BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF:	)	
	)	
Title V Air Operating Permit	)	
	)	Permit No. R30-03900005-2023
For the Union Carbide Corporation	)	
Institute Facility, Logistics (Group 2 of 2)	)	
	)	
Issued by the West Virginia Department	)	
of Environmental Protection's	)	
Division of Air Quality	)	

PETITION TO OBJECT TO THE TITLE V OPERATING PERMIT FOR THE LOGISTICS UNIT AT UNION CARBIDE CORPORATION'S INSTITUTE FACILITY

Pursuant to § 505(b)(2) of the Clean Air Act, 42 U.S.C. § 7661d(b)(2), and 40 C.F.R. § 70.8(d), People Concerned About Chemical Safety and Earthjustice ("Petitioners")[1] petition the Administrator of the U.S. Environmental Protection Agency ("EPA") to object to the above-referenced proposed renewal Title V permit ("Proposed Title V Permit") issued by the West Virginia Department of Environmental Protection's Division of Air Quality ("DAQ") for the Logistics unit at the "Institute Facility" owned and operated by Union Carbide Corporation ("UCC").[2]

As discussed below, the Proposed Title V Permit's monitoring and testing requirements cannot ensure compliance with limits for particulate matter and opacity from the Logistics unit's two flares. In addition, the proposed Title V permit contains a provision that could be read to unlawfully allow DAQ to unilaterally weaken testing and monitoring requirements from West Virginia's Clean Air Act state implementation plan ("SIP"), as well as approve testing and monitoring changes without following the required procedures for revising the Title V permit.

Acute environmental justice concerns in the communities surrounding the Logistics unit provide additional reason why EPA must pay special attention and object here. These communities include a significant population of people of color, lower-income residents, and community members with increased vulnerability to air pollution and are overburdened by air pollution from Union Carbide's operations and other sources at the Institute facility and nearby.

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[1] The undersigned attorneys submit this petition on behalf of the Petitioners.

[2] *See* W.Va. Dep't of Envtl. Protection, Permit to Operate Pursuant to Title V of the Clean Air Act, Issued to: Union Carbide Corporation, Institute Facility, Logistics (Group 2 of 2), R30-03900005-2023 (Aug. 10, 2023) [hereinafter Proposed Title V Permit], *available at* https://dep.wv.gov/daq/permitting/titlevpermits/Documents/August%202023/039-00005/FinalPermit%20R30-03900005-2023%20(2%20of%202).pdf.

BACKGROUND

I. THE PROPOSED TITLE V PERMIT ON WHICH THIS PETITION IS BASED

This petition asks EPA to object to the proposed Title V permit for UCC's Logistics unit at its Institute, West Virginia facility (Group 2 of 2). The Logistics unit is UCC's distribution system for ethylene oxide ("EtO"). [3] The permit action at issue here is a permit renewal. DAQ identifies the Proposed Title V Permit as permit number R30-03900005-2023.

DAQ released the draft renewal Title V permit for public comment on October 15, 2022. *See* Fact Sheet, *supra*, at 5. On November 14, 2022, Petitioners timely submitted comments and requested a public hearing and an extension of the comment period ("Initial Comments").[4] DAQ later provided notice of a virtual public hearing on the draft Title V permit held on January 10, 2023, and extended the comment period to January 20, 2023. *See* Fact Sheet, *supra*, at 5-6. On January 20, 2023, Petitioners timely filed supplemental comments on the draft renewal permit ("Supplemental Comments").[5] Together, Initial Comments and Supplemental Comments raised all the objections discussed below in this petition.

DAQ has since responded to Petitioners' significant comments on the draft permit that are relevant to this petition, revised the permit without resolving the concerns raised in this petition (which were also raised in Petitioners' comments), and sent the revised, Proposed Title V Permit to EPA for its review. Petitioners are timely filing this petition by the deadline of October 27, 2023, as provided on EPA Region 3's website, to petition the agency to object to the Proposed Title V Permit.[6] This date is within 60 days of the expiration of EPA's 45-day review period, which ended on August 28, 2023.[7]

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[3] *See* DAQ, Title V Fact Sheet, R30-03900005-2023 (2 of 2), Union Carbide Corporation, Institute Facility, Logistics (Group 2 of 2), at 1 [hereinafter Fact Sheet], *available at* https://dep.wv.gov/daq/permitting/titlevpermits/Documents/August%202023/039-00005/FinalFactSheet%20R30-03900005-2023%20(2%20of%202).pdf.

[4] *See* Moms Clean Air Force – West Virginia et al., Comments on Proposed Renewal of Operating Permit for Union Carbide Corporation Institute Facility, Logistics (Group 2 of 2), Permit No. R30-03900005-2022 (2 of 2), and Request for Public Hearing (Nov. 14, 2022) [hereinafter Initial Comments], attached hereto as Exhibit 1.

[5] *See* People Concerned About Chemical Safety et al., Supplemental Comments on Proposed Renewal of Operating Permit for Union Carbide Corporation Institute Facility, Logistics (Group 2 of 2), Permit No. R30-03900005-2022 (2 of 2) (Jan. 20, 2023) [hereinafter Supplemental Comments], attached hereto as Exhibit 2.

[6] *See* EPA, Title V Operating Permit Public Petition Deadlines, https://www.epa.gov/caa-permitting/title-v-operating-permit-public-petition-deadlines (providing "10/27/2023" as "60-Day Public Petition End Date" for Permit No. R30-03900005-2022) (last visited Oct. 27, 2023).

[7] *Id.* (providing "08/28/2023" as "EPA 45-day Review Period End Date").

II. PETITIONERS

People Concerned About Chemical Safety ("PCACS") is a volunteer-based grassroots organization in the Kanawha Valley of West Virginia. PCACS is dedicated to the protection of health and safety of all who reside, work, and study in the vicinity of local chemical plants. PCACS is the successor organization of People Concerned About MIC, which was formed around the time of the 1984 Bhopal disaster with the mission of addressing the chemical hazards at the Union Carbide Institute facility—a mission that PCACS continues to hold and carry forward. PCACS serves as a watchdog to hold companies accountable and to uphold environmental and chemical safety regulations through education, community organizing, and advocacy within the Kanawha Valley community. PCACS's members and their families currently live or previously lived in the communities surrounding the Institute facility and other toxic emitters in the Kanawha Valley, including Institute, Pinewood, Dunbar, St. Albans, and South Charleston.

III. GENERAL TITLE V PERMIT REQUIREMENTS

To protect public health and the environment, the Clean Air Act prohibits stationary sources of air pollution from operating without or in violation of a valid Title V permit, which must include conditions sufficient to "assure compliance" with all applicable Clean Air Act requirements. 42 U.S.C. §§ 7661c(a), (c); 40 C.F.R. §§ 70.6(a)(1), (c)(1). "Applicable requirements" include all standards, emissions limits, and requirements of the Clean Air Act. 40 C.F.R. § 70.2. Congress intended for Title V to "substantially strengthen enforcement of the Clean Air Act" by "clarify[ing] and mak[ing] more readily enforceable a source's pollution control requirements."[8] As EPA explained when promulgating its Title V regulations, a Title V permit should "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."[9] Among other things, a Title V permit must include compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit. 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(c)(1).

If applicable requirements themselves contain no periodic monitoring, EPA's regulations require permitting authorities to add "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit."[10] 40 C.F.R. § 70.6(c)(1) of EPA's regulations additionally acts as a gap filler and requires that permit writers supplement an existing periodic monitoring requirement inadequate to assure compliance.[11] In addition to including permit terms sufficient to assure compliance with

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[8] *See* S. Rep. No. 101-228, at 347, 348 (1989), *available at* https://heinonline.org/HOL/P?h=hein.usccsset/usconset13929&i=689.
[9] Operating Permit Program, Final Rule, 57 Fed. Reg. 32,250, 32,251 (July 21, 1992).
[10] 40 C.F.R. § 70.6(a)(3)(i)(B); *see also In the Matter of Mettiki Coal, LLC*, Order on Petition No. III-2013-1, at 7 (Sep. 26, 2014) [hereinafter Mettiki Order], *available at* https://www.epa.gov/sites/default/files/2015-08/documents/mettiki_decision2013.pdf.
[11] *See* Mettiki Order, *supra*, at 7; *see also Sierra Club v. EPA*, 536 F.3d 673, 680 (D.C. Cir. 2008).

applicable requirements, permitting authorities must include a rationale for monitoring, testing, and reporting requirements that is clear and documented in the permit record.[12]

If a state proposes a Title V permit that fails to include and assure compliance with all applicable Clean Air Act requirements, EPA must object to the issuance of the permit before the end of its 45-day review period. 42 U.S.C. § 7661d(b)(1); 40 C.F.R. § 70.8(c). If EPA does not object to a Title V permit, "any person may petition the Administrator within 60 days after the expiration of the Administrator's 45-day review period . . . to take such action." 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d). The Clean Air Act provides that EPA "shall issue an objection … if the petitioner demonstrates to the Administrator that the permit is not in compliance with the requirements" of the Act.[13] EPA must grant or deny a petition to object within 60 days of its filing. 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(d).

GROUNDS FOR OBJECTION

For all the reasons discussed below, EPA must object to the proposed Title V permit for the Logistics unit because the Proposed Title V Permit fails to satisfy substantive requirements of the Clean Air Act and EPA's Title V regulations.

I. 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.

As Petitioners provided to DAQ in both their Initial Comments and Supplemental Comments on the draft permit, there are serious environmental justice concerns involving the UCC Institute facility, the Logistics unit's ethylene oxide emissions, and the renewal of the Proposed Title V Permit. *See* Initial Comments, *supra*, at 9; Supplemental Comments, *supra*, at 19-21. Both EPA and its Office of Inspector General have specifically identified the UCC Institute facility as one of 25 "high-priority" ethylene oxide-emitting facilities that contribute to elevated estimated cancer risks equal to or greater than 100 in one million at the census tract level.[14] Numerous articles and investigations have highlighted the serious health impacts that residents of Institute and the surrounding communities experience from the UCC facility and the disproportionate cumulative impacts they face from the toxic emissions of the numerous

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[12] *See* Mettiki Order, *supra*, at 7-8; *see also* 40 C.F.R. § 70.7(a)(5) ("The permitting authority shall provide a statement that sets for the legal and factual basis for the draft permit conditions . . . .").

[13] *See* 42 U.S.C. § 7661d(b)(2); 40 C.F.R. § 70.8(c)(1); *see also N.Y. Pub. Int. Grp. v. Whitman*, 321 F.3d 316, 333 n.12 (2d Cir. 2003) (explaining that under Title V, "EPA's duty to object to non-compliant permits is nondiscretionary").

[14] *See* EPA Office of Inspector General, *Management Alert: Prompt Action Needed to Inform Residents Living Near Ethylene Oxide Emitting Facilities About Health Concerns and Actions to Address Those Concerns* 4, 13 (March 2020), *available at* https://www.epa.gov/sites/default/files/2020-03/documents/_epaoig_20200331-20-n-0128_0.pdf.

facilities within "Chemical Valley."[15] This means that the proposed Title V permit involves significant environmental justice concerns and requires particular focus and action by EPA.

The communities surrounding the Institute facility include a significant population of people of color and low-income residents, as well as large numbers of community members who face increased vulnerability to health effects from air pollution due to their age (under 18 or over 65).[16] Institute's census tract—54039010400—is one of only two in West Virginia with a majority-Black population: 53.5 percent as of the 2020 Census.[17] The demographic data presented by EPA on the ECHO facility report for the Institute facility presents a similar picture.[18]

Specifically, based on 2017-2021 American Community Survey (ACS) data, EPA found that 2,168 people live within a one-mile radius of the Institute facility—of whom 30 percent are people of color and 58 percent have low income.[19] Based on 2010 U.S. Census data, EPA found that, of the 2,141 people who live within one mile of the Institute facility, 31 percent are African-American, 2 percent are Hispanic-Origin, and 3 percent are Other/Multiracial. EPA also found, based on 2010 Census data, that 16 percent of people living within one mile of the facility are minors under the age of 18 and 15 percent are seniors age 65 or older.[20] Based on the same Census data, EPA found that 67,421 people live within five miles of the facility, 21 percent of whom are minors and 17 percent of whom are seniors 65 years or older.[21]

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[15] *See*, *e.g.*, Ken Ward, Jr., *How Black Communities Become "Sacrifice Zones" for Industrial Air Pollution*, ProPublica, Dec. 21, 2021, https://www.propublica.org/article/how-black-communities-become-sacrifice-zones-for-industrial-air-pollution [hereinafter *Sacrifice Zones*].
[16] *See* Envt'l Justice Health Alliance for Chemical Policy Reform *et al.*, *Life at the Fenceline: Understanding Cumulative Health Hazards in Environmental Justice Communities* (2018), *available at* https://comingcleaninc.org/latest-news/in-the-news/report-life-at-the-fenceline-understanding-cumulative-health-hazards-in-environmental-justice-communities.
[17] *See* U.S. Census Bureau, 2020 Census Demographic Data Map Viewer, https://maps.geo.census.gov/ddmv/map.html (displaying results for Census Tract 104 in Kanawha County, West Virginia, ID No. 54039010400).
[18] ECHO's detailed facility report for the UCC Institute facility contains a geographic error that gives the facility's center as more than one mile to the west of the facility's actual center point. *See* EPA, ECHO, Detailed Facility Report, Union Carbide Corporation, Institute Plant, https://echo.epa.gov/detailed-facility-report?fid=110070828292&ej_type=sup&ej_compare=US# (last visited Oct. 27, 2023). For this reason, Petitioners present population data from the detailed facility report for Altivia Services, LLC, Institute Plant. *See* EPA, ECHO, Detailed Facility Report, Altivia Services, LLC, Institute Plant, https://echo.epa.gov/detailed-facility-report?fid=110070676994&ej_type=sup&ej_compare=US (last visited Oct. 27, 2023).
[19] *See* EPA, ECHO, Detailed Facility Report, Altivia Services, LLC, Institute Plant, https://echo.epa.gov/detailed-facility-report?fid=110070676994&ej_type=sup&ej_compare=US (last visited Oct. 27, 2023).
[20] *Id.*
[21] *Id.*

EPA's EJScreen analysis indicates that the one-mile area surrounding the Institute facility is above the 80th percentile for ten of the twelve environmental justice indexes, including in particular:

- Air Toxics Cancer Risk (97th percentile),
- Air Toxics Respiratory Hazard Index (87th percentile),
- Toxic Releases to Air (93rd percentile),
- Risk Management Plan Facility Proximity (90th percentile),
- Hazardous Waste Proximity (85th percentile),
- Superfund Proximity (86th percentile), and
- Wastewater Discharge (91st percentile).[22]

Emissions from Union Carbide's operations at the Institute facility have exposed community members to large amounts of toxic air pollution. According to the National Emissions Inventory (NEI), the facility emitted 71,433 pounds of hazardous air pollutants in 2014, 46,632 pounds in 2017, and 1,183 pounds in 2020.[23] Also according to NEI data, the facility's emissions of ethylene oxide during these same reporting years were 5,818 pounds in 2014, 1,740 pounds in 2017, and 952 pounds in 2020.[24] While changes in operations and controls may have accounted in part for this reduction in these reported emissions, Petitioners note, as they did in comments to DAQ, that the more significant reason for this reduction is that UCC owned and operated the entire Institute Facility and all eight permitted units until 2018. In 2018 and 2019, Specialty Products US, LLC ("Specialty Products") assumed ownership of two of the facility's units, and Altivia Services, LLC ("Altivia") assumed ownership of five units. UCC itself retained ownership of only two units: the Logistics unit and the Catalyst plant.[25] One specific result of these ownership transfers is that UCC cut its reported ethylene oxide emissions in half between 2018 and 2019, while the total ethylene oxide from the Institute facility remained effectively the same.[26]

EPA's 2014 National Air Toxics Assessment (NATA, since renamed "AirToxScreen"), released in 2018, put stark numbers to the disproportionate risks that residents of Institute, South Charleston, and surrounding communities face due to ethylene oxide emissions from the Logistics unit, the entire Institute facility, and other facilities.[27] Specifically, of the 90 census tracts nationwide that the NATA identified with the highest cancer risk due to ethylene oxide, six census tracts were located in Kanawha County.[28] The NATA identified a total cancer risk of 366

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[22] *Id.*
[23] *See* EPA, ECHO, Air Pollutant Report, Union Carbide Corporation, Institute Plant, https://echo.epa.gov/air-pollutant-report?fid=110070828292 (last visited Oct. 27, 2023).
[24] *Id.*
[25] *See* Supplemental Comments, *supra*, at 2-4.
[26] *See id.* at 4 (demonstrating that UCC's reported emissions dropped to 900 pounds, while the total emissions from the Institute facility remained at roughly 1,800 pounds).
[27] *See* EPA, 2014 NATA: Assessment Results, https://www.epa.gov/national-air-toxics-assessment/2014-nata-assessment-results (accessing spreadsheet under "Nationwide Results" entitled "2014 NATA natl cancer risk by pollutant (xlsx)") (last visited Oct. 27, 2023).
[28] *Id.* (sorting entries by cancer risk attributable to ethylene oxide, column AZ).

in 1 million for a census tract in Jefferson and St. Albans, immediately across the river from the Institute facility, with a cancer risk of 336 in 1 million attributable to ethylene oxide.[29] This was the ninth-highest total cancer risk in the country and the fourth-highest cancer risk attributable to ethylene oxide at the time and well above EPA's benchmark for "acceptable" risk.[30] The second-highest total cancer risk in West Virginia was 249 in 1 million, for the census tract containing Institute, as discussed above.[31] In fact, in West Virginia, the top eleven census tracts by cancer risk were all located in Kanawha County in the vicinity of the Institute facility and the facilities in South Charleston.[32]

Similarly, the news organization ProPublica mapped cancer risk caused by industrial air emissions across the U.S. using data from EPA's Risk-Screening Environmental Indicators model (RSEI).[33] Using this data, the organization found that the area within and around the Institute facility has an excess cancer risk from industrial air pollution of 1 in 280, or 36 times greater than EPA's "unacceptable risk" threshold of 1 in 10,000.[34] Of the 7,600 facilities in ProPublica's analysis that increase the estimated cancer risk in surrounding communities, the Institute facility ranked 17th in the nation.[35] Using EPA's RSEI data, ProPublica estimated that the Institute "facility alone is estimated to increase the excess cancer risk for people living within five miles by an average of 1 in 18,000."[36]

In addition to the environmental justice issues clearly demonstrated by EPA's data, the long history of the Institute facility and its surrounding communities puts these issues into starker relief.[37] As noted above, Institute is one of only two majority-Black census tracts in a 94-percent white state.[38] In fact, Institute has a long history as "a center of Black life" in West Virginia, from its founding in 1865 by formerly enslaved people, to its establishment of a Black land-grant university, to its airport serving as a training ground for some of the nation's first Black pilots.[39]

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[29] *Id.* (viewing "Total Cancer Risk (per million)" for census tract 54039013400).
[30] *Id.* (sorting entries by "Total Cancer Risk (per million)").
[31] *Id.* (viewing "Total Cancer Risk (per million)" for census tract 54039010400).
[32] *Id.* (filtering spreadsheet for West Virginia and ranking by cancer risk).
[33] *See* Al Shaw & Lylla Younes, *The Most Detailed Map of Cancer-Causing Industrial Air Pollution in the U.S.*, ProPublica (Updated Aug. 2023) [hereinafter ProPublica RSEI Map], *available at* https://projects.propublica.org/toxmap/; *see also* Lylla Younes et al., *How We Created the Most Detailed Map Ever of Cancer-Causing Industrial Air Pollution*, ProPublica, Nov. 2, 2021, *available at* https://www.propublica.org/article/how-we-created-the-most-detailed-map-ever-of-cancer-causing-industrial-air-pollution.
[34] *See* ProPublica RSEI Map (demonstrating specific risk around Institute facility), *available at* https://projects.propublica.org/toxmap/#location/-81.7762/38.3814.
[35] *See* Sarah Elbeshbishi, *Overlooked by the EPA, a Black West Virginia community sues to spur action on toxic air pollution*, Mountain State Spotlight, Sep. 18, 2023, *available at* https://mountainstatespotlight.org/2023/09/18/west-virginia-toxic-pollution-cancer-chemicals/.
[36] *See ProPublica RSEI Map*, *supra*, at https://projects.propublica.org/toxmap/#hotspot/324.
[37] *See*, *e.g.*, Robert D. Bullard, *Dumping in Dixie* (1990); Mimi Pickering & Anne Lewis, *Chemical Valley* (1991), *available at* https://appalshop.org/shop/chemical-valley.
[38] *See Sacrifice Zones*, *supra*.
[39] *Id.*

During World War II, Union Carbide selected the town as the site of its new butadiene production facility, in keeping with a now-long nationwide pattern of environmental injustices in the siting of such toxic facilities in communities of color and lower-income communities.[40] From the outset, the Institute facility has been the source of toxic emissions and serious disasters for the community.

For example, a 1954 explosion at the facility injured 58 people.[41] In 1985, a chemical leak at the facility released aldicarb oxime into the community, requiring at least 135 residents to seek medical care for effects on their eyes, throats, and lungs.[42] While the leak was not methyl isocyanate (MIC) as originally feared, the Institute facility also produced MIC, which it combined with aldicarb oxime to produce an agricultural pesticide.[43] The leak was particularly notorious for two reasons: first, it came less than a year after a Union Carbide facility released MIC in Bhopal, India, killing as many as 15,000 residents and spurring Union Carbide to temporarily halt MIC production at the Institute facility.[44] Second, even though Union Carbide was now aware of the deadly risks of a chemical leak in the aftermath of the Bhopal disaster, "company officials waited 20 minutes before warning residents of the leak."[45]

In 1993 and again in 2008, explosions at the Institute facility killed two workers on each occasion.[46] The 2008 disaster bore unfortunate resemblances to the 1985 incident, as plant officials—under the ownership of Bayer CropScience at the time—refused to provide prompt notification or information to residents or first responders.[47] Another resemblance was that the U.S. Chemical Safety and Hazard Investigation Board found that the explosion nearly missed rupturing a tank containing seven tons of MIC.[48]

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[40] *Id.*
[41] *Id.*
[42] *Id.*; Karen Tumulty, *Delay in Giving Alarm in Gas Leak Is Charged: Fumes in W. Va. Not Linked to Bhopal Chemical, Firm Says*, L.A. Times, Aug. 13, 1985, *available at* https://www.latimes.com/archives/la-xpm-1985-08-13-mn-1314-story.html.
[43] *See* Tumulty, *Delay in Giving Alarm in Gas Leak Is Charged: Fumes in W. Va. Not Linked to Bhopal Chemical, Firm Says*, *supra*.
[44] *Sacrifice Zones*, *supra*.
[45] *Id.* (citing Andee Hochman, *Plant Delayed Warning City Of Gas Leak*, Washington Post, Aug. 13, 1985).
[46] *Id.*
[47] *Id.*; *see also* Memorandum from Majority Staff, Committee on Energy and Commerce, to Members of the Committee on Energy and Commerce, Subcommittee on Oversight and Investigations, Re: Supplemental Information Regarding the 2008 Bayer Chemical Plant Explosion (April 21, 2009), *available at* https://sgp.fas.org/congress/2009/bayer.pdf.
[48] *See Sacrifice Zones*, *supra*; *see also* John S. Bresland, CSB, Oral Testimony Before the U.S. House of Representatives Committee on Energy and Commerce, Subcommittee on Oversight and Investigations (April 21, 2009), *available at* https://www.csb.gov/assets/1/20/breslandbayercombinedtestimony.pdf?13859.

As Petitioners raised in comments on the draft Title V permit, the Institute facility's long and cumulative legacy of toxic emissions, trauma, and community mistrust have continued to the present day. For example, as noted above, the facility continues to emit large amounts of ethylene oxide, even if ownership arrangements have divided the responsibility for these emissions among various corporate entities.[49] And while DAQ has entered into collaborative agreements regarding ethylene oxide emissions from the UCC Logistics unit and the Specialty Products Water Soluble Polymers unit, neither agreement was made available for public review or comment in advance of execution. For the UCC collaborative agreement in particular, DAQ presented some of the potential, non-final elements of the agreement during the hearing on the draft Title V permit. Commenters accordingly requested that DAQ "extend or reopen the comment period to allow the public a full opportunity to review these terms and provide informed comment."[50] DAQ refused to do so.

The UCC Logistics unit is far from the only facility with toxic cumulative effects on residents of Institute and communities in the Kanawha Valley more broadly. These facilities include not only the Logistics unit and other units at the Institute Facility, but also a U.S. Methanol plant, an asphalt facility, Covestro and UCC facilities in South Charleston, and multiple hazardous waste sites, as well as emissions from interstate traffic.[51]

As Petitioners explained in their initial and supplemental comments, such environmental justice concerns are especially germane to a Title V permitting authority's duty to assure compliance with all applicable requirements. Specifically, EPA has stated that "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."[52]

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[49] *See* Supplemental Comments, *supra*, at 2-5.
[50] *Id.* at 11-13.
[51] *See*, *e.g.*, Mike Tony, *Environmental justice concerns loom over Kanawha County ethylene oxide cancer risk reassessment,* Charleston Gazette-Mail, Jan. 22, 2022, *available at* https://www.wvgazettemail.com/news/energy_and_environment/environmental-justice-concerns-loom-over-kanawha-county-ethylene-oxide-cancer-risk-reassessment/article_049f70c5-bef2-56c9-a943-d41c31afe2c4.html; EPA, Hazardous Waste Cleanup: Union Carbide Corporation - Institute Operations (Formerly: Bayer Cropscience LP) in Institute, West Virginia, https://www.epa.gov/hwcorrectiveactioncleanups/hazardous-waste-cleanup-union-carbide-corporation-institute-operations (last visited Oct. 27, 2023); EPA, Documentation of Environmental Indicator Determination, RCRA Corrective Action, Union Carbide Corporation – Private Trucking Operation Facility (Aug. 25, 2005), *available at* https://www.epa.gov/sites/default/files/2015-12/documents/gw_wvd000739722.pdf.
[52] *See In the Matter of Valero Refining-Texas, L.P.*, Order on Petition No. VI-2021-8, at 9-10 (June 30, 2022) [hereinafter Valero Houston Order], *available at* https://www.epa.gov/system/files/documents/2022-07/Valero%20Houston%20Order_6-30-22_0.pdf.

In 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. EPA has recognized this in responding to prior Title V permit petitions;[53]

A. DAQ'S Response Regarding These Environmental Justice Concerns Fails to Demonstrate that EPA Could or Should Ignore These Important Factors.

In its response to Petitioners' comments, DAQ does not dispute that: (1) that Institute and surrounding communities have a proportionally greater population of people of color and lower-income residents as compared to the rest of the state; (2) that Institute is one of only two majority-Black census tracts in the state; (3) that the area around the Institute facility is above the 80th percentile for nearly all of EJScreen's environmental justice indexes; (4) that community members have been exposed to disproportionate amounts of ethylene oxide and other air toxics from the Institute facility and several other facilities in Institute and South Charleston; (5) that community members have an excess cancer risk above EPA's "acceptable" benchmark due to these emissions; and (6) that community members surrounding the Institute facility have experienced cumulative impacts from multiple other sources that emit large amounts of criteria pollutants and air toxics.[54]

In fact, DAQ readily admits several of these facts, including that there are ethylene oxide-emitting facilities in the Kanawha Valley, including the Logistics unit; that EPA "reclassified

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[53] *See, e.g., In the Matter of United States Steel Corp. – Granite City Works*, Order on Petition No. V-2011-2, at 4-6 (Dec. 3, 2012) (because of "potential environmental justice concerns" raised by the fact that "immediate area around the [] facility is home to a high density of low-income and minority populations and a concentration of industrial activity," "[f]ocused attention to the adequacy of monitoring and other compliance assurance provisions [was] warranted") (citing in part to Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, Exec. Order 12898 (Feb. 11, 1994)), *available at* https://www.epa.gov/sites/default/files/2015-08/documents/uss_2nd_response2009.pdf; *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 (March 18, 2022) [hereinafter ExxonMobil Baton Rouge Order] (acknowledging that the area surrounding the refinery is home to a high density of low-income and minority populations and a concentration of industrial activity and noting that EPA had given "focused attention to the adequacy of monitoring (as well as other concerns raised by the Petitioners)"), *available at* https://www.epa.gov/system/files/documents/2022-04/exxonmobil-baton-rouge-order_3-18-22.pdf; Valero Houston Order, *supra*, at 9-11 (same); *see also* EPA, EJ 2020, https://www.epa.gov/environmentaljustice/ej-2020-action-agenda-epas-environmental-justice-strategy; EPA, Plan EJ 2014, Considering Environmental Justice in Permitting (2014), https://nepis.epa.gov/Exe/ZyPDF.cgi/P100ETRR.PDF?Dockey=P100ETRR.PDF.

[54] *See* DAQ, Response to Public Comments, R30-03900005-2023 (Group 2 of 2), Union Carbide Corporation, Logistics Institute Facility (July 14, 2023) [hereinafter RTC], *available at* https://dep.wv.gov/daq/permitting/titlevpermits/Documents/August%202023/039-00005/FinalResponse%20to%20Public%20Comments%20R30-03900005-2023%20(2%20of%202)%20Final%207%2014%202023.pdf.

[ethylene oxide] from a probable human carcinogen to a known human carcinogen and increased the inhalation cancer risk"; and that "[t]he NATA identified four census tracts in West Virginia, all of which are nearby EtO-emitting facilities in Institute and South Charleston that warranted further review."[55] In certain ways, DAQ appears to cast doubt on EPA's revised risk value for ethylene oxide—noting, for example, that EPA's "approach to risk assessment is extremely conservative" and that a 2022 study by the West Virginia Division Health and Human Resources "found no elevated levels of EtO related cancers (breast, lymphoma, or leukemia) in Kanawha County"—but does not assert that DAQ therefore has less of an obligation to address the issues.[56]

In response to these environmental justice considerations, DAQ primarily describes its public participation and outreach with respect to the Title V permit, the Institute facility, and ethylene oxide in general.[57] DAQ asserts that "reductions of EtO emissions cannot be accomplished through the Title V permitting process," but then notes that "after the Draft Title V Permit was issued on October 15, 2022, UCC entered a collaborative agreement with DAQ and agreed to reduce EtO emission limits through their 45CSR27 consent order. The consent order established the reduced EtO emissions which were then incorporated into the Title V Permit."[58] As noted above, DAQ's use of this collaborative agreement outside of the permitting process meant that the public had no opportunity to review or comment on the proposed requirements for ethylene oxide. With respect to the cumulative impacts faced by Institute and surrounding communities, DAQ provides that it "did not review cumulative impacts as part of the review for this renewal" and that "[e]mission and operating limitations are established through new source review permits, state rules, and federal regulations."[59] This again raises the question why DAQ opted to establish ethylene oxide requirements for the facility in a privately negotiated agreement rather than in a permitting process open to the public.

In sum, DAQ's response to comments does not rebut the fact that this proposed Title V permit involves significant environmental justice concerns—and does nothing to change EPA's responsibility to ensure that the Title V permit at issue fully complies with the Clean Air Act and to protect overburdened communities near the Institute facility from disproportionate adverse impacts and excess cancer risk from the facility.

II. THE PROPOSED TITLE V PERMIT'S MONITORING AND TESTING REQUIREMENTS CANNOT ENSURE COMPLIANCE WITH PARTICULATE MATTER AND OPACITY LIMITS FOR THE FLARES.

As Petitioners' comments explained, the proposed Title V permit 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. *See* Supplemental Comments, *supra*, at 13-15. Specifically, in violation of 40 C.F.R. §§ 70.6(a)(3)(i)(B) and 70.6(c)(1), as well as the requirements from 42 U.S.C. §§ 7661c(a) and

[55] *Id.* at 15, 16-17.
[56] *Id.* at 16-17.
[57] *Id.* at 15.
[58] *Id.* at 17.
[59] *Id.* at 16.

7661c(c), the Proposed Title V Permit's monitoring, testing, and other requirements cannot ensure compliance with the SIP limits of 1.19 lbs./hour PM, 20-percent opacity, and 40-percent opacity limit during startup (for a maximum of eight minutes per startup) applicable to flares B410 and A410.[60] *See* Proposed Title V Permit §§ 4.1.7 - 4.1.9.

The Hourly PM SIP Limit. Proposed Title V Permit section 4.3.4 is the only permit provision that DAQ uses to try to ensure compliance with the hourly PM limit. Section 4.3.4 provides in relevant part:

> At such reasonable times as the Secretary may designate, the operator of any incinerator[61] 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 Secretary, in exhaust gases. Such tests shall be conducted in such manner as the Secretary may specify and be filed on forms and in a manner acceptable to the Secretary. The Secretary may, at the Secretary's option witness or conduct such stack tests.[62]

This provision cannot ensure compliance with the flares' hourly PM limit for two different reasons:

First, this provision does not require monitoring on a regular basis—much less monitoring to hourly or continuously determine emissions, which would be needed to ensure compliance with the hourly PM limit. Instead, the provision only requires PM testing of the flares "[a]t such reasonable times as the Secretary may designate." Even assuming that the flares could be tested for PM emissions, which Petitioners seriously doubt is possible given that we understand these flares to be elevated, open-stack flares, this permit provision could equate to no testing at all**:** "the Secretary may" choose to "designate" no times for testing. A complete lack of testing and monitoring cannot ensure compliance with the flares' hourly PM limit. Nor could testing every few years, every year, or every month—all of which would be allowed under section 4.3.4 of the Proposed Title V Permit—ensure compliance with the PM limit, without sufficient ongoing monitoring in between tests (again, even assuming testing could be performed on these flares).

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[60] Because, as discussed below, 45 CSR § 6-7.1 from the West Virginia SIP lists certain testing requirements for PM from the flares but those requirements cannot ensure compliance with the PM limit, § 70.6(c)(1) requires DAQ to supplement the SIP's original testing requirements to add monitoring and other requirements sufficient to ensure compliance. Because the SIP lists no monitoring requirements for these opacity limits for the flares, § 70.6(a)(3)(i)(B) requires DAQ to add monitoring sufficient to ensure compliance with the opacity limits.

[61] The hourly PM SIP limit applicable to the flares is a limit for "incinerators" from 45 CSR § 6-4.1. Proposed Title V Permit section 4.1.7 indicates that this limit applies to the two flares here, and, likewise, 45 CSR § 6-2.7 defines "incineration" to include destruction of gaseous material by burning in a flare.

[62] This section of the Proposed Title V Permit restates 45 CSR § 6-7.1 from the West Virginia SIP.

Second, again assuming that testing could even be conducted for PM from these flares, for those times when the Secretary does deem it necessary to require testing, the Proposed Title V Permit does not provide any details on how the tests are to be conducted. While section 4.3.4 mentions EPA Method 5, the section also provides that any "other equivalent EPA approved method approved by the Secretary" can be used in testing for PM from the flares. Similarly, section 4.3.4 provides that "tests shall be conducted in such manner as the Secretary may specify."

The SIP Opacity Limits. Section 4.2.2 of the Proposed Title V Permit is the only monitoring provision that DAQ uses to try to ensure compliance with the flares' SIP opacity limits.[63] Section 4.2.2 provides in relevant part:

> [T]he 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 . . . 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.

Proposed Title V Permit, section 4.2.2 (emphasis added).

This provision cannot ensure compliance with the 20-percent opacity limit or the 40-percent startup limit for two different reasons:

First, visible observations once a month—and "any other time" plant personnel happen to witness visible emissions—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.[64] To make matters worse, the monthly observations need only be one minute long, and UCC is allowed to go up to 45 days between performing observations. And even worse still, if visible emissions are observed, UCC is not required to follow up with a Method 9 evaluation for up to three days—meaning that the flares could very well be violating their opacity limits but that those violations could go undetected for

[63] As referenced in the Proposed Title V Permit (at §§ 4.1.8 – 4.1.9), the sources of the 20-percent and 40-percent startup opacity limits are 45 CSR §§ 6-4.3 and 6-4.4, respectively. The Proposed Title V Permit also contains a separate provision—section 4.4.5—requiring UCC to maintain records of visible emissions observations for five years. But this provision cannot cure the Proposed Title V Permit's inadequate monitoring for the flare opacity limits.

[64] The West Virginia SIP establishes no averaging period for the 20-percent opacity limit.

up to three days after visible emissions are first observed. Further, since a "Method 9 evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours," this essentially amounts to a free pass to violate the opacity limits for up to three days after first noticing visible emissions.

Second, 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.

The "Primary Flare" (B410) is also required to meet NESHAP requirements from 40 C.F.R. § 63.11(b), which include the requirement to operate with no visible emissions except for five minutes during any two consecutive hours. *See* Proposed Title V Permit § 4.1.1.1(a)(3). The visible emission requirements from § 63.11(b) cannot ensure compliance with the SIP opacity limits for flare A410 because, at least according to the Title V permit, that flare is not subject to § 63.11(b)'s requirements. The visible emission requirements from § 63.11(b) cannot ensure compliance with the SIP opacity limits for flare B410 (or A410 if that flare is also subject to NESHAP requirements) because § 63.11(b) does not require visible emission monitoring at any regular intervals. Instead, § 63.11(b) only provides that the "observation period is 2 hours and shall be used according to Method 22." In fact, DAQ concedes that, under 40 C.F.R. § 63.1437(c)(1), UCC is only required to perform the § 63.11(b) visual observation one time ever.[65] And like the proposed monitoring for the SIP opacity limits here, the § 63.11(b) requirements also cannot ensure compliance with visible emissions limits at night or in adverse weather conditions.

A. DAQ's Response to Comments Is Inadequate to Address the Problems with the Proposed Title V Permit's Monitoring Requirements for the SIP PM and Opacity Limits for the Flares.

DAQ's Response to Comments is inadequate to address any of the above-discussed problems with the Proposed Title V Permit's monitoring requirements for the flares' SIP PM and opacity limits.

PM. DAQ first states that it included the requirement to stack test for PM from the flares "[a]t such reasonable times as the Director may designate" because "stack testing is the only compliance demonstration provided in 45CSR6 to measure hourly particulate matter emissions."[66] DAQ also argues that "additional monitoring under CAM did not apply."[67] DAQ ignores that 40 C.F.R. § 70.6(c)(1) and 42 U.S.C. §§ 7661c(a) and 7661c(c) require the Division to supplement any SIP monitoring and testing requirements that are inadequate to ensure compliance with SIP limits. This obligation exists regardless of whether CAM is applicable to the flares' PM limits. As discussed above, the testing requirements from 45 CSR § 6-7.1, which are carried over into the Proposed Title V Permit, cannot ensure compliance with the SIP PM limit for the flares. Thus, § 70.6(c)(1) and §§ 7661c(a) and 7661c(c) require DAQ to add

[65] *See* RTC, *supra*, at 9.
[66] *Id.* at 8.
[67] *Id.*

monitoring requirements to this Title V permit sufficient to assure compliance with the hourly PM limit.

DAQ also argues:

> [C]ompliance with the particulate matter emission limits can be indirectly monitored through opacity monitoring. The monthly opacity monitoring . . . 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.[68]

To begin with, the Proposed Title V Permit does not require UCC to use opacity monitoring to ensure compliance with the SIP PM limit. Even if the Proposed Title V Permit did so provide, the monthly opacity monitoring required by permit cannot ensure compliance with the hourly PM limit. Once-a-month visual observations could very easily miss hourly periods of high opacity—and thus high PM emissions—in between observation periods. Further, Petitioners seriously doubt that these flares, which we understand to be elevated, open-stack flares, could be "stack tested." *See* AP-42, Fifth Edition, Volume I, Chapter 13.5, p. 13.5-4 ("Since elevated flares do not lend themselves to conventional emission testing techniques, until recently only a few attempts have been made to characterize elevated flare emissions."). Even if these flares could be tested, that DAQ "can require stack testing" does not mean that DAQ actually would require testing. And even if DAQ did require testing, any testing would not solve the problem that the Title V permit does not require any sort of monitoring in between tests to ensure compliance with the hourly PM limit.

Petitioners agree, however, that (adequate) opacity monitoring could be used to assure compliance with the SIP PM limit (as well as the SIP opacity limits). Specifically, UCC should be required to use a continuous digital opacity monitor to measure opacity, establish an opacity-PM correlation for the flares, and use that correlation to calculate hourly PM emissions from the flares' hourly opacity values. AP-42 lists a PM emission factor for flares that could be used as a starting point for this opacity-PM correlation. *See* AP-42, Fifth Edition, Volume I, Chapter 13.5, Table 13.5-1 n.d (listing the following concentration values for "soot": nonsmoking flares, 0 micrograms per liter (μg/L); lightly smoking flares, 40 μg/L; average smoking flares, 177 μg/L; and heavily smoking flares, 274 μg/L).

Strong monitoring requirements are especially important here because, as discussed above, environmental justice concerns mandate increased, focused attention to ensure that all Title V requirements—including, in particular, monitoring, recordkeeping, reporting, and compliance certification requirements—have been complied with.

Opacity. To begin with, DAQ does not take issue with Petitioners' argument that visual observations and Method 9 evaluations cannot be conducted at night or under weather conditions that make it difficult to detect smoking flares through visible observation. Thus, DAQ apparently concedes that this is the case.

[68] RTC, *supra*, at 8.

DAQ first asserts that the "monthly opacity monitoring prescribed for the flares is similar to monitoring prescribed for other flares within West Virginia."[69] EPA has stated that the "type and frequency of the monitoring requirements for similar emission units at other facilities" is one factor from a non-exhaustive list of factors that may be relevant to the case-by-case inquiry into whether Title V monitoring is sufficient to assure compliance.[70]

But even if other flares in West Virginia have "similar" opacity monitoring, this says nothing about whether flares in other states have more robust opacity monitoring that would better ensure compliance. In addition, and importantly, EPA has listed other factors that may also be relevant to the question of whether monitoring is sufficient to assure compliance—none of which DAQ has considered. Those other factors include: the variability of emissions from the unit in question; the likelihood of a violation of the requirements; and the type of monitoring process, maintenance, or control equipment data already available for the emission unit. *Id.* DAQ does not assert that opacities from the flares are so invariable that monthly observations are sufficient to detect any exceedances of the SIP opacity limits—or that violations of the SIP limits could not occur. Nor could DAQ credibly assert either of these things, since once-per-month—especially one-minute-per-month—monitoring could not possibly establish a sufficient dataset to show the variability of emissions or that violations could not occur. Even if DAQ were to take the position that there is little to no opacity variability or that violations of the SIP opacity limits could not occur, DAQ would need to present data to substantiate those claims, which DAQ has not done.[71]

In past Title V orders, EPA has found that infrequent visual observations cannot assure compliance with continuous opacity limits. For example, EPA found that a Title V permit record failed to sufficiently support the use of weekly Method 9 observations to assure compliance with a continuous opacity limit.[72] Similarly, EPA found that quarterly and biannual Method 9 observations were inadequate to assure compliance with opacity limits.[73] In the Bull Run Order, EPA found that the permitting agency "did not explain how twice-yearly Method 9 observations

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[69] RTC, *supra*, at 8.

[70] *See*, *e.g.*, *In the Matter of Suncor Energy (U.S.A.), Inc., Commerce City Refinery, Plant 2 (East)*, Order on Petition Nos. VII-2022-13 & VII-0222-14, at 24 (July 31, 2023) (citation and internal punctuation omitted), *available at* https://www.epa.gov/system/files/documents/2023-08/Suncor%20Plant%202%20Order_07-31-23.pdf.

[71] *See* ExxonMobil Baton Rouge Order, *supra*, at 38-39 (instructing state permitting authority to provide quantitative information concerning the variability of VOC concentrations to justify monitoring VOC concentrations every 30 days).

[72] *See In the Matter of EME Homer City Generation L.P. Indiana County, Pennsylvania,* Order on Petition Nos. III-2012-06, III-2012-07, and III-2013-02, at 44 (June 30, 2014), *available at* https://www.epa.gov/sites/default/files/2015-08/documents/homer_response2012.pdf.

[73] *See In the Matter of Pacificorp's Jim Bridger and Naughton Electric Utility Steam Generating Plants,* Order on Petition No. VIII-00-1, at 19 (Nov. 16, 2000) (quarterly observations), *available at* https://www.epa.gov/sites/default/files/2015-08/documents/woc020.pdf**;** *In the Matter of Tennessee Valley Authority, Bull Run, Clinton, Tennessee,* Order on Petition No. IV-2015-14, at 11 (Nov. 10, 2016) [hereinafter Bull Run Order] (biannual observations), *available at* https://www.epa.gov/sites/default/files/2016-11/documents/tva_bull_run_order_granting_petition_to_object_to_permit_.pdf.

assure compliance with an opacity limit of 20 percent averaged over a six-minute period except for one 6-minute period per 1 hour of not more than 40 percent."[74]

DAQ also argues that Petitioners "stated that the permittee may go up to 45 days between performing observations, but this is not what is meant by that part of the condition"—and that "[w]ith monthly opacity monitoring but without the maximum 45 days between consecutive readings, the permittee could, for example, conduct opacity monitoring on April 1st and then not conduct opacity monitoring again until May 31st."[75] Petitioners agree that the 45-day provision prevents UCC from going 60 days between visual observations. But the fact remains that UCC can indeed go up to 45 days between visual observations.

DAQ also takes issue with Petitioners' point that the Proposed Title V Permit could allow opacity violations to go undetected for up to three days after visible emissions are first observed given that UCC is not required to follow up with a Method 9 evaluation for up to three days. *Id.* at 8-9. DAQ asserts "[t]his is not necessarily true as the permittee would be required to report this as a deviation since the more stringent opacity limit of no visible emissions from 40 C.F.R. § 63.11(b) and Title V condition 4.1.1.1.a would apply."[76] As explained above, however, § 63.11(b) does not require visible emission monitoring at any regular intervals or any particular times, including when visible emissions are observed—meaning that § 63.11(b) would not require monitoring over the three days after visible emissions are first observed. In fact, as noted above, DAQ concedes that, under 40 C.F.R. § 63.1437(c)(1), UCC is only required to perform the § 63.11(b) visual observation one time ever.[77] Further, as also explained above, even if UCC did perform observations pursuant to § 63.11(b), flare A410 is apparently not subject to § 63.11(b)'s requirements, and any monitoring under § 63.11(b) could not detect visible emissions at night or in adverse weather conditions over the 72 hours in question. In addition, any observations under § 63.11(b) would presumably only document violations of § 63.11(b)'s opacity limit—not the SIP opacity limits.

DAQ further argues: "Excessive deviations with the opacity limits for the flares would indicate a compliance issue that would lead to revisiting the frequency of opacity monitoring."[78] But Title V of the Act and EPA's Title V regulations require DAQ to revise the Proposed Title V Permit now to mandate monitoring sufficient to assure compliance with the flares' opacity limits—not down the road whenever DAQ decides there have been "excessive deviations."

DAQ additionally argues:

> The commenter also mentioned that visible emissions observations are "once a month-and 'any other time' plant personnel happen to check for and witness visible emissions" . . . The plant personnel do not have to purposefully check for visible emissions in order to witness them. The condition is written such that at any time visible emissions are observed, the plant personnel would be required to

[74] Bull Run Order, *supra*, at 11-12.
[75] RTC, *supra*, at 8.
[76] *Id.*
[77] *Id.* at 9.
[78] *Id*.

> report the visible emissions and could be required to conduct a Method 9 observation.

Id. Petitioners agree that there may be times that plant personnel happen to witness visible emissions, but unless personnel are continuously watching the flares at all times the flares are operating—which almost certainly is not the case at the facility—there could be many periods of visible emissions that personnel do not witness or report. Even if personnel happen to witness visible emissions, UCC (as discussed above) is not required to follow up with a Method 9 evaluation for up to three days and is not required to conduct a Method 9 evaluation if the "visible emission condition" is "corrected." *See* Proposed Title V Permit, section 4.2.2. Thus, in the three days after workers happen to witness visible emission, the flares could violate their opacity limits without detection.

Finally, DAQ asserts:

> The commenter did not think the flare monitoring that was specified under 40 C.F.R. §63.11(b) was adequate to demonstrate compliance with the no visible emissions requirement. Title V condition 4.2.2 currently has more stringent monitoring because the permittee is required to perform monthly visible emission checks in addition to the one time visible emissions test required under 40 C.F.R. §63.1437(c)(1).[79]

In comments and in this petition, however, Petitioners are not arguing that the Proposed Title V Permit cannot ensure compliance with § 63.11(b)'s requirement of no visible emissions. Instead, Petitioners point out that § 63.11(b)'s requirements cannot ensure compliance with the flares' SIP opacity limits. Indeed, as also referenced above, DAQ admits here that § 63.1437(c)(1) from NESHAP Subpart PPP only requires a one-time test for visible emissions, which proves Petitioners' point.

III. THE PROPOSED TITLE V PERMIT COULD BE READ TO ALLOW DAQ TO APPROVE ALTERNATIVE TESTING AND MONITORING WITHOUT FOLLOWING THE REQUIRED PROCEDURES.

As Petitioners explained in their comments to DAQ, the proposed Title V permit contains a provision that could be read to unlawfully allow DAQ 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. *See* Supplemental Comments, *supra* at 17-19. Section 3.3.1(b) of the Proposed Title V Permit provides:

> 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

[79] *See* RTC, *supra*, at 9.

> 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.[80]

First, if the SIP specifies a testing or monitoring requirement, DAQ cannot weaken that requirement through an "alternative" without EPA approval to revise the SIP. *See* 42 U.S.C. § 7410(i) (providing that SIPs can be revised only through certain specified routes, including the formal SIP revision process);[81] 40 C.F.R. § 51.105 ("Revisions of a plan, or any portion thereof, will not be considered part of an applicable plan until such revisions have been approved by the Administrator in accordance with this part."). Of course, DAQ can, through the Title V permit, supplement SIP testing and monitoring requirements to make them more robust—and, indeed, must do so if the SIP testing and monitoring requirements cannot ensure compliance with the relevant SIP limits. But DAQ cannot unilaterally weaken SIP testing and monitoring requirements, which section 3.3.1(b) of the Proposed Title V Permit could be read to allow.

Section 3.3.1(b) of the Proposed Title V Permit could also be read to allow DAQ to approve testing and monitoring changes without following mandatory Title V procedures for revising the permit. 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). 40 C.F.R. § 70.7(d)-(e).[82] Every significant change to existing monitoring and testing requirements and every relaxation of reporting or recordkeeping terms requires a significant permit modification. 40 C.F.R. § 70.7(e)(4)(i). Significant permit modifications are not effective until after there has been an opportunity for public comment and review by EPA and affected states. *Id.* § 70.7(a), (e)(4)(ii), (h). Contrary to these requirements, section 3.3.1(b) could be read to allow DAQ to approve significant changes to monitoring and testing requirements before public notice and comment and review by EPA and affected states.

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[80] Section 3.3.1(a) of the Proposed Title V Permit provides: "The Secretary may on a 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 40 C.F.R. Parts 60, 61, and 63, if applicable, in accordance with the Secretary's delegated authority and any established equivalency determination methods which are applicable." In its response to comments regarding permit section 3.3.1(a), DAQ acknowledges that it "has no delegated authority to approve major alternatives to NESHAP monitoring and testing." *See* RTC, *supra*, at 9.

[81] Section 7410(i) reads: "Except for a primary nonferrous smelter order under section 7419 of this title, a suspension under subsection (f) or (g) (relating to emergency suspensions), an exemption under section 7418 of this title (relating to certain Federal facilities), an order under section 7413(d) 1 of this title (relating to compliance orders), a plan promulgation under subsection (c), or a plan revision under subsection (a)(3); no order, suspension, plan revision, or other action modifying any requirement of an applicable implementation plan may be taken with respect to any stationary source by the State or by the Administrator."

[82] We cite here to EPA's Title V regulations covering permit amendments and modifications. As relevant to this petition, West Virginia's Title V rules are consistent with the federal regulations on amendments and modifications. *See* 45 CSR § 30-6.4 – 30-6.5.

Even revisions that do not constitute a significant change to monitoring and testing requirements would (except for those revisions that involve adding more frequent monitoring or reporting) constitute a non-significant change to monitoring and testing requirements that could only be approved through a minor permit modification. *See id.* § 70.7(e)(2)(i)(A)(2) ("Minor permit modification procedures may be used only for those permit modifications that … [d]o not involve significant changes to existing monitoring, reporting, or recordkeeping requirements in the permit"). Under EPA's Title V regulations, such a minor modification would still require review by affected states and EPA—and thus provide an opportunity for the public to petition EPA to object. *Id.* § 70.7(e)(2)(iii)-(iv).

Proposed Title V Permit section 3.3.1(b) appears to allow DAQ to revise the Title V permit's monitoring and testing requirements with no input from the public, EPA, or affected states. As EPA recently explained when faced with a very similar issue: "[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." Exxon Baton Rouge Order at 25 (citations omitted). Allowing 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.

To remedy these problems, EPA must require DAQ to remove section 3.3.1(b) from the Title V permit.

A. DAQ's Response to Comments Is Inadequate to Address the Problems with Proposed Title V Permit Section 3.3.1(b).

In its response to comments, DAQ states:

> The DAQ does not agree that the language in Title V boilerplate condition 3.3.1.(b) as currently written gives the DAQ authority to weaken test methods specified in the permit. Any 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 DAQ for approval. DAQ 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.[83]

DAQ points to no SIP provision that allows the Division to approve alternative testing or monitoring that DAQ deems to be "equivalent to" required testing and monitoring from the SIP, and Petitioners are not aware of any such SIP provision. Similarly, Title V regulations do not allow DAQ to approve alternative testing or monitoring without revising the Proposed Title V Permit; as discussed above, to allow UCC to use testing or monitoring "equivalent to" that required by the Title V permit, DAQ would need to revise the Proposed Title V Permit through, at the least, a minor permit modification.

[83] RTC, *supra*, at 9.

Further, even if the SIP or Title V regulations did provide DAQ with "authority to use testing which is . . . equivalent to the state rule or conditions of the Title V permit" (they do not), permit section 3.3.1(b) does not actually require that any alternative testing or monitoring approved by DAQ be "equivalent to" the monitoring from the SIP or Title V permit. Instead, the section states that DAQ may "approve or specify . . . alternative testing" and that, "[i]n 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."[84] *See* Proposed Title V Permit, Section 3.3.1(b) (emphasis added).

CONCLUSION

For the foregoing reasons, and as explained in Petitioners' Initial Comments and Supplemental Comments, the Proposed Title V Permit is deficient. EPA must object to the Proposed Title V Permit.

Respectfully submitted this 27th day of October 2023, on behalf of People Concerned About Chemical Safety and Earthjustice,

/s/ Adam Kron
Adam Kron
Earthjustice
1001 G St. NW Suite 1000
Washington, D.C. 20001
(202) 667-4500
akron@earthjustice.org

/s/ Kathleen Riley
Kathleen Riley
Earthjustice
1001 G St. NW Suite 1000
Washington, D.C. 20001
(202) 667-4500
kriley@earthjustice.org

/s/ Patton Dycus
Patton Dycus
Patton Dycus Law, LLC
316 S. 6th Ave.
Bozeman, MT 59715
(404) 446-6661
pattondycuslaw@gmail.com

/s/ James Yskamp
Earthjustice
25000 Euclid Ave Ste 305
PMB 531
Euclid, OH 44117
(315)-500-2191
jyskamp@earthjustice.org

[84] As noted above, section 3.3.1(a) involves approving alternative testing to NESHAP and NSPS methods, and DAQ has conceded that it "has no delegated authority to approve major alternatives to NESHAP monitoring and testing." *See* RTC, *supra*, at 9.

CC: Mary Cate Opila, P.E., Ph.D., Chief, Permits Branch, Air & Radiation Division, EPA Region 3, Opila.MaryCate@epa.gov

Gwen Supplee, Title V and NSR Permitting Contact for West Virginia, Air Permits Branch, Air & Radiation Division, EPA Region 3, Supplee.Gwendolyn@epa.gov

Laura M. Crowder, Director, Division of Air Quality, West Virginia Department of Environmental Protection, Laura.M.Crowder@wv.gov

Jonathan Carney, P.E., NSR/Title V Air Permitting, Division of Air Quality, West Virginia Department of Environmental Protection, Jonathan.W.Carney@wv.gov

Jay Fedczak, P.E., EH&S Delivery Manager, Union Carbide Corporation, JPFedczak@dow.com

LIST OF EXHIBITS

Exhibit No.	Title
1	Moms Clean Air Force – West Virginia et al., Comments on Proposed Renewal of Operating Permit for Union Carbide Corporation Institute Facility, Logistics (Group 2 of 2), Permit No. R30-03900005-2022 (2 of 2), and Request for Public Hearing (Nov. 14, 2022)
2	People Concerned About Chemical Safety et al., Supplemental Comments on Proposed Renewal of Operating Permit for Union Carbide Corporation Institute Facility, Logistics (Group 2 of 2), Permit No. R30-03900005-2022 (2 of 2) (Jan. 20, 2023)