

**BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

IN THE MATTER OF)	
)	
Clean Air Act Title V Permit (Initial))	
)	
Issued to Arch Coal, Inc. Energy Operating for the West Elk Coal Mine)	Title V Permit No. 20OPGU411
)	
By the Colorado Department of Public Health and Environment, Air Pollution Control Division)	

**PETITION TO OBJECT TO COLORADO TITLE V PERMIT NO. 20OPGU411 FOR
ARCH COAL'S WEST ELK COAL MINE**

Pursuant to Section 505(b)(2) of the Clean Air Act, 42 U.S.C. § 7661d(b)(2), and 40 C.F.R. § 70.8(d), the Center for Biological Diversity and WildEarth Guardians (“Petitioners”) petition the Administrator of the United States Environmental Protection Agency (“Administrator” or “EPA”) to object to the combined initial Title V Permit and Construction Permit (“Title V Permit”) issued by the Colorado Department of Public Health and Environment’s Air Pollution Control Division (“Division”) authorizing Arch Coal, via its subsidiary Mountain Coal Company, LLC, to both construct significant new emission points and to operate the West Elk Coal Mine in Gunnison County (“West Elk Mine” or “Mine”).¹

Petitioners request the EPA object on the basis that the Title V Permit fails to assure compliance with Title V requirements under the Clean Air Act and fails to assure compliance with the Colorado State Implementation Plan (SIP).

The Division’s final Title V Permit, which was issued on December 8, 2023, and the associated final Technical Review Document (TRD), are attached as Exhibits 1 and 2, respectively.

¹ All references to “Title V Permit” in this Petition refer to the combined initial Title V Permit and Construction Permit issued by the Division.

THE WEST ELK MINE

Located in Gunnison County, Colorado in the iconic and remote West Elk Mountains, adjacent to the northern boundary of the West Elk Wilderness Area, the West Elk Coal Mine is the largest coal mining operation in the State of Colorado. It is owned by Arch Coal, a large multi-national coal company that is the second largest coal producer in the United States. Arch ships coal from the West Elk Mine to power plants in the U.S., and exports coal overseas.

While an underground mine, Arch has had to develop and operate an extensive surface ventilation system to remove methane and other toxic gases from the workings so that coal can be extracted. Arch Coal utilizes both a ventilation air system, which includes several large ventilation shafts, as well as mine ventilation boreholes, which are literally gas wells drilled directly above the workings of the mine whose sole purpose is to vent gases in active mining areas. This ventilation system has led to the development of an extensive road and venting network above the mine, much of which has carved into public lands managed by the U.S. Forest Service. Coal mined from the West Elk Mine is conveyed to storage piles above ground where the coal is then crushed, screened, graded, processed, and otherwise handled, and then the coal is conveyed to storage silos or other storage piles prior to being loaded onto trains for shipment. The Mine is permitted to produce up to 8.5 million tons of coal annually. The following pictures illustrate the West Elk Mining operations.



Figure 1: West Elk Coal Mine surface operations, including piles, conveyors, and silos



Figure 2: West Elk Mine permit boundary and coal conveyors and piles



Figure 3: Aerial view of West Elk Coal Mine operations



Figure 4: Mine ventilation borehole operating above the West Elk Mine



Figure 5: Mine ventilation boreholes are drilled to vent gas into the air from pipes



Figure 6: Satellite view of the extensive system of mine ventilation boreholes developed above the Mine



Figure 7: Mine ventilation boreholes require drilling and heavy industrial equipment



Figure 8: Mine ventilation boreholes with West Elk Wilderness Area in the background

The West Elk Mine has the potential to emit hundreds of tons of harmful air pollutants, including particulate matter less than 10 microns in diameter (PM₁₀), particulate matter less than 2.5 microns in diameter (PM_{2.5}), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), toxic volatile organic compounds (VOCs), and hazardous air pollutants (HAPs) including hexane, benzene, xylenes, and toluene. *See* Table below. VOCs are a group of harmful substances that readily react with sunlight to form ground-level ozone, a toxic gas that can irritate the respiratory system, trigger asthma attacks, worsen lung disease, and even cause premature death. *See* EPA, “Health Effects of Ozone Pollution,” website available at <https://www.epa.gov/ground-level-ozone-pollution/health-effects-ozone-pollution> (last accessed Jan. 25, 2024). The EPA has adopted national ambient air quality standards for ozone to protect public health, limiting concentrations to no more than 0.070 parts per million over an eight-hour period. *See* 40 C.F.R. § 50.19.

Potential emissions from West Elk Coal Mine²

Pollutant	Potential to Emit (tons/year)
PM	140.10
PM ₁₀	81.95
PM _{2.5}	55.00
SO ₂	0.35
NO _x	16.81
VOC	466.37
CO	20.47
n-hexane	18.50
benzene	0.58
xylenes	0.22
toluene	0.45

The mine is also a large source of climate pollution, largely due to emissions of methane, a greenhouse gas that has 27-30 times more heat-trapping potential than carbon dioxide over a 100-year period. According to greenhouse gas emissions data reported to the EPA and queried on the agency’s Facility Level Information on Greenhouse Gases Tool website, the West Elk Mine’s methane emissions in 2022 equaled 139,369 tons of carbon dioxide, making it the second largest single industrial source of methane emissions in Colorado. *See* EPA, 2022 Greenhouse Gas Emissions from Large Facilities, <https://ghgdata.epa.gov/ghgp/main.do> (last accessed Jan. 30, 2024).

The Title V Permit authorizes, for the first time ever, the release of VOC emissions from the West Elk Mine. In the course of venting harmful gases, the Mine not only vents methane, but also vents a number of other chemically related substances that are regulated under 40 C.F.R. § 51.100(s) as VOCs. Despite discovering the existence of large amounts of VOC emissions from the West Elk Mine more than 10 years ago, the Division has only now permitted the emissions. Prior to the issuance of the Permit, Arch Coal illegally constructed and operated sources of VOC emissions, including portions of the mine ventilation air system and the mine ventilation borehole system, with no restraint.

Unfortunately, in permitting VOC emissions for the first time under the Title V Permit, the Division overlooked its duty to ensure Arch Coal complied with applicable permitting requirements in the Colorado State Implementation Plan (SIP). It also failed to prescribe enforceable limits on VOC emissions such that the Title V Permit both assures compliance with VOC limits and assures compliance with the Colorado SIP.

² *See* Exhibit 2, TRD at 3 and Exhibit 3, Arch Coal’s November 5, 2020 Title V Permit application at PDF page 66 (“Plant Wide Hazardous Air Pollutants”).

PROCEDURAL BACKGROUND

The Center submitted comments on the draft Permit on June 23, 2023. *See* Exhibit 4, Center for Biological Diversity Comments on Draft Title V Permit (June 23, 2023). WildEarth Guardians submitted comments on August 3, 2023. *See* Exhibit 5, WildEarth Guardians Comments on Draft Title V Permit (Aug. 3, 2023).

The Division responded to all public comments in a single response letter dated October 16, 2023. *See* Exhibit 6, Colorado Air Pollution Control Division, “West Elk Mine Draft Title V Operating Permit Response to Public Comments” (Oct. 16, 2023).

The Division subsequently forwarded the proposed Title V Permit to EPA for its 45-day review period, which ended on December 1, 2023. According to staff with EPA Region 8, the EPA did not object to the issuance of the proposed Title V Permit. *See* Exhibit 7, E-mail from Donald Law, EPA Region 8, to Jeremy Nichols, Center for Biological Diversity (Dec. 5, 2023). According to EPA, the 60-day deadline for the submission of a petition to object is January 30, 2024. *See* Exhibit 8, EPA, “EPA Region 8 Title V Operating Permit Public Petition Deadlines,” website available at https://www.epa.gov/sites/default/files/2020-08/documents/title_v_operating_permit_public_petition_deadlines_-_region_8.pdf (last accessed Jan. 30, 2024).

Pursuant to 42 U.S.C. § 7661d(b)(2), this petition is thus timely submitted within 60 days following a lack of objection from the EPA.

PETITIONERS

Petitioner Center for Biological Diversity (“the Center”) is a nonprofit, 501(c)(3) conservation organization. The Center’s mission is to ensure the preservation, protection, and restoration of biodiversity, native species, ecosystems, public lands and waters, and public health through science, policy, and environmental law. Based on the understanding that the health and vigor of human societies and the integrity and wildness of the natural environment are closely linked, the Center is working to secure a future for animals and plants hovering on the brink of extinction, for the ecosystems they need to survive, and for a healthy, livable future for all of us. The Center has more than 89,000 members, including over 3,100 members in Colorado.

Petitioner WildEarth Guardians is a nonprofit 501(c)(3) conservation organization that works to protect and restore wildlife, wild places, wild rivers, and health in the American West.

Both the Center for Biological Diversity and WildEarth Guardians have been deeply engaged in issues regarding the regulation of air pollution at the West Elk Mine. Members and supporters of the Center for Biological Diversity and WildEarth Guardians are harmed by failure of the Division to properly permit the West Elk Mine under Title V of the Clean Air Act and to limit emissions to protect public health and the environment.

TITLE V PERMITTING REQUIREMENTS

The Clean Air Act prohibits major 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 applicable requirements of [the Clean Air Act], including requirements of the applicable implementation plan.” 42 U.S.C. § 7661c(a); 40 C.F.R. § 70.6(a).

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.” S. Rep. No. 101-228, at 347, 348 (1990), *as reprinted in A Legislative History of the Clean Air Act Amendments of 1990*, at 8687, 8688 (1993). 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.” EPA, Operating Permit Program, Final Rule, 57 Fed. Reg. 32,250, 32,251 (July 21, 1992).

Among other things, a Title V permit must not only include “enforceable emission limitations and standards [] and such other conditions as are necessary to assure compliance with applicable requirements,” but also 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(a) and (c); 40 C.F.R. §§ 70.6(a)(1), (c)(1).

Under the Clean Air Act, “any person” may petition EPA to object to a proposed permit “within 60 days after the expiration of [EPA’s] 45-day review period.” 42 U.S.C. § 7661d(b)(2); *see also* 40 C.F.R. § 70.8. Each objection in the petition must have been “raised with reasonable specificity during the public comment period provided for in § 70.7(h) of this part, unless the petitioner demonstrates that it was impracticable to raise such objections within such period, or unless the grounds for such objection arose after such period.” 40 C.F.R. § 70.8(d). Any objection included in the petition “must be based on a claim that the permit, permit record, or permit process is not in compliance with applicable requirements or requirements [of 40 C.F.R. Part 70].” 40 C.F.R. § 70.12(a)(2).

Upon receipt of a petition, EPA “shall issue an objection within [60 days] if the petitioner demonstrates to the Administrator that the permit is not in compliance with the requirements of this chapter, including the requirements of the applicable implementation plan.” 42 U.S.C. § 7661d(b)(2) (emphasis added); *see also* 40 C.F.R. § 70.8(c) (“The Administrator will object to the issuance of any proposed permit determined by the Administrator not to be in compliance with applicable requirements or requirements under this part.”). When deciding whether a petitioner has met this demonstration requirement, EPA will evaluate the entirety of the permit record, including the statement of basis and response to comments. *See In re Valero Refining-Texas, L.P.*, Order on Petition No. VI-2021-8 at 10-11 (June 30, 2022).

GROUNDS FOR OBJECTION

Petitioners request the Administrator to object to the initial Title V Permit for the West Elk Mine on the basis that it:

- I. Fails to ensure the West Elk Mine operates in compliance with applicable major source permitting requirements under the Clean Air Act's Prevention of Significant Deterioration (PSD) permitting program set forth in the Colorado SIP. The Title V Permit fails to ensure that Arch Coal meets, among other requirements, best available control technology (BACT) limits on VOC emissions from the mine's ventilation system;
- II. Fails to assure the West Elk mine utilizes maximum achievable control technology (MACT) to limit emissions of HAPs. The Title V Permit fails to meet Clean Air Act requirements to limit HAPs, in particular hexane.
- III. Fails to ensure the West Elk Mine operates in compliance with the applicable VOC emission limits in the Title V Permit. The Title V Permit fails to contain any operational limits or standards to ensure Arch Coal operates in compliance.
- IV. Fails to require sufficient periodic monitoring of VOC emissions from the West Elk Mine ventilation system. The Title V Permit relies on vague and unenforceable monitoring requirements that do not constitute sufficient periodic monitoring that assures compliance under Title V.

This Petition is based on objections to the permit raised with reasonable specificity during the public comment period. To the extent the EPA may somehow believe this Petition is not based on comments raised with reasonable specificity during the public comment period, Petitioners request the Administrator also consider this a Petition to reopen the Title V permit for the West Elk Mine in accordance with 40 CFR § 70.7(f).³ A permit reopening and revision is mandated in this case because of one or both of the following reasons:

1. Material mistakes or inaccurate statements were made in establishing the terms and conditions in the permit. *See* 40 CFR § 70.7(f)(1)(iii). As will be discussed in more detail, the proposed Title V permit for the West Elk mine suffers from material mistakes in violation of applicable requirements, etc.; and
2. The permit fails to assure compliance with the applicable requirements. *See* 40 CFR § 70.7(f)(1)(iv). As will be discussed in more detail, the Title V Permit for the West Elk Mine fails to assure compliance with several applicable requirements.

³ To the extent the Administrator may not believe citizens can petition for reopening for cause under 40 CFR § 70.7(f), Petitioners also hereby petitions to reopen for cause in accordance with 40 CFR § 70.7(f) and pursuant to 5 USC § 555(b) (a person may appear before a federal agency to present issues and the agency must conclude a matter presented to it).

The Administrator must object to or order the reopening of the Title V Permit for the West Elk Mine for the following reasons:

I. The Title V Permit Fails to Assure Compliance with Prevention of Significant Deterioration Requirements in the Colorado State Implementation Plan

In issuing the Title V Permit for the West Elk Mine, the Division failed to ensure compliance with applicable Clean Air Act PSD requirements in the Colorado SIP. Specifically, while permitting the Mine as a major source under PSD and the Colorado SIP, the Division failed to ensure the Title V Permit assures the Mine operates in compliance with major source requirements in the Colorado SIP, including applicable BACT requirements. Pursuant to 42 U.S.C. § 7661d(b)(2) and 40 C.F.R. § 70.8(d), the EPA must object over the failure of the Division to ensure the Title V Permit assures compliance with the Colorado SIP.

A. Petitioners Raised this Issue with Reasonable Specificity

Petitioners specifically raised the issue of whether the Permit for the West Elk Mine assures compliance with PSD requirements in the Colorado SIP and whether the Division adequately and appropriately assessed the SIP compliance status of the West Elk Mine. The Center for Biological Diversity raised the issue in detail on pages 1-4 of its comments and WildEarth Guardians raised the issue in detail on pages 1-4 of its comments. *See* Exhibit 4 at 1-4 and Exhibit 5 at 1-4.

B. The Title V Permit Authorizes the Construction and Operation of a Major Source Under PSD, Yet Fails to Assure Compliance With PSD Requirements in the Colorado SIP

In issuing the Title V Permit for the West Elk Mine, the Division authorized, for the first time, the construction and release of VOC emissions from the Mine's ventilation system. Specifically, the Title V Permit authorizes, for the first time, a physical change in operations at the Mine allowing Arch Coal to release up to 465 tons of VOCs annually from the Mine's ventilation boreholes (MVBs) and ventilation exhaust shafts and portals (MVAs). In doing so, the Division permitted the construction and operation of a major source under the Colorado SIP. *See* Title V Permit at Section I, Condition 3.1 (stating that the West Elk Mine is a major source of VOCs according to PSD requirements in the Colorado SIP).

According to PSD requirements in the Colorado SIP, a permit that authorizes the construction of a major stationary source must assure compliance with numerous applicable requirements, including, but not limited to, BACT requirements. *See e.g.* AQCC Regulation No. 3, Part D, Section VI.A.1; 5 C.C.R. 1001-5, Part D, Section VI.A.1.⁴ In spite of this, the

⁴ BACT is defined as “[a]n emission limitation [] based on the maximum degree of reduction of each regulated NSR [new source review] pollutant that would be emitted from any proposed major stationary source [] that the Division []taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such source[.]”. AQCC Regulation No. 3, Part D, Section II.A.8.

Division claims its permitting action has not authorized the construction and operation of a new major stationary source under PSD. Accordingly, the Division claimed it was not required to assure compliance with BACT and other requirements related to the permitting of major sources under the Colorado SIP.

The Division's claim and its omissions in the Title V Permit defy Title V of the Clean Air Act and the applicable implementation plan.

1. PSD, Colorado SIP Background

The PSD program under the Clean Air Act is meant to assure that decisions to permit increased air pollution in areas that are in compliance (i.e., attainment) with National Ambient Air Quality Standards are “made only after careful evaluation of all the consequences of such a decision and after adequate procedural opportunities for informed public participation in the decisionmaking process.” 42 U.S.C. § 7470(5). To this end, under the Clean Air Act's PSD requirements, “[n]o major emitting facility on which construction is commenced after August 7, 1977, may be constructed in any [attainment or unclassifiable] area [] unless [] a permit has been issued for such proposed facility [] setting forth emission limitations for such facility which conform to the requirements of [the Clean Air Act].” 42 U.S.C. 7475(a)(1); *see also* 40 C.F.R. § 51.166(a)(7)(iii) (setting forth federal requirement that state implementation plans ensure no new major stationary source begins actual construction without a permit assuring compliance with the Clean Air Act). The Clean Air Act requires that permits issued under PSD assure, among other things, that sources are “subject to the best available control technology” for pollutants subject to PSD permitting. *See* 42 U.S.C. § 7475(a)(4); *see also* 40 C.F.R. § 51.166(j)(2).

A “major emitting facility” generally refers to any stationary source of air pollution that has the potential to emit 250 tons per year or more of any air pollutant. 42 U.S.C. § 7479(1); *see also* 40 C.F.R. § 51.166(b)(1)(i)(b) (requiring state implementation plans to define “major stationary source” to generally mean any stationary source “which emits or has the potential to emit, 250 tons per year or more of a regulated NSR [New Source Review] pollutant”). Federal regulations implementing PSD further state that, a “major stationary source” also includes, “[a]ny physical change that would occur at a stationary source not otherwise qualifying [] as a major stationary source, if the change would constitute a major stationary source by itself.” 40 C.F.R. §§ 51.166(b)(1)(i)(c).

Pursuant to Title I of the Clean Air Act, the PSD program has been incorporated by the EPA into the Colorado SIP under AQCC Regulation No. 3, 5 C.C.R. 1001-5. Specifically, the Colorado SIP states that “[a]ny new major stationary source or major modification [] shall not begin actual construction in a[n] attainment [] or unclassifiable area unless a permit has been issued containing all applicable state and federal requirements.” AQCC Regulation No. 3, Part D, Section I.A.1. Similarly, a “major stationary source” (i.e. major emitting facility) generally refers to any stationary source of air pollution that has the potential to emit “two hundred and fifty tons per year or more of any regulated NSR [New Source Review] pollutant.” AQCC Regulation No. 3, Part D, Section II.A.25.a.(ii). Consistent with federal PSD regulations, the Colorado SIP states that a “major stationary source” also includes, “[a]ny physical change that

would occur at a stationary source not otherwise qualifying as a major stationary source [] if the change would constitute a major stationary source by itself.” AQCC Regulation No. 3, Part D, Section II.A.25.c. As with the Clean Air Act, the Colorado SIP requires that sources subject to PSD apply “Best Available Control Technology” for each pollutant subject to PSD permitting. AQCC Regulation No. 3, Part D, Section VI.A.1.a.

2. The West Elk Mine Title V Permit Authorizes the Construction and Operation of a New Major Stationary Source

There is no denying that the Title V Permit for the West Elk Mine authorizes the construction of a new major stationary source in an area designated as attainment with the national ambient air quality standards.

In issuing the Title V Permit, the Division, for the first time ever, has authorized both the construction and operation of a stationary source that has the potential to emit more than 250 tons per year of VOCs. *See* TRD at 2. According to the Title V Permit, the West Elk Mine is now permitted to emit up to 465 tons of VOCs annually from the mine’s ventilation boreholes (MVBs), identified as emission unit MVB-S026 and mine ventilation air system (MVA), which consists of the Deer Creek and Sylvester Gulch ventilation shafts, identified as emission unit MVA-S019. *See* Exhibit 1, Title V Permit at Section II, Conditions 1, 6, and 18 (setting forth 465 ton per year VOC limit and requiring VOC testing at MVBs and Deer Creek and Sylvester Gulch ventilation shafts).⁵ In response to comments, the Division itself explicitly acknowledged that, “of the date of the Mine’s application for the Title V permit (March 31, 2020), the Mine was a major stationary source of VOCs [and that] [c]ommenters are correct that the Mine’s cumulative potential to emit VOC is over the major stationary source threshold for PSD, and that the Mine is considered a major stationary source as defined in Colorado Regulation No. 3, Part D, Section II.A.25.” Exhibit 6, Response to Comments at 4.

Prior to the issuance of the Title V Permit, Arch Coal was not permitted to construct or to emit VOCs from the MVBs and was not permitted under the Colorado SIP to construct or to emit VOCs from the Deer Creek ventilation shaft. Additionally, while Arch Coal was permitted to construct the Sylvester Gulch shaft under Construction Permit No. 09GU1382, it was not permitted to operate the shaft in a manner that emitted VOCs. Put another way, prior to the issuance of the Title V Permit, Arch Coal had absolutely no authorization under the Colorado SIP to construct or operate the VOC emission sources that are now included in the Title V Permit. Essentially, prior to the issuance of the Title V Permit, Arch Coal apparently illegally built and operated the VOC emission sources that are now included in the Title V Permit.

In spite of Arch Coal’s illegal building and operation, the Division claims its permitting action did not authorize a “new” source of emissions. As the Division asserts in its response to

⁵ The 465 ton per year limit on VOCs is a combined limit that applies to the sum of total emissions from the MVBs and MVAs. Thus, as a practical matter, the emission limit authorizes emissions of up to 465 tons of VOCs from the MVBs or the MVAs. In other words, if the MVAs emit zero tons of VOCs per year, then the MVBs would be allowed to emit up to 465 tons per year, or vice-a-versa. Thus, as a practical matter, for either emission point, the potential to emit would be 465 tons per year of VOCs.

comments, “[T]he Division’s action in issuing this Title V permit is not authorizing the construction of a source or emission unit creating new emissions.” Exhibit 6, Response to Comments at 5. While it may be true that Arch Coal’s illegal VOC emission sources were “existing” in a literal sense, legally the Division is incorrect that its Title V permitting action did not authorize the construction of a source or emission unit creating new emissions.

Under PSD requirements in the Clean Air Act and the Colorado SIP, for a stationary source to have constructed a major emitting facility and to therefore be an “existing” major source, that source would have had to “commence” construction. Under PSD, the term “commenced” as applied to the construction of a “major emitting facility” means the:

[O]wner or operator has obtained all necessary preconstruction approvals or permits required by Federal, State, or local air pollution emissions and air quality laws or regulations and either has (i) begun, or caused to begin, a continuous program of physical on-site construction of the facility or (ii) entered into binding agreements or contractual obligations, which cannot be canceled or modified without substantial loss to the owner or operator, to undertake a program of construction of the facility to be completed within a reasonable time.

42 U.S.C. § 7479(2)(A).⁶ This definition is echoed in the Colorado SIP. *See* AQCC Regulation No. 3, Part A, Section I.B.14. In other words, for a major source to have been constructed, that source would have had to first commence construction, which means the source would have had to obtain “all necessary preconstruction approvals or permits” required by federal, state, or local air quality laws and regulations.

Here, while Arch Coal may have begun or caused to begin a continuous program of on-site construction of the MVBs and MVA, Arch never obtained all necessary preconstruction approvals or permits. Notably, Arch never obtained a necessary preconstruction permit from the Division, as required by the Colorado SIP at AQCC Regulation No. 3, Part B. Under the SIP, no stationary source can be constructed without first obtaining a permit to construct. *See* AQCC Regulation No. 3, Part B, Section II.A.1. Arch also certainly did not obtain any necessary major source permit in accordance with the Colorado SIP at AQCC Regulation No. 3, Part D. Bottomline is, the West Elk mine was not “grandfathered” as an “existing” major source and the Division erred in presuming this to be the case.

Under the Colorado SIP, this means the Title V Permit for the West Elk Mine constitutes the preconstruction approval necessary to approve the construction and operation of the MVBs and MVAs and the release of up to 465 tons of VOCs annually. This means the Title V Permit does, in fact, permit the new construction of a major stationary source under the Colorado SIP. This further means the Division was required to ensure the Title V Permit assured compliance with PSD permitting requirements under the Colorado SIP.

⁶ Under the Clean Air Act, “[N]ecessary preconstruction approvals or permits” means “permits or approvals, required by the permitting authority as a precondition to undertaking any activity under clauses (i) or (ii) of [42 U.S.C. § 7479(2)(A)].” 42 U.S.C. § 7479(2)(B).

We acknowledge it could be argued the MVBs and MVA are “existing” sources by virtue of the fact that the West Elk Mine, as a stationary source, was first permitted to construct in 1980 or in subsequent years. *See* Exhibit 2, TRD at 4. However, this argument is belied by the fact that the definition of “major stationary source” under the Colorado SIP also includes, “[a]ny physical change that would occur at a stationary source not otherwise qualifying as a major stationary source [] if the change would constitute a major stationary source by itself.” AQCC Regulation No. 3, Part D, Section II.A.25.c.

Even if the West Elk Mine could be an “existing” stationary source, then the permitting of the MVBs and MVAs, and the release of previously unpermitted VOC emissions, would unquestionably constitute the permitting of a physical change that constitutes a major stationary source by itself.

Under the Colorado SIP, “physical change” is broadly defined and, as applied to the West Elk Mine, only excludes “[r]outine maintenance, repair, and replacement,” “[u]se of an alternative fuel or raw material,” “[a]n increase in the production rate,” “[a]n increase in the hours of operation,” and “[a]ny change in ownership[.]”. AQCC Regulation No. 3, Part D, Sections II.A.23.c and II.A.23.d.⁷ The construction and operation of a extensive MVB system that has the potential to release hundreds of tons of VOCs, as well as the construction of the MVA system also with the potential to release of hundreds of tons of VOCs, undoubtedly represents a “physical change” at the West Elk Mine.⁸ These activities do not represent routine maintenance, repair, and replacement, or any of the other activities excluded from the definition of “physical change” under the Colorado SIP.

Given that the construction and the operation of the MVBs and MVA system has the potential to emit more than 250 tons per year of VOCs, then this physical change represents a “major stationary source by itself.” Under the Colorado SIP, this means the MVBs and MVA system indeed constituted a new major stationary source.

Accordingly, in permitting, for the first time, the construction and operation of the MVBs and MVA system and the release of up to 465 tons of VOCs annually, the Division did, in fact, permit a physical change that is a major stationary source by itself. Accordingly, the Division permitted the construction of a new major stationary source. Again, while the Division may assert that this “physical change” is existing, because Arch Coal never obtained the necessary preconstruction approvals or permits under the Colorado SIP, construction of this “physical change” never legally commenced and therefore was never legally constructed in the first place.

The Division is simply wrong in its belief that companies are allowed to illegally construct and operate major sources of air pollution in order to establish an “existing” source and avoid compliance with major source permitting requirements under the Colorado SIP. It is only

⁷ “Physical change” also excludes other activities that are specific to the operation of steam generating units and “clean coal” facilities, not to coal mines like the West Elk Mine.

⁸ Although the Sylvester Gulch ventilation shaft was previously permitted to be constructed, the ventilation shaft was not permitted to release VOCs. The release of unpermitted VOCs from this ventilation shaft represents a “physical change” under the Colorado SIP.

now, through the issuance of the Title V Permit, that Arch Coal has obtained necessary preconstruction authorization to construct and operate the MVBs and MVA system and release VOCs. In effect, the Title V Permit represents the permitting of a new major stationary source. This means the Division was required to ensure the Title V Permit assured compliance with PSD permitting requirements under the Colorado SIP.

In response to comments on this issue, the Division recognized that “a source can be a ‘major stationary source’ if it undergoes a ‘physical change’ if the ‘change would constitute a major stationary source by itself.” Exhibit 6, Response to Comments at 4. Unfortunately, the Division’s inquiry of whether its permitting action authorized a “physical change” was premised upon its misplaced presumption that the MVBs and MVA system, and the attendant VOC emissions, were not “new” or were otherwise “existing.” The Division did not address the issue of whether Arch Coal legally commenced construction under the Colorado SIP and therefore could validly claim that the MVBs and MVA system, and their VOC emissions, were not “new” or otherwise “existing.”

In its response to comments, the Division argued:

In order for the Division to apply BACT [best available control technology] in this permit, the Division believes it would need to be able to determine at what point in time, and through what activities or changes at the Mine, the Mine began to emit over the regulatory thresholds to trigger PSD.

Exhibit 6, Response to Comments at 5. This argument holds weight in only one situation. If Arch Coal was already legally permitted to construct and operate the MVBs and MVA system, and to emit VOCs, then the Division would be correct that its inquiry would require the agency to determine if PSD was triggered based on an assessment of what activities or changes at the West Elk Mine triggered PSD and at what time. If, for example, Arch was previously permitted to emit 100 tons of VOCs, then an assessment of whether the West Elk Mine is in compliance with PSD would require the Division to assess whether any physical changes occurred at the Mine that led to an increase in VOC emissions of more than 250 tons per year. Arch Coal, however, was not previously permitted to emit VOC emissions or to construct the MVBs and MVA system.

Given this, the Division’s inquiry does not require the agency to determine if PSD was triggered based on an assessment of what activities or changes at the West Elk Mine triggered PSD and at what time. Rather, because Arch Coal’s prior construction and emissions were illegal, the Division’s inquiry starts and stops with the Title V Permit, which for the first time authorized the construction and operation of the MVBs and MVA system, and the emission of VOCs. The only question the Division must ask is, does the Title V Permit allow Arch to construct and operate the MVBs and MVA system, and if so, does it allow Arch to emit VOCs above major source thresholds? Here, the answer is yes, meaning the Division’s permitting action did indeed trigger PSD requirements in the Colorado SIP by authorizing a physical change that was itself a major source.⁹

⁹ In its response to comments, the Division relies upon an EPA statement from page 67 of the Title V Petition Order, *In the Matter of Suncor Energy (U.S.A.), Inc., Commerce City Refinery, Plant 2 (East)*, Order on Petition Nos. VIII-

Rather than address the fact that its permitting action authorized, for the first time, the construction and operation of a major stationary source under the Colorado SIP, the Division asserts that it is unable “to determine how and when the Mine became a major stationary source.” Exhibit 6, Response to Comments at 5. However, the question of past VOC emissions at the West Elk Mine is not relevant. What matters here is the Division’s Title V permitting action, which, for the first time, legally authorizes the release of more than 250 tons of VOCs due to physical changes at the Mine.

The Division asserts “the Mine’s potential to emit is not the same as at the time of its initial construction.” Exhibit 6, Response to Comments at 5. This response underscores the irrationality and illegality of the Division’s Title V Permit.

Under the Colorado SIP, the “potential to emit” of a stationary source is defined as:

The maximum capacity of a stationary source to emit a pollutant under its physical and operational design [and that] [a]ny physical or operational limitation on the capacity of the source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is state enforceable and federally enforceable.

AQCC Regulation No. 3, Part A, Section I.B.43; *see also* Colorado SIP at AQCC Common Provisions Regulation, Section I.G (defining “potential to emit”). Based on the disclosures of Arch Coal and the statements of the Division, the West Elk Mine has always had the potential to emit more than 250 tons of VOCs per year. Given the maximum capacity of the of the source to emit under its operational and physical design and given the previous lack of any federally enforceable limits on VOC emissions, the West Elk Mine has clearly had the potential to emit more than 250 tons per year since the day it was originally permitted to be constructed as a stationary source. In fact, a lack of federally enforceable limits on VOC emissions indicates the West Elk Mine has had the potential to emit at least 465 tons per year since it was originally constructed or at least since it was issued Construction Permit No. 09GU1382. If anything, this underscores that the Division improperly permitted the West Elk Mine as a minor source under the Colorado SIP. More importantly, it underscores that the Division, in approving a Title V Permit that authorizes the West Elk Mine as a major stationary source for the first time, was required to draft the Title V Permit in such a way as to assure compliance with PSD requirements in the Colorado SIP.

3. Additionally, or Alternatively, the Title V Permit Authorizes a New Major Stationary Source by Virtue of a Relaxation in Enforceable Limitations

2022-23 and VIII-2022-14 (July 31, 2023). *See* Exhibit 6, Response to Comments at 5. The EPA’s statement on page 67 of this Order referred to the issue of whether a source already legally permitted as a major source under PSD undertook a major modification. This Order did not address whether an illegally constructed major source should be permitted as a major source under the PSD provisions of the Colorado SIP.

The issuance of the Title V Permit additionally, or alternatively, represents the permitting of a major source under the PSD requirements of the Colorado SIP by virtue of the permit representing a relaxation in an enforceable limitation on VOC emissions that were previously in place. Although it appears clear that the Title V Permit authorized a physical change that itself constituted a major source, the relaxation in an enforceable limitation also, or alternatively, triggered PSD requirements that were applicable at the time the Title V Permit was issued.

Under the Colorado SIP, a stationary source can become a major source under PSD “by virtue of a relaxation in any enforceable limitation that was established after August 7, 1980, on the capacity of the source or modification to otherwise emit a pollutant[.]” AQCC Regulation No. 3, Part D, Section VI.B.4. Upon such a “relaxation” of an enforceable limitation, a source that becomes a major source is subject to PSD permitting requirements under the Colorado SIP at AQCC Regulation No. 3, Part D. *Id.*; *see also* 40 C.F.R. § 51.166(r)(2) (holding that SIPs must assure that where a stationary source becomes a major source by virtue of a relaxation in any enforceable limitation, PSD permitting requirements apply).

This “major source by relaxation” requirement is also set forth in the underlying construction permit for the West Elk Mine. According to Construction Permit No. 09GU1382, “[PSD] requirements shall apply to this source at any such time that this source becomes major solely by virtue of a relaxation in any permit condition. Any relaxation that increases the potential to emit above the applicable PSD threshold will require a full PSD review of the source as though construction had not yet commenced on the source.” Construction Permit No. 09GU1382 at Condition 13, p. 4.

In this case, prior to the issuance of the Title V Permit, the West Elk Mine was subject to enforceable limits on VOC emissions. Specifically, Arch Coal was previously not permitted to emit any amount of VOCs. Indeed, the underlying construction permit for the West Elk Mine authorized no VOC emissions whatsoever from any emission unit at the Mine. Further, the underlying construction permit did not authorize the construction and operation of the Deer Creek ventilation shaft or the MVBs. To the extent that Construction Permit No. 09GU1382, which was approved in June 2010 (i.e., after August 7, 1980), permitted the construction and operation of equipment and the release of emissions, the permit’s general terms and conditions explicitly stated that the permit “is valid only for the equipment and operations or activity specifically identified on the permit.” Construction Permit No. 09GU1382 at General Terms and Conditions 1, p. 11.

With the issuance of the Title V Permit, the Division has now relaxed the previous enforceable limitation on VOC emissions from the West Elk Mine. Where Arch Coal was previously not authorized to construct the Deer Creek ventilation shaft and MVBs, and to emit VOCs at any amount, the Title V Permit now authorizes the construction and operation of the Deer Creek ventilation shaft and MVBs, and the release of up to 465 tons of VOCs annually. Because this relaxation in an enforceable limitation has made the West Elk Mine a major source of VOCs, the Mine should have been subject to PSD permitting pursuant to the Colorado SIP as if construction had not yet commenced. This further underscores that the Division erred in describing the MVA system and MVBs, and their VOC emissions, as “existing,” and further

underscores that the Division was required to assure compliance with applicable PSD requirements in the Colorado SIP when issuing the Title V Permit.

4. Other Division Arguments against PSD Compliance Under the SIP are Without Basis

The Division also makes other arguments for dodging its duty to ensure compliance with PSD requirements in the Colorado SIP when issuing the Title V Permit. These arguments are meritless.

The Division asserts it has taken “enforcement” action to address outstanding noncompliance with PSD requirements in the Colorado SIP. See Exhibit 6, Response to Comments at 5. The Division refers to administrative regulation of the West Elk Mine that ultimately required Arch Coal to pay money and not make any changes in the operation of the West Elk Mine. *Id.* at 8. This administrative “enforcement” action did not address outstanding PSD compliance issues or otherwise address whether Arch Coal illegally constructed a major source under the PSD requirements in the Colorado SIP.

As the Division’s administrative Compliance Advisory and subsequent Compliance Order on Consent confirm, the Division did not address or resolve any violations of PSD requirements under the Colorado SIP and did not address or resolve whether the West Elk Mine should be permitted as a major source pursuant to the Colorado SIP.¹⁰ Neither the Compliance Advisory or the Compliance Order on Consent address, cite, or even mention any noncompliance with AQCC Regulation No. 3, Part D. See Exhibit 9, In the Matter of Mountain Coal Company L.L.C., Compliance Advisory, Case No. 2021-035 (April 13, 2021) and Exhibit 10, In the Matter of Mountain Coal Company L.L.C., Compliance Order on Consent, Case No. 2021-035 (March 20, 2023).

It is critical to note that to the extent enforcement under the Clean Air Act is utilized to address noncompliance with major source permitting, the EPA has consistently taken the position that where a source fails to obtain a major new source review permit and its actual emissions exceed major source thresholds “the source should be required to comply fully with all applicable NSR requirements, including major NSR permitting, control technology, air quality impact analysis and offsets.” EPA, “Guidance on the Appropriate Injunctive Relief for Violations of Major New Source Review Requirements,” Memo from Eric Schaeffer, Director, Office of Regulatory Enforcement (Nov. 17, 1998) at 3-4, available online at <https://www.epa.gov/sites/default/files/2015-07/documents/nsrguida.pdf> (last accessed Jan. 30, 2024). Here, Arch Coal illegally constructed its MVBs and MVA system and actually emitted

¹⁰ The Division’s administrative “enforcement” action also cannot be relied upon to address outstanding noncompliance with any provisions in the Colorado SIP because the action did not result in the establishment of any federally enforceable provisions that would establish federally enforceable conditions in the Title V Permit to assure compliance with applicable requirements. It is notable that no terms of the Division’s Compliance Order are included in the Title V Permit and the Compliance Order on Consent is not identified in the TRD or the Title V Permit as an applicable requirement pursuant to Title V.

more than 250 tons of VOCs per year without obtaining a major new source review permit.¹¹ Given this, any enforcement action against Arch Coal over its illegal construction and operation of a major source would still require the company to “fully comply with all applicable NSR requirements.”

The Division also asserts that there is a statute of limitations barring their ability to assure the West Elk Mine operates in compliance with PSD requirements under the Clean Air Act. While this argument is curious because it presupposes the West Elk Mine is, indeed, out of compliance with PSD requirements under the Colorado SIP, this argument is nonetheless baseless.

To begin with, Title V of the Clean Air Act contains no statute of limitations regarding the requirement that a permit assure compliance with applicable requirements and the applicable implementation plan. A permit must include “enforceable emission limitations and standards [] as are necessary to assure compliance with applicable requirements of this chapter, including the requirements of the applicable implementation plan.” 42 U.S.C. § 7661c(a). Nothing in Title V states or remotely suggests that the requirement that a permit assure compliance is time-barred or otherwise constrained. Title V plainly states that a permit must assure compliance. This means that where a source is not in compliance a Title V Permit must be written in such a way as to bring the source into compliance, regardless of when the noncompliance began. The EPA’s duty to object under Title V is similarly unconstrained. The EPA “shall” object to any permit that contains provisions that are not in compliance with an applicable implementation plan. 42 U.S.C. § 7661d(b)(1). Nothing in Title V allows the EPA to avoid objecting to a non-compliant permit because of when the non-compliance occurred.

The Division cites outside of Title V and the Clean Air Act to 28 U.S.C. § 2462 to support its argument that a statute of limitations bars addressing noncompliance with PSD requirements in the Colorado SIP. This statutory provision does not apply to Title V permitting. Rather, it applies to federal enforcement and in particular “enforcement of any civil fine, penalty, or forfeiture, pecuniary or otherwise[.]” The permitting action here is not an enforcement action and therefore 28 U.S.C. § 2462 is inapplicable.

The Division makes note of a citizen enforcement action under the Clean Air Act against the West Elk Mine over violations of PSD requirements in the Colorado SIP and Title V. *See WildEarth Guardians, et al. v. Mountain Coal Company, et al.*, 20-cv-01342-RM-STV (D. Colo. 2020). That case did not result in the dismissal of any claims on the basis of any statute of limitations argument. In fact, the District Court Judge rejected a statute of limitations argument over the failure of Arch Coal to operate in compliance with a Title V permit. The Judge ultimately dismissed Plaintiffs’ PSD claims on the basis of insufficient allegations in the complaint, not on any statute of limitations argument. *See WildEarth Guardians v. Mt. Coal Co.*, 2021 U.S. Dist. LEXIS 60551; 2021 WL 1186669.¹²

¹¹ According to Air Pollutant Emission Notices submitted to the Division as part of Arch Coal’s November 5, 2020 revised Title V Permit application, actual VOC emissions in 2019 were more than 270 tons per year.

¹² In its TRD and Response to Comments, the Division cites to a U.S. Magistrate Judge ruling in support of its statute of limitations argument. *See WildEarth Guardians v. Mt. Coal Co.*, 2021 U.S. Dist. LEXIS 62612; 2021 WL

Regardless, the issue at hand is whether the Division properly permitted the West Elk Mine under Title V of the Clean Air Act. Any statute of limitations arguments that may remotely apply in an enforcement context are simply not applicable.

Finally, in the TRD, the Division seems to argue that because Arch Coal acted in “good faith,” that it did not engage in “sham permitting” and the Division was within its discretion to refuse to assure compliance with PSD requirements in the Colorado SIP. Exhibit 2, TRD at 6. The Division cites a 1989 EPA Memo entitled, “Limiting Potential to Emit in New Source Permitting.” To the extent this EPA Memo refers to assessing the “good faith” of a source, it is in the context of taking enforcement action, not in the context of assuring compliance with applicable requirements under Title V. The question of whether Arch Coal engaged in “sham permitting” was not relevant to addressing the question of whether the Division was required, as a nondiscretionary matter, to ensure the Title V Permit assured compliance with PSD permitting requirements. If anything, the Division’s reference to “sham permitting” and assessments of “good faith” seem only to underscore that there is, indeed, an outstanding PSD compliance issue that the Title V Permit should have resolved. In any case, any assessment of “good faith” on the part of Arch Coal has absolutely no relevancy and it is unfortunate that this misleading and inapplicable argument was included in the TRD.¹³

C. The Administrator Must Object

A Title V Permit must include “enforceable emission limitations and standards [] and such other conditions as are necessary to assure compliance with applicable requirements of this chapter, including the requirements of the applicable implementation plan.” 42 U.S.C. § 7661c(a). Put another way, while Title V requires compliance with all applicable requirements, the statute specifically requires compliance with a SIP (i.e., the applicable implementation plan). This requirement is especially relevant where a permit is a combined Title V and Construction Permit that is meant to fulfill the new source review requirements of a SIP.

To this end, EPA has specifically defined “applicable requirement” to include “[a]ny standard or other requirement provided for in the applicable implementation plan approved or promulgated by EPA through rulemaking under title I of the Act that implements the relevant requirements of the [Clean Air] Act.” 40 C.F.R. § 70.2. The 10th Circuit Court of Appeals has held “this term unambiguously refers to all requirements in a state’s implementation plan, such as [a state’s] requirements for major [New Source Review].” *Sierra Club v. EPA*, 964 F.3d 882, 890–91 (10th Cir. 2020). To this end, even the Colorado SIP states that applicable requirements

1300506. To the extent this ruling addressed statute of limitations, this ruling was subsequently overruled by the U.S. District Court Judge. The Division does not cite to or mention the U.S. District Court Judge’s ruling.

¹³ The Division’s assertion that Arch Coal has acted in good faith to address the West Elk Mine’s VOC emissions is belied by the fact that while Arch has known since at least 2011 that the VOC emission have been an issue, the company only began to formally address these emissions in 2020. *See* Exhibit 9. Nine years to begin to resolve illegal emissions is not good faith. Sadly, the Division seems to have condoned this foot-dragging and now has enabled Arch Coal to continue avoiding meaningful compliance with the Colorado SIP.

for sources subject to Title V permitting include “[a]ny standard or other requirement provided for in the state implementation plan.” AQCC Regulation No. 3, Part A, Section I.B.12.b.

The Colorado SIP incorporates PSD requirements under the Clean Air Act. Specifically, AQCC Regulation No. 3, Part D (as well as provisions in AQCC Regulation No. 3, Parts A and B referenced to or cited by AQCC Regulation No. 3, Part D), has been incorporated into the SIP that has been approved by the EPA through rulemaking under Title I of the Clean Air Act.

Accordingly, in issuing the Title V Permit, the Division was required to assure compliance with PSD permitting requirements under AQCC Regulation No. 3, Part D. Whether this was due to the Title V Permit authorizing the construction and operation of a new major stationary source and/or the Title V Permit relaxing enforceable limits, PSD requirements in the Colorado SIP were applicable. This means that the Title V Permit for the West Elk Mine should have ensured compliance with, among other things, BACT requirements under AQCC Regulation No. 3, Part D, Section VI.A.1, source impact analysis requirements under AQCC Regulation No. 3, Part D, Section VI.A.2, and additional impact analysis requirements under AQCC Regulation No. 3, Part D, Section VI.A.6.¹⁴ It did not.

In this case, the Division does not deny that the West Elk Mine is a major source under the Colorado SIP’s PSD requirements. Rather, the Division denies that in issuing the Title V Permit, it had an obligation to permit the West Elk Mine consistent with the Colorado SIP’s PSD requirements. As demonstrated in detail, the Division’s position on this issue is incorrect. In issuing the Title V Permit for the West Elk Mine, the Division, for the first time, authorized the construction and operation of a new major source. Additionally, or alternatively, the Title V Permit relaxed enforceable limits in such a way as to make the West Elk Mine a major stationary source. Accordingly, the Title V Permit was required to assure compliance with PSD permitting requirements in the Colorado SIP. It did not and the Administrator must object over the failure of the Title V Permit to assure compliance with the applicable implementation plan.

The EPA has held, “In reviewing a petition to object to a title V permit raising concerns regarding a state’s PSD permitting decision, the EPA generally will look to see whether the petitioner has shown that the state did not comply with its SIP-approved regulations governing PSD permitting, or whether the state’s exercise of discretion under such regulations was unreasonable or arbitrary.” *In the Matter of Seneca Energy II, LLC*, Order on Petition No. II-2012-01 at 3 (June 29, 2015).

Here, the Division did not comply with its SIP-approved regulations governing PSD permitting. The Division improperly determined that its Title V permitting action did not permit a major source under PSD requirements in the Colorado SIP and improperly determined it was not required to ensure the Title V Permit assured that Arch Coal would operate the West Elk Mine in compliance with PSD requirements in the Colorado SIP. The Division’s decision was not discretionary. Thus, this is not a matter of whether the Division acted unreasonably or arbitrarily.

¹⁴ Even the Division states that it “agrees” the BACT provisions under AQCC Regulation No. 3, Part D, Sections VI.A.1.a. and VI.A.1.b are “applicable requirements.” See Exhibit 6 Response to Comments at 4.

Accordingly, pursuant to 42 U.S.C. § 7661(b)(2) and 40 C.F.R. § 70.8(d), the Administrator has a nondiscretionary duty to object to the issuance of the Title V Permit for the West Elk Mine. The Administrator must object over the failure of the Division to assure the Title V Permit meets PSD permitting requirements under the Colorado SIP, including, but not limited to, that the Title V Permit fails to assure Arch Coal operates the West Elk Mine in compliance with BACT requirements according to AQCC Regulation No. 3, Part D, Section VI.A.1.

II. The Title V Permit Fails to Assure Compliance with Maximum Achievable Control Technology Requirements Under the Clean Air Act

The Title V Permit effectively permits a new major source of HAP emissions under the Clean Air Act. For the first time, the Title V Permit authorizes the construction and operation of the MVBs and the MVA system at the West Elk Mine, and the potential to emit 18.92 tons per year of n-hexane, a HAP listed under Section 112 of the Clean Air Act. Under the Clean Air Act, a major source of HAPs must meet applicable MACT requirements. Where there are no applicable MACT requirements, MACT must be established on a case-by-case basis. In the case of the West Elk Mine, there are no applicable MACT requirements. Accordingly, the Division was required to ensure compliance with case-by-case MACT requirements. The Division did not ensure compliance. Pursuant to 42 U.S.C. § 7661d(b)(2) and 40 C.F.R. § 70.8(d), the EPA must object over the failure of the Division to ensure the Title V Permit met applicable MACT requirements under the Clean Air Act.

A. Petitioners Raised this Issue with Reasonable Specificity

Petitioners specifically raised the issue of whether the Permit for the West Elk Mine assured compliance with the applicable VOC limit. WildEarth Guardians raised this issue in detail on page 6 of its comments. *See* Exhibit 5 at 6.

B. The Title V Permit Fails to Assure Compliance with Case-by-Case MACT Requirements

Under Section 112 of the Clean Air Act, a major source of HAPs must meet MACT requirements. *See* 42 U.S.C. § 7412(d). HAPs are listed under the Clean Air Act, as well as under regulation by the EPA. *See* 42 U.S.C. § 7412(b)(1) and 40 C.F.R. §§ 63.60-63.64. A major source of HAPs is any stationary source or group of stationary sources that has the potential to emit 10 tons per year or more of any single HAP or 25 tons per year of a combination of HAPs. *See* 42 U.S.C. § 7412(a)(1). A major source of HAPs is required to meet applicable MACT requirements promulgated by the EPA. *See* 42 U.S.C. § 7412(d).¹⁵ However,

¹⁵ MACT is defined as “the maximum degree of reduction in emissions of the hazardous air pollutants subject to this section (including a prohibition on such emissions, where achievable) that the Administrator, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable for new or existing sources [] through application of measures, processes, methods, systems or techniques[.]”. 42 U.S.C. § 7412(d)(2).

where the EPA has not promulgated applicable MACT requirements for a new major source of HAPs, that source must comply with MACT as determined on a case-by-case basis. *See* 42 U.S.C. § 7412(g)(2); *see also* 40 C.F.R. § 63.40.

In the case of the Title V Permit for the West Elk Mine, the Division authorized, for the first time, the construction of the MVBs and the MVA system, and the potential for these emission units to release more than 18 tons of n-hexane, a listed HAP under the Clean Air Act. While the Title V Permit itself does not establish any explicit limits on HAP emissions, the TRD indicates that the West Elk Mine has the potential to emit 18.92 tons of n-hexane and 20.64 tons of combined HAPs. *See* Exhibit 2, TRD at 3. The EPA has not promulgated MACT requirements for coal mines or listed coal mines as a source category under Section 112 of the Clean Air Act, meaning there are no MACT requirements specifically applicable to the West Elk Mine. Accordingly, in permitting the West Elk Mine under Title V, the Division was required to ensure compliance with Clean Air Act case-by-case MACT requirements pursuant to 40 C.F.R. § 63.43(c)(1). The Division did not do so.

In response to comments on this issue, the Division claimed that case-by-case MACT requirements did not apply “[b]ecause this permit action did not include a new or reconstructed source which was major for HAP[.]” Exhibit 6, Response to Comments at 16; *see also* Exhibit 2, TRD at 10. This response defies logic and the law.

For one, the Division is essentially arguing that because Arch Coal illegally constructed the MVBs and MVA system, which have the potential to emit HAPs above major source thresholds, that its permitting action does not authorize the construction and operation of a “new or reconstructed” source. Under the Division’s logic, polluters desiring to avoid compliance with Clean Air Act MACT requirements need only to illegally construct major sources and begin to illegally operate these unlawfully constructed sources so they can then claim the sources of HAPs are not “new or reconstructed.” While the Division’s argument is disturbing and reflects a deep misunderstanding about its role as a regulatory agency and protector of public health, the argument is nonetheless baseless.

The reality is that the Division’s permitting action authorized the construction and operation of a new major source of HAPs. While the Title V Permit may not permit the construction of the West Elk Mine as a brand new stationary source, the Title V Permit, for the first time, authorizes the “fabricat[ion], erect[ion], or install[ation] at any developed site a new process or production unit which in and of itself emits or has the potential to emit 10 tons per year of any HAP or 25 tons per year of any combination of HAP[.]”. 40 C.F.R. § 63.41 (defining what “construct a major source” means). The definition of “process or production unit” means “any collection of structures and/or equipment, that processes, assembles, applies, or otherwise uses material inputs to produce or store an intermediate or final product.” Here, the MVBs and MVA system constitute a collection of structures or equipment that process material inputs (i.e., vent gas) so that the West Elk Mine can produce coal.

Although Arch Coal may have illegally built the major source of HAPs in the first place, the practical effect of the Division’s Title V Permit is to officially sanction this construction, meaning the permit is, in effect, a permit to authorize the new construction of a major source. It

is critical to highlight that under 40 C.F.R. § 63.43(a), case-by-case MACT requirements apply whenever an owner or operator “constructs” an applicable major source of HAPs. In other words, the duty to comply with case-by-case MACT requirements does not dissolve because illegal construction concluded. Rather, case-by-case MACT remains an applicable requirement so long as an operator “constructs,” meaning that construction has occurred. The Title V Permit authorizes Arch Coal to construct and emit, therefore case-by-case MACT requirements apply.

The fact that case-by-case MACT requirements apply so long as an operator “constructs” an applicable major source has been regularly upheld by federal courts, including in the U.S. District Court for the District of Colorado. In a similar case where a Colorado utility constructed a major source, the Lamar Utilities Board argued that Section 112(g) was inapplicable given that their major source, a coal-fired power plant, had already been constructed. The Court held:

The Utilities’ arguments to the contrary are unavailing. The Utilities first reassert that they never violated § 112(g) because that provision sets forth only preconstruction requirements that do not apply to the Utilities because construction was already underway on the Project when the D.C. Circuit vacated the Delisting Rule. This Court previously rejected that argument in the Order partially denying the Utilities’ motion to dismiss:

While the plain text of the statute requires an operator to obtain a MACT determination before “construct[ing] or reconstruct[ing]” a major source, nothing in the text indicates that the operator is relieved of the responsibility of complying with the statute after construction begins. “[C]onstruct or reconstruct” are active verbs that have force after the permit is issued and after construction or reconstruction has begun.

WildEarth Guardians v. Lamar Utils. Bd., 932 F. Supp. 2d 1237, 1247 (D. Colo. 2013). Like with the Lamar Utilities Board, Arch Coal is not relieved of the responsibility of complying with the Section 112(g) simply because construction of the MVBs and MVA system has occurred.

Regardless, the Division’s summary rejection of the issue of whether Arch Coal is required to comply with case-by-case MACT requirements does not suffice under Title V. While the Division claims that its permitting action does not authorize a new or reconstructed source of HAPs, the Division does not explain in the TRD or response to comments how it reached this conclusion or on what legal grounds this conclusion is based. The Division cites no authority for its position and appears to simply believe that because the West Elk Mine exists, that it cannot be a new major source of HAPs. However, case-by-case MACT rules make clear that even if a stationary source exists, construction of a major source of HAPs can still occur at that stationary source.

C. The Administrator Must Object

A Title V Permit must include “enforceable emission limitations and standards [] and such other conditions as are necessary to assure compliance with applicable requirements of this chapter, including the requirements of the applicable implementation plan.” 42 U.S.C. § 7661c(a). Applicable requirements include, among other things, “Any standard or other

requirement under section 112 of the [Clean Air] Act[.]” 40 C.F.R. § 70.2 (defining “applicable requirement”).

In issuing the Title V Permit for the West Elk Mine, the Division was required to assure compliance with case-by-case MACT requirements under Section 112(g) of the Clean Air Act. The Division did not do so and did not rationally or reasonably explain why it refused to ensure the West Elk Mine operated in compliance with MACT requirements under Section 112 of the Clean Air Act. Although the West Elk Mine exists, the Division’s assertion that its permitting action did not authorize new construction of a major source of HAPs is not supported.

Accordingly, pursuant to 42 U.S.C. § 7661(b)(2) and 40 C.F.R. § 70.8(d), the Administrator has a nondiscretionary duty to object to the issuance of the Title V Permit for the West Elk Mine. The Administrator must object over the failure of the Division to assure the Title V Permit meets applicable Section 112(g) case-by-case MACT requirements under the Clean Air Act.

III. The Title V Permit Fails to Ensure the West Elk Mine Operates in Compliance With the Applicable VOC Emission Limit

For the first time ever, the Title V Permit imposes a limit on VOC emissions from ventilation activities at the West Elk Mine. Specifically, the Title V Permit imposes a limit on combined VOC emissions from the MVBs and MVA system of no more than 465 tons per year. Unfortunately, the Title V Permit does not actually assure that Arch Coal operates in such a manner as to assure compliance with this limit. Pursuant to 42 U.S.C. § 7661d(b)(2) and 40 C.F.R. § 70.8(d), the EPA must object over the failure of the Division to ensure the Title V Permit assures that the West Elk Mine will operate in compliance with the applicable VOC limit.

A. Petitioners Raised this Issue with Reasonable Specificity

Petitioners specifically raised the issue of whether the Permit for the West Elk Mine assured compliance with the applicable VOC limit. WildEarth Guardians raised this issue in detail on pages 4-5 of its comments. *See* Exhibit 5 at 4-5.

B. The Title V Permit Fails to Include Operational Requirements and Limitations to Assure Compliance with the Applicable VOC Limit

The Title V Permit for the West Elk Mine imposes a VOC limit of 465 tons per year for combined emissions from the MVBs and MVA system, which is an applicable requirement. *See* Exhibit 1, Title V Permit at Section II, Conditions 1 and 6. Unfortunately, the Title V Permit sets forth no operational requirements and limitations to assure that Arch Coal operates in compliance with this applicable requirement.

Under Title V, a permit must include enforceable emission limitations and standards [] and such other conditions as are necessary to assure compliance with applicable requirements[.]”. 42 U.S.C. § 7661c(a). To this end, while a Title V permit must include “[e]missions limitations and standards,” it must also include “those operational requirements and

limitations that assure compliance with all applicable requirements at the time of permit issuance.” 40 C.F.R. § 70.6(a)(1). In other words, a Title V permit must not only impose emission limits, but also set forth requirements and limitations on how a source is to operate in order to assure compliance with the applicable limits.

In the case of the West Elk Mine, while the Title V Permit imposes a limit on VOC emissions from the MVBs and MVA system, the Permit does not establish any requirements or limitations on the operation of these emission units such that it actually assures they operate in compliance.

With regards to the MVBs, the Title V Permit imposes no limitations on the number of MVBs that can operate and emit at any one time, sets forth no limits on throughput or hours of operation, and sets forth no other requirements or limitations to ensure the MVBs will not be operated in a manner that exceeds the applicable VOC limit.¹⁶ While Section II, Condition 1.1 requires Arch to calculate monthly VOC emissions in accordance with Section II, Conditions 1.4 and Condition 18, calculating emissions does not suffice to ensure that the MVBs will be operated in a manner that assures compliance with the VOC limit. The only condition that remotely relates to the operation of the MVBs is Condition 1.5, which requires Arch to ensure that MVBs not in operation are equipped with a closed and locked valve to prevent the release of air pollutants, and requires Arch to maintain records of “active,” “inactive,” and “which MVBs have been plugged and abandoned.” Exhibit 1, Title V Permit at Section II, Condition 1.5. Preventing emissions from MVBs that are not operating does not assure that operating MVBs will not exceed the applicable VOC limit. Further, maintaining records regarding active and inactive MVBs does not assure that the MVBs will be operated in such a manner as to assure compliance.

With regards to the MVA system, the Title V Permit does limit ventilation flow rate to no more than 2,250,000 standard cubic feet per minute, but this limit appears to relate to compliance with applicable particulate matter limits. *See* Exhibit 1, Title V Permit at Section II, Condition 6.2. In Arch Coal’s October 5, 2022 revised Title V Permit application forms, it appears that this throughput limit is meant to ensure compliance with applicable particulate matter limits. *See* Exhibit 3, Arch Coal, Revised Title V Permit Application Forms (Oct. 5, 2022) at PDF p. 34-35. As noted by the company, the applicable particulate matter limits are based on a “lb/scfm [standard cubic feet per minute]” emission factor, whereas the VOC limit is based on a “ton/day” estimate. *Id.* at PDF p. 35. In other words, this throughput limit has no relation to the applicable VOC limit.

Beyond this throughput limit, Section II Condition 6 establishes no operational requirements and limitations to assure that the MVA system complies with the applicable VOC limit. While Section II, Condition 6.1.2 requires Arch to calculate monthly VOC emissions in

¹⁶ Neither the Title V Permit, the TRD, or Arch Coal’s underlying application even explain how the MVBs are to be operated. For instance, while the Title V Permit clearly authorizes the construction (i.e., drilling) and operation of multiple MVBs, it is not clear how many MVBs are normally operating at one time and how each MVB is operated. As written, the Title V Permit appears to authorize Arch Coal to construct and operate as many MVBs as it wants and to operate the MVBs however it wants. Compliance with the applicable VOC limit cannot possibly be assured with such an open-ended authorization to construct and operate pollutant emitting activities.

accordance with Section II, Conditions 6.6 and Condition 18, calculating emissions does not suffice to ensure that the MVA system will be operated in a manner that assures compliance with the VOC limit.

In response to comments on this issue, the Division simply asserted, “The conditions of the permit are sufficient to assure compliance with VOC emission limitations.” Exhibit 6, Response to Comments at 13. The Division argued that the sampling, analysis, and emission calculation requirements of Section II, Condition 18 were sufficient to ensure the VOC limit is “practically enforceable.” *Id.* However, as the Division notes, compliance with Condition 18 only allows for the calculation of VOC emissions and does not actually establish any operational requirements or limitations. While calculating VOC emissions is important, calculating VOC emissions alone does not assure a source operates in compliance with the applicable limit.

C. The Administrator Must Object

A Title V Permit must include “enforceable emission limitations and standards [] and such other conditions as are necessary to assure compliance with applicable requirements of this chapter, including the requirements of the applicable implementation plan.” 42 U.S.C. § 7661c(a). To this end, while a Title V permit must include “[e]missions limitations and standards,” it must also include “those operational requirements and limitations that assure compliance with all applicable requirements at the time of permit issuance.” 40 C.F.R. § 70.6(a)(1).

To this end, in issuing the Title V Permit, the Division was required to include “those operational requirements and limitations that assure compliance” with applicable requirements. Specifically, the Division was required to include operational requirements and limitations for the MVBs and MVA system to ensure that these emission points were operated in compliance with the applicable VOC limit. The Title V Permit did not include such operational requirements and limitations.

Accordingly, pursuant to 42 U.S.C. § 7661(b)(2) and 40 C.F.R. § 70.8(d), the Administrator has a nondiscretionary duty to object to the issuance of the Title V Permit for the West Elk Mine. The Administrator must object over the failure of the Division to include operational requirements and limitations for the MVBs and MVA system, and to ensure that these emission points operate in compliance with the applicable VOC limit.

IV. The Title V Permit Fails to Require Sufficient Periodic Monitoring of VOC Emissions

Sufficient periodic monitoring is a cornerstone of a Title V permit. Without sufficient periodic monitoring, a Title V permit cannot assure compliance with applicable requirements under the Clean Air Act. In the case of the West Elk Mine, while the Title V Permit establishes, for the first time, an applicable limit on VOC emissions, the Permit fails to require monitoring sufficient to assure Arch Coal operates in compliance. Pursuant to 42 U.S.C. § 7661d(b)(2) and 40 C.F.R. § 70.8(d), the EPA must object over the failure of the Division to ensure the Title V

Permit contains sufficient periodic monitoring that assures the West Elk Mine will operate in compliance with the applicable VOC limit.

A. Petitioners Raised this Issue with Reasonable Specificity

Petitioners specifically raised the issue of whether the Permit for the West Elk Mine contains sufficient periodic monitoring to assure compliance with the applicable VOC limit. The Center for Biological Diversity raised this issue in detail on pages 4-5 of its comments. *See* Exhibit 4 at 4-5. WildEarth Guardians raised this issue in detail on pages 5-6 of its comments. *See* Exhibit 5 at 5-6.

B. The Title V Permit Fails to Include Sufficient Periodic Monitoring to Assure Compliance with the Applicable VOC Limit

The Title V Permit for the West Elk Mine imposes a VOC limit of 465 tons per year for combined emissions from the MVBs and MVA system, which is an applicable requirement. *See* Exhibit 1, Title V Permit at Section II, Conditions 1 and 6. The Title V Permit, however, does not require monitoring sufficient to assure that the West Elk Mine operates in compliance with this applicable requirement.

A Title V permit must “set forth [] monitoring [] requirements to assure compliance with the permit terms and conditions.” 42 U.S.C. § 7661c(b); *see also* 40 C.F.R. § 70.6(c)(1). To this end, a Title V permit must include “periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.” 40 C.F.R. § 70.6(a)(3)(i)(A). In other words, a Title V permit must not only impose emission limits, but also set forth adequate monitoring of emissions to assure compliance with the applicable emission limits.

Here, there are no underlying applicable requirements setting forth conditions for VOC monitoring at the West Elk Mine. In imposing VOC emission limits for the first time, the Title V Permit also imposes, for the first time, monitoring requirement that are supposed to assure compliance. *See* Exhibit 1, Title V Permit at Section II, Condition 18. Accordingly, the monitoring requirements in the Title V Permit must assure periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit. Unfortunately, the monitoring approved by the Division does not meet this minimum threshold under Title V of the Clean Air Act.

Of primary concerns is that provisions of Section II, Condition 18 are vague and unenforceable as a practical matter such that it cannot be relied upon to yield reliable data that are representative of Arch Coal’s compliance with the VOC limit.

1. “Active” is not Defined in the Context of Active MVBs

To begin with, Condition 18 requires flow monitoring and sampling and testing of VOC emissions from “active” MVBs. *See* Exhibit 1, Title V Permit at Section II, Conditions 18.1 and 18.2. The word “active” is not defined in the Title V Permit and it is unclear what it refers to. It

seems that the word “active” could refer to an emitting MVB, but it could also refer to a non-emitting MVB that is part of an active, multi-well venting operation. Further, as discussed in comments, because “active” is not defined, it is not clear if Arch Coal could temporarily shut off gas flow at wells and claim they are not active in order to avoid sampling and testing for VOC emissions altogether. Because “active” is not defined, Condition 18 is unenforceable as it relates to flow measurement and VOC sampling and testing for the MVBs. Accordingly, Condition 18 does not require sufficient periodic monitoring to assure compliance with the applicable VOC limit with regards to the MVBs.

In response to comments on this particular issue, the Division asserted, “Section II, Condition 1.5 specifies the criteria for what is considered an active and inactive MVB.” Exhibit 6, Response to Comments at 13. However, Section II, Condition 1.5 does not specify any criteria for what is considered an active or an inactive MVB. The Condition refers to “an MVB that is not in operation” and “inactive MVBs which are not plugged and abandoned,” but does not specify the criteria for what is considered an active or inactive MVB. The Title V Permit remains vague and unclear as to what constitutes an “active” MVB for purposes of assuring compliance with the applicable VOC limit.

2. The Permit Does Not Set Forth Any Specific VOC Monitoring Requirements

Section II, Condition 18.2 further fails to set forth any specific methodology for sampling and testing VOC emissions from the MVBs and MVA system. While the Condition requires Arch Coal to sample and test for VOC emissions using a “Division-approved sampling and analysis plan,” this plan is not set forth in the Title V Permit and it is unclear what this plan actually states or requires and where it can be obtained. It certainly is not possible to know or confirm whether adherence to this plan will be sufficient to yield reliable data from the relevant time period that are representative of Arch Coal’s compliance.

Compounding the failure of the Title V Permit to set forth the Division-approved sampling and analysis plan is that the Title V Permit allows Arch Coal and the Division to summarily modify the plan. Section II, Condition 18.2.3.1 specifically provides that Arch Coal can “elect” to modify the sampling and analysis plan “for any reason” and to submit for Division approval at least 30 calendar days prior to the next test required by Condition 18. Because Arch Coal can modify the plan “for any reason,” we presume this means any Division approval of any modified plan is all-but-guaranteed, meaning there are no legitimate criteria in place against which to assess whether the sampling and analysis plan actually constitutes sufficient periodic monitoring. The fact that the Title V Permit allows the sampling and analysis plan to be summarily modified without requiring modification pursuant to Title V modification procedures at 40 C.F.R. § 70.7(e) further indicates the Permit fails to comply with applicable requirements under Title V.

In response to these concerns, the Division asserted, “The Division’s requirements for these [sampling and analysis] plans are detailed in the APCD Compliance Test manual which is referenced in the permit condition and a link is provided in the permit (see <https://cdphe.colorado.gov/compliance-and-enforcement>).” Exhibit 6, Response to Comments at

14. The Division is mistaken. This link, which is cited in Section II, Condition 18.2, leads to a website that contains links to multiple reports, manuals and guides. It is not clear what specific manual is the Division referring to on this web page. While there is a document linked on this website entitled, “Compliance Test Manual,” this document sets forth no requirements, criteria, or standards specific to the West Elk Mine and the VOC sampling and analysis plan. Rather, this document is a general set of guidelines and practices for sources to follow when conducting compliance tests. The referenced “Compliance Test Manual” does not remotely constitute sufficient periodic monitoring for the West Elk Mine under Title V.

The Division also asserts, “Commenter submits no basis for the position that the sampling plan itself needs to be incorporated into the permit. That would be inconsistent with the Division’s understanding of EPA and other states’ approach to these types of issues.” Exhibit 6, Response to Comments at 14. The Division, unfortunately, seems to have a serious misunderstanding. Title V permits must “set forth” monitoring requirements to assure compliance with the permit terms and conditions. 42 U.S.C. § 7661c(b). Any monitoring must further yield reliable data from the relevant time period that are representative of Arch Coal’s compliance. 40 C.F.R. § 70.6(c)(1). The failure to include the sampling and analysis plan, or at least specific terms and conditions of the plan sufficient to demonstrate clear and specific requirements, in the Title V Permit means the Division has failed to “set forth” monitoring sufficient to ensure compliance.

The EPA has consistently held that where a plan, like the referenced sampling and analysis plan in Condition 18.2, is necessary to assure compliance with applicable requirements, it must be included in the Title V Permit. *See e.g., In the Matter of Oak Grove Management Company*, Order on Petition No. VI-2017-12 at 10 (Oct. 15, 2021) (holding that compliance “Maintenance, Startup, and Shutdown Plan” was necessary to assure compliance with applicable emission limits and therefore was required to be incorporated into the Title V permit). Here, the sampling and analysis plan is the only means of demonstrating compliance with the applicable VOC limit in the Title V Permit. Accordingly, implementing the plan not only constitutes necessary monitoring, it constitutes an operational requirement that must be included in the Title V Permit in accordance with 40 C.F.R. § 70.6(a)(1).

The Title V Permit’s reference to a vague, undefined, and unavailable “sampling and analysis plan” cannot suffice to meet Title V requirements that a permit contain sufficient periodic monitoring. Contrary to the Division’s assertion otherwise that, “The monitoring and analysis procedures are specific, publicly available, and appropriately referenced in the permit” (Exhibit 6, Response to Comments at 14), this is just not the case. Particularly given that the Title V Permit allows this plan to be summarily modified “for any reason,” the sampling and analysis plan requirements under Condition 18 are unenforceable and contrary to Title V.

3. The Permit Fails to Require Sufficiently Frequent Testing of VOC Emissions

Putting aside the fact that the Division has not set forth specific VOC sampling and analysis requirements, the Title V Permit also fails to require sufficiently frequent testing of VOC emissions to assure compliance.

At issue is the fact that VOC emissions from the MVBs and MVA system are extremely variable, a fact the Division and Arch Coal readily acknowledge. *See e.g.*, Exhibit 2 TRD at 4-5 (“There is too much inherent variability both between coal seams, and within the individual seams themselves to use coal production as a proxy for VOC emissions”); Exhibit 6, Response to Comments at 5 (“Based on the Division’s data and analysis, the VOC emissions are unique to an individual coal seam with high variability even within a coal seam.”) and 6 (“Mine VOC emissions are not steady state and likely a substantial fraction of the emissions occur during intermittent events.”); Exhibit 3, Revised Title V Permit Application Forms (Oct. 5, 2022) at PDF p. 25, Memo From Julie A. Rosen and James W. Sanderson to Colorado Air Pollution Control Division (Sept. 15, 2020) at 2 (“As sampling over the last 14 months have shown, gaseous emissions from the mine ventilation systems are variable depending on the geological conditions overlying the coal seam that are encountered as the longwall equipment mines the coal seam and the overlying rock breaks forming a rubblized zone.”). In spite of the “inherent” variability in VOC emissions, Section II, Condition 18.2 of the Title V Permit only requires testing twice monthly, and even then Condition 18.2.2.2 allows Arch Coal to conduct less frequent testing. It is not clear how twice monthly testing will yield reliable data to assure continuous compliance with the applicable VOC limit.

In response to comments on this issue, the Division simply asserted, “The permit includes sampling and testing at an appropriate interval.” Exhibit 6, Response to Comments at 14. The Division explains, “The established sampling/testing interval is based on test data from the past several years. The Division considers the sampling interval sufficiently frequent to address potential changes in VOC concentration[.]”. *Id.* It is not clear what “test data” the Division is referring to and how this “test data” demonstrates that twice monthly testing is sufficiently frequent. The TRD does not shed any additional light on the Division’s rationale. In fact, the TRD, which is supposed to set forth the legal and factual basis for the conditions of the Title V Permit in accordance with 40 C.F.R. § 70.7(a)(5), provides no explanation at all other than stating that active MVBs must be “sampled on a monthly basis” and that the MVA system must be sampled on a “twice per calendar month basis.” Exhibit 2, TRD at 13 and 14.¹⁷

The Division also asserts that twice monthly testing “will produce a substantial amount of data that can be used in reliance in the future.” Exhibit 6, Response to Comments at 14. Petitioners appreciate the Division’s desire to gather data, but a Title V Permit must contain sufficient periodic monitoring to assure compliance. Simply because data may be gathered does not mean that that data reliably reflects the compliance status of the West Elk Mine.

Most concerning is that Section II, Condition 18.2.2.2 allows for less frequent testing, potentially down to monthly, in the event that emissions are 50% below the applicable VOC limit. In response to comments, the Division states that it “considers this frequency appropriate and maintains a practically enforceable emissions limits” and that the Title V Permit “still requires sampling albeit monthly instead of twice monthly.” Exhibit 6, Response to Comments at 14. Given the “inherent” variability in VOC emissions, however, it is completely unsupported

¹⁷ The TRD’s reference to sampling on a “monthly basis” for active MVBs appears to be in error as Section II, Condition 18.2 of the Title V Permit requires twice monthly testing for active MVBs.

for the Title V Permit to allow for less frequent testing of VOC emissions. Based on the Division's and Arch Coal's own recognitions, while emissions may be low one month, they may be high another month. Regardless, it is not clear why the Division feels less frequent testing is "appropriate." Neither the Response to Comments or the TRD shed any light as to why less frequent monitoring is appropriate or constitutes sufficient periodic monitoring to assure compliance with the applicable VOC limit, particularly given that a substantial fraction of VOC emissions may occur during intermittent events.

Although Petitioners acknowledge that Section II, Condition 18.2.2.1 does require "immediate" sampling and analysis of the MVBs and MVA system in the event of a "hydrocarbon event," it is not clear that the variability of VOC emissions is tied solely to the occurrence of a hydrocarbon event. Furthermore, the Title V Permit does not require monitoring of "hydrocarbon events" to ensure they are detected if they occur. It is not clear how "hydrocarbon events" will be detected, documented, and addressed such that Condition 18.2.2.1 will actually affect Arch Coal's monitoring and can actually be enforced. While the Division states that its intention in requiring immediate sampling during hydrocarbon events is to address concerns over variability in VOC emissions and emissions during intermittent events (*see* Exhibit 6, Response to Comments at 6), without any requirements related to the monitoring of hydrocarbon events, it does not appear as if Condition 18.2.2.1 fulfills this intention. As the Division notes, hydrocarbon events "are largely unpredictable and occur randomly during mining." Exhibit 6, Response to Comments at 6. Without a rigorous system of detecting, documenting, and addressing hydrocarbon events, it does not appear that Condition 18.2.2.1 ensures sufficient periodic monitoring of VOC emissions during these events.

Regardless, although the Title V Permit requires "immediate" sampling, Condition 18.2.2.1 only requires sampling "as soon as is reasonably practicable with respect to mine and worker safety." Exhibit 1, Title V Permit at Section II, Condition 18.2.2.1.a. While it is not clear what "reasonably practicable with respect to mine and worker safety means," it clearly means that Arch Coal is not actually required to conduct immediate sampling in the event of a hydrocarbon event and it clearly means the Title V Permit does not require sufficiently frequent monitoring.

The EPA has held that, "Determining whether monitoring is adequate in a particular circumstance is generally a context-specific determination made on a case-by-case basis." *In the Matter of Cove Point LNG, L.P. Cove Point LNG Terminal*, Order on Petition No. III-2022-14 at 15 (March 8, 2023). In general, the EPA has described five factors that should be relied upon in determining appropriate monitoring, including:

- (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, the Division did not even engage in an assessment of these five

factors. Although acknowledging the variability in emissions, the Division did not assess the likelihood of Arch Coal violating the VOC limit, did not address the fact that no add-on controls are being utilized to control emissions, did not address the fact that there is a relative dearth of information regarding monitoring, process, maintenance or control equipment available for VOC emissions from the MVBs and MVA system, and did not address the fact that there are no other facilities currently monitoring similar emissions from similar units. It is safe to say that this is the first time ever that coal mine VOC emissions have been permitted under Title V and that monitoring has been required. In light of the unprecedented nature of the Title V Permit, more frequent testing of VOC emissions is required to ensure sufficient periodic monitoring is in place to assure compliance with the applicable VOC limit.

C. The Administrator Must Object

A Title V permit must “set forth [] monitoring [] requirements to assure compliance with the permit terms and conditions.” 42 U.S.C. § 7661c(b); *see also* 40 C.F.R. § 70.6(c)(1). To this end, a Title V permit must include “periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.” 40 C.F.R. § 70.6(a)(3)(i)(A).

In issuing the Title V Permit, the Division was required to include sufficient periodic monitoring to assure that the MVBs and MVA system at the West Elk Mine operated in compliance with the applicable VOC limit of 465 tons per year. The Title V Permit did not set forth such sufficient monitoring. The Title V Permit did not set forth clear and enforceable language regarding which MVBs are to be monitored, did not set forth the VOC sampling and analysis plan and related testing methodologies in sufficiently certain detail to ensure the enforceability and effectiveness of the sampling and analysis requirements, and did not require sufficiently frequent testing to assure compliance in light of the inherent variability of VOC emissions.

Accordingly, pursuant to 42 U.S.C. § 7661(b)(2) and 40 C.F.R. § 70.8(d), the Administrator has a nondiscretionary duty to object to the issuance of the Title V Permit for the West Elk Mine. The Administrator must object over the failure of the Division to set forth sufficient periodic monitoring to ensure the MVBs and MVA system are operated in compliance with the applicable VOC limit.

CONCLUSION

For the aforementioned reasons, the EPA must object to the Colorado Air Pollution Control Division’s issuance of the initial Title V Permit for Arch Coal to operate the West Elk Coal Mine. As demonstrated above, the Title V Permit fails to assure compliance with applicable requirements under the Colorado SIP, with other applicable requirements under the Clean Air Act, and fails to ensure compliance with Clean Air Act Title V requirements. In accordance with the Clean Air Act, the Administrator has a nondiscretionary duty to issue an objection to the Title V Permit within 60 days. *See* 42 U.S.C. § 7661d(b)(2).

Submitted this 30th day of January 2024

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Pursuant to 40 C.F.R. § 70.8(d), copies of this petition are being concurrently transmitted to the following parties:

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TABLE OF EXHIBITS

1. West Elk Coal Mine Title V Permit, Permit No. 20OPGU411 (Dec. 8, 2023)
2. West Elk Coal Mine Title V Permit Technical Review Document (Dec. 8, 2023)
3. Arch Coal Revised West Elk Coal Mine Title V Permit Application (Nov. 5, 2020)
4. Center for Biological Diversity Comments on Draft West Elk Coal Mine Title V Permit (June 23, 2023)
5. WildEarth Guardians Comments on Draft West Elk Coal Mine Title V Permit (Aug. 3, 2023)
6. Colorado Air Pollution Control Division Response to Public Comments on Draft West Elk Coal Mine Title V Permit (Oct. 16, 2023)
7. E-mail from Donald Law, EPA Region 8, to Jeremy Nichols, Center for Biological Diversity (Dec. 5, 2023)
8. EPA Region 8 Title V Operating Permit Public Petition Deadlines (last accessed Jan. 30, 2024)
9. West Elk Coal Mine Compliance Advisory (April 13, 2021)
10. West Elk Coal Mine Compliance Order on Consent (March 20, 2023)