BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Petition No. VIII-2023-11

In the Matter of

Bonanza Creek Energy Operating Company, LLC

Antelope CPF 13-21 Production Facility
Permit No. 20OPWE417

State Antelope O-1 Central Production Facility
Permit No. 20OPWE418

State North Platte 42-26 Central Production Facility
Permit No. 20OPWE419

and

State Pronghorn 41-32 Central Production Facility
Permit No. 20OPWE420

Issued by the Colorado Department of Public Health and Environment

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ORDER GRANTING A PETITION FOR OBJECTION TO TITLE V OPERATING PERMITS

I. INTRODUCTION

The U.S. Environmental Protection Agency (EPA) received a petition dated August 7, 2023 (the Petition) from the Center for Biological Diversity, Public Employees for Environmental Responsibility, 350 Colorado, Sierra Club, and GreenLatinos (the Petitioners), pursuant to section 505(b)(2) of the Clean Air Act (CAA or Act), 42 United States Code (U.S.C.) § 7661d(b)(2). The Petition requests that the EPA Administrator object to the following four operating permits issued by the Colorado Department of Public Health and Environment (CDPHE) to Bonanza Creek Energy Operating Company, LLC (Bonanza Creek) facilities in Weld County, Colorado: operating permit No. 20OPWE417 issued to the Antelope CPF 13-21 Production Facility (Antelope 13-21), operating permit No. 20OPWE418 issued to the State Antelope O-1 Central Production Facility (Antelope O-1), operating permit No. 20OPWE419 issued to the State North Platte 42-26 Central Production Facility (North Platte), and operating permit No. 20OPWE420 issued to the State Pronghorn 41-32 Central Production Facility (Pronghorn) (collectively, the Permits). The Permits were issued pursuant to title V of the CAA, 42 U.S.C. §§ 7661–7661f, and 5 Code of Colorado Regulations (CCR) 1001-5, Part C. *See also* 40 Code of Federal Regulations (C.F.R.)

part 70 (title V implementing regulations). This type of operating permit is also known as a title V permit or part 70 permit.

Based on a review of the Petition and other relevant materials, including the Permits, the permit records, and relevant statutory and regulatory authorities, and as explained in Section IV of this Order, the EPA grants the Petition requesting that the EPA Administrator object to the Permits.

II. STATUTORY AND REGULATORY FRAMEWORK

A. Title V Permits

Section 502(d)(1) of the CAA, 42 U.S.C. § 7661a(d)(1), requires each state to develop and submit to the EPA an operating permit program to meet the requirements of title V of the CAA and the EPA's implementing regulations at 40 C.F.R. part 70. The state of Colorado submitted a title V program governing the issuance of operating permits on November 5, 1993. The EPA granted interim approval to the title V operating permit program in January 1995 and full approval in August 2000. *See* 60 Fed. Reg. 4563 (January 24, 1995) (interim approval); 61 Fed. Reg. 56368 (October 31, 1996) (revising interim approval); 65 Fed. Reg. 49919 (August 16, 2000) (full approval). This program is codified in 5 CCR 1001-5, Part C.

All major stationary sources of air pollution and certain other sources are required to apply for and operate in accordance with title V operating permits that include emission limitations and other conditions as necessary to assure compliance with applicable requirements of the CAA, including the requirements of the applicable implementation plan. 42 U.S.C. §§ 7661a(a), 7661b, 7661c(a). The title V operating permit program generally does not impose new substantive air quality control requirements, but does require permits to contain adequate monitoring, recordkeeping, reporting, and other requirements to assure compliance with applicable requirements. 40 C.F.R. § 70.1(b); 42 U.S.C. § 7661c(c). One purpose of the title V program is to "enable the source, States, EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements." 57 Fed. Reg. 32250, 32251 (July 21, 1992). Thus, the title V operating permit program is a vehicle for compiling the air quality control requirements as they apply to the source's emission units and for providing adequate monitoring, recordkeeping, and reporting to assure compliance with such requirements.

B. Review of Issues in a Petition

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

Each petition must identify the proposed permit on which the petition is based and identify the petition claims. 40 C.F.R. § 70.12(a). Any issue raised in the petition as grounds for an objection must be based on a claim that the permit, permit record, or permit process is not in compliance with applicable requirements or requirements under part 70. 40 C.F.R. § 70.12(a)(2). Any arguments or claims the petitioner wishes the EPA to consider in support of each issue raised must generally be contained within the body of the petition.[1] *Id.*

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

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

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

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

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

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

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

Nucor Steel Louisiana, Order on Petition Nos. VI-2011-06 and VI-2012-07 at 4–7 (June 19, 2013) (*Nucor II Order*).

The EPA considers a number of criteria in determining whether a petitioner has demonstrated noncompliance with the Act. *See generally Nucor II Order* at 7. For example, one such criterion is whether a petitioner has provided the relevant analyses and citations to support its claims. For each claim, the petitioner must identify (1) the specific grounds for an objection, citing to a specific permit term or condition where applicable; (2) the applicable requirement as defined in 40 C.F.R. § 70.2, or requirement under part 70, that is not met; and (3) an explanation of how the term or condition in the permit, or relevant portion of the permit record or permit process, is not adequate to comply with the corresponding applicable requirement or requirement under part 70. 40 C.F.R. § 70.12(a)(2)(i)–(iii). If a petitioner does not identify these elements, the EPA is left to work out the basis for the petitioner's objection, contrary to Congress's express allocation of the burden of demonstration to the petitioner in CAA § 505(b)(2). *See MacClarence*, 596 F.3d at 1131 ("[T]he Administrator's requirement that [a title V petitioner] support his allegations with legal reasoning, evidence, and references is reasonable and persuasive.").[6] Relatedly, the EPA has pointed out in numerous previous orders that general assertions or allegations did not meet the demonstration standard. *See, e.g.*, *In the Matter of Luminant Generation Co., Sandow 5 Generating Plant*, Order on Petition Number VI-2011-05 at 9 (Jan. 15, 2013).[7] Also, the failure to address a key element of a particular issue presents further grounds for the EPA to determine that a petitioner has not demonstrated a flaw in the permit. *See, e.g.*, *In the Matter of EME Homer City Generation LP and First Energy Generation Corp.*, Order on Petition Nos. III-2012-06, III-2012-07, and III-2013-02 at 48 (July 30, 2014).[8]

Another factor the EPA examines is whether the petitioner has addressed the state or local permitting authority's decision and reasoning contained in the permit record. 81 Fed. Reg. at 57832; *see Voigt v. EPA*, 46 F.4th 895, 901–02 (8th Cir. 2022); *MacClarence*, 596 F.3d at 1132–33.[9] This includes a requirement that petitioners address the permitting authority's final decision and final reasoning (including the state's response to comments) where these documents were available during the timeframe for filing the petition. 40 C.F.R. § 70.12(a)(2)(vi). Specifically, the petition must identify where the permitting authority responded to the public comment and explain how the permitting

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

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

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

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

authority's response is inadequate to address (or does not address) the issue raised in the public comment. *Id*.

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

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

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

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

When a permitting authority responds to an EPA objection, it may choose to do so by modifying the permit terms or conditions or the permit record with respect to the specific deficiencies that the EPA

identified; permitting authorities need not address elements of the permit or the permit record that are unrelated to the EPA's objection. As described in various title V petition orders, the scope of the EPA's review (and accordingly, the appropriate scope of a petition) on such a response would be limited to the specific permit terms or conditions or elements of the permit record modified in that permit action. *See In the Matter of Hu Honua Bioenergy, LLC*, Order on Petition No. VI-2014-10 at 38–40 (Sept. 14, 2016); *In the Matter of WPSC, Weston*, Order on Petition No. V-2006-4 at 5–6, 10 (Dec. 19, 2007).

III. BACKGROUND

A. The Antelope 13-21 Facility and Permitting History

The Antelope 13-21 facility, owned by Bonanza Creek, is located in Kersey, Weld County, Colorado. This area is classified as being in severe non-attainment for the 8-hour ozone standard. The facility is a centralized production facility that receives, treats, stores, and sends out both oil and natural gas from multiple remote wells. The facility is a major source under title V for volatile organic compounds (VOC) and nitrogen oxides (NO_x).

The EPA used EJScreen[10] to review key demographic and environmental indicators within a 5-kilometer radius of the Antelope 13-21 facility. This review showed a total population of approximately 14 residents within a 5-kilometer radius of the facility, of which approximately 24 percent are people of color and 36 percent are low income. In addition, the EPA reviewed the EJScreen Environmental Justice Indices, which combine certain demographic indicators with 13 environmental indicators. The following table identifies the Environmental Justice Indices for the 5-kilometer radius surrounding the facility and their associated percentiles when compared to the rest of the State of Colorado.

EJ Index	Percentile in State
Particulate Matter 2.5	24
Ozone	4
Diesel Particulate Matter	26
Air Toxics Cancer Risk	21
Air Toxics Respiratory Hazard	47
Toxic Releases to Air	18
Traffic Proximity	5
Lead Paint	72
Superfund Proximity	14
RMP Facility Proximity	38
Hazardous Waste Proximity	28
Underground Storage Tanks	34
Wastewater Discharge	81

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

On November 19, 2020, Bonanza Creek submitted an application for an initial title V operating permit for the Antelope 13-21 facility. CDPHE published notice of a draft permit on March 6, 2023, subject to a public comment period that ran until April 5, 2023. On April 19, 2023, CDPHE submitted the proposed permit, along with its responses to public comments (Antelope 13-21 RTC), to the EPA for its 45-day review. The EPA's 45-day review period ended on June 5, 2023, during which time the EPA did not object to the proposed permit. CDPHE issued the final title V permit for the Antelope 13-21 facility (Antelope 13-21 Permit) on June 6, 2023.

B. The Antelope O-1 Facility and Permitting History

The Antelope O-1 facility, owned by Bonanza Creek, is located in Kersey, Weld County, Colorado. This area is classified as being in severe non-attainment for the eight-hour ozone standard. The facility is a centralized production facility that receives, treats, stores, and sends out both oil and natural gas from multiple remote wells. The facility is a major source under title V for VOC and NO_x.

The EPA used EJScreen to review key demographic and environmental indicators within a 5-kilometer radius of the Antelope O-1 facility. This review showed a total population of approximately 52 residents within a 5-kilometer radius of the facility, of which approximately 24 percent are people of color and 36 percent are low income. In addition, the EPA reviewed the EJScreen Environmental Justice Indices, which combine certain demographic indicators with 13 environmental indicators. The following table identifies the Environmental Justice Indices for the 5-kilometer radius surrounding the facility and their associated percentiles when compared to the rest of the State of Colorado.

EJ Index	Percentile in State
Particulate Matter 2.5	24
Ozone	4
Diesel Particulate Matter	26
Air Toxics Cancer Risk	21
Air Toxics Respiratory Hazard	47
Toxic Releases to Air	18
Traffic Proximity	5
Lead Paint	72
Superfund Proximity	14
RMP Facility Proximity	38
Hazardous Waste Proximity	28
Underground Storage Tanks	34
Wastewater Discharge	81

On November 19, 2020, Bonanza Creek submitted an application for an initial title V operating permit for the Antelope O-1 facility. CDPHE published notice of a draft permit on March 6, 2023, subject to a public comment period that ran until April 5, 2023. On April 19, 2023, CDPHE submitted the proposed permit, along with its responses to public comments (Antelope O-1 RTC), to the EPA for its 45-day review. The EPA's 45-day review period ended on June 5, 2023, during which time the EPA did not object to the proposed permit. CDPHE issued the final title V permit for the Antelope O-1 facility (Antelope O-1 Permit) on June 6, 2023.

C. The North Platte Facility and Permitting History

The North Platte facility, owned by Bonanza Creek, is located in Kersey, Weld County, Colorado. This area is classified as being in severe non-attainment for the 8-hour ozone standard. The facility is a centralized production facility that receives, treats, stores, and sends out both oil and natural gas from multiple remote wells. The facility is a major source under title V for VOC and NO_x.

The EPA used EJScreen to review key demographic and environmental indicators within a 5-kilometer radius of the North Platte facility. This review showed a total population of approximately 92 residents within a 5-kilometer radius of the facility, of which approximately 18 percent are people of color and 28 percent are low income. In addition, the EPA reviewed the EJScreen Environmental Justice Indices, which combine certain demographic indicators with 13 environmental indicators. The following table identifies the Environmental Justice Indices for the 5-kilometer radius surrounding the facility and their associated percentiles when compared to the rest of the State of Colorado.

EJ Index	Percentile in State
Particulate Matter 2.5	40
Ozone	11
Diesel Particulate Matter	28
Air Toxics Cancer Risk	51
Air Toxics Respiratory Hazard	61
Toxic Releases to Air	18
Traffic Proximity	7
Lead Paint	62
Superfund Proximity	18
RMP Facility Proximity	50
Hazardous Waste Proximity	24
Underground Storage Tanks	23
Wastewater Discharge	73

On November 19, 2020, Bonanza Creek submitted an application for an initial title V operating permit for the North Platte facility. CDPHE published notice of a draft permit on March 6, 2023, subject to a public comment period that ran until April 5, 2023. On April 19, 2023, CDPHE submitted the proposed permit, along with its responses to public comments (North Platte RTC), to the EPA for its 45-day review. The EPA's 45-day review period ended on June 5, 2023, during which time the EPA did not object to the proposed permit. CDPHE issued the final title V permit for the North Platte facility (North Platte Permit) on June 6, 2023.

D. The Pronghorn Facility and Permitting History

The Pronghorn facility, owned by Bonanza Creek, is located in Kersey, Weld County, Colorado. This area is classified as being in severe non-attainment for the 8-hour ozone standard. The facility is a centralized production facility that receives, treats, stores, and sends out both oil and natural gas from multiple remote wells. The facility is a major source under title V for VOC.

The EPA used the EPA's EJScreen to review key demographic and environmental indicators within a 5-kilometer radius of the North Platte facility. This review showed a total population of zero residents within a 5-kilometer radius of the facility.

On November 11, 2020, Bonanza Creek submitted an application for an initial title V operating permit for the Pronghorn facility. CDPHE published notice of a draft permit on March 16, 2023, subject to a public comment period that ran until April 15, 2023. On May 8, 2023, CDPHE submitted the proposed permit, along with its responses to public comments (Pronghorn RTC), to the EPA for its 45-day review. The EPA's 45-day review period ended on June 22, 2023, during which time the EPA did not object to the proposed permit. CDPHE issued the final title V permit for the Pronghorn facility (Pronghorn Permit) on June 23, 2023.

E. Timeliness of Petition

Pursuant to the CAA, if the EPA does not object to a proposed permit during its 45-day review period, any person may petition the Administrator within 60 days after the expiration of the 45-day review period to object. 42 U.S.C § 7661d(b)(2). The EPA's 45-day review period for the Antelope 13-21, Antelope O-1, and North Platte permits expired on June 5, 2023. The EPA's website indicated that any petition seeking the EPA's objection to the Antelope 13-21, Antelope O-1, and North Platte permits was due on or before August 7, 2023. The EPA's 45-day review period for the Pronghorn Permit expired on June 22, 2023. The EPA's website indicated that any petition seeking the EPA's objection to the Pronghorn Permit was due on or before August 22, 2023. The Petition was received August 7, 2023, and, therefore, the EPA finds that the Petitioners timely filed the Petition.

IV. DETERMINATION ON CLAIM RAISED BY THE PETITIONERS

Claim I: The Petitioners Claim That "The Permits Unjustifiably Assume a Control Efficiency of 95 Percent for Control Devices, Without Proper Testing, Monitoring, and Reporting to Ensure This, and Despite Evidence to the Contrary."

The Petitioners raise a single claim (Claim I) with two subclaims (I.A and I.B), challenging substantively similar permit terms for six different units across the four permits. *See* Petition at 12–37. Claim I.A, subtitled "The Antelope 13-21 and North Platte Permits Lack Adequate Testing, Monitoring, Recordkeeping and Reporting to Assure Compliance with Section II, Condition 1.1.2," challenges permit terms for triethylene glycol dehydration units—one each at the Antelope 13-21 and North Platte facilities. *Id.* at 13; *see id.* at 13–33. Claim I.B, subtitled "The Four Permits Lack Adequate Testing, Monitoring, Recordkeeping and Reporting to Assure Compliance with the Permits' Assumed 95 Percent Control Efficiency for the ECD Serving the Loadout to Tanker Trucks," challenges permit terms for loadout to tanker trucks units—one at each of the four facilities. *Id.* at 33; *see id.* at 33–37. Throughout Claim I.B, the Petitioners refer to arguments in Claim I.A, and, therefore, the EPA's order summarizes and addresses both subclaims together.

Petition Claim: The Petitioners claim that the Permits do not assure compliance with requirements for enclosed combustion devices (ECDs) to achieve 95 percent control efficiency of VOC emissions from dehydration units at the Antelope 13-21 and North Platte facilities and loadout to tanker trucks units at

each facility. *See* Petition at 12–37. Specifically, the Petitioners claim that the Permits lack "enforceable testing or monitoring as well as recordkeeping and reporting of the control efficiency." *Id.* at 13 (citing 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(a)(1), (c)(1); 57 Fed. Reg. at 32251; Colorado Regulation No. 3, Part C, Section V.C.5.b; *In the Matter of Cash Creek Generation, LLC*, Order on Petition No. IV-2010-4 at 16–19 (June 22, 2012) (*Cash Creek II Order*)); *see id.* at 33.

The Petitioners first lay out general title V permit requirements related to testing, monitoring, recordkeeping, and reporting for assuring compliance with the terms of a permit. *See* Petition at 12 (citing 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(a)(1), (c)(1)). The Petitioners state that title V permits must contain "sufficiently reliable" procedures for determining compliance and "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit." *Id.* (quoting 42 U.S.C. § 7661c(b); 40 C.F.R. § 70.6(a)(3)(i)(B); citing 40 C.F.R. § 70.6(a)(3), (c)(1)).

The Petitioners claim that ECDs at similar facilities have been found via testing to have VOC control efficiencies less than 95 percent, citing several examples, including some from other Bonanza Creek facilities. *Id.* at 14 (citing Petition Ex. 5, *Stack Tests for Enclosed Combustion Devices* (January 2022)). The Petitioners claim that the EPA and Wyoming DEQ found the following:

> ECDs were observed to be operating over a wide range of combustion efficiencies ranging from below 20 percent to above 99 percent. . . . Optimization testing revealed that depending on the operational setup, ECD combustion efficiency can be affected by as little as 2 percent to more than 80 percent.

Id. at 14–15 (quoting Petition Ex. 6, Michael Stovern et al., *Measuring Enclosed Combustion Device Emissions Using Portable Analyzers* at 9 (May 14, 2020)). The Petitioners allege that CDPHE was aware of this evidence of the variable control efficiency of ECDs when writing the Permits. *Id.* at 15 (citing Petition Ex. 7, *Email from Christopher LaPlante to Jennifer Mattox et al.* (June 8, 2020)).

The Petitioners claim that such "key parameters" as temperature, residence time, turbulence, and the composition of combusted gas ultimately determine control efficiency, and that ECDs do not regulate these parameters. *Id.* at 15, 20, 26, 30 (citing Petition Ex. 8, Ranajit Sahu, *Technical Comments on the Proposed CDPHE Permit No. 20AD0062* at 2–5). The Petitioners also claim that the Permits do not account for other variables that affect control efficiency such as weather, altitude, equipment condition and installation, and the composition of the fuel stream. *Id.* at 30 (citing Petition Ex. 9, *Parameters for Properly Designed and Operated Flares, Report for Flare Review Panel* (Apr. 2012)). The Petitioners claim that "[n]o quantitative assumptions can rationally be made about the impacts these many variables in total have on the mass emissions from a flare." *Id.*

The Petitioners argue that only site-specific, periodic testing can "provide the data needed to ensure compliance." *Id.*; *see id.* at 20, 28. The Petitioners insist this testing must be performed pursuant to a specific methodology and should be required at least semi-annually. *Id.* at 28 (citing Petition Ex. 10, *Technical Review Document for Operating Permit 170PJA401: SandRidge Exploration and Production — Bighorn Pad* at 10 (Jan. 1, 2020)). The Petitioners also claim that the Permits must include requirements for continuous emissions monitoring systems, or, in the alternative, parametric monitoring. *Id.* at 29. The Petitioners argue this parametric monitoring should "set maximum and

minimum requirements for both flow, temperature, residence time, and turbulence, with the acceptable parameters being based on the most recent stack tests." *Id.*

The Petitioners address numerous permit conditions (all in Section II of the Permits) that they claim are meant to assure compliance with the requirement for 95 percent control efficiency, dismissing each and explaining why it does not, in their opinion, assure compliance. *See id.* at 15–28, 34–36.

The Petitioners first claim that the requirement[11] that the ECDs be capable of reducing VOC emissions below the limits in the Permits does not mean that the ECDs will always achieve such reduction. *Id.* at 16, 34 (citing *Cash Creek II Order* at 17). The Petitioners also claim that these conditions are merely operating and maintenance requirements, and not the needed testing and monitoring that would assure compliance with 95 percent control efficiency. *Id.*

The Petitioners claim that the requirement[12] for a pilot light to be present at all times only guarantees that combustion is occurring and that control efficiency is above zero, but not that it is 95 percent. *Id.* at 17, 35.

The Petitioners describe the requirement[13] for monitoring for the presence of smoke as "in theory, qualitative monitoring for VOC control efficiency." *Id.* at 18. However, the Petitioners argue that smoke and opacity could also be unrelated to VOC control efficiency and that there is no evidence that no smoke and no or low opacity guarantees 95 percent control efficiency. *Id.* at 17–18, 35 (citing *Cash Creek II Order* at 18; Petition Ex. 8 at 2).

The Petitioners claim that the requirements[14] in the Permits that derive from Colorado Regulation No. 7 cannot assure compliance because these "can change at any time if the Colorado Air Quality Control Commission changes Regulation 7, without public notice and comments, EPA 45-day review, or an opportunity for the public to object to the change." *Id.* at 19.

The Petitioners claim that the requirements[15] for individually developed maintenance plans are also inadequate because the maintenance plans were not submitted as part of the permit record. *Id.* at 18–19, 35 (citing *In the Matter of WE Energies Oak Creek Power Plant* at 23– 27 (June 12, 2009); *In the Matter of Delaware City Refining Company, LLC*, Order on Petition No. III-2022-10 at 25– 27 (July 5, 2023)). Moreover, the Petitioners argue that maintenance can only maintain an initial control

[11] The Petitioners cite permit conditions 1.9 for the Antelope 13-21 dehydrator; 3.8 for the Antelope 13-21 loadout to tanker trucks; 2.8 for the Antelope O-1 loadout to tanker trucks; 1.9 for the North Platte dehydrator; 5.8 for the North Platte loadout to tanker trucks; and 3.7 for the Pronghorn loadout to tanker trucks.
[12] The Petitioners cite permit conditions 1.9.2.1 for the Antelope 13-21 dehydrator; 3.8.2.1 for the Antelope 13-21 loadout to tanker trucks; 2.8.2.1 for the Antelope O-1 loadout to tanker trucks; 1.9.2.1 for the North Platte dehydrator; 5.8.3.1 for the North Platte loadout to tanker trucks; and 3.7.3.1 for the Pronghorn loadout to tanker trucks.
[13] The Petitioners cite permit conditions 1.9.2.2 for the Antelope 13-21 dehydrator; 3.8.2.2 for the Antelope 13-21 loadout to tanker trucks; 2.8.2.2 for the Antelope O-1 loadout to tanker trucks; 1.9.2.2 for the North Platte dehydrator; 5.8.3.2 for the North Platte loadout to tanker trucks; and 3.7.3.2 for the Pronghorn loadout to tanker trucks.
[14] The Petitioners cite permit conditions 1.11 for the Antelope 13-21 dehydrator and 1.10 for the North Platte dehydrator.
[15] The Petitioners cite permit conditions 1.9.3 for the Antelope 13-21 dehydrator; 3.8.3 for the Antelope 13-21 loadout to tanker trucks; 2.8.3 for the Antelope O-1 loadout to tanker trucks; 1.9.2.3 for the North Platte dehydrator; 5.8.4 for the North Platte loadout to tanker trucks; and 3.7.4 for the Pronghorn loadout to tanker trucks.

efficiency, which the Petitioners claim is unknown for the ECDs in question because the Permits lack requirements for initial performance testing. *Id.*

The Petitioners similarly dismiss the requirements[16] that the ECDs be operated and maintained consistent with manufacturer specifications and good engineering and maintenance practices. *See id.* at 19–21. The Petitioners claim that these terms are too vague to assure compliance and that the manufacturer specifications are not in the permit record. *Id.* at 20. The Petitioners claim that CDPHE cannot rely on the design of ECDs to assure 95 percent control efficiency. *Id.* at 20–21 (citing *Cash Creek II Order* at 17). The Petitioners argue that there is no evidence that other ECDs, which were found to have control efficiencies under 95 percent, were not following these general operating and maintenance conditions. *Id.* at 20 (citing Petition Ex. 5).

The Petitioners then address several state-only enforceable requirements,[17] first claiming that these cannot assure compliance with the federally enforceable requirement for 95 percent VOC control because they are state-only enforceable. *See id.* at 22–28, 35–36 (quoting *In the Matter of Chevron Products Company*, Order on Petition No. IX-2004-08 at 31–33 (Mar. 15, 2005); citing *In the Matter of Conoco Phillips Co.*, Order on Petition No. IX-2004-09 at 22 (Mar. 15, 2005)). The Petitioners then allege deficiencies with the content of each state-only enforceable requirement. *See id.*

The Petitioners claim that the state-only enforceable requirement[18] for the ECDs to be enclosed could "possibly reduce cross-winds" but "does not guarantee a minimum residence time, which is what is needed to assure a certain control efficiency." *Id.* at 24 (citing Petition Ex. 8 at n.6); *see id.* at 35. The Petitioners also claim that the requirement for no visible emissions during normal operations contained in these same permit conditions is unrelated to control efficiency. *Id.* at 24, 35. The Petitioners claim that visual observations meant to determine whether the ECDs are operating properly can only determine the presence of combustion and not control efficiency. *Id.* at 24–25, 35.

The Petitioners next address state-only enforceable requirements[19] related to flow meters. *See id.* at 25–26. The Petitioners claim that these permit conditions are inadequate because flow meters are not actually required if CDPHE decides they are technically or economically infeasible. *Id.* at 25 (citing 85 Fed. Reg. 43692, 43693 (July 20, 2020); *In the Matter of Terra Energy Partners, Rocky Mountain LLC, Parachute Water Management Facility* Order on Petition Nos. VIII-2022-16 & VIII-2022-17 at 17–18 (June 14, 2023)). The Petitioners also criticize several aspects of the way flow is required to be monitored. *See id.* Moreover, the Petitioners argue that monitoring flow, in and of itself, does not assure compliance with control efficiency in the absence of limits on flow. *Id.* at 26.

[16] The Petitioners cite permit conditions 10.1.1.1–2 for the Antelope 13-21 dehydrator and 11.1.1.1–2 for the North Platte dehydrator.
[17] The Petitioners cite permit conditions 1.11.2.1 and 10.7 for the Antelope 13-21 dehydrator; 10.7.2.2 for the Antelope 13-21 loadout to tanker trucks; 9.7.2.2 for the Antelope O-1 loadout to tanker trucks; 1.10.2.1 and 11.7 for the North Platte dehydrator; 11.7.2.2 for the North Platte loadout to tanker trucks; and 10.7.2.2 for the Pronghorn loadout to tanker trucks.
[18] The Petitioners cite permit conditions 10.7.2.2 for the Antelope 13-21 dehydrator and loadout to tanker trucks; 9.7.2.2 for the Antelope O-1 loadout to tanker trucks; 11.7.2.2 for the North Platte dehydrator and loadout to tanker trucks; and 10.7.2.2 for the Pronghorn loadout to tanker trucks.
[19] The Petitioners cite permit conditions 10.7.2.4.b(vii) and 10.7.2.5 for the Antelope 13-21 dehydrator; and 11.7.2.4.b(vii) and 11.7.2.5 for the North Platte dehydrator.

The Petitioners state that the Permits "appear to require performance testing" of the ECDs controlling the dehydrators.[20] *Id.* However, the Petitioners criticize the testing protocol—which they claim is not in the permit record, the way failed tests are utilized, various exemptions from testing, and the testing schedule. *See id.* at 26–28. The Petitioners also emphasize that the Permits do not list these permit conditions as required for the presumption of 95 percent control efficiency in the case of the loadout to tanker trucks units. *Id.* at 35–36.

The Petitioners also rebut several of CDPHE's explanations of its monitoring scheme for ECDs. *See id.* at 28–32, 36.

The Petitioners criticize what they characterize as CDPHE's threshold of greater than 95 percent control efficiency for requiring performance testing. *Id.* at 28–29 (citing Antelope 13-21 RTC at 5; North Platte RTC at 5–6). The Petitioners argue that this threshold is arbitrary and does not accord with the evidence of variable control efficiency in the record. *Id.*

The Petitioners claim that CDPHE's response outlining the actions required for the presumption of 95 percent control efficiency is insufficient because these same requirements applied in cases where ECDs were found to have control efficiencies less than 95 percent. *Id.* at 29 (citing Antelope 13-21 RTC at 3–5, North Platte RTC at 3–6). The Petitioners claim that CDPHE offers no evidence to connect the monitoring requirements in the Permits to 95 percent control efficiency and ignores the examples of ECDs "complying with these requirements and tested below 95 percent VOC control efficiency." *Id.* at 31.

The Petitioners address CDPHE's assertion that its testing showed ECDs, on average, achieved control efficiencies of 95 percent or higher. *Id.* at 32 (citing Antelope 13-21 RTC at 5, North Platte RTC at 6). The Petitioners claim that CDPHE "concedes that not each ECD achieved 95 percent." *Id.* The Petitioners argue that compliance with these specific permits' conditions cannot rely on averages across multiple sources, but must be assured through testing, monitoring, and reporting requirements specific to each source. *Id.* (citing 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(a)(1), (3)(i)(B), (c)(1)).

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

The permit records are inadequate for the EPA to determine whether the Permits "set forth" the necessary monitoring requirements to assure compliance with the requirements for ECDs to achieve 95 percent VOC control efficiency applicable to the triethylene glycol dehydration and loadout to tanker trucks units at the facilities. 42 U.S.C. § 7661c(c); *see* 40 C.F.R. §§ 70.6(c)(1), 70.8(c)(3)(ii).

All title V permits must "set forth . . . monitoring . . . requirements to assure compliance with the permit terms and conditions." 42 U.S.C. § 7661c(c); *see* 40 C.F.R. § 70.6(c)(1). Determining whether monitoring is adequate in any particular circumstance requires a context-specific evaluation. *In the Matter of CITGO Refining and Chemicals Company, L.P.*, Order on Petition No. VI-2007-01 at 7 (May 28, 2009). The rationale for the selected monitoring requirements must be clear and documented in the permit record. 40 C.F.R. § 70.7(a)(5).

[20] The Petitioners cite permit conditions 10.7.2.6 for the Antelope 13-21 dehydrator and 11.7.2.6 for the North Platte dehydrator.

Here, the monitoring requirements that establish the presumption of 95 percent VOC control efficiency by the ECDs include, generally, "operating the control device consistent with manufacturer specifications, following individually developed maintenance practices, operating with no visible emissions, performing visual observations to confirm the control device is operating properly, and installing and operating an auto-igniter." Antelope 13-21 RTC at 3.[21] In response to public comments on this issue, CDPHE describes these requirements as "ongoing parametric monitoring requirements for the control device [that] are used to determine if the control device is meeting the requirement to achieve 95% control efficiency." *Id.*

The Petitioners provide a detailed, condition-by-condition refutation of these monitoring requirements, explaining in each case how, in their opinion, the monitoring is unrelated to achieving a specific control efficiency. *See* Petition at 15–28, 34–36. The Petitioners persuasively argue that these monitoring requirements may ensure the ECDs are not malfunctioning, and that combustion is actually occurring. *See id.* Therefore, they may also ensure that the ECDs maintain a certain, initial control efficiency. It is unclear, however, how the monitoring requirements assure that the ECDs continually achieve the specific 95 percent control efficiency required in the Permits. *See, e.g., Cash Creek II Order* at 17–18 (granting a petition where the permitting authority relied on an initial, manufacturer-stated, combustion efficiency and did not explain how the permit terms assured continual compliance with the combustion efficiency).

The Petitioners also correctly point out that state-only enforceable permit terms (*e.g.*, requirements related to flow meters and performance testing applicable to the ECDs) are outside the scope of the EPA's review and, therefore, will not be considered in whether the Permits assure compliance with the federally enforceable control efficiency requirements. 40 C.F.R. § 70.6(b)(2); *see In the Matter of Cargill, Inc., Blair Facility* Order on Petition No. VII-2022-9 at 14 (February 16, 2023) (explaining that monitoring requirements "designed to assure compliance with a federally enforceable CAA requirement" must be federally enforceable).[22] State-only enforceable permit terms are not subject to the requirements of 40 C.F.R. §§ 70.6, 70.7, or 70.8 and will not be evaluated by the EPA. *Id.*

CDPHE's responses to public comments concerning the monitoring requirements for the ECDs provide no further substantial information. CDPHE does not explain *how* the permit conditions assure compliance, but merely asserts that they do. CDPHE also does not address the specific variables that the Petitioners allege determine VOC control efficiency—residence time, temperature, and turbulence—and whether the monitoring may be related to these parameters, or why it does not need to be, if CDPHE believes it does not. *See, e.g., In the Matter of Inter Power Ahlcon Partners LP, Colver Power Plant,* Order on Petition No. III-2020-13 at 7–11 (June 7, 2022) (granting a petition where the permitting authority did not establish appropriate ranges for parametric monitoring).

[21] *See* permit conditions 1.9, 1.11.1.1, and 10.1.1.1–2 for the Antelope 13-21 dehydrator; 3.8 for the Antelope 13-21 loadout to tanker trucks; 2.8 for the Antelope O-1 loadout to tanker trucks; 1.9, 1.10.1.1, and 11.1.1.1–2 for the North Platte dehydrator; 5.8 for the North Platte loadout to tanker trucks; and 3.7 for the Pronghorn loadout to tanker trucks.

[22] Since state-only enforceable permit conditions are outside the scope of the EPA's review, the EPA need not address the Petitioners' critiques of any state-only enforceable requirements at this time. *See, e.g.*, *In the Matter of Harquahala Generating Station Project*, Order on Petition, at 5 (July 2, 2003) ("State-only terms are not subject to the requirements of Title V and hence are not [] evaluated by EPA unless those terms are drafted in a way that might impair the effectiveness of the permit or hinder a permitting authority's ability to implement or enforce the permit.").

Instead, CDPHE references its policy that may require "additional testing or monitoring" for control devices presuming VOC control efficiency over 95 percent. Antelope 13-21 RTC at 5. CDPHE does not explain why 95 percent control efficiency is the threshold for additional performance testing. The closest CDPHE comes to justifying this threshold is its commentary on the testing data referenced by the Petitioners, stating:

> [T]his dataset includes results from 52 stack tests and 47 of the 52 tests resulted in greater than 95 percent control efficiency. In fact, the average control efficiency from all of the stack tests is 98.18 percent. This data supports the appropriate value of 95 percent control efficiency for the enclosed flares.

Antelope 13-21 RTC at 5. In some respects, this dataset could be seen to support CDPHE's conclusions about control efficiency. However, this dataset, as well as the EPA's report with Wyoming DEQ, also indicates that ECDs are capable of *not* achieving 95 percent control efficiency. The EPA's report suggests failures to achieve 95 percent control efficiency can often be attributed to "operational setup" and, therefore, emphasizes the importance of "site-specific 'spot checking' of ECDs." Michael Stovern et al., *Measuring Enclosed Combustion Device Emissions Using Portable Analyzers* at 9 (May 14, 2020). CDPHE provides no information regarding what might cause ECDs to fail to achieve 95 percent control efficiency, and whether the monitoring requirements in the Permits would prevent such factors.

Direction to CDPHE: CDPHE must revise the permit records to more fully explain how the monitoring in the Permits assures compliance with the requirements to achieve 95 percent VOC control efficiency applicable to the triethylene glycol dehydration units at the Antelope 13-21 and North Platte facilities and the loadout to tanker trucks units at each facility. If, upon further review, CDPHE determines that additional monitoring is necessary to assure compliance, CDPHE must revise the Permits as necessary and justify the selected additional requirements in the permit records. CDPHE may accomplish this in a number of different ways. The EPA notes, however, that CDPHE seems to imply that the state-only enforceable requirements related to performance testing and flow metering are necessary to assure compliance with 95 percent control efficiency. *See, e.g.,* Antelope 13-21 RTC at 4–5. If CDPHE intends to rely on these permit conditions to resolve the EPA's objection, they would have to be federally enforceable. The EPA also notes that although the loadout to tanker trucks units are subject to these conditions, they are not referenced as assuring compliance with the requirement to achieve 95 percent VOC control in the Permits. *See* Petition at 35–36. Additionally, should CDPHE rely on these permit conditions to resolve the EPA's objection, CDPHE should address the Petitioners' concerns related to them, especially concerns about testing protocols, testing frequency, flow monitoring exemptions, and whether the Permits need to specify limited ranges for flow. *See* Petition at 25–28.

V. CONCLUSION

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

Dated: JAN 3 0 2024

Michael S. Regan
Administrator