BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Petition No. III-2023-16

In the Matter of

Union Carbide Corporation, Union Carbide Institute Facility

Permit No. R30-03900005-2023

Issued by the West Virginia Department of Environmental Protection's Division of Air Quality

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ORDER GRANTING A PETITION FOR OBJECTION TO A TITLE V OPERATING PERMIT

I. INTRODUCTION

The U.S. Environmental Protection Agency (EPA) received a petition dated October 27, 2023 (the Petition) from People Concerned About Chemical Safety and Earthjustice (the Petitioners), 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 Petition requests that the EPA Administrator object to operating permit No. R30-03900005-2023 (the Permit) issued by the West Virginia Department of Environmental Protection's Division of Air Quality (WVDEP) to the Union Carbide Corporation Institute Facility, Logistics Unit (Institute Facility) in Kanawha, West Virginia. The operating permit was issued pursuant to title V of the CAA, 42 U.S.C. §§ 7661–7661f, and West Virginia Administrative Code, Title 45, Series 30. *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 the Petition requesting that the EPA Administrator object to the Permit.

II. STATUTORY AND REGULATORY FRAMEWORK

A. Title V Permits

Section 502(d)(1) of the CAA, 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 state of West Virginia submitted a title V program governing the issuance of operating permits on November 12, 1993, and revised this program on June 1, 2001. The EPA granted full approval of West Virginia's title V operating permit program in 2001. 66 Fed. Reg. 50325 (October 3, 2001). This program, which became effective on November 19, 2001, is codified in West Virginia Administrative Code, Title 45, Series 30.

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, 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 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 Act. 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 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 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.

[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*.

§ 7661d(b)(2); 40 C.F.R. § 70.8(c)(1).[2] Under section 505(b)(2) of the Act, 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 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)).[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 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, 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

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

[3] *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.

[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*).

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 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 a petitioner 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 § 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 the EPA grants a title V petition, 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);

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[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).

[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).

see id. § 70.7(g)(4); 70.8(c)(4); *see generally* 81 Fed. Reg. at 57842 (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 the 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. 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 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 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 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 Institute Facility

The Union Carbide Corporation (UCC)'s Institute Facility consists of two units: the Logistics Unit and the Catalyst Plant. The Catalyst Plant manufactures catalysts for use in the production of ethylene oxide (EtO) and ethylene glycol. Raw materials are delivered to the plant in containers and tank trucks; they are then stored in tanks. These process materials are combined and sent to a reactor. The processing materials are recovered and the product is sent to storage. Heat for the process operations is provided by a natural gas heater. The Logistics Unit is UCC's distribution system for EtO. At the EtO distribution operation, rail cars of EtO are unloaded into storage tanks. The storage tanks are two double-walled

earthen covered pressurized tanks. From the tanks, EtO is distributed to consumers at Institute facilities and at South Charleston facilities by distribution systems. The EtO distribution facility uses a flare to control EtO emissions. UCC is subject to the requirements of 40 C.F.R. 63, Subpart PPP (Polyether Polyols MACT) and 40 C.F.R. 63, Subpart DDDDD (Boiler MACT). Therefore, UCC is required to have a title V permit for their Institute Facility.

B. Permitting History

On November 30, 2021, UCC applied for a title V permit renewal. WVDEP published notice of a draft permit on October 15, 2022, subject to a public comment period that ran until January 20, 2023. On July 14, 2023, WVDEP submitted the proposed 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 August 28, 2023, during which time the EPA did not object to the proposed permit. WVDEP issued the final title V renewal permit for the Institute Facility, Logistics Unit on August 10, 2023.

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 expired on August 28, 2023. Thus, any petition seeking the EPA's objection to the proposed permit was due on or before October 27, 2023. The Petition was received October 27, 2023, and, therefore, the EPA finds that the Petitioners timely filed the Petition.

D. Environmental Justice

The EPA used EJScreen[10] to review key demographic and environmental indicators within a five-kilometer radius of the Institute Facility. This review showed a total population of approximately 27,216 residents within a five-kilometer radius of the facility, of which approximately 18 percent are people of color and 39 percent are low income. In addition, the 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 West Virginia.

EJ Index	Percentile in State
Particulate Matter 2.5	88
Ozone	92
Diesel Particulate Matter	87
Air Toxics Cancer Risk	96
Air Toxics Respiratory Hazard	94
Toxic Releases to Air	93

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

Traffic Proximity	83
Lead Paint	74
Superfund Proximity	89
RMP Facility Proximity	88
Hazardous Waste Proximity	90
Underground Storage Tanks	80
Wastewater Discharge	88

Within Section I of the Grounds for Objection section of the Petition, the Petitioners discuss characteristics of the communities surrounding the Institute Facility, describing them as communities that include a significant population of people of color and low-income residents that face "disproportionate cumulative impacts . . . from the toxic emissions of the numerous facilities within 'Chemical Valley.'"[11] Petition at 5. The Petitioners also describe the surrounding community as including "large numbers of community members who face increased vulnerability to health effects from air pollution due to their age (under 18 or over 65)." *Id*. at 5.

The Petitioners state that both the EPA and its Office of Inspector General have specifically identified the UCC Institute Facility as one of 25 "high-priority" EtO-emitting facilities that contribute to elevated estimated cancer risks equal to or greater than 100 in one million at the census tract level, as per a March 2020 alert titled *Management Alert: Prompt Action Needed to Inform Residents Living Near Ethylene Oxide Emitting Facilities About Health Concerns and Actions to Address Those Concerns*. *Id.* at 4. The Petitioners also reference EPA's 2014 National Air Toxics Assessment to state that 6 of the 90 census tracts nationwide identified with the highest cancer risk due to EtO were located in Kanawha County. *Id.* at 6.

The Petitioners discuss historical explosions, leaks, and other events affecting the community surrounding the current UCC Institute Facility. *Id*. at 8. The Petitioners discuss the cumulative effects of emissions from multiple present-day sources in the area, and the Petitioners reference a collaborative agreement between WVDEP and multiple facilities (including UCC). *Id*. at 9, 10–11. The Petitioners state that this agreement was not provided for public review during the current permitting process. *Id*. at 9, 11.

The Petitioners do not specifically request the EPA's objection in association with these issues. However, the Petitioners conclude that "[i]n these circumstances, there is a compelling need for EPA to devote increased, focused attention to ensure that all Title V requirements have been complied with." *Id*. at 10.

As stated in previous orders on title V permit petitions, the EPA appreciates and takes seriously the Petitioners' concerns regarding the potential impacts of emissions from the UCC Institute Facility on communities living near the facility, and the Petitioners' desire that the facility's title V permit contains sufficient provisions to assure compliance with all applicable requirements. The EPA is committed to advancing environmental justice and incorporating equity considerations into all aspects of our work. As EPA has previously explained:

[11] By "Chemical Valley" the Petitioners refer to the chemical industry in Kanawha Valley, West Virginia.

> Executive Order 12898, signed by President Clinton on February 11, 1994, focuses federal attention on the environmental and human health conditions of minority populations and low-income populations with the goal of achieving environmental protection for all communities. Executive Order (EO) 12898 also is intended to promote non-discrimination in federal programs substantially affecting human health and the environment, and to provide minority and low-income communities access to public information on, and an opportunity for public participation in, matters relating to human health or the environment. It generally directs federal agencies to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations. Attention to environmental justice in the implementation of federal environmental programs is a priority for EPA. See generally, Office of Environmental Justice Plan EJ 2014 (September 2011) (outlining EPA's efforts to promote environmental justice and identifying environmental justice and permitting as a focus area). Environmental justice issues can be raised and considered in the context of a variety of actions carried out under the Act. Title V generally does not impose new, substantive emission control requirements, but provides for a public and governmental review process and requires title V permits to assure compliance with all underlying applicable requirements. *See, e.g.*, *In the Matter of Marcal Paper Mills*, Petition No. II-2006- 01 (Order on Petition) (November 30, 2006), at 12. Title V can help promote environmental justice through its underlying public participation requirements and through the requirements for monitoring, compliance certification, reporting and other measures intended to assure compliance with applicable requirements.

In the Matter of United States Steel Corp. – Granite City Works, Order on Petition No. V-2011-2 at 5 (Dec. 3, 2012). More recently, Executive Orders 13990, 14008, and 14096, signed by President Biden on January 20, 2021, January 27, 2021, and April 21, 2023, respectively (among other Executive Orders), affirm the federal government's commitment to environmental justice.

The EPA has thoroughly reviewed and evaluated the Petition, giving focused attention to the adequacy of testing and monitoring and procedural concerns related to changes in testing raised by the Petitioners. As explained in the following sections, the EPA is granting the Petition where the Petitioners have demonstrated that the Permit fails to assure compliance with applicable requirements.

IV. DETERMINATIONS ON CLAIMS RAISED BY THE PETITIONERS

The "Grounds for Objection" section of the Petition includes three numbered sections (I-III). Section I of the Petition is titled "Environmental Justice Concerns Mandate Increased Focus and Action by EPA to Ensure that the Proposed Title V Permit's Provisions are Strong and Comply with Title V and Other Clean Air Act Requirements." The Petitioners do not present any specific "grounds for objection" within this discussion on environmental justice. Rather, Section I, which is discussed above, appears to serve as a backdrop for the Petitioners' more specific permit-condition focused claims that follow. In Section II of the Petition, titled "The Proposed Title V Permit's Monitoring and Testing Requirements Cannot Ensure Compliance with Particulate Matter and Opacity Limits for the Flares," the Petitioners

present their first specific basis for EPA's objection (*i.e.*, the first claim). Section III of the Petition, titled "The Proposed Title V Permit Could be Read to allow DAQ[12] to Approve Alternative Testing and Monitoring without following the Required Procedures," contains the Petitioners' second claim.

A. Claim 1: The Petitioners Claim That "The Proposed Title V Permit's Monitoring and Testing Requirements Cannot Ensure Compliance with Particulate Matter and Opacity Limits for the Flares."

Petition Claim: The Petitioners assert that the EPA must object to the Permit because it does not include adequate monitoring, testing, reporting, or recordkeeping requirements to ensure compliance with particulate matter ("PM") and opacity limits for the Logistics Unit's two flares, B410 and A410. Petition at 11 (citing 42 U.S.C. § 7661c(a), (c); 40 C.F.R. 70.6 §§ (a)(3)(i)(B), (c)(1)). Specifically, the Petitioners claim that section 4.3.4 of the Permit is the only permit provision that WVDEP uses to ensure compliance with the hourly PM limit of 1.19 lbs/hour PM for the flares B410 and A410.[13] *Id.* at 11. And the Petitioners claim that Section 4.2.2 of the Permit is the only permit provision that WVDEP uses to ensure compliance with both the 20-percent opacity and 40-percent opacity limits during startup (for a maximum of eight minutes per startup) from the flares B410 and A410.[14] *Id.* at 13.

Hourly PM SIP Limit

In the first part of this claim, the Petitioners allege that provision 4.3.4 of the Permit cannot ensure compliance with the flares' hourly PM limit for two distinct reasons.

> At such reasonable times as the Director may designate, the operator of any incinerator shall be required to conduct or have conducted stack tests to determine the particulate matter loading, by using 40 C.F.R. 60, Appendix A, Method 5 or other equivalent EPA approved method approved by the Director, in exhaust gases. Such tests shall be conducted in such manner as the Director may specify and be filed on forms and in a manner acceptable to the Director. The Director, or the Director's authorized representative, may at the Director's option witness or conduct such stack tests. Should the Director exercise his option to conduct such tests, the operator will provide all the necessary sampling ports to be located in such manner as the Director may require, power for test equipment and the required safety equipment such as scaffolding, railings and ladders to comply with generally accepted good safety practices. (B410 and A410) [45CSR§6-7.1]

Permit Condition 4.3.4

First, the Petitioners argue that this provision does not require monitoring on a regular basis. *Id.* at 12. The Petitioners question whether flares can even be stack tested and suggest the necessity of hourly

[12] The Petitioners refer to the Division of Air within the West Virginia Department of Environmental Protection as the "DAQ".

[13] The PM limit is listed in section 4.1.7 of the Permit. Note this limit is from the West Virginia SIP for "incinerators" in 45 CSR § 6-4.1.

[14] The opacity limits are listed in section 4.1.8-4.1.9 of the Permit. Note these limits are from West Virginia's SIP for "incinerators" in 45 CSR § 6-4.3 and 6-4.4.

monitoring or continuously determining emissions to ensure compliance with the hourly PM limit. *Id.* at 12. The Petitioners state that the provision simply specifies that PM testing is only required "[a]t such reasonable times as the Secretary may designate." *Id. at* 12 (quoting Permit at 27). And the Petitioners propose that this provision could "equate to no testing at all," because "'the Secretary may' choose to 'designate'" no times for testing." From this, the Petitioners conclude that "[a] complete lack of testing and monitoring cannot ensure compliance with the flares' hourly PM limit." *Id.* at 12(quoting Permit at 27).

Second, the Petitioners argue that this provision does not provide any details on how the tests are to be conducted. The Petitioners acknowledge that the provision mentions that testing is to be conducted in accordance with EPA Method 5, but also allows for "any other equivalent EPA approved method approved by the Secretary" and that "tests shall be conducted in such manner as the Secretary may specify." *Id.* at 13(quoting Permit at 27).

Opacity Limits

In the second part of this claim, the Petitioners allege that provision 4.2.2 of the Permit cannot ensure compliance with the flare' 20-percent opacity limit or the 40-percent startup limit for two distinct reasons.

> For the purpose of determining compliance with the opacity limits set forth in Sections 4.1.8 and 4.1.9 for flares B410 and A410, the permittee shall conduct visual emissions monitoring at a frequency of at least once per month with a maximum of forty-five (45) days between consecutive readings, unless there is a plant shutdown. Following a shutdown that prevents observations within forty (45) days, visual monitoring must be performed within seven (7) days of return to operation. These checks shall be performed during periods of operation of emission sources that vent from the referenced emission points for a sufficient time interval, but not less than one (1) minute to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct a visual emission evaluation per 40 C.F.R. 60, Appendix A, Method 9 within three (3) days of the first identification of visible emissions. A 40 C.F.R. 60, Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours after the visible emission and the sources are operating at normal conditions. (B410 and A410) [45CSR§30-5.1.c]

Permit Condition 4.2.2

First, the Petitioners argue that the frequency and duration of the monitoring specified in this provision "are far too infrequent to assure compliance with the 20% limit, which is applicable at all times except for up to eight minutes of startup, or the 40% startup limit, which is applicable for up to eight minutes of each startup." *Id. at* 13. Here, the Petitioners highlight that visible observations are seemingly required only once a month and at "any other time" plant personnel happen to witness visible emissions. *Id. at* 13(quoting Permit at 26). The Petitioners further suggest that because UCC "is not required to follow up with a Method 9 evaluation for up to three days, the flares could very well be

violating their opacity limits but that those violations could go undetected for up to three days after visible emissions are first observed." *Id.* at 13–14.

Second, the Petitioners point out that "visual observations and Method 9 evaluations cannot be conducted at night or under weather conditions (e.g., dark clouds) that make it difficult to detect smoking flares through visible observation. Thus, the flares essentially have a free pass from the opacity limits at night and under adverse weather conditions." *Id.* at 14. The Petitioners also argue that the primary flare B410 is also required to meet NESHAP requirements from 40 CFR 63.11(b), which include the requirement to operate with no visible emissions except for five minutes during any two consecutive hours. *Id.* at 14. The Petitioners conclude both that because the testing for this requirement is only needed once, it alone cannot ensure compliance with the SIP opacity limits from flare B410 (or A410 if that flare is also subject to the same NESHAP requirement). And the Petitioners also conclude that because the testing does not require visible emission monitoring at a regular interval, it too cannot ensure compliance with visible emissions limits at night or in adverse weather conditions. *Id.* at 14.

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

The Permit imposes an hourly PM emission limit on the flares B410 and A410, but the associated monitoring provision prescribes stack testing at a frequency only described as "[a]t such reasonable times as the Secretary may designate." Permit Condition 4.3.4. And the monitoring for the 20-percent opacity limit, which applies to the flares at all times except for the 40-percent opacity limit during startup (for a maximum of eight minutes per startup), is prescribed monthly. Permit Condition 4.2.2.

The EPA has recently addressed similar petition claims in which the petitioners challenged the sufficiency of periodic testing to ensure compliance with emission limits that apply on a much shorter time period. In the *U.S. Steel Clairton Order*, the EPA explained:

> 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. 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.

In the Matter of U.S. Steel Corp., Clairton Coke Works, Order on Petition Nos. III-2023-5 & III-2023-6 at 9 (Sept. 18, 2023) (citing 40 C.F.R. § 70.6(a)(3)(i)(B) and two other title V orders).

To assist with these case-by-case, context-specific determinations, the 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).

Here, WVDEP's only discussion relevant to these factors is a brief statement in its response to comments that "[t]he monthly opacity monitoring prescribed for the flares is similar to monitoring prescribed for other flares within West Virginia." RTC at 8. Notably, WVDEP's response to comments includes nothing addressing these factors related to the PM emission limit monitoring. The only justification that WVDEP provides for the stack testing for the PM emission limit is that the testing requirements are taken directly from its state regulations.[15] *Id*. Here, as the Petitioners point out, WVDEP has failed to acknowledge the need to consider supplementing the monitoring to satisfy 40 C.F.R. § 70.6(c)(1). And the Petitioners have demonstrated that the record is unclear as to whether stack testing "[a]t such reasonable times as the Secretary may designate" and the monthly opacity check can assure compliance with the hourly PM emission limit and the 20-percent opacity limit, which applies to the flares at all times except for the 40-percent opacity limit during startup. WVDEP's response also does not address the mismatch between the time frame of the emission limits and the Permit's compliance assurance provisions.

WVDEP also explains in response to comments that "compliance with the particulate matter emission limits can be indirectly monitored through opacity monitoring. The monthly opacity monitoring ([condition 4.2.2 of the Permit]) can be used to identify problems with the flare that could result in additional particulate matter emissions. If this occurs, the Director can require stack testing to demonstrate compliance with the hourly particulate matter emission limit." *Id.* at 8. If WVDEP intends to use the monthly opacity monitoring as an indicator of non-compliance with the hourly PM emission limit, then it should state that clearly in the Permit. Furthermore, as the EPA has previously explained, to the extent that specific permit terms (e.g., monitoring or recordkeeping provisions) are relied upon to assure compliance with emission limits, the Permit should clearly state the connection between the compliance assurance provisions and the associated limits, and the permit record must explain how those requirements assure compliance with the relevant limits. *See*, *e.g., In the Matter of U.S. Steel Corp., Edgar Thomson Plant*, Order on Petition No. III-2023-15 at 16 (Feb. 7, 2024); *In the Matter of Valero Refining-Texas, L.P., Valero Houston Refinery*, Order on Petition No. VI-2021-8 at 41 (June 30, 2022); *In the Matter of Owens-Brockway Glass Container Inc.,* Order on Petition No. X-2020-2 at 14–15 (May 10, 2021)

Direction to WVDEP: WVDEP must revise the permit record and/or the Permit as necessary to ensure that the Permit assures compliance with the hourly PM emission limit and 20-percent opacity, and 40-percent opacity limit for the flares B410 and A410. If WVDEP considers the current monitoring or testing sufficient to assure compliance, WVDEP must explain why in detail, addressing the five factors discussed previously that permitting authorities may consider as a starting point in determining appropriate monitoring for a particular facility as described above. Second, if it determines more or

[15] Section 7.1 of 45CSR§6

different monitoring and/or testing is necessary, WVDEP must amend the Permit and explain why the chosen monitoring and/or testing is sufficient to assure compliance with the emissions limits.

Additionally, WVDEP should consider revising the Permit to clearly state the connection between the relevant compliance assurance provisions and the associated limits and must explain in the permit record how those requirements assure compliance with the relevant limits. Specifically, if WVDEP intends to use opacity monitoring as a method of determining compliance with the PM emission limitation, the Permit should expressly identify Permit Condition 4.2.2 as an additional condition for assuring compliance with the flares' hourly PM emission limit and the permit record should explain the relationship between opacity monitoring and ensuring compliance with the PM emission limit. *See*, *e.g.*, *Valero Houston* Order at 41; *Owens-Brockway* Order at 14–15.

Claim 2: The Petitioners Claim That "The Proposed Title V Permit Could be Read to allow [WVDEP] to Approve Alternative Testing and Monitoring without following the Required Procedures."

Petition Claim: The Petitioners allege that Section 3.3.1(b) of the Permit could be read to unlawfully allow WVDEP to unilaterally weaken SIP testing and monitoring requirements and also approve testing and monitoring changes without following the required procedures for revising the title V permit. Petition at 18. This permit term states:

> The Secretary may on a source-specific basis approve or specify additional testing or alternative testing to the test methods specified in the permit for demonstrating compliance with applicable requirements which do not involve federal delegation. In specifying or approving such alternative testing to the test methods, the Secretary, to the extent possible, shall utilize the same equivalency criteria as would be used in approving such changes under Section 3.3.1.a. of this permit.

Permit Condition 3.3.1(b).

The Petitioners emphasize that if a SIP specifies a testing or monitoring requirement, WVDEP cannot weaken that requirement through an "alternative" without EPA approval to revise the SIP. Petition at 19 (quoting Permit Condition 3.3.1(b); citing 42 U.S.C. § 7410(i) and 40 C.F.R. § 51.105). The Petitioners acknowledge that WVDEP can, through the title V permit, supplement SIP testing and monitoring requirements to make them more robust, and they emphasize the need to do so if the SIP testing and monitoring requirements cannot ensure compliance with the relevant SIP limits. However, the Petitioners claim that "[WVDEP] cannot unilaterally weaken SIP testing and monitoring requirements," which the Petitioners suggest that section 3.3.1(b) of the Permit could be read to allow. *Id.* at 19. The Petitioners further argue, citing to 40 C.F.R. § 70.7(d)–(e), that except for permit changes requiring more frequent monitoring or reporting, which can be incorporated through an administrative amendment to a title V permit, all changes to a title V permit's monitoring, testing, and reporting requirements must be made through either minor or significant permit modification procedures (or a permit renewal). *Id.* at 19. The Petitioners assert that "[e]very significant change to existing monitoring and testing requirements and every relaxation of reporting or recordkeeping terms requires a significant permit modification." *Id.* at 19. The Petitioners emphasize that significant permit modifications are not effective until *after* there has been an opportunity for public comment and

review by EPA and affected states, and that contrary to these requirements, Permit Condition 3.3.1(b) could be read to allow WVDEP to approve significant changes to monitoring and testing requirements *before* public notice and comment and review by the EPA and affected states. *Id.* at 19 (citing 40 C.F.R. § 70.7(a), (e)(4)(ii), (h)).

The Petitioners observe that the EPA recently addressed a similar issue, explaining: "[A]llowing . . . unilateral off-permit change[s] prevents the public and the EPA from evaluating whether the chosen emission calculation methodology is sufficient to assure compliance with all applicable requirements. This effectively prevents both the public and the EPA from exercising the participatory and oversight roles provided by the CAA." *Id*. at 20 (quoting *In the Matter of ExxonMobil Fuels & Lubricant Company, Baton Rouge Refinery, Reforming Complex and Utilities Unit*, Order on Petition Nos. VI-2020-4, VI-2020-6, VI-2021-1, VI-2021-2, at 11–12 (Mar. 18, 2022) (*ExxonMobil Baton Rouge Order*)). The Petitioners claim that "[a]llowing revisions to testing and monitoring requirements without scrutiny from the public or EPA is especially egregious here given the environmental justice concerns presented by the Logistics unit." *Id.* at 20. Thus, the Petitioners conclude that EPA must require WVDEP to remove section 3.3.1(b) from the Permit.

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

First, it is unclear what authority WVDEP has under Permit Condition 3.3.1(b) to approve or specify alternative testing to the test methods specified in the Permit. Permit Condition 3.3.1 cites to 45 WV Code of State Rules 45-13, West Virginia's Minor New Source Review Permitting Standards, and Condition 3.3.1(b) explicitly states that these changes are for "demonstrating compliance with applicable requirements which do not involve federal delegation." It is also unclear from this condition and from the RTC what specific applicable requirements (e.g., those arising from the SIP, NSR permits, etc.), which do not involve federal delegation, this condition purports to allow WVDEP to change. Permit Condition 3.3.1(b) also references Permit Condition 3.3.1(a), which similarly refers to alternative testing for 40 C.F.R. parts 60, 61, and 63, but Condition 3.3.1(a) specifically refers to the Secretary's delegated authority to allow for such changes. There is a specific process for alternative testing methods to be approved under the EPA's 40 C.F.R. parts 60, 61, and 63 rules, and only some types of alternatives can be delegated to the states for approval. It is possible that the reference in Condition 3.3.1(b) to "applicable requirements which do not involve federal delegation" was intended to provide WVDEP the ability to approve alternative test methods for all applicable requirements that are not covered by the EPA delegations referenced in Condition 3.3.1(a). If so, again, it is not clear what authority WVDEP possesses to approve such alternatives.

WVDEP's response to comments only provides the statement that "[a]ny approval of additional testing or alternative testing must be approved by the Secretary on a source-specific basis as part of the testing protocol submitted to [WVDEP] for approval. [WVDEP] does not have the authority to use testing which is not allowed by or equivalent to the state rule or conditions of the Title V permit." RTC at 9. As the Petitioners state, and the EPA agrees, this response "points to no SIP provision that allows the Division to approve alternative testing or monitoring that [WVDEP] deems to be 'equivalent to' required testing and monitoring from the SIP, and Petitioners are not aware of any such SIP provision." Petition at 20. But both the Permit and permit record provide no further explanation of WVDEP's

authority to use Permit Condition 3.3.1.(b), nor do they provide context as to which specific "applicable requirements which do not involve federal delegation" this provision applies.

The Petitioners also state, and the EPA generally agrees, that "[s]imilarly, Title V regulations do not allow [WVDEP] to approve alternative testing or monitoring without revising the . . . Permit; . . . to allow UCC to use testing or monitoring 'equivalent to' that required by the Title V permit, [WVDEP] would need to revise the . . . Permit . . .." Petition at 20 (quoting Permit at 14). The Petitioners correctly state that, except for permit changes requiring more frequent monitoring or reporting, which can be incorporated through an administrative amendment to a title V permit, changes to a title V permit's monitoring, testing, and reporting requirements must be made through either minor or significant permit modification procedures (or a permit renewal). 40 C.F.R. § 70.7(d) and (e). It is unclear from this provision and the RTC whether, if the Secretary approves additional or alternative testing on a source-specific basis, these changes would go through the proper title V permit revision process. At the very least, WVDEP's permit record should clearly explain how this process meets procedural requirements and ensures the title V permit itself contains the conditions necessary to assure compliance with applicable requirements.

As the EPA has previously stated:

> As a general matter, there is nothing inherently problematic with a permitting authority establishing a mechanism for approving alternative calculation methods to replace the methods specified in a permit. . . . It *would* be problematic, however, if CDPHE allowed such a switch to occur entirely outside of the permitting process, without also updating the V permit (following the appropriate procedures) to specify the calculation method that would then be used to demonstrate ongoing compliance. Among other reasons, this would be problematic because the title V permit would no longer "set forth," "include," or "contain" the monitoring necessary to assure compliance with all applicable requirements and permit terms. 42 U.S.C. § 7661c(a), (c); 40 C.F.R. § 70.6(a), (a)(3), (c).

In the Matter of Terra Energy Partners, Rocky Mountain LLC, Parachute Water Management Facility, Order on Petition Nos. VIII-2022-16 & VIII-2022-17 at 17–18 (June 14, 2023); *see also In the Matter of Salt River Project Agricultural Improvement and Power District Desert Basin Generating Station Pinal County, AZ*, Order on Petition No. IX-2022-3 at 18–19 (July 28, 2022); *ExxonMobil Baton Rouge* Order at 25–26 and 37–38.

It is unclear from Permit Condition 3.3.1(b) and the RTC whether WVDEP's approval process would culminate in revisions to the title V permit to reflect the approved alternative testing or monitoring, as is required, or whether this process would occur entirely off-permit, which would not comply with the requirements of title V. Accordingly, because the Permit and permit record are inadequate to determine whether the Permit will "set forth" monitoring sufficient to assure compliance with all applicable requirements, the EPA grants this claim.

Direction to WVDEP: WVDEP must update the Permit and/or permit record to explicitly state to which specific "applicable requirements which do not involve federal delegation" Permit Condition 3.3.1(b) applies. WVDEP must also update the Permit and/or permit record to reflect what authority it has

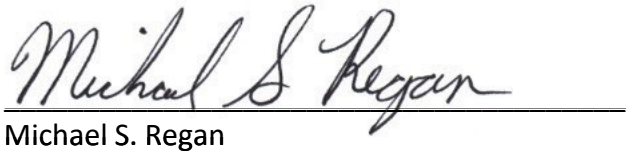
under this condition to allow for the approval or specifying of alternative testing to the test methods specified in the Permit.

WVDEP must update the Permit and/or permit record to ensure that the source's title V permit will be updated following all relevant procedural requirements if and when WVDEP approves alternative testing for demonstrating compliance with applicable requirements which do not involve federal delegation.

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 the Petition as described in this Order.

Dated: May 24, 2024



Michael S. Regan
Administrator