BEFORE THE ADMINISTRATOR UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

| IN THE MATTER OF |) | Petition Number: VI-2022- |
|--------------------------------------|---|---------------------------|
| Lucid Energy Delaware, LLC, |) | |
| Lucid Energy Group II, |) | PETITION TO OBJECT TO |
| Big Lizard Compressor Station |) | ISSUANCE OF AN INITIAL |
| |) | TITLE V OPERATING PERMIT |
| Permit Number: P289 |) | |
| |) | |
| 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, Lucid Energy Group II (hereafter "Lucid") to operate the Big Lizard Compressor Station (hereafter "Big Lizard Station"). The Big Lizard 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 July 29, 2022. *See* Exhibit 1, Lucid Energy Delaware, LLC Big Lizard Compressor Station Title V Permit, Permit Number P289 (July 29, 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 Big Lizard 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 Big Lizard Station to comply with volatile organic compound ("VOC") limits on emissions during venting, yet prescribes no actual monitoring to assure compliance with this limit.

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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 Big Lizard Compressor Station is a major stationary source of air pollution located 28 miles northwest of Jal, New Mexico in Lea County. The facility gathers oil and gas from adjacent wells in the area, processes and compresses gas for pipeline transport, 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 P289 at 1-2.

The Big Lizard Station first became subject to Title V permitting requirements on April 18, 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 7960M1. 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 until 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 Big Lizard Station.

According to Lucid's application for its Title V Permit, the Big Lizard Station is permitted to annually release:

- 101.75 tons of nitrogen oxides ("NO_x");
- 116.85 tons of carbon monoxide ("CO");
- 217.66 tons of volatile organic compounds ("VOCs");
- 11.67 tons of sulfur dioxide ("SO₂");
- 11.03 tons of particulate matter less than 10 microns in diameter ("PM₁₀") and 11.00 tons of particulate matter less than 2.5 microns in diameter ("PM_{2.5}"); and
- 22.2 tons of hazardous air pollutants, including benzene, toluene, ethylbenzene, xylene, hexane, and other toxic substances.

Exhibit 3, Lucid Energy Delaware, LLC, Big Lizard Compressor Station, Title V Permit Initial Application (Sept. 2020) at pdf p. 13 and 17.

Notice of the draft Title V Permit for the Big Lizard Station was published on March 29, 2022. *See* Exhibit 4, Legal Notice for Air Quality Operating Permit for Lucid – Big Lizard Compressor Station (March 29, 2022). Guardians submitted substantive comments on the draft Title V Permit on April 28, 2022. *See* Exhibit 5, WildEarth Guardians Comments on Draft Title V Permit for Big Lizard Compressor Station (April 28, 2022). The AQB responded to Guardians' comments on June 10, 2022. *See* Exhibit 6, AQB Response to Comments (June 10,

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 on June 10, 2022. The EPA's 45-day review period concluded on July 25, 2022. During this 45-day review period, the EPA did not object to the issuance of the Title V Permit. Since that time, the AQB issued the final Title V Permit, dated July 29, 2022. This petition is thus timely filed within 60 days of the conclusion of EPA's 45-day review period.

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 Big Lizard 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 Big Lizard 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 Big Lizard 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 P289 for the Big Lizard Compressor Station and/or find reopening for cause for the reasons set forth below.

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

^{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).

GROUNDS FOR OBJECTION

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 Big Lizard 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 7, List of current permitting activities under review by the AQB (Aug. 19, 2022) at pdf spreadsheet row 99, available online at https://coda.io/@rick-clark2/activity-report (last accessed Aug. 19, 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 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 7 at pdf spreadsheet row 176. 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 implied 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. With regards the examples cited by WildEarth Guardians in its commens, the AQB stated, "the applications were ruled complete prior to the expiration of the existing permits. Therefore, the permits were extended until AQB decided whether to issue or disapprove the renewal permit." Exhibit 6 at 3. 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 Big Lizard 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 Big Lizard Station, only a complete

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

application, prior to the permit's expiration. According to the AQB, "The current wording of the condition accurately reflects the NMAC regulation and is properly implemented by the Department[.]" Unfortunately, this is simply not the case.

The Administrator must object to the issuance of the Big Lizard Title V Permit on the basis that Condition A101.B does not assure compliance with state and federal Title V 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 Big Lizard 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 Big Lizard 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.C, 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 7960M1." 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 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 fails to ensure that the Big Lizard Station operates such that its emissions will not cause or contribute to exceedances of the ozone NAAQS. Although the Final Permit references NSR Permit 7960M1 in Condition A103.C, at issue is NSR Permit 7960M2, which the AQB indicates the Final Permit incorporates. The AQB did not address the failure to demonstrate that issuance of NSR Permit 7960M2 would not cause or contribute to exceedances of the ozone NAAQS, 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 7960M2, neither Lucid nor the AQB addressed the impacts of the Compressor Station's air pollution to ambient ozone concentrations. Neither the permit application submitted by Lucid or the AQB's statement of basis for NSR Permit 7960M2 actually analyze—either qualitatively or quantitatively—the impacts of the Big Lizard Station to ambient ozone concentrations. *See* Exhibit 8, Application for Significant Permit Revision for Big Lizard Compressor Station (July 25, 2019) and Exhibit 9, AQB, Statement of Basis Narrative, Big Lizard Compressor Station, Permit No. 7960M2 (Aug. 22, 2019). Although it was disclosed that the facility would release large amounts of ozone precursor emissions, including VOCs and NO_x, no analysis was actually completed to demonstrate that the Big Lizard 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 7960M2 was under review and ultimately approved, monitoring data from where the Big Lizard 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 Big Lizard 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 Big Lizard Compressor Station is located, but also Eddy County directly to the west. When NSR Permit 7960M2 was approved in 2019, monitors in Eddy and Lea Counties had recorded numerous exceedances of the 2008 and 2015 ozone NAAQS. The

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 Aug. 19, 2022).

tables below show recent exceedances of the ozone NAAQS measured at monitors in Eddy and Lea Counties. 6

Carlsbad, NM (Monitor No. 35-015-1005) 8-Hour Ozone Readings (in ppm), Eddy County, 2015-2022

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 (to date) |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| 1 st Max. | 0.069 | 0.065 | 0.082 | 0.096 | 0.095 | 0.075 | 0.092 | 0.084 |
| 2 nd Max. | 0.068 | 0.064 | 0.078 | 0.095 | 0.092 | 0.075 | 0.082 | 0.083 |
| 3 rd Max. | 0.067 | 0.064 | 0.077 | 0.091 | 0.084 | 0.075 | 0.080 | 0.080 |
| 4 th Max. | 0.067 | 0.063 | 0.076 | 0.083 | 0.080 | 0.073 | 0.080 | 0.079 |
| Number of Days Above NAAQS | 0 | 0 | 10 | 18 | 19 | 5 | 23 | 21 |

Carlsbad Caverns National Park (Monitor No. 35-015-0010) 8-Hour Ozone Readings (in ppm), Eddy County, 2015-2022

| | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | 2022 (to date) |
|----------------------------------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| 1 st Max. | 0.068 | 0.070 | 0.069 | 0.099 | 0.082 | 0.074 | 0.085 | 0.085 |
| 2 nd Max. | 0.068 | 0.069 | 0.065 | 0.081 | 0.080 | 0.074 | 0.080 | 0.084 |
| 3 rd Max. | 0.065 | 0.069 | 0.065 | 0.080 | 0.078 | 0.073 | 0.079 | 0.083 |
| 4 th Max. | 0.065 | 0.069 | 0.065 | 0.080 | 0.074 | 0.073 | 0.077 | 0.083 |
| Number of Days Above NAAQS | 0 | 0 | 0 | 10 | 6 | 9 | 15 | 19 |

Hobbs, NM (Monitor No. 35-025-0008) 8-Hour Ozone Readings (in ppm), Lea County, 2015-2022

| | | | | , | | 2020 | 2021 | 2022 |
|----------------------|-------|-------|-------|-------|-------|-------|-------|-------|
| | 2015 | 2016 | 2017 | 2018 | 2019 | | | (to |
| | | | | | | | | date) |
| 1 st Max. | 0.070 | 0.069 | 0.080 | 0.083 | 0.082 | 0.062 | 0.086 | 0.075 |
| 2 nd Max. | 0.069 | 0.066 | 0.074 | 0.078 | 0.075 | 0.060 | 0.075 | 0.075 |
| 3 rd Max. | 0.069 | 0.065 | 0.072 | 0.077 | 0.073 | 0.060 | 0.072 | 0.074 |
| 4 th Max. | 0.067 | 0.065 | 0.069 | 0.076 | 0.070 | 0.060 | 0.068 | 0.072 |
| Number of | | | | | | | | |
| Days Above | 0 | 0 | 3 | 6 | 3 | 0 | 3 | 4 |
| NAAQS | | | | | | | | |

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

Further, at the time of approval of NSR Permit 7960M2 in 2019, 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 monitoring data, the two ozone monitors in Eddy County are currently 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 7960M2 was approved, 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 since 2015.

8-Hour Ozone Design Values (in ppm) 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 | 2020- 2022 Design Value (to date) |
|---------------------|------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|--|
| Hobbs | 350250008 | 0.067 | 0.070 | 0.071 | 0.068 | 0.066 | 0.066 |
| Carlsbad | 350151005 | 0.068 | 0.074 | 0.079 | 0.078 | 0.077 | 0.077 |
| Carlsbad Caverns | 350150010 | 0.066 | 0.071 | 0.073 | 0.075 | 0.074 | 0.077 |

Here, there appears to be no possible way that emissions related to the approval of NSR Permit 7960M2 would not have contributed to exceedances of the ozone NAAQS. The approval of the permit authorized potential VOC emissions of 217.20 tons per year and potential NO_x emissions of 101.75 tons per year. 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 7960M2, there is no support for Condition A103.C. 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 Big Lizard 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 Big Lizard Station to the ozone NAAQS. Referencing testimony by an NMED employee presented in an unrelated New Mexico Environmental Improvement Board ("EIB") hearing, EIB Hearing No. 20-21(A), the AQB asserted, "PSD [Prevention of Significant Deterioration] minor sources do not 'cause or contribute' to violations of the ozone standard." Exhibit 6 at 7. 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 EIB regarding the validity of three separate permitting actions. These permitting actions had no relation whatsoever to the permitting of the Big Lizard Station or the validity of NSR Permit 7960M2. In other words, this testimony has no bearing at all as to whether the issuance of NSR Permit 7960M2 would cause or contribute to exceedances of the ozone NAAQS.

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 7960M2 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 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 10, 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 Big Lizard 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 Big Lizard Station will operate in compliance with applicable requirements under the New Mexico SIP. Although Condition A103.C 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 7960M1," 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 Big Lizard 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 Big Lizard 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 pages 7-8 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 Big Lizard 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 A8. 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 comply with monitoring and recordkeeping requirements set forth under Condition A107.C. Exhibit 1, Final Permit, Condition A107.C at A9 (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 necessary to demonstrate compliance.

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 11. 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 11-12. 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. 57. While the application presents estimated calculations of VOC emissions vented during SSM/M events, the application appears to only present estimated calculations of VOC emissions during blowdowns from compressor engines and not during other SSM/M events. The application does not actually present any calculations, methodologies, or direction that would indicate some means of specifically quantifying the volume of gas released during unique SSM/M events from emission points beyond the compressor engines.

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 12. 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 actual prescribe monitoring methodology set forth in the permit, the 10 ton per year VOC limit is completely 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 venting 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 Big Lizard 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 26th day of September 2022

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

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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 Big Lizard Compressor Station Title V Permit, Permit Number P289 (July 29, 2022).
- 2. Statement of Basis for Operating Permit P289.
- 3. Lucid Energy Delaware, LLC, Big Lizard Compressor Station, Title V Permit Initial Application (Sept. 2020).
- 4. Legal Notice for Air Quality Operating Permit for Lucid Big Lizard Compressor Station (March 29, 2022).
- 5. WildEarth Guardians Comments on Draft Title V Permit for Big Lizard Compressor Station (April 28, 2022).
- 6. AQB Response to Comments (June 10, 2022).
- 7. List of current permitting activities under review by the AQB (Aug. 19, 2022).
- 8. Application for Significant Permit Revision for Big Lizard Compressor Station (July 25, 2019)
- 9. Statement of Basis Narrative, Big Lizard Compressor Station, Permit No. 7960M2 (Aug. 22, 2019).
- 10. EPA, "Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program" (April 17, 2018).