

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

| | | |
|--------------------------------------|---|---------------------------|
| IN THE MATTER OF |) | Petition Number: VI-2022- |
| Lucid Energy Delaware, LLC, |) | |
| Frac Cat Compressor Station |) | PETITION TO OBJECT TO |
| |) | ISSUANCE OF AN INITIAL |
| |) | TITLE V OPERATING PERMIT |
| Permit Number: P288 |) | |
| |) | |
| |) | |
| Issued by the New Mexico Environment |) | |
| Department, Air Quality Bureau |) | |
| _____ |) | |

PETITION TO OBJECT TO ISSUANCE OF TITLE V PERMIT

Pursuant to Section 505(b)(2) of the Clean Air Act and 40 CFR § 70.8(d), WildEarth Guardians (hereafter “Guardians”) petitions the Administrator of the U.S. Environmental Protection Agency (“EPA”) to object to the issuance of the initial Title V operating permit (hereafter “Title V Permit”) issued by the New Mexico Environment Department’s Air Quality Bureau (“AQB”) for Lucid Energy Delaware, LLC (hereafter “Lucid”) to operate the Frac Cat Compressor Station (hereafter “Frac Cat Station”).¹ The Frac Cat Station is a massive oil and gas processing facility located in Lea County, New Mexico. The AQB approved an initial Title V permit for the facility on April 16, 2022. See Exhibit 1, Lucid Energy Delaware, LLC Frac Cat Compressor Station Title V Permit, Permit Number P288 (April 16, 2022) (“Final Permit”).

WildEarth Guardians petitions the Administrator to object on the basis that the Permit:

1. Fails to ensure Lucid complies with applicable Title V permitting requirements under 40 C.F.R. § 70. The Permit inappropriately allows Lucid to submit an incomplete Title V permit renewal application and continue to operate with an expired initial Title V permit, contrary to the Clean Air Act and New Mexico’s rules implementing Title V;
2. Fails to ensure the Frac Cat Station operates in compliance with applicable requirements, including the New Mexico State Implementation Plan. Namely, the Permit fails to ensure operation of the facility will not cause or contribute to exceedances of national ambient air quality standards (“NAAQS”) for ground-level ozone, the key ingredient of smog; and
3. Fails to require sufficient periodic monitoring to ensure compliance with applicable emissions limits. Specifically, the Permit requires the Frac Cat Station to comply with volatile organic compound (“VOC”) limits on emissions during venting, yet prescribes no actual monitoring to assure compliance with this limit.

¹ The use of the words “Administrator” and “EPA” are used interchangeably in this petition.

Pursuant to 40 C.F.R. § 70.8(c)(1), the Administrator must object over the failure of the Title V Permit to assure compliance with applicable requirements.

INTRODUCTION

The Frac Cat Compressor Station is a major stationary source of air pollution located 24 miles southeast of Loving, New Mexico in Lea County. The facility gathers oil and gas from adjacent wells in the area, processes and compresses gas, and collects liquids into tanks for loading into trucks. Sources of air pollution at the facility include large gas-fired compressor engines, flares, dehydration units, amine units to remove carbon dioxide, fugitive emissions, and venting activities. *See* Exhibit 2, Statement of Basis for Operating Permit P288 at 1-2.

The Frac Cat Station first became subject to Title V permitting requirements on April 3, 2019. At that time, the AQB issued an air quality construction permit authorizing Lucid to modify the facility and increase its air emissions above major source thresholds. This new source review (“NSR”) permit was numbered 4221M6. While Title V permitting regulations at 40 C.F.R. § 70.5(a)(1)(i) require sources to submit initial Title V permit applications within 12 months of becoming subject to Title V requirements, Lucid did not submit an application on August 19, 2020, more than four months after the 12-month deadline to submit an application. Under Title V regulations, a source is not allowed to operate if it does not submit a timely application for an initial permit. *See* 40 C.F.R. § 70.7(b). Nevertheless, the AQB has allowed Lucid to operate the Frac Cat Station.

According to Lucid’s application for a Title V Permit, the facility is permitted to annually release:

- 118.92 tons of nitrogen oxides (“NO_x”);
- 114.29 tons of carbon monoxide (“CO”);
62.25 tons of volatile organic compounds (“VOCs”);
- 15.30 tons of sulfur dioxide (“SO₂”);
- 8.07 tons of particulate matter less than 10 microns in diameter (“PM₁₀”) and 8.07 tons of particulate matter less than 2.5 microns in diameter (“PM_{2.5}”); and
- 25.85 tons of hazardous air pollutants, including benzene, toluene, ethylbenzene, xylene, hexane, and other toxic substances.

Exhibit 3, Lucid Energy Delaware, LLC, Frac Cat Compressor Station, Title V Permit Initial Application (Aug. 2020) at pdf p. 14 and 18.

According to the AQB, notice of the draft Title V Permit for the Frac Cat Station was published on December 29, 2021. *See* Exhibit 4, E-mail from Julia Kuhn, AQB (Jan. 18, 2022). Guardians submitted substantive comments on the draft Title V Permit on January 28, 2022. *See* Exhibit 5, WildEarth Guardians Comments on Draft Title V Permit for Frac Cat Compressor Station (Jan. 28, 2022). The AQB responded to Guardians’ comments on February 8, 2022. *See* Exhibit 6, AQB Response to Comments (Feb. 8, 2022). In response to Guardians’ comments, the AQB made no changes to the draft Title V Permit.

The AQB submitted the proposed Title V Permit for EPA review in early March 2022. According to EPA Region 6 staff who oversee Title V permitting in New Mexico, EPA did not object to the issuance of the Title V Permit. Since that time, the AQB issued the final Title V Permit, dated April 16, 2022. According to EPA Region 6 officials, the deadline to file this petition is June 15, 2022. *See* Exhibit 7, E-mail from Cynthia Kaleri, Chief, Air Permits Section, EPA Region 6 (June 14, 2022). This petition is thus timely filed.

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, Guardians requests the Administrator also consider this a petition to reopen the Title V Permit for the Frac Cat Station in accordance with 40 CFR § 70.7(f).² 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 Title V Permit for the Frac Cat Station 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 Frac Cat Station fails to assure compliance with several applicable requirements.

PETITIONER

Petitioner WildEarth Guardians is a Santa Fe, New Mexico-based nonprofit membership organization dedicated to protecting and restoring the health of the American West. On behalf of its members, Guardians works to confront harmful air pollution, defend clean air, and ensure polluters are paying the true cost of their operations. Guardians works to ensure the oil and gas industry complies with state and federal clean air laws and regulations, to safeguard public health and safety from unchecked oil and gas extraction, and to advance a just and equitable transition away from fossil fuels in order to protect the climate and communities.

Petitioner requests the EPA object to the issuance of Permit Number P288 for the Frac Cat Compressor Station and/or find reopening for cause for the reasons set forth below.

GROUND FOR OBJECTION

² To the extent the Administrator may not believe citizens can petition for reopening for cause under 40 CFR § 70.7(f), Guardians 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).

I. The Final Permit Fails to Assure Compliance with Applicable Title V Permitting Requirements

The Final Permit issued by the AQB fails to ensure Lucid complies with New Mexico's Title V permitting regulations set forth in the New Mexico Administrative Code ("NMAC") at 20.2.70 and federal Title V regulations at 40 C.F.R. Part 70. Guardians raised this issue with reasonable specificity on pages 1-3 of its comments.

At issue is Condition A101.B of the final Title V Permit, which states that the Frac Cat Station's Title V Permit will not expire provided that Lucid submits a "timely and complete application for a permit renewal [] consistent with 20.2.70.300 NMAC[.]" Exhibit 1, Final Permit at A3. While this provision appears to indicate that a failure of Lucid to submit a timely and complete renewal application could lead to the expiration of its initial Title V Permit, which would have the effect of prohibiting operation, in practice, AQB does not interpret or implement the condition in this way.

Under federal and state Title V permitting requirements, an operating permit expires "five years" after issuance. 40 C.F.R. § 70.6(a)(2); 20.2.70.302.D NMAC. Permit expiration "terminates" a source's right to operate. 40 C.F.R. § 70.7(c)(1)(ii); 20.2.70.201.B NMAC. To renew an operating permit and avoid permit expiration, a source must submit a "timely and complete" application for a permit renewal. 40 C.F.R. § 70.5(a); 20.2.70.300.A NMAC. Under New Mexico's Title V program, a "timely" permit renewal application is "one submitted at least twelve (12) months prior to the date of permit expiration." 20.2.70.300.B(2) NMAC. The submission of a "timely and complete" renewal application allows a source to continue to operate even after permit expiration. 40 C.F.R. § 70.7(b) and (c)(1)(ii); 20.2.70.400.D.

Unfortunately, the AQB does not adhere to these applicable Title V requirements. Contrary to state and federal requirements, the AQB allows sources to submit untimely Title V Permit renewal applications, yet allows permittees to continue operating after the expiration of their five-year permit term.

A recent example of this AQB practice is Harvest Four Corners, LLC's application for a Title V Permit renewal for the company's Trunk N Compressor Station located in San Juan County, New Mexico (Title V Permit No. P198). According to AQB's spreadsheet of current permitting actions under review, Harvest submitted a renewal application on November 20, 2020. *See* Exhibit 8, List of current permitting activities under review by the AQB (June 14, 2022) at pdf spreadsheet row 79, available online at <https://coda.io/@rick-clark2/activity-report> (last accessed June 14, 2022). This application was timely submitted prior to the 12 months before the permit's expiration date of November 22, 2021. The AQB subsequently determined the application was incomplete on January 7, 2021. Thus, while Harvest may have submitted a timely renewal application, it did not submit a timely *and* complete application. Accordingly, Harvest's Title V Permit expired on November 22, 2021 and the company is prohibited from operating the Trunk N Compressor Station. Nevertheless, since November 22, 2021, Harvest has continued to operate the Trunk N Compressor Station.

Although the AQB finally made a completeness finding on June 17, 2021, this late completeness finding did not shield Harvest or otherwise allow the company to operate the Trunk N Compressor Station beyond the November 22, 2021 expiration date of its Title V Permit. New Mexico regulations implementing Title V under very clearly state that only the submission of a “timely and complete” application will prevent permit expiration. *See* 20.2.70.400.D NMAC. In this case, Harvest submitted an untimely complete application. Because Harvest did not submit a “timely and complete” application in the first place, the AQB’s subsequent completeness finding did not serve to prevent permit expiration.

This situation with Harvest is not an anomaly. For Portales Dairy Products, LLC’s Portales Plant located in Roosevelt County, New Mexico (Title V Permit No. P234), the company submitted a Title V Permit renewal application to the AQB on October 7, 2020, 12 months prior to the permit expiration date of October 7, 2021. The AQB subsequently determined the application was incomplete on November 9, 2020. *See* Exhibit 8 at pdf spreadsheet row 166. Again, while Portales may have submitted a timely renewal application, it was not “timely and complete.” While AQB subsequently made a completeness finding on February 23, 2021, this did not serve to prevent the expiration of the permit on October 7, 2021. In spite of this, since October 7, 2021, Portales Dairy Products has continued to operate its Portales Plant.

In response to Guardians’ comments regarding this issue, the AQB did not deny that it does not consider Title V permits to expire where sources submit untimely complete applications. In its response to comments, the AQB stated that so long as a complete Title V permit application is submitted at any time prior to the permit expiration date, a source may continue to operate. The AQB stated that “an application could potentially be ruled incomplete for up to 12 months and still be ruled complete prior to the expiration of the current permit.” Exhibit 6 at 2. According to the AQB, the untimely submission of a complete application would therefore prevent the expiration of the permit.

The AQB’s response defies the plain language of 20.2.70.400.D NMAC, which states that only the submission of a “timely *and* complete”—not a timely *or* complete—application for permit issuance prevents the expiration of a Title V permit and allows a source to continue operating (emphasis added).³ Based on the AQB’s response, a source, such as the Frac Cat Station, would be allowed to continue operating after submitting an untimely, yet complete, application for a Title V permit renewal. This means Condition A101.B does not ensure compliance with applicable requirements and/or applicable Title V regulations in accordance with 40 C.F.R. § 70.7(a)(iv).

In comments, Guardians requested the AQB clarify Condition A103.B and revise the Condition accordingly. The AQB refused, maintaining its position that Lucid need not submit a timely application for a Title V permit renewal for the Frac Cat Station, only a complete application, prior to the permit’s expiration.

The Administrator must object to the issuance of the Frac Cat Station Title V Permit on the basis that Condition A101.B does not assure compliance with state and federal Title V

³ The language in New Mexico’s Title V permitting regulations is echoed at 40 C.F.R. § 70.5(a).

permitting requirements and therefore fails to assure compliance with applicable requirements in accordance with 40 C.F.R. § 70.7(a)(1)(iv) and 70.8(c)(1). A Title V permit must not only assure compliance with applicable requirements, but also assure compliance with state-approved Title V permitting programs and federal Title V regulations at 40 C.F.R. Part 70. *See* 40 C.F.R. § 70.7(a)(1)(iv) (permits must assure compliance with “applicable requirements and the requirements of this part [70]”). Here, based on the AQB’s response to comments, the Frac Cat Station Title V Permit plainly fails to assure compliance with 40 C.F.R. § 70.7(b) and (c)(1)(ii), as well as 20.2.70.300 and 20.2.70.400 NMAC. The EPA must object and direct the AQB to revise the Condition to ensure that Lucid submits both a timely *and* complete Title V permit renewal application to avoid permit expiration.

II. The Title V Permit Fails to Assure Compliance with the New Mexico State Implementation Plan and Related Requirements to Protect Ambient Air Quality Standards

The Final Permit fails to assure compliance with applicable requirements under the New Mexico State Implementation Plan (“SIP”) related to the protection of the NAAQS. Specifically, the Final Permit fails to assure that emissions from the Frac Cat Station will not cause or contribute to exceedances of the ozone NAAQS. Guardians raised this issue with reasonable specificity on pages 3-5 of its comments.

At primary issue is Condition A103.B, which states that “[c]ompliance with the terms and conditions of this permit regarding source emissions and operation demonstrate compliance with national ambient air quality standards specified at 40 CFR 50, which were applicable at the time air dispersion modeling was performed for the facility’s NSR Permit 4221M6.” Exhibit 1, Final Permit at A5. While this Condition states that compliance with the permit demonstrates compliance with the NAAQS, the AQB has not actually completed any analysis or assessment demonstrating that compliance with the Title V permit demonstrates compliance with NAAQS for ground-level ozone. Accordingly, this Condition is inaccurate and fails to assure compliance with applicable requirements.

Under the New Mexico SIP, the AQB cannot approve a construction permit for any new or modified stationary sources of air pollution that would “cause or contribute to air contaminant levels in excess of any National Ambient Air Quality Standard[.]” 20.2.72.208.D NMAC. Given this, the AQB cannot approve any construction permit for a new or modified stationary source unless a demonstration is made that the permit would not cause or contribute to air pollution levels in excess of the 2008 and/or 2015 ozone NAAQS, which are codified at 40 C.F.R. §§ 50.15 and 50.19.

SIP provisions are an applicable requirement under Title V. *See* 40 C.F.R. § 70.2 (defining “applicable requirement” as “any standard or other requirement provided for in the applicable [state] implementation plan”). With regards to the AQB’s duty to protect the NAAQS, this means that a Title V permit must ensure that a source operates such that its

emissions would not cause or contribute to air pollution levels in excess of the ozone NAAQS.⁴ Where an underlying construction permit fails to ensure that a source would not cause or contribute to air pollution levels in excess of the 2008 and/or 2015 ozone NAAQS, the Title V permit must address this deficiency in the underlying permitting and be written in such a manner as to assure protection of the NAAQS.

At issue here is that the most recent construction permit incorporated into the Final Permit, namely NSR Permit 4221M6, fails to ensure that the Frac Cat Station operates such that its emissions will not cause or contribute to exceedances of the ozone NAAQS. The AQB did not address this failure, meaning the Final Permit fails to provide for compliance with all applicable requirements in accordance with 40 C.F.R. § 70.7(a)(1)(iv).

When the AQB reviewed Lucid’s application for NSR Permit 4221M6, neither Lucid nor the AQB addressed the impacts of the Compressor Station’s air pollution to ambient ozone concentrations. Both the permit application submitted by Lucid and the AQB’s statement of basis for NSR Permit 4221M6 actually analyze—either qualitatively or quantitatively—the impacts of the Frac Cat Station to ambient ozone concentrations. *See* Exhibit 9, Trinity Consultants, Application for Significant Permit Revision for Frac Cat Compressor Station (Dec. 21, 2018) and Exhibit 10, AQB, Statement of Basis Narrative, Frac Cat Compressor Station, Permit No. 4221M6 (Feb. 5, 2019). Although it was disclosed that the facility would release large and increased amounts of ozone precursor emissions, including VOCs and NO_x, no analysis was actually completed to demonstrate that the Frac Cat Station would not cause or contribute to ozone concentrations in excess of the NAAQS.⁵

As Guardians explained in its comments, this is problematic. At the time the NSR Permit 4221M6 was under review and ultimately approved, monitoring data from where the Frac Cat Station is located showed numerous exceedances of both the 2008 NAAQS of 0.075 parts per million (“ppm”) and the 2015 NAAQS of 0.070 ppm. The region where the Frac Cat Station is located encompasses the Permian Basin of southeast New Mexico, where intensive oil and gas extraction activity is occurring and posing tremendous impacts to air quality. The region includes Lea County, where the Frac Cat Compressor Station is located, but also Eddy County to the west. When NSR Permit 4221M6 was approved in 2019, monitors in Eddy and Lea Counties had recorded numerous exceedances of the ozone 2008 and 2015 NAAQS. The tables below show recent exceedances of the ozone NAAQS.⁶

Carlsbad, NM 8-Hour Ozone Readings (in ppm), 2015-2019

⁴ The NAAQS are also directly applicable requirements according to the Final Permit. *See* Exhibit 1, Final Permit at A4, Table 103.A at A5.

⁵ It is well known and understood that VOCs and NO_x are primary ozone precursor emissions. Both gases are known to photochemically react to form ozone. *See e.g.*, EPA, “Ground-level ozone basics,” website accessed at <https://www.epa.gov/ground-level-ozone-pollution/ground-level-ozone-basics> (last visited June 14, 2022).

⁶ This data was queried from EPA’s AirData website, <https://www.epa.gov/outdoor-air-quality-data/monitor-values-report>.

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|
| 1 st Max. | 0.069 | 0.065 | 0.082 | 0.096 | 0.095 | 0.075 | 0.092 |
| 2 nd Max. | 0.068 | 0.064 | 0.078 | 0.095 | 0.092 | 0.075 | 0.082 |
| 3 rd Max. | 0.067 | 0.064 | 0.077 | 0.091 | 0.084 | 0.075 | 0.080 |
| 4 th Max. | 0.067 | 0.063 | 0.076 | 0.083 | 0.080 | 0.073 | 0.080 |
| Number of Days Above NAAQS | 0 | 0 | 10 | 18 | 19 | 5 | 23 |

Carlsbad Caverns National Park 8-Hour Ozone Readings, 2015-2019

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|
| 1 st Max. | 0.068 | 0.070 | 0.069 | 0.099 | 0.082 | 0.074 | 0.085 |
| 2 nd Max. | 0.068 | 0.069 | 0.065 | 0.081 | 0.080 | 0.074 | 0.080 |
| 3 rd Max. | 0.065 | 0.069 | 0.065 | 0.080 | 0.078 | 0.073 | 0.079 |
| 4 th Max. | 0.065 | 0.069 | 0.065 | 0.080 | 0.074 | 0.073 | 0.077 |
| Number of Days Above NAAQS | 0 | 0 | 0 | 10 | 6 | 9 | 15 |

Hobbs, NM 8-Hour Ozone Readings (in ppm), 2015-2019

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 |
|----------------------------|-------|-------|-------|-------|-------|-------|-------|
| 1 st Max. | 0.070 | 0.069 | 0.080 | 0.083 | 0.082 | 0.062 | 0.086 |
| 2 nd Max. | 0.069 | 0.066 | 0.074 | 0.078 | 0.075 | 0.060 | 0.075 |
| 3 rd Max. | 0.069 | 0.065 | 0.072 | 0.077 | 0.073 | 0.060 | 0.072 |
| 4 th Max. | 0.067 | 0.065 | 0.069 | 0.076 | 0.070 | 0.060 | 0.068 |
| Number of Days Above NAAQS | 0 | 0 | 3 | 6 | 3 | 0 | 3 |

Further, at the time of approval, monitors in Eddy County were in violation of the 2015 ozone NAAQS and the monitor in Lea County was right at the NAAQS. A violation of the 8-hour ozone NAAQS is triggered when the three-year average of the annual fourth highest daily reading exceeds the NAAQS. *See* 40 C.F.R. § 50.19(b). This three-year average value is commonly referred to as the “design value.” Based on this monitoring data, the two ozone monitors in Eddy County are in violation of the NAAQS, with the design value at the Carlsbad monitor even violating the 2008 ozone NAAQS, and the Hobbs monitor is very near violating the 2015 NAAQS. In 2019, when NSR Permit 4221M6 was adopted, the 2016-2018 design value violated the 2015 ozone NAAQS in Eddy County and very nearly violated the 2015 ozone NAAQS in Lea County. The table below shows ozone design values at the Lea and Eddy County monitors over the last six years.

8-Hour Ozone Design Values for Lea and Eddy County, New Mexico Monitoring Sites

| Monitor | Monitor ID | 2015-2017 Design Value | 2016-2018 Design Value | 2017-2019 Design Value | 2018-2020 Design Value | 2019-2021 Design Value |
|------------------|------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| Hobbs | 350250008 | 0.067 | 0.070 | 0.071 | 0.068 | 0.066 |
| Carlsbad | 350151005 | 0.068 | 0.074 | 0.079 | 0.078 | 0.077 |
| Carlsbad Caverns | 350150010 | 0.066 | 0.071 | 0.073 | 0.075 | 0.074 |

Here, there appears to be no possible way that emissions related to the approval of NSR Permit 4221M6 would not have contributed to exceedances of the ozone NAAQS. The approval of the permit authorized up to a 22.3 ton per year increase in VOC emissions and a 31 ton per year increase in NO_x emissions. With the region already both exceeding *and* violating the NAAQS, there is simply no way that these increases in ozone precursor emissions would not contribute at all to exceedances of the ozone NAAQS.

Regardless, with no analysis of ozone impacts associated with NSR Permit 4221M6, there is no support for Condition A103.B. There is no support for the conclusion that compliance with the terms and conditions of the Title V Permit will comply with ozone NAAQS promulgated under 40 C.F.R. § 50 or otherwise ensure that operation of the Frac Cat Station will not cause or contribute to exceedances of the ozone NAAQS.

In response to Guardians’ comments, the AQB acknowledged that it did not analyze the impacts of emissions from the Frac Cat Station to the ozone NAAQS. In its response, the agency reasoned, “PSD [Prevention of Significant Deterioration] minor sources do not ‘cause or contribute’ to violations of the ozone standard as discussed in the Department testimony in the hearing record for EIB [Environmental Improvement Board] Hearing No. 20-4 21(A) and EIB Hearing No. 20-33(A). That testimony also addresses WildEarth Guardian’s [*sic*] comments regarding the monitored ozone levels in Eddy and Lea County.” Exhibit 6 at 5. This response fails to cure the AQB’s failure to ensure the Title V permit assures compliance with all applicable requirements.

To begin with, the testimony referenced by the AQB refers to testimony provided in a consolidated hearing before the New Mexico Environmental Improvement Board regarding the validity of three separate permitting actions.⁷ These permitting actions had no relation whatsoever to the permitting of the Frac Cat Station or the validity of NSR Permit 4221M6. In other words, this testimony has no bearing at all as to whether the issuance of NSR Permit 4221M6 would cause or contribute to exceedances of the ozone NAAQS.

⁷ It is also unclear exactly what the AQB is referring to when it references “the Department testimony in the hearing record for EIB Hearing No. 20-4 21(A) and EIB Hearing No. 20-33(A).” The New Mexico Environment Department’s testimony in those proceedings was extensive, involved numerous witnesses, and touched on numerous subject matters and areas of expertise. To this end, the AQB’s response to WildEarth Guardians’ comments is not adequate. A vague or general reference to voluminous testimony does not constitute a response to significant comments in accordance with 40 C.F.R. § 70.7(h)(6).

Importantly, however, the AQB’s categorical assertion that “PSD minor sources do not ‘cause or contribute’ to violations of the ozone standard” is completely unsupported. For one, the AQB can point to no analysis or assessment demonstrating that sources classified as minor under the Clean Air Act’s Prevention of Significant Deterioration Program will never ever cause or contribute to violations of the ozone NAAQS. The AQB has not prepared, presented, or pointed to any actual air quality information or analysis justifying the application of a categorical presumption that minor sources under PSD will, unequivocally and at all times, never cause or contribute to violations of the ozone NAAQS anywhere in the state of New Mexico.

This unsupported assertion is particularly problematic in this case. Here, when NSR Permit 4221M6 was approved, the region was already in violation of the ozone NAAQS, meaning any added ozone precursor emissions would necessarily contribute to the violation. For the AQB to claim that a minor source in a region violating the ozone NAAQS would never cause or contribute to the NAAQS is not only baseless, but reckless and ignorant of the actual state of air quality and the logical impacts of permitting increased emissions.

Although the EPA has established significant impact levels (“SILs”) to guide states in determining whether sources may cause or contribute to violations of the ozone NAAQS, the Agency has developed these SILs only in the context of major source permitting under PSD and only in areas where air quality is in attainment with the NAAQS. *See* Exhibit 11, EPA, “Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program” (April 17, 2018). This guidance and the EPA’s application of SILs is completely inapplicable in the case of the Frac Cat Station. Furthermore, to the extent that EPA has provided guidance only in relation to major source permitting under PSD, this does not mean the Agency has affirmatively determined that PSD minor sources will never cause or contribute to violations of the ozone NAAQS.

Finally, the New Mexico SIP provides no *de minimis* threshold under which the AQB is permitted to completely ignore the potential for a source to cause or contribute to exceedances of the ozone NAAQS. The SIP plainly states:

The department ***shall deny any application*** for a permit or permit revision if considering emissions after controls [] [t]he construction, modification, or permit revision would cause or contribute to ambient concentrations in excess of any National Ambient Air Quality Standard or New Mexico ambient air quality standard[.]

20.2.72.208.D NMAC (emphasis added). In using the word “shall,” the SIP clearly imposes a mandatory duty upon the AQB. Further, in using the phrase “any application,” the SIP plainly applies to all applications without exclusions, including applications for minor source permits or permit revisions, not some applications or a subset of applications. In broadly imposing a mandatory duty to deny “any” application for a permit or permit revision that would cause or contribute to exceedances of the NAAQS, the SIP does not provide discretion for the AQB to categorically determine that minor sources do not cause or contribute to violations of the ozone NAAQS.

The failure of the AQB to demonstrate that issuance of NSR Permit 4221M6 would not cause or contribute to an exceedance of the ozone NAAQS means that the Final Permit fails to assure the Frac Cat Station will operate in compliance with applicable requirements under the New Mexico SIP. Although Condition A103.B of the Final Permit states that “[c]ompliance with the terms and conditions of this permit regarding source emissions and operation demonstrate compliance with national ambient air quality standards specified at 40 CFR 50, which were applicable at the time air dispersion modeling was performed for the facility’s NSR Permit 4221M6,” this Condition is not supported as it relates to compliance with the ozone NAAQS. Accordingly, the EPA must object and direct the AQB to address the impacts of the Frac Cat Station to the ozone NAAQS and make any necessary revisions to the Final Permit to assure compliance with the New Mexico SIP.

III. Condition A107 Fails to Require Sufficient Periodic Monitoring and is Unenforceable as a Practical Matter

Condition A107 of the Final Permit establishes limit on vented VOC emissions during startup, shutdown, maintenance, and malfunctions (“SSM/M”) at the Frac Cat Station. Unfortunately, the Final Permit fails to require monitoring sufficient to assure compliance with this VOC limit and consequently, the Condition is unenforceable as a practical matter. Guardians raised this issue with reasonable specificity on page 5 of its comments.

A Title V permit must set forth monitoring requirements to assure compliance with the permit terms and conditions. *See* 42 U.S.C. § 7661c(c). To this end, a Title V permit must contain “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)(B); *see also* 40 C.F.R. § 70.6(c)(1) (Title V permits must contain monitoring requirements “sufficient to assure compliance with the terms and conditions of the permit.”). Where a Title V permit fails to require sufficient monitoring to assure compliance, the permit cannot provide information necessary to determine whether a source is in compliance and therefore is unenforceable as a practical matter, contrary to Title V of the Clean Air Act. *See* 42 U.S.C. § 7661c(a) (stating that Title V permits shall include “enforceable emission limitations and standards”).

Here, Condition A107.A establishes a 10 ton per year limit on vented VOC emissions from the Frac Cat Station during SSM/M events. According to the permit, the 10 ton per year limit applies to all “Venting of Gas Due to SSM and Malfunction.” Exhibit 1, Final Permit at A9. Unfortunately, the Final Permit fails to require monitoring sufficient to assure compliance with this emission limit.

To ensure compliance with the 10 ton per year limit on vented VOC emissions during SSM/M, the Final Permit states that Lucid must “perform a facility inlet gas analysis once every year and” and comply with monitoring and recordkeeping requirements set forth under Condition A107.C. Exhibit 1, Final Permit, Condition A107.C at A10 (setting forth the “Compliance Method”). While the duty to “perform a facility inlet gas analysis” constitutes some form of

monitoring, the permit fails to require any other monitoring such that it can be assured that Lucid is accurately monitoring VOC emissions and gathering reliable data.

Of primary concern is the monitoring requirement set forth under Condition A107.C. According to the Final Permit, the only monitoring required is that Lucid “shall monitor all SSM/M events.” Exhibit 1, Final Permit, Condition A107.C at A10 (setting forth the “Monitoring” requirement). This does not constitute monitoring sufficient to assure compliance with the 10 ton per year VOC limit. This monitoring requirement does not set forth the method for monitoring SSM/M emissions or otherwise explain how VOC emissions will be measured in order to accurately and reliably track venting emissions and assure compliance with the 10 ton per year VOC limit.

In response to comments, the AQB stated that compliance with the 10 ton per year limit on VOC emissions during SSM/M events “requires tracking and calculating the total VOC emissions based on the inlet gas analysis (meaning the % VOC content of the gas), the volume of the gas vented, and the number of venting events per year.” Exhibit 6 at 6. While the Final Permit requires that Lucid calculate the gas inlet analysis, or the percent VOC content of gas, the permit does not actually require tracking or calculating the volume of gas vented and even appears not to require Lucid to track and calculate the number of venting events per year.

With regards to tracking and calculating volume of gas vented, the Final Permit clearly sets forth no monitoring requirements. The AQB admits this in response to comments. While the AQB states that the “volume of vented gas is calculated based on the volumes contained within the various equipment that are being depressurized, including the compressors and associated piping,” the AQB explains that this approach for calculating volume is not set forth in the Final Permit, but rather “provided in the application (Section 6) with the demonstrating calculations.” Exhibit 6 at 5-6. While Title V requires that monitoring requirements be “set forth” in a permit, not in an application, the AQB’s reliance on Lucid’s permit application is incredibly misplaced.

To begin with, Section 6 of Lucid’s application does not actually set any methodology or procedure for calculating the volume of gas released during SSM/M events. *See* Exhibit 3 at pdf p. 33. The application explains that Lucid is requesting the 10 ton per year VOC limit for SSM/M events and generally explains what these events encompass, but does not actually present any calculations, methodologies, or direction that would indicate some means of specifically quantifying the volume of gas released during SSM/M events.

To the contrary, the application appears to indicate that there may no methodology or procedure for calculating the volume of gas released during malfunction events, which Lucid explains are “emergency events that cannot be anticipated” and “occur when the inlet valve must be shut due to unforeseen circumstances such as control valve failure.” *Id.* It is difficult, if not impossible, to understand how Lucid could possibly calculate the volume of gas released from the Frac Cat Station during an event that is “unforeseen” and “cannot be anticipated.”

In spite of this, the AQB asserts that the monitoring and recordkeeping requirements in the Final Permit ensure that Lucid records “the volume of gas vented” and tracks “the rolling 12-

month total of VOC emissions due to SSM and Malfunction events to ensure compliance with the annual emission limits in the permit.” Exhibit 6 at 6. While the AQB is correct that the Final Permit requires Lucid to maintain records of the volume of gas vented and of monthly VOC emissions vented during SSM/M events, just stating that Lucid is required maintain records does not constitute monitoring sufficient to assure compliance. With no methodology or procedure set forth in the permit explaining how Lucid is actually required to calculate the volume of gas vented, there is no basis to conclude that any records maintained by Lucid represent “reliable data from the relevant time period that are representative of the [company’s] compliance with the permit,” as required by 40 C.F.R. § 70.6(a)(3)(i)(B). In other words, with no monitoring, the 10 ton per year VOC limit is unenforceable.

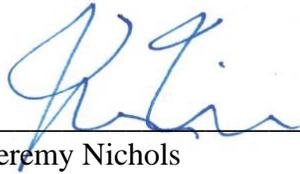
Finally, as to whether the Final Permit requires Lucid to “calculate the number of venting events per year,” the permit appears sorely deficient in this regard as well. Condition A107.C does not actually appear to require Lucid to maintain records on the actual “number” of venting events. While the Condition requires that Lucid maintain records regarding cumulative emissions, percent VOC of the gas, volume vented, and the “equipment or activity” and a “[description of] the event that is the source of the emissions,” the Final Permit does not explicitly require Lucid to calculate the number of venting events per year. Based on the AQB’s response to WildEarth Guardians’ comments that calculating the number of venting events per year is “required” to assure compliance, the Final Permit is further deficient in light of this omission.

The EPA must object to the Final Permit on the basis that Condition A107 fails to require sufficient monitoring to assure compliance with the 10 ton per year limit on VOC emissions during SSM/M events. As a core matter, a Title V permit must include sufficient monitoring requirements to assure compliance with the terms and conditions of the permit. *See* 42 U.S.C. § 7661c(c); *see also* 40 C.F.R. § 70.6(a)(3)(i)(B) and 40 C.F.R. § 70.6(c)(1). The EPA must direct the AQB to either set forth sufficient monitoring in the permit or eliminate the 10 ton per year limit on the basis that it is unenforceable.

CONCLUSION

For the foregoing reasons, the EPA must object to New Mexico’s issuance of the Final Title V Permit authorizing Lucid Energy to operate the Frac Cat Compressor Station. As demonstrated above, the Final Permit fails to assure compliance with applicable requirements under Title V of the Clean Air Act and the New Mexico SIP. Accordingly, the Administrator has a nondiscretionary duty to issue an objection to the Title V Permit within 60 days in accordance with Section 505(b)(2) of the Clean Air Act. 42 U.S.C. § 7661d(b)(2).

Submitted this 15th day of June 2022



Jeremy Nichols
Climate and Energy Program Director
WildEarth Guardians
117 W. Broadway
Missoula, MT 59802
(303) 437-7663
jnichols@wildearthguardians.org

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

Earthea Nance
Regional Administrator
EPA, Region 6
1201 Elm St., Suite 500
Dallas, TX 75270

Lucid Energy Delaware, LLC
PO Box 158
Artesia, NM 88211

Liz Bisbey-Kuehn Director
Chief
New Mexico Air Quality Bureau
825 Camino de los Marquez, Suite 1A
Santa Fe, NM 87505

TABLE OF EXHIBITS

1. Lucid Energy Delaware, LLC Frac Cat Compressor Station Title V Permit, Permit Number P288 (April 16, 2022).
2. Statement of Basis for Operating Permit P288.
3. Lucid Energy Delaware, LLC, Frac Cat Compressor Station, Title V Permit Initial Application (Aug. 2020).
4. E-mail from Julia Kuhn, AQB (Jan. 18, 2022).
5. WildEarth Guardians Comments on Draft Title V Permit for Frac Cat Compressor Station (Jan. 28, 2022).
6. AQB Response to Comments (Feb. 8, 2022).
7. E-mail from Cynthia Kaleri, Chief, Air Permits Section, EPA Region 6 (June 14, 2022).
8. List of current permitting activities under review by the AQB (June 14, 2022).
9. Trinity Consultants, Application for Significant Permit Revision for Frac Cat Compressor Station (Dec. 21, 2018).
10. Statement of Basis Narrative, Frac Cat Compressor Station, Permit No. 4221M6 (Feb. 5, 2019).
11. EPA, “Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program” (April 17, 2018).