGO Order*")).

Within Claim 1, the Petitioners' arguments differ based on the applicable pollutants and emission limits.

VOC and HAP

The Petitioners note that the Permit limits emissions from the thermal oxidizer to 2.91 pounds per hour (lb/hr) and 4.34 tons per year (tpy) VOC and 0.10 lb/hr and 0.28 tpy HAP. *Id.* at 9 (citing Permit Condition V.A.1.c). The Petitioners also state that the Permit requires the Neville facility to achieve a minimum 98 percent VOC and HAP destruction efficiency, minimum residence time of 0.5 seconds, and minimum operating temperature of 1,400°F. *Id*. (citing Permit Condition V.A.1.b). The Petitioners further note that the Permit requires stack testing at least once every five years to demonstrate compliance with the VOC and HAP destruction efficiency and requires continuous monitoring of temperature in the thermal oxidizer combustion chamber. *Id.* (citing Permit Conditions V.A.2.c and V.A.3.b).

The Petitioners restate arguments raised in public comments that ACHD should require "stack testing every two years for each pollutant limit, or otherwise sufficiently explain how ACHD's proposed monitoring provisions (and lack of testing requirements) are sufficient to assure compliance with the hourly and rolling annual emission limits." *Id.* at 10.

The Petitioners disagree with ACHD's response that monitoring temperature is sufficient because the "EPA has stated that in addition to combustion temperature, one of the primary indicators of thermal oxidizer control efficiency performance is outlet exhaust gas VOC concentration. Outlet VOC concentration can be monitored directly via CEMS (which our comment recommended), or through other means, such as measuring outlet CO concentration to determine the completeness of the combustion in the thermal oxidizer." *Id.* at 13 (citing the EPA's Monitoring by Control Technique – Thermal Oxidizer website[10]).

NO_x and CO

The Petitioners note that the Permit limits emissions from the thermal oxidizer to 2.13 lb/hr and 9.33 tpy NO_x and 1.79 lb/hr and 7.84 tpy CO. *Id.* at 9 (citing Permit Condition V.A.1.c). Unlike for VOC and HAP, the Petitioners indicate there are not any testing or monitoring conditions that specifically identify NO_x and CO. *Id.* at 9.

[10] U.S. Environmental Protection Agency, *Monitoring by Control Technique – Thermal Oxidizer* (last updated Apr. 24, 2025), https://www.epa.gov/air-emissions-monitoring-knowledge-base/monitoring-control-technique-thermal-oxidizer.

Addressing ACHD's RTC, the Petitioners state that "ACHD's response states that because all of the emissions of these other [non-VOC] criteria pollutants are the result of combustion of VOCs, so long as VOC are controlled, no additional testing is required. ACHD's response does not actually explain how compliance with the thermal oxidizer's VOC limit would also assure compliance with its limits for each of these other pollutants—it merely asserts that it will." *Id.* at 11.

The Petitioners acknowledge that ACHD added a condition to the Permit requiring the Neville facility to maintain records of total natural gas consumed (monthly and annual) and "calculations of NOX and CO emissions based on AP-42 factors for the thermal oxidizer." *Id.* at 12. However, the Petitioners assert that the newly required monthly calculations of NO_x and CO emissions are based on a method that is never evaluated for accuracy. The Petitioners claim that the permit record does not explain how monthly calculations of emissions based on AP-42 factors would yield "an accurate estimate of actual NOx and CO emissions . . . and assure compliance" with the applicable emission limits, given that the Permit does not contain any requirement to test or monitor for NO_x or CO emissions. *Id.* at 12.

PM and SO_x

The Petitioners note that the Permit limits emissions from the thermal oxidizer to 0.15 lb/hr and 0.66 tpy PM, PM_{10}, and $PM_{2.5}$ and 0.02 lb/hr and 0.06 tpy SO_x. *Id.* at 9 (citing Permit Condition V.A.1.c).

The Petitioners claim that nothing in the "Permit sets forth any monitoring, testing, recordkeeping, or reporting requirements specific to emissions of PM, PM10, PM2.5, or SOx." *Id.* at 11.

Addressing ACHD's RTC, the Petitioners allege that "ACHD's response only attempts to explain the parametric monitoring requirements for VOC and HAP emissions and does not adequately address Petitioners' concerns regarding the lack of testing or monitoring for compliance with the other emission limits [such as for PM and SO_x] applicable to the thermal oxidizer." *Id.*

While the Petitioners acknowledge that emissions of PM and SO_x from the thermal oxidizer are "fairly low" at less than one tpy, the Petitioners state that "this is reflected in the relatively low short-term and long-term emission limits established for the thermal oxidizer." *Id.* at 12. The Petitioners argue that "[t]hat certainly does not mean that ACHD can simply neglect its obligation to assure that the thermal oxidizer is meeting these limits, or justify a failure to include *any* monitoring or testing requirements for these pollutants." *Id.*

EPA Response: For the following reasons, the EPA grants in part and denies in part this Petition claim and objects to the issuance of the Permit.

All title V permits must "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); *Sierra Club v. EPA*, 536 F.3d 673, 674–75 (D.C. Cir. 2008).

VOC and HAP

As the Petitioners note, the Permit imposes annual and hourly limits on VOC and HAP for the thermal oxidizer. Permit Condition V.A.1.c. Further, as the Petitioners note, to assure compliance with the emission limits, the Permit requires that the thermal oxidizer maintain a 98 percent VOC and HAP destruction efficiency. The Permit also imposes operational limits to achieve this destruction efficiency, including minimum temperature and residence time. The Permit requires the Neville facility to monitor temperature in the thermal oxidizer continuously and requires a stack test every five years to demonstrate compliance with the destruction efficiency requirement. Permit Conditions V.A.3.b, V.A.1.b, V.A.2.c.

The Petitioners' only challenge to the temperature monitoring methodology is that ACHD should not rely exclusively on temperature as an indicator of performance. To support this statement, the Petitioners identify EPA guidance indicating that temperature is one of two primary indicators of VOC control from thermal oxidizers. However, the fact that there is more than one primary indicator of performance does not mean that one primary indicator of performance alone is insufficient. In fact, EPA guidance, linked directly from the Petitioners' cited EPA guidance website, indicates that monitoring temperature may be sufficient and suggests that continuous VOC monitoring is not always necessary. EPA guidance states that "correlation of temperature to emissions reduction is established through periodic monitoring" and that "parametric monitoring allows the use of temperature monitoring in place of VOC monitoring for this device once the correlation of temperature to VOC destruction has been established."[11] In fact, the Permit requires the Neville facility to perform a stack test periodically to demonstrate compliance with the VOC and HAP destruction efficiency requirement, thereby demonstrating the correlation of temperature to emissions reduction and the sufficiency of temperature monitoring.

The Petitioners do not justify why it would be necessary for VOC monitoring to be included in addition to temperature monitoring. The Petitioners also do not justify why continuous monitoring of temperature, combined with periodic stack testing, is insufficient to demonstrate compliance with the VOC and HAP destruction efficiency requirement and thereby assure compliance with the VOC and HAP emission limits.

[11] U.S. Environmental Protection Agency, *Air Pollution Control Cost Manual, Section 2, Chapter 4 – Monitors* (2000), https://www.epa.gov/sites/default/files/2020-11/documents/cs2ch4_6.pdf.

For the reasons stated above, the Petitioners fail to demonstrate that the Permit does not contain adequate monitoring to assure compliance with the hourly and annual emission limits for VOC and HAP from the thermal oxidizer or that ACHD's response to comment on this issue was inadequate. Therefore, the EPA denies the Petitioners' request for an objection on this part of Claim 1.

NO_x and CO

As the Petitioners note, the Permit imposes annual and hourly limits on NO_x and CO from the thermal oxidizer. Permit Condition V.A.1.c. The Petitioners also note that the Permit does not require initial or periodic stack testing of NO_x and CO. However, Permit Condition V.A.4.a.7 requires recordkeeping of "total natural gas consumed (monthly and 12-month) and calculations of NO_X and CO emissions based on AP-42 factors for the thermal oxidizer." Permit at 44. The permit record explains the use of AP-42 to calculate NO_x and CO emissions. *See* TSD at 15.

The Petitioners' argument distils to a general challenge of the use of AP-42 emission factors for NO_x and CO without any stack testing to confirm the validity of these emission factors. The Petitioners' argument criticizing the lack of verification for AP-42 emissions factors is based on the flawed premise that there must always be some form of verification of the accuracy of emission factors (*e.g.*, through periodic stack testing). Using AP-42 emission factors without initial or periodic stack testing may or may not be appropriate, depending on the facts at issue.

To demonstrate a basis for the EPA's objection, a petitioner must provide sufficient arguments for why use of a particular emission factor is not sufficient to assure compliance with a particular limit. In general, while the EPA has cautioned against the use of AP-42 emission factors for compliance demonstrations, these cautionary statements do not equate to an EPA finding that AP-42 emission factors are never sufficient to assure compliance with any permit limits, or to a finding that such use is presumptively inadequate to assure such compliance. *See In the Matter of Suncor Energy (U.S.A.), Inc., Commerce City Refinery, Plant 2 (East)*, Order on Petition Nos. VIII-2022-13 & VIII-2022-14 at 24– 25 (July 31, 2023). The determination of whether it is necessary to develop or confirm a source-specific emission factor to calculate emissions of a particular pollutant from a particular unit depends on the circumstances. *Id.* at 9.

In this instance, the Petitioners do not explain why the particular AP-42 emission factors relevant here are not sufficient to assure compliance with the NO_x and CO emission limits for the thermal oxidizer. The Petitioners do not explain why the AP-42 factors are unlikely to be accurate or reliable, or how any such inaccuracies in the emission factors could impact compliance with the associated emission limits.

For the reasons stated above, the Petitioners have not demonstrated that the Permit does not contain adequate monitoring to assure compliance with hourly and annual emission limits for NO_x and CO from a thermal oxidizer. Therefore, the EPA denies the Petitioners' request for an objection on this part of Claim 1.

PM and SO_x

The Petitioners make similar claims for PM and SO_x as for NO_x and CO. However, contrary to its approach for NO_x and CO, ACHD did not add additional conditions to the Permit to assure compliance with the PM and SO_x limits (*e.g.*, through fuel use monitoring and emission calculations based on emission factors).

As the Petitioners note, the Permit imposes annual and hourly limits on PM and SO_x for the thermal oxidizer. The Permit does not require any initial or periodic stack testing for PM and SO_x, or any testing, monitoring, or emission calculation requirements specific to these limits. Permit Condition V.A.1.c.

While the Permit includes a general requirement to keep records of fuel use from the affected emission units, unlike for NO_x and CO, the Permit does not specifically require the Neville facility to use fuel usage data to demonstrate compliance with the PM and SO_x emission limits. For example, the Permit does not specify methods for how to calculate emissions of PM and SO_x based on fuel use (*e.g.*, in conjunction with an emission factor).

ACHD's RTC does not specifically discuss PM or SO_x. In full, it states:

> The Heat Polymerization Process (P001, Stills #15, #16, #18, #19, and Unit 43) are controlled by a thermal oxidizer. Temperature of the thermal oxidizer is continuously monitored, which is an accepted method of parametric monitoring of VOC and HAP emissions from a process controlled by a thermal oxidizer. NO_X emissions (as well as other criteria pollutants) from the thermal oxidizer are strictly from the combustion of VOC and supplemental natural gas. Emissions of NO_X are potentially less than 10 tpy. Requiring a CEM on a control device and on a process/pollutant where emissions are low is not feasible. As the VOC is controlled and the other pollutants are a direct result of the control device, ACHD does not believe additional testing is required. ACHD added a condition V.A.4.a.3) to recordkeeping of natural gas use and monthly calculations of NOX and CO emissions based on AP-42 factors.

RTC at 2.

ACHD's response that criteria pollutants "from the thermal oxidizer are strictly from the combustion of VOC and supplemental natural gas" does not explain the nature of the

relationship between temperature monitoring (which seems primarily relevant to assuring compliance with the VOC limits) and PM and SO_x emissions. Neither the Permit nor the permit record contain any quantitative support for the idea that maintaining VOC controls will also ensure that PM and SO_x emissions remain below the relevant limits. The EPA agrees with the Petitioners' argument that "ACHD's response does not actually explain how compliance with the thermal oxidizer's VOC limit would also assure compliance with its limits for each of these other pollutants—it merely asserts that it will." Petition at 11. If monitoring temperature (and controlling VOC) is the primary (or exclusive) means by which the Neville facility will assure compliance with the PM and SO_x limits, there must be adequate explanation in the permit record regarding how a given temperature assures compliance with each applicable emission limit.

ACHD's response that "requiring a CEM on a control device and on a process/pollutant where emissions are low is not feasible" appears to miss the point. At issue is whether the Permit must include some form of testing, monitoring, or recordkeeping to assure compliance with the PM and SO_x emission limits. The fact that PM and SO_x emissions are low does not necessarily mean that no such monitoring is necessary.

The EPA understands ACHD's reluctance to mandate CEMS, other monitoring, stack testing, and/or other testing when doing so might provide little environmental benefit, may not be necessary, or may not be feasible. In general, it may be reasonable for a permitting authority to consider, among other things, the magnitude of emissions and the economic and technical feasibility of different testing and monitoring requirements when determining which compliance assurance requirements to impose in a title V permit. However, any such considerations must be evaluated in the appropriate context: determining which requirements are necessary to assure compliance with all applicable requirements and permit terms. *See* 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(c)(1).

As the EPA explained in *In the Matter of Suncor Energy (U.S.A.), Inc., Commerce City Refinery, Plant 1 (West) & Plant 3 (Asphalt Unit),* Order on Petition No. VIII-2024-18 at 17–19 (Dec. 2024) ("*Suncor Plants 1 and 3 Order*"), the fact that an emission limit is relatively low does not, in and of itself, mean that compliance with such limit can be assured with less testing or without monitoring. To the contrary, in some cases, a low emission limit (*e.g.*, one that substantially restricts a facility's emissions) may be associated with a high likelihood of violation, giving rise to the need for more stringent testing or monitoring. Evaluating the likelihood of a violation requires a comparison of the Neville facility's actual or potential emissions to the underlying limit. For example, as discussed in White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program at 32 (Mar. 5, 1996), if a facility's actual or potential emissions are low, but the limit is high, then the likelihood of violation will be low, and less stringent compliance assurance provisions may be permissible. Conversely, if a facility's actual or potential emissions approach or exceed the limit, then the likelihood

of violation will be higher, and more stringent compliance assurance provisions may be necessary.

Here, the permit record contains no discussion about, *e.g.*, the margin of compliance between the level of expected emissions and the limits, or any other reason why low expected emissions will equate to compliance with the low emission limits. As such, the permit record contains essentially no relevant justification for the lack of any monitoring requirements associated with the PM and SO_x emission limits.

In sum, the Petitioners have demonstrated that the Permit does not contain adequate monitoring to assure compliance with the hourly and annual emission limits for PM and SO_x from the thermal oxidizer, and ACHD's permit record does not provide a rationale for the Permit's lack of monitoring requirements. Therefore, the EPA grants the Petitioners' request for an objection on this part of Claim 1.

Direction to ACHD: ACHD must amend the Permit to ensure that the Permit contains sufficient requirements to assure compliance with the hourly and annual emission limits for PM and SO_x on the thermal oxidizer.

ACHD may be able to achieve this by clarifying in the Permit how the Neville facility will demonstrate compliance by monitoring or calculating PM and SO_x emissions on a periodic basis. For example, ACHD could require the Neville facility to calculate emissions of PM and SO_x based on existing fuel use monitoring requirements and appropriate emission factors. In this instance, ACHD would need to explain how to calculate emissions and provide an appropriate rationale for the variables used in the calculations.

Or, ACHD may require other forms of monitoring PM and SO_x and provide an explanation of how such monitoring is used to assure compliance through, *e.g.*, formulas provided in the permit record.

The EPA understands that as part of a broader permitting initiative, ACHD is evaluating the legal authority underlying emission limits in various title V permits. In general, if ACHD determines that any of the specific hourly or annual PM or SO_x emission limits on the thermal oxidizer are not required by any federally enforceable "applicable requirements," it may remove the limits from the Permit or designate them as not federally enforceable. *See* 40 C.F.R. § 70.6(b)(2). Doing so would resolve the EPA's objection related to the monitoring associated with the current PM and SO_x emission limits.

B. Claim 2. The Petitioners Claim That "The Renewal Permit fails to include adequate testing, monitoring, recordkeeping, or reporting requirements sufficient to assure continuous compliance with the hourly and long-term

emission limits for PM, CO, VOCs, SOx, and NOx at Boilers No. 6 and 8 (B013 and B012 respectively)."

Petition Claim: The Petitioners claim that the Permit lacks sufficient testing and monitoring to assure compliance with emission limits on PM, CO, VOC, SO_x, and NO_x from two boilers (Boiler No. 6 and Boiler No. 8).

NO_x and *CO*

The Petitioners indicate that the Permit limits emissions from Boiler No. 6 to 5.57 lb/hr and 24.39 tpy NO_x and 4.68 lb/hr and 20.49 tpy CO. Petition at 14 (citing Permit Condition V.K.1.d). The Petitioners also indicate that the Permit limits emissions from Boiler No. 8 to 1.66 lb/hr and 7.28 tpy NO_x and 2.79 lb/hr and 12.24 tpy CO. *Id.* at 15 (citing Permit Condition V.L.1.d).

The Petitioners state that the Permit requires an initial and periodic (every five years) stack testing for Boiler No. 6 for NO_x. *Id.* at 14–15. The Petitioners note that no initial or periodic stack testing is required for Boiler No. 6 for CO, or for Boiler No. 8 for NO_x or CO. *Id.* The Petitioners note that a second relevant condition states that ACHD reserves the right to require emissions testing sufficient to assure compliance for Boiler No. 8. *Id.* at 15.

The Petitioners restate arguments raised in public comments that the "Permit does not include any requirement to test or monitor for [NO_x and CO] at Boiler No. 8, or for [CO] at Boiler No. 6," and that stack testing every five years for NO_x at one boiler was not "sufficient to assure compliance" with annual and hourly emission limits for Boiler No. 6. *Id.* at 16.

The Petitioners claim that "the requirement to keep a record of fuel combusted by the boilers is not an adequate substitute for direct monitoring of emissions, because it is a predictive measure that assumes combustion efficiency remains constant—however, combustion efficiency can vary as a boiler ages, undergoes various forms of maintenance, or based on variations in fuel quality." *Id.; see id.* at 20.

The Petitioners recognize that, in response to comments, ACHD added two new conditions for each boiler to the Permit requiring the Neville facility to (1) perform an "annual adjustment or 'tune-up'" on both boilers which may include "adjustments necessary to minimize total emissions or NOX, and to the extent practicable, minimize emissions of carbon monoxide," as well as a requirement to record the "CO and NOx emission rate [at each boiler] before and after the annual tune-up," and (2) to "calculate NOx and CO emissions monthly based on AP-42 factors." *Id.* at 14–15, 18 (citing Permit Conditions V.K.4.d and V.L.4.c).

Regarding the first addition, the Petitioners question how to determine emission rates from the annual tune-ups given that calculation methodologies are not specified in the Permit. *Id.* at 18.

Regarding the second addition, the Petitioners claim that the permit record does not explain "how and why" calculations based on AP-42 factors will be accurate and assure compliance. *Id*. at 19. The Petitioners argue that because Boiler No. 6 has a requirement to perform a stack test for NO_x every five years and the revised conditions "purportedly require" the source to record CO and NO_x emission rates on an annual basis, it is not clear why ACHD would rely on the AP-42 factors to calculate emissions of CO and NO_x instead. *Id*. To underscore the Petitioners' claim that the AP-42 factors should not be used instead of the stack tests or annual records of CO and NO_x emissions, the Petitioners note the EPA's statement that AP-42 factors should be used as a "last resort" when better sources of emission factors, such as source-specific testing data, are unavailable. *Id.* at 19. Additionally, the Petitioners assert that AP-42 factors should have periodic verification of their accuracy of emissions, because combustion efficiency can vary. *Id.* at 19.

The Petitioners additionally note that Boiler No. 6 and Boiler No. 8 are comparatively significant emitters of NO_x and CO emissions and, therefore, it is "especially important to ensure that . . . testing and monitoring requirements for NOx and CO . . . are both adequate to assure compliance and clearly explained." *Id.* at 19–20. Finally, the Petitioners allege that ACHD's response does address any of the five factors the EPA identifies in its *CITGO Order*. *Id*. at 20.

PM, SO_x, VOC

The Petitioners indicate that the Permit limits emissions from Boiler No. 6 to 0.4 lb/hr and 1.75 tpy PM, 0.03 lb/hr and 0.15 tpy SO_x, and 0.31 lb/hr and 1.34 tpy VOC, and that emissions of PM from Boiler No. 6 shall not exceed 0.008 lb/MMBtu. *Id.* at 14 (citing Permit Conditions V.K.1.d and V.K.1.c). The Petitioners also indicate that the Permit limits emissions from Boiler No. 8 to 0.24 lb/hr and 1.05 tpy PM, 0.02 lb/hr and 0.09 tpy SOx, and 0.18 lb/hr and 0.80 tpy VOC. *Id.* at 15 (citing Permit Condition V.L.1.d).

The Petitioners state that the Permit "does not include any requirement to test or monitor" for PM, SO_x, or VOC for both boilers. *Id.* at 16.

The Petitioners note that ACHD's RTC on this issue focuses on the EPA's indication in the *U.S. Steel Clairton Order* that the "EPA has not indicated that in all cases testing and monitoring must exactly mirror the averaging times of associated emission limits." *Id.* (quoting RTC at 2). The Petitioners argue that, in the current case, the "Permit does not, in fact, contain **any** testing or monitoring requirements to demonstrate compliance with PM, SOx, and VOC limits at either Boilers No. 6 or No. 8." *Id*. at 18. As such, the Petitioners allege there is not merely a "mismatch" between the monitoring and testing

timeframe and a shorter-term emission limit; rather, "the issue is that there are **no compliance provisions at all** for these." *Id*. The Petitioners also argue that the requirement to keep a record of fuel should not substitute for monitoring emissions because the calculation assumes combustion efficiency is constant even though, the Petitioners claim, combustion efficiency can vary due to, *e.g*., boiler age. *Id.* at 16.

EPA Response: For the following reasons, the EPA grants this Petition claim and objects to the issuance of the Permit.

All title V permits must "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); *Sierra Club v. EPA*, 536 F.3d 673 (D.C. Cir. 2008).

NO_x and CO

As the Petitioners note, the Permit imposes annual and hourly limits on NO_x and CO for Boiler No. 6 and Boiler No. 8. The Permit contains a variety of testing and monitoring requirements, including requirements to (1) keep records of fuel usage and to calculate emissions every month using an AP-42 emission factor, (2) conduct stack testing for one boiler for NO_x every five years, but not for the other boiler, or for CO, and (3) keep records of the NO_x and CO emission rates before and after an annual tune-up on each boiler. However, it is not clear if any of these methods are individually or collectively adequate to assure compliance with the emission limits.

ACHD's RTC emphasizes the monthly fuel usage recordkeeping and AP-42 emission factor-based calculations, suggesting that this is the primary means by which the Neville facility will demonstrate compliance with these limits. *See* RTC at 2–3. However, as the Petitioners persuasively argue, it is not clear why generic AP-42 emission factors are used to assure compliance with the NO_x and CO emission limits, given that the Permit appears to require the Neville facility to collect more accurate, site-specific data. As the Petitioners state, it is especially unclear why an AP-42 emission factor is used to calculate monthly emissions of NO_x from Boiler No. 6, as the Permit requires NO_x stack testing for Boiler No. 6. It is also not clear whether the emission rate information recorded during annual tune-ups would provide more accurate information than AP-42 emission factors. Although the Permit does not identify how annual emission rates will be determined, and ACHD's permit record provides almost no additional information, *see id*. at 3, ACHD's reliance on annual tune-ups—and particularly the evaluation of emission rates that will occur during those tune-ups—as a basis for not doing any (or more frequent) stack testing suggests that the actual site-specific emission rates are important to assure compliance. Thus, it is unclear why non-site-specific AP-42 emission factors are the basis for assuring compliance instead.

Site-specific data are almost certain to be more accurate than using AP-42 emission factors. ACHD does not provide an explanation for why the Permit relies on AP-42

emission factors to calculate emissions instead of using emission factors from the required stack testing and possibly the annual evaluations of emission rates for NO_x and CO. *Id*. As such, the permit record is inadequate to determine whether the Permit contains sufficient monitoring to assure compliance with CO and NO_x emission limits. Therefore, the EPA grants the Petitioners' request for an objection on this part of Claim 2.

PM, SO_x, VOC

As the Petitioners note, the Permit imposes annual and hourly limits on PM, SO_x, and VOC for Boiler No. 6 and Boiler No. 8. As with the PM and SO_x requirements discussed in Claim 1, the Permit does not require any testing, monitoring, or emission calculations specific to these limits.

ACHD's RTC states that "monthly records of fuel use are an acceptable parameter for demonstrating continuous compliance in a natural gas fired boiler." *Id.* at 2–3.[12] While the Permit includes a general requirement to keep records of fuel use from the affected emission units, the Permit does not specifically require the Neville facility to use fuel usage data to demonstrate compliance with the PM, SO_x, and VOC emission limits. For example, the Permit does not specify methods for how to calculate emissions of PM, SO_x, and VOC based on fuel use (*e.g.*, in conjunction with an emission factor).

The Petitioners have demonstrated that the Permit does not contain adequate monitoring to assure compliance with the hourly and annual emission limits for PM, SO_x, and VOC from Boiler No. 6 and Boiler No. 8, and ACHD's permit record does not provide a rationale for the Permit's lack of monitoring requirements. Therefore, the EPA grants the Petitioners' request for an objection on this part of Claim 2.

Direction to ACHD: ACHD must amend the Permit and permit record as necessary to ensure that the Permit assures compliance with the hourly and annual emission limits on NO_x, CO, PM, SO_x, and VOC from Boiler No. 6 and Boiler No. 8.

Regarding the NO_x and CO limits, ACHD must, at minimum, revise the permit record to explain how the existing monitoring requirements are sufficient to assure compliance.

If ACHD continues to rely on AP-42 emission factors and associated fuel use records, ACHD must explain how this method is sufficient to assure compliance with NO_x and CO emission limits, including an explanation for why it selected AP-42 emission factors

[12] ACHD's discussion within the RTC of the timeframes associated with this recordkeeping, RTC at 2–3, does not appear relevant to the issue raised by the Petitioners, which does not challenge the frequency of monitoring, but rather the lack of any express monitoring or compliance assurance requirements for PM, SO_x, and VOC.

instead of information based on stack testing or the emission rates determined during annual tune-ups.

Alternatively, ACHD could revise the Permit to require emission calculations to be based on more site-specific sources of information, such as stack testing or the emission rates determined during annual tune-ups. To the extent ACHD relies on the emission rates determined during annual tune-ups as part of the Permit's compliance assurance methodology, it should revise the Permit to identify how such emission rates would be determined.

Regarding the PM, SO_x, and VOC limits, ACHD must amend the Permit to ensure that the Permit contains sufficient requirements to assure compliance with the hourly and annual emission limits for PM, SO_x, and VOC on Boiler No. 6 and Boiler No. 8. As explained in more detail in the EPA's direction in Claim 1 related to PM and SO_x for the thermal oxidizer, ACHD may be able to achieve this by either clarifying in the Permit how the Neville facility will demonstrate compliance by calculating PM, SO_x, and VOC emissions on a periodic basis (*e.g.*, based on fuel use and appropriate emission factors), or it may require other forms of monitoring of PM, SO_x, and VOC. In either case, ACHD must provide an explanation of how the selected monitoring is sufficient to assure compliance.

The EPA understands that as part of a broader permitting initiative, ACHD is evaluating the legal authority underlying emission limits in various title V permits. In general, if ACHD determines that any of the specific hourly or annual NO_x, CO, PM, SO_x, or VOC emission limits on Boiler No. 6 or Boiler No. 8 are not required by any federally enforceable "applicable requirements," it may remove the limits from the Permit or designate them as not federally enforceable. *See* 40 C.F.R. § 70.6(b)(2). Doing so would resolve the EPA's objection related to the monitoring associated with the current emission limits.

C. Claim 3. The Petitioners Claim That "The Renewal Permit fails to include adequate testing, monitoring, recordkeeping, or reporting requirements sufficient to assure continuous compliance with the hourly and long-term emission limits for PM, NOx, CO, VOCs, HAPs, and SOx at the six Still Process Heaters (B001, B002, B003, B004, B015, and B006) and the three Packaging Center Heaters (B009, B010, and B011)."

Petition Claim: The Petitioners claim that the Permit lacks sufficient monitoring to assure compliance with emission limits for PM, NO_x, CO, VOC, HAP, and SO_x from six still process heaters and three packaging center heaters (the "heaters").

The Petitioners indicate that the Permit imposes short- and long-term emission limits on the heaters. Petition at 21–22 (citing Permit Condition V.I.1.d and V.J.1.d[13]). In summary, the maximum emission limits that apply to any individual heaters are 0.06 lb/hr and 0.26 tpy PM, 0.85 lb/hr and 3.71 tpy NO_x, 0.01 lb/hr and 0.02 tpy SO_x, 0.71 lb/hr and 3.11 tpy CO, 0.05 lb/hr and 0.21 tpy VOC, and 0.02 lb/hr and 0.07 tpy HAP. *Id.* Additionally, emissions of PM from each of the heaters "shall not exceed 0.008 lb/MMBtu." *Id.* at 21 (citing Permit Conditions V.I.1.c and V.J.1.c).

The Petitioners claim that the requirement to install and maintain a fuel flow meter for recording the monthly amount of natural gas combusted is the "**only** monitoring condition applicable" to the heaters. *Id.* at 21, 22. The Petitioners claim that the "Permit contains no other testing or monitoring requirements to demonstrate compliance with any of the short- or long-term emission limits established" for the heaters as required by the CAA. *Id.* at 22.

The Petitioners restate concerns raised in public comments that "monitoring fuel use alone [does not constitute] monitoring adequate to assure compliance with the heaters' short- and long-term emission limits." *Id*. at 23. The Petitioners note that ACHD responded to this public comment by asserting that the heaters meet exemption criteria in ACHD Rules and Regulations Article XXI § 2102.04 based on the size and fuel source of the boilers. Noting that this regulation "relates to requirements for installation permits," the Petitioners clarify that the comment "did not have anything to do with a requirement to obtain an installation permit for these heaters," but rather is related to why there is not any testing, monitoring, or reporting requirements to demonstrate or assure compliance with the hourly and annual emission limits. *Id.* at 24.

The Petitioners further claim that ACHD's RTC asserts, without explanation, that "ACHD believes" the requirement for monitoring and reporting monthly natural gas combustion is sufficient. *Id.* The Petitioners claim that ACHD's statement is insufficient explanation because the permit record does not "address any of the factors that EPA has identified as potential starting points for determining whether monitoring is appropriate" in the EPA's *CITGO Order*. *Id.* at 25. The Petitioners claim that "at minimum," ACHD should state in the permit record "**how** monitoring monthly fuel usage alone is sufficient to assure compliance with these short- and long-term emission limits." *Id.*

Finally, the Petitioners note that there is not any requirement to calculate or report emissions for the heaters. The Petitioners note that, unlike in Claim 2, these emission units do not have a requirement to calculate monthly NO_x or CO emissions using AP-42 factors. *Id*.

[13] The EPA notes that the Petitioners incorrectly identified Permit Condition V.J.1.d as V.K.1.d and Condition V.J.3 as V.K.3. Petition at 21. Section V.J in the Permit applies to the three packaging center heaters at issue in this claim, while Section V.K applies to Boiler No. 6, a different emission unit.

EPA Response: For the following reasons, the EPA grants this Petition claim and objects to the issuance of the Permit.

All title V permits must "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); *Sierra Club v. EPA*, 536 F.3d 673 (D.C. Cir. 2008).

As the Petitioners note, the Permit imposes annual and hourly limits on PM, NO_x, CO, VOC, HAP, and SO_x from the heaters. As with the PM and SO_x requirements discussed in Claim 1 and the PM, SO_x, and VOC emission limits for Boiler No. 6 and Boiler No. 8 discussed in Claim 2, the Permit does not require the Neville facility to calculate emissions using AP-42 emission factors or require any testing or monitoring conditions specific to PM, NO_x, CO, VOC, HAP, and SO_x for each of the heaters.

ACHD's RTC states that monitoring monthly fuel use is sufficient to demonstrate compliance. RTC at 3. The Permit does not require the Neville facility to use fuel usage data to demonstrate compliance with the PM, NO_x, CO, VOC, HAP, and SO_x emission limits. For example, the Permit does not specify methods for how to calculate emissions of these pollutants based on fuel use (*e.g.*, in conjunction with an emission factor).

ACHD's RTC also discusses an exemption within the ACHD regulations, as well as the relatively small emission rates of these units. *See* RTC at 3. As the Petitioners note, the cited ACHD regulations relate to exemptions from the obligation to obtain installation permits and therefore do not appear to be relevant to determining what monitoring is necessary to assure compliance with these emission limits in order to satisfy title V operating permit requirements. Regarding ACHD's discussion of the relatively small emission rates of these units, it is not clear how this is relevant to whether the Permit must include monitoring to assure compliance with the specific emission limits at issue here (for the reasons explained in more detail in the EPA's response to Claim 1).

The Petitioners have demonstrated that the Permit fails to require adequate monitoring to assure compliance with the hourly and annual emission limits for PM, NO_x, CO, VOC, HAP, and SO_x from the heaters, and ACHD's permit record does not provide a rationale for the Permit's lack of monitoring requirements. Therefore, the EPA grants the Petitioners' request for an objection on Claim 3.

Direction to ACHD: ACHD must amend the Permit to ensure that the Permit contains sufficient requirements to assure compliance with the hourly and annual emission limits on PM, NO_x, CO, VOC, HAP, and SO_x from the six still process heaters (B001, B002, B003, B004, B015, and B006) and three packaging center heaters (B009, B010, and B011).

As explained in more detail in the EPA's direction in Claim 1 related to PM and SO_x for the thermal oxidizer, ACHD may be able to achieve this by either clarifying in the Permit how the Neville facility will demonstrate compliance by calculating PM, NO_x, CO, VOC,

HAP, and SO_x emissions on a periodic basis (*e.g.*, based on fuel use and appropriate emission factors), or it may require additional monitoring of PM, NO_x, CO, VOC, HAP, and SO_x. In either case, ACHD must provide an explanation of how the selected monitoring is sufficient to assure compliance.

The EPA understands that as part of a broader permitting initiative, ACHD is evaluating the legal authority underlying emission limits in various title V permits. In general, if ACHD determines that any of the specific hourly or annual PM, NO_x, CO, VOC, HAP, and SO_x emission limits on the heaters are not required by any federally enforceable "applicable requirements," it may remove the limits from the Permit or designate them as not federally enforceable. *See* 40 C.F.R. § 70.6(b)(2). Doing so would resolve the EPA's objection related to the monitoring associated with the current emission limits.

D. Claim 4. The Petitioners Claim That "The Renewal Permit fails to include adequate testing, monitoring, or reporting requirements sufficient to assure continuous compliance with the hourly and long-term emission limits for VOCs and HAPs at Unit 20/21 (P006) and the #3 Continuous Still (P008)."

Petition Claim: The Petitioners claim that the Permit lacks sufficient monitoring and calculation methodologies to assure compliance with VOC and HAP emission limits on two emission units (Unit 20/21 and the #3 Continuous Still).

The Petitioners note that the short-term (lb/product change) and long-term (annual) emission limits for VOC and HAP vary according to four operating scenarios. Among the four operating scenarios, the maximum emission limits are 76.463 lb/product change and 9.457 tpy VOC for Unit 20/21, 29.895 lb/product change and 4.973 tpy HAP for Unit 20/21, 14.00 lb/product change and 2.56 tpy VOC for the #3 Continuous Still, and 1.66 lb/product change and 0.31 tpy HAP for the #3 Continuous Still. *Id.* at 25–26 (citing Permit Conditions V.B.1.e and V.C.1.b).

The Petitioners state that the Permit requires the Neville facility to keep records of various operating parameters for each emission unit. For Unit 20/21, the parameters include: the number of product changes per month and the rolling 12-month total; the poly oil addition rate (lb/hr) and rolling 12-month total; the operation scenario and type of poly oil used per batch; the number of solvent flushes per batch; and the calculated estimated emissions per month. *Id.* at 26 (citing Permit Condition V.B.4). For the #3 Continuous Still, the parameters include: the number of product changes per month and the rolling 12-month total; the total operating times; the type and amount of daily raw materials used; the type and amount of daily resins produced; and the calculated estimated emissions per month. *Id*. at 27 (citing Permit Condition V.C.4).

The Petitioners claim that neither the Permit nor the RTC "explain[s] how the operating parameters identified" in the relevant conditions "will (or even can) be used to determine compliance with these limits, or how 'estimated emissions per month' are to

be calculated," as these documents do not identify a coloration between the parameters and emissions. *Id.* at 26–28. The Petitioners reiterate these same points in addressing ACHD's RTC. *See id*. at 29–30.

The Petitioners also restate ACHD's response that because "potential VOC emissions are less than 3 tons/year . . . ACHD believes CEMS and additional testing to be unnecessary." *Id.* at 28 (quoting RTC at 3). In response, the Petitioners "acknowledge that potential emissions at issue here are not especially high (relatively speaking). However, this does not mean ACHD can simply neglect its obligation to assure that the Continuous Still is meeting its permitted emission limits, and certainly does not justify a failure to include any monitoring or testing requirements for VOCs." *Id.* at 29.

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

As the Petitioners note, the Permit imposes short- and long-term VOC and HAP emission limits for Unit 20/21 and the #3 Continuous Still. Petition at 25–26. Emissions from these two emission units occur on a batch-by-batch basis, depending on the operating scenario and a number of operational parameters such as, *e.g.*, the type of chemicals used in each batch. *See* RTC at 3. As the Petitioners note, the Permit specifies recordkeeping requirements for a number of parameters that impact emissions. Petition at 25–27. The Permit also contains a requirement to calculate monthly emissions. Permit at 47 and 50.

While the Petitioners are correct that neither the Permit nor the RTC explains the relationship between the parameters and emissions or how to calculate emissions using the recorded parameters, the Neville facility's TSD does. The TSD includes tables describing operating scenarios, operating parameters, heat-up parameters, equations, and example scenarios as well as sample calculations for VOC and HAP emissions for each emission unit. *See* TSD at 17–25. The Petitioners do not acknowledge the calculation methodology described in the TSD.

The TSD is part of the permit record and available to the public. The Permit requires monitoring and recordkeeping of the parameters discussed in the TSD, and the Permit combined with the TSD identify an emission calculation methodology for determining and assuring compliance. The Petitioners do not discuss or challenge the sufficiency of the individual parameters that are monitored, the equations identifying the relationship between parameters and emissions, or any other items relevant to the calculation methodology discussed in the Permit and the TSD. The Petitioners do not identify any additional parameters needed to calculate emissions or assure compliance with the limits.

For the reasons stated above, the Petitioners fail to demonstrate that the Permit does not require adequate monitoring to assure compliance with hourly and annual emission

limits for VOC and HAP from Unit 20/21 and the #3 Continuous Still. Therefore, the EPA denies the Petitioners' request for an objection on Claim 4.

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 Petition and object to the issuance of the Permit as described in this Order.

Dated: September 16, 2025

Lee Zeldin
Administrator