STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT BOARD

IN THE MATTER OF THE APPEALS OF THE AIR QUALITY PERMIT NO. 7482-M1 ISSUED TO 3 BEAR DELAWARE OPERATING – NM LLC — EIB No. 20-21(A)

AND

REGISTRATION NOS. 8720, 8730, AND 8733 UNDER GENERAL CONSTRUCTION PERMIT FOR OIL AND GAS FACILITIES — EIB No. 20-33(A)

WildEarth Guardians,
Petitioner.

WILDEARTH GUARDIANS' CLOSING ARGUMENT AND FINDINGS OF FACT AND CONCLUSIONS OF LAW

CLOSING ARGUMENT

INTRODUCTION

The Greater Carlsbad area of southeastern New Mexico has a serious – and worsening – ozone pollution problem. Monitored levels of ozone pollution exceed federal standards designed to protect public health, threatening the health and welfare of residents and visitors to the region. Yet despite acknowledging the serious public health threat posed by unhealthy ozone levels, the New Mexico Environment Department ("NMED" or the "Department") continues to approve air permits authorizing new emissions of ozone precursor pollutants into this already-contaminated airshed, thereby exacerbating the problem. Allowing more pollution to be emitted in this already-polluted area is not just inexcusably bad policy, but a violation of the law.

In this appeal, WildEarth Guardians ("Guardians") first challenges the Department's approval of an individual air permit for the modification of the 3 Bear Libby Gas Plant (Permit

No. 7482-M1, the "3 Bear Permit"), which authorizes additional ozone precursor emissions in an area already exceeding the National Ambient Air Quality Standards ("NAAQS") for ozone.[1] Guardians also challenges the Department's approval of three separate registrations for new oil and gas facilities under the Department's General Construction Permit for Oil & Gas ("GCP-O&G") (Permit Registration Nos. 8729, 8730, and 8733; collectively the "Registrations").[2] The Department was required to deny the 3 Bear Permit and the Registrations because ozone levels at all of the monitors in the Greater Carlsbad area show the area to be demonstrably out of compliance with the federal ozone NAAQS. Because of the high pollution levels in the area, the Department lacked any basis for its conclusion that the new emissions authorized by the 3 Bear Permit would not "cause or contribute" to exceedances of the NAAQS. Moreover, under the terms of the GCP-O&G itself, the challenged facilities are ineligible for GCP-O&G registration because the monitoring data shows the facilities to be located in a nonattainment area, as that term is defined by the Department's regulations.

I. Background

Guardians has standing for these appeals to the Environmental Improvement Board ("EIB") pursuant to NMSA 1978, § 74-2-7.H and 20.1.2.202.A(2) NMAC. First, Guardians participated in the permitting action before the Department, including submitting substantive written comments regarding the 3 Bear Permit on January 17, 2020 and March 27, 2020,[3] as well as written comments regarding the Registrations on March 11, 2020.[4] Second, Guardians is a person adversely affected by the Department's permitting action, as described in Guardians'

[1] The 3 Bear Permit challenge is docketed as EIB No. 20-21(A).
[2] The Registrations challenge is docketed as EIB No. 20-33(A).
[3] 20-21_AR651-58, 669-71. Citations to the administrative record for the 3 Bear Permit are denoted as 20-21_AR***, with citations to the separate administrative record for the Registrations denoted as 20-33_AR***.
[4] 20-33_AR216-19.

petitions. By stipulation dated September 10, 2020, all parties have stipulated to Guardians' standing to bring the appeals in this consolidated proceeding.

Also by agreement of the Parties, Guardians' separately-filed appeals were consolidated for hearing before the Board. Order of Consolidation for Hearing (July 20, 2020). Written direct and rebuttal testimony were pre-filed with the Board, and a two-day virtual hearing was held on September 23 and 24, 2020. This post-hearing submittal is timely-filed in accordance with the Hearing Officer's September 17, 2020 Procedural Order, as amended by the November 3, 2020 order granting the Department's motion for extension of the deadline for post-hearing filings.

II. The Ozone Problem

Ozone is a "secondary pollutant" formed by a series of photochemical reactions between volatile organic compounds ("VOCs") and nitrogen oxides ("NOx") in the presence of sunlight.[5] While ozone is not directly emitted, emissions of its primary precursor pollutants – VOCs and NOx – definitively contribute to ozone formation and increases in monitored ambient ozone pollution levels.[6] It is well-established that the oil and gas industry is a significant contributor of VOC and NOx emissions in southeastern New Mexico.[7]

Serious health impacts resulting from exposure to elevated ozone pollution levels are well-documented. For example, the EPA has identified significant human health impacts

[5] Direct Testimony of R. Sahu, at 4 (WildEarth Guardians [WEG] Exhibit 1); *see also* NMED Answer, EIB No. 20-21(A), at 3(d); NMED Answer, EIB No. 20-33(A), at 3(d).
[6] Sahu Direct, at 4 (WEG Ex. 1).
[7] *See e.g.*, Sahu Direct, at 16-21 (WEG Ex. 1); NMED, How Ozone Trends at New Mexico's Ozone Monitoring Stations are Being Addressed (April 1, 2020), at 3 (WEG Ex. 7); URS, Air Resources Technical Support Document, Carlsbad Field Office (April 2013), at 4-23 to 4-41 (WEG Ex. 8); Fann, N., et. al., Assessing Human Health $PM_{2.5}$ and Ozone Impacts from U.S. Oil and Natural Gas Sector, U.S. EPA, Environ Sci Technol., at 9-12 (WEG Ex. 9); S. Kemball-Cook, et al., Southern New Mexico Ozone Study Technical Support Document (Oct. 2016), at 70 ("Oil and gas sources make the largest [New Mexico anthropogenic] contribution at the Carlsbad monitor, which is the monitor located closest to the Permian Basin.") (WEG Ex. 10).

resulting from ozone exposure, including serious respiratory and cardiovascular impacts.[8] Even short-term ozone exposure has been shown to decrease lung function, cause respiratory inflammation, exacerbate asthma and allergies, increase emergency room visits and hospitalizations, and even lead to death.[9] Long-term, chronic exposure to ozone pollution results in significant public health impacts, including increased rates of asthma and cardiopulmonary illness, hospitalizations, and premature death.[10] To put it simply, ozone kills.

In light of the significant public health risks linked to ozone pollution, the EPA strengthened the ozone NAAQS in 2015, lowering the 8-hour ozone standard from 75 parts per billion ("ppb") to 70 ppb.[11] EPA determined that this stricter standard was "requisite" to protect human health and welfare, "neither more nor less stringent than necessary for these purposes."[12] Compliance with the NAAQS is determined based on a "design value," calculated from monitored ozone levels as the three-year average of the annual fourth-highest daily 8-hour reading.[13] Hence, non-compliance with the ozone NAAQS indicates a chronic ozone problem with serious public health implications for an affected region.

As clearly established through written and oral testimony in this proceeding, monitored ozone levels at each of the three monitoring sites in the Greater Carlsbad region of southeastern New Mexico are demonstrably in exceedance of the ozone NAAQS.[14] Based on monitored ozone

---

[8] U.S. Envtl. Prot. Agency, National Ambient Air Quality Standards for Ozone, 80 Fed. Reg. 65292, 65302 (Oct. 26, 2015).
[9] *Id.* at 65303-07.
[10] *Id.* at 65303-11.
[11] *Id.* at 65294.
[12] *Id.* at 65295.
[13] *See* Sahu Direct, at 8 (WEG Ex. 1); 40 C.F.R § 50.19(b).
[14] Sahu Direct, at 8-9 (WEG Ex.1); EIB Hearing Transcript (Sept. 23, 2020) ("Day 1 Transcript"), at 169-170 (Cross-Examination of S. Mustafa); Direct Testimony of E. Bisbey-Kuehn, at 6 (NMED Ex. 5) (acknowledging that "the counties of Eddy, Lea, and the remainder of Dona Ana are monitoring ozone levels in violation of the [2015 ozone NAAQS]"); Rebuttal Testimony of E. Bisbey-Kuehn, at 4 (NMED Ex. 11) (acknowledging that "the Department does not dispute that the monitors in Hobbs and Carlsbad have been registering exceedances of the NAAQS in recent years…"; NMED Answer, EIB No. 20-21(A),

pollution levels from 2017-2019, the design values at the Carlsbad, Hobbs, and Carlsbad Caverns monitors each register above the 70 ppb threshold, with the Carlsbad monitor registering a design value of 79 ppb, the highest in the state.[15] The Department acknowledges that monitored ozone levels show regional air quality to be above the NAAQS,[16] and that "ozone levels in the Carlsbad area represent a threat to public health."[17]

III. The Role of Oil & Gas Activity in Contributing to the Ozone Problem

Oil and gas activities, including the facilities at issue in this appeal, release significant quantities of VOCs and NOx into the atmosphere.[18] These precursor pollutants react in the presence of sunlight to form ozone.[19] With the Greater Carlsbad area situated within the Permian Basin oil and gas production area, oil and gas activities demonstrably contribute to the high ozone pollution levels monitored in the area. [20] In general, ground-level ozone is a regional air pollution problem resulting from emissions from a wide variety of natural and anthropogenic sources. While in most parts of New Mexico cars and trucks represent the largest contributing anthropogenic source of emissions, the oil and gas industry has a disproportionate impact on ozone levels in the Greater Carlsbad area.[21] In fact, one recent study found oil and gas to be the

---

at 3(d); NMED Answer, EIB No. 20-33(A), at 3(d) ("[T]he Department does not dispute that design values calculated based on data from air quality monitors in Hobbs and Carlsbad in 2017, 2018, and 2018 show levels of ozone above the federal 2015 National Ambient Air Quality Standard ('NAAQS').").

[15] Sahu Direct, at 9 (WEG Ex. 1).

[16] *See supra* n.14.

[17] Day 1 Transcript, at 170.

[18] 20-21_AR_737, 742–46; 20-33_AR_223-24, 453-54, 664.

[19] Sahu Direct, at 4 (WEG Ex. 1); *see also* NMED Answer, EIB No. 20-21(A), at 3(d); NMED Answer, EIB No. 20-33(A), at 3(d).

[20] *See supra* n.7.

[21] Southern New Mexico Ozone Study Technical Support Document, at 70 (WEG Ex. 10) ("Oil and gas sources make the largest [New Mexico anthropogenic] contribution at the Carlsbad monitor, which is the monitor located closest to the Permian Basin.") (WildEarth Guardians Ex. 10); Rebuttal Testimony of R. Sahu, at 9 (WEG Ex. 11); Draft OAI Modeling Protocol, at 11-12 (WEG Ex. 6).

largest source of New Mexico-based anthropogenic emissions contributing to ambient ozone levels specifically at the Carlsbad monitor.[22]

The Department does not dispute Guardians' basic contention that adding new emissions from the challenged permit and registrations will exacerbate the region's ozone pollution problem. In fact, one of the Department's witnesses, Dr. Sufi Mustafa, specifically acknowledged that the additional emissions from the 3 Bear facility alone "would likely increase ambient ozone levels to some degree."[23] While Dr. Mustafa opined that "we do not know exactly how much it contributes," he acknowledged that adding new ozone precursor emissions to an area already exceeding the NAAQS "probably contributes some" to the problem.[24]

Yet despite acknowledging that (1) ozone pollution levels in the Greater Carlsbad area are in excess of federal standards;[25] (2) current ozone levels in the region pose a "threat to public health;"[26] and (3) permitting additional precursor emissions contributes to the area's problem,[27] the Department admitted at the hearing that the "exceedances at the Carlsbad monitor do not impact the issuance of air permits for minor sources."[28] In other words, before deciding to issue the 3 Bear permit and the challenged registrations, the Department never took into account the documented public health threat posed by the existing regional ozone pollution problem, despite the permitted emissions likely making the situation worse.

---

[22] Sahu Rebuttal, at 9 (WEG Ex. 11) (citing Southern New Mexico Ozone Study Technical Support Document, at 81 (WEG Ex. 10)).
[23] Day 1 Transcript, at 170.
[24] *Id.*
[25] *See* supra n.14; Day 1 Transcript, at 169-170.
[26] Day 1 Transcript at 170.
[27] *Id.*
[28] *Id.* at 181.

IV. Standard of Review

"A ruling by an administrative agency is arbitrary and capricious if it is unreasonable or without a rational basis, when viewed in light of the whole record." *Rio Grande Chapter of Sierra Club v. New Mexico Mining Comm'n*, 133 N.M. 97, 104. The Board may "sustain, modify or reverse" the Department's permitting decisions "[b]ased upon the evidence presented at the hearing." NMSA 1978 § 74-2-7.K. As the petitioner, WildEarth Guardians has the burden of proving by a "preponderance of the evidence the facts relied upon to justify the relief sought in the petition." 20.1.2.302 NMAC; *see also* NMSA 1978 § 74-2-7.K. On appeal, board decisions will be set aside where they are "(1) arbitrary, capricious, or an abuse of discretion; (2) not supported by substantial evidence in the record; or (3) otherwise not in accordance with law." NMSA 1978 § 74-2-9(C). Questions of law will be reviewed de novo on appeal. *Rio Grande Chapter of Sierra Club v. New Mexico Mining Comm'n*, 2003-NMSC-005, ¶ 16, 133 N.M. 97, 104, 61 P.3d 806, 61.

ARGUMENT

I. The 3 Bear Challenge

A. Emissions from the 3 Bear Facility Will "Cause or Contribute" to Further Exceedances of the Ozone NAAQS.

Under 20.2.72.208.D NMAC, the Department is required to deny any air permit application if "the construction, modification, or permit revision will cause or contribute to air contaminant levels in excess of any National Ambient Air Quality Standard or New Mexico ambient air quality standard unless the ambient air impact is offset by meeting the requirement of either 20.2.79 NMAC or 20.2.72.216 NMAC, whichever is applicable." Here, the 3 Bear Permit allows for new emissions of additional ozone precursors, including 72 additional tons per year of

VOCs and 21 additional tons per year of NO_X, without requiring any offsets of these emissions.[29] Yet the Department conducted no air quality modeling or other technical analysis to quantify the impact of these additional emissions on current ozone levels and failed to provide any support in the permitting record for its conclusory determination that these additional ozone precursors would not "contribute" to exceedances of the NAAQS.

As explained by the expert testimony of Dr. Ron Sahu, there are multiple analytical tools available to quantify the impact of ozone precursor emissions on ambient ozone levels. For example, there are complex photochemical models that have been developed for the Greater Carlsbad region, including models developed for the U.S. Bureau of Land Management,[30] the U.S. EPA,[31] the National Park Service,[32] and the Department itself.[33] Not only do these models collectively demonstrate that regional oil and gas activities generally contribute to the ozone pollution problem in the Greater Carlsbad area, they provide available tools that could be used to quantify the contribution of additional emissions for newly-permitted facilities. While the Department asserts that photochemical modeling is cost-prohibitive at the permit stage,[34] this assertion is based on an erroneous assumption that a new photochemical model would need to be

[29] 20-21_AR_798-99 tbl.102A.
[30] URS, Air Resources Technical Support Document, Carlsbad Field Office (April 2013) (WEG Ex. 8) (discussed by Sahu Direct, at 16-18 (WEG Ex. 1)); NMED, How Ozone Trends at New Mexico's Ozone Monitoring Stations are Being Addressed (April 1, 2020), at 3 (WEG Ex. 7); Fann, N., et. al., Assessing Human Health $PM_{2.5}$ and Ozone Impacts from U.S. Oil and Natural Gas Sector, U.S. EPA, Environ Sci Technol., at 9-12 (WEG Ex. 9); S. Kemball-Cook, et al., Southern New Mexico Ozone Study Technical Support Document (Oct. 2016), at 70 ("Oil and gas sources make the largest [New Mexico anthropogenic] contribution at the Carlsbad monitor, which is the monitor located closest to the Permian Basin.") (WEG Ex. 10).
[31] Fann, N., et. al., Assessing Human Health $PM_{2.5}$ and Ozone Impacts from U.S. Oil and Natural Gas Sector, U.S. EPA, Environ Sci Technol. (WEG Ex. 9) (discussed by Sahu Direct, at 18-19 (WEG Ex. 1)).
[32] Sahu Direct, at 20-21 (WEG Ex. 1).
[33] Southern New Mexico Ozone Study Technical Support Document (WEG Ex. 10) (discussed by Sahu Direct, at 19-20) (WEG Ex. 1)).
[34] *See, e.g.*, Day 1 Transcript at 160, 164, 254.

developed from scratch for each permit application.[35] To the contrary, expert testimony indicated that the existing model frameworks could be cost-effectively updated with new emissions projections to quantify the ambient impacts of the new emissions.[36] In addition, EPA guidance on Modeled Rates of Emissions Precursors ("MERP") provides another tool for estimating the contribution of new sources to ambient ozone levels.[37] MERP analysis allows for ozone precursor emissions to be scaled to a representative facility, providing a screening-level tool to quantitively estimate ambient ozone impacts.[38] Yet despite the availability of multiple tools to quantify ambient ozone impacts, the Department conducted no such quantitative analysis prior to issuing the 3 Bear Permit.[39]

While the Department did not project ambient ozone impacts prior to issuing the 3 Bear Permit, the Department's 2019 Modeling Guidelines acknowledge that "[o]zone concentrations may be estimated" using a simplified equation "derived from the MERP guidance."[40] Applying that equation from the Department's guidelines, Dr. Sahu found that "the increased NOx and VOC emissions from the 3 Bear expansion are estimated to lead to 0.18 ppb increase in ambient ozone concentrations."[41] Based on the total emissions from the 3 Bear Facility, the Department's MERP-derived equation shows an ambient ozone impact of 0.97 ppb from the facility.[42]

While the Department never actually quantitatively assessed the ambient ozone impacts from the 3 Bear Facility using any of the available tools, there is no question that adding additional ozone precursor emissions will contribute to the existing ozone pollution problem. As

[35] Day 1 Transcript, at 62.
[36] *Id.*
[37] Sahu Direct, at 15 (WEG Ex. 1).
[38] Sahu Rebuttal, at 3–4 (WEG Ex. 11).
[39] Day 1 Transcript, at 178-79.
[40] NMED Air Quality Bureau, Air Dispersion Modeling Guidelines, at 24 (June 6, 2019) (NMED Ex. 3).
[41] Sahu Rebuttal, at 6 (WEG Ex. 11).
[42] *Id.*

the Department's modeling expert acknowledged on cross-examination, the additional emissions from the 3 Bear facility alone "would likely increase ambient ozone levels to some degree."[43] While Dr. Mustafa opined that "we do not know exactly how much it contributes," he acknowledged that adding new ozone precursor emissions to an area already exceeding the NAAQS "probably contributes some" to the problem.[44]

As explained above, the ambient air quality in the region surrounding the 3 Bear Gas Plant, as evidenced by monitoring data from verified monitoring stations in Lea and Eddy Counties, is *already* exceeding the ozone NAAQS.[45] On cross-examination, the Department admitted that emissions from the 3 Bear facility will "likely increase ambient ozone levels to some degree," and "probably contribute[] some" to the existing ozone problem.[46] Accordingly, the evidence shows that the Department's issuance of the 3 Bear Permit – without requiring offsets – will contribute to exceedances of the ozone NAAQS, and so the permitting action was unlawful and in violation of 20.2.72.208.D NMAC.[47]

B. There is No Significance Threshold in the Department's Regulations Establishing the "Cause or Contribute" Standard for Permit Denial.

While not articulated in the legal notice or permitting record for the 3 Bear Permit, Departmental testimony in this proceeding indicates that the Department apparently interprets the regulatory "cause or contribute" standard as implicitly containing a "significance" test, whereby the Department can only deny permits where the emissions will cause or *significantly*

[43] Day 1 Transcript, at 170 .
[44] *Id.*
[45] See *supra* n.14.
[46] Day 1 Transcript, at 170.
[47] In its Legal Notice, the Department stated that "[t]o determine compliance with national ambient air quality standards for ozone, NMED uses air monitors to monitor ozone concentrations." 20-21_AR_391. This statement is plainly erroneous and arbitrary given the Departments' admission that the applicable air monitors show ozone pollution levels out of compliance with the ozone NAAQS. *See* supra n.14.

contribute to exceedances of the ozone NAAQS.[48] Notably, however, a significance test for ozone pollution is not articulated in the Clean Air Act, New Mexico Air Quality Act, or the EPA's or Board's regulations. Instead, the Board's regulations plainly require permit denial where new emissions will "cause or contribute" to exceedances of the NAAQS. 20.2.72.208.D NMAC. The Department lacks the legal authority to insert a "significance" threshold into the applicable regulatory language without formal action by the Board to amend its rules.[49] NMSA 1978 §§ 74-1-15, 74-1-8.A(1), 74-2-5.B(1).

C. EPA Guidance Regarding "Significant Impact Levels" Is Inapplicable Because the Greater Carlsbad Area Is Already Out of Compliance with the Ozone NAAQS.

In certain circumstances – not applicable here – the EPA has proposed the use of "significant impact levels," or "SILs" to support permitting authorities in determining that individual emission sources do not *significantly* contribute to NAAQS exceedances.[50] Critically, however, the application of such "significant impact levels" has never been upheld for facilities located in areas already out of compliance with an applicable NAAQS. Accordingly, the Department lacks authority to apply EPA guidance on significant impact levels to the 3 Bear Permit.

In 2018, EPA issued Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program (the "EPA SIL Guidance").[51]

---

[48] *See e.g.,* Direct Testimony from S. Mustafa, at 4, 9 (NMED Ex. 1); Day 1 Transcript, at 161-62.
[49] To the extent the Department is attempting to rely on EPA guidance purporting to establish a significance threshold in the Prevention of Significant Deterioration ("PSD") context, as discussed below, that guidance is inapplicable to the 3 Bear Permit and, in any event, non-binding EPA guidance cannot supersede the Department's formal regulations.
[50] *See e.g.* U.S. EPA, Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program ("EPA SIL Guidance") (Apr. 17, 2018) (WEG Ex. 12).
[51] *Id.*

EPA explained that it issued the non-binding guidance to "gain valuable experience and information as permitting authorities use their discretion to apply *and justify* the application of the SIL values identified below *on a case-by-case basis* in the context of individual permitting decisions."[52] The EPA SIL Guidance recommended a significant impact level for ozone of 1.0 ppb, for use on a "case by case basis."[53] Pointedly, however, EPA has *not* determined whether or not "the recommended SIL values are suitable in all circumstances to show that an increase in air quality concentration below the value does not cause or contribute to a violation of the NAAQS…."[54] In other words, the Department cannot simply rely on the EPA SIL Guidance as establishing a magic threshold of 1.0 ppb, below which it can be assumed that incremental ambient ozone impacts will not "cause or contribute" to exceedances of the ozone NAAQS.

The Department's attempt to rely on that non-binding EPA guidance document as establishing a blanket significance threshold for the "cause or contribute" analysis is entirely misplaced. Of particular note, that guidance does not support application of significant impact levels in areas already out of compliance with the ozone NAAQS. As explained by Guardians' expert witness, Dr. Ron Sahu, the EPA SIL Guidance is only applicable in the Prevention of Significant Deterioration ("PSD") permitting context.[55] That means that EPA only contemplated application of a Significant Impact Level in areas that are in compliance with the ozone NAAQS. As discussed above, the Greater Carlsbad area is demonstrably out of compliance with the 2015 ozone NAAQS,[56] so the EPA SIL Guidance is inapplicable in this area. Hence, the Department

[52] EPA SIL Guidance, at 2 (WEG Ex. 12) (emphasis added).
[53] *Id* .at 15.
[54] *Id.* at 2.
[55] Day 1 Transcript, at 91.
[56] *See supra* n.14.

cannot rely on the EPA SIL Guidance as legal support for its attempt to insert a significance threshold into the applicable "cause or contribute" regulatory standard for the 3 Bear Permit.

D. The Department Has Failed to Make the Necessary Showing that the 3 Bear Permit Will Not "Cause or Contribute" to Ozone Exceedances.

Even if EPA's SIL Guidance could be applied in areas already exceeding the ozone NAAQS, the Department failed to conduct the "case by case" analysis needed to justify application of a significant impact level in the particular context of the 3 Bear permit application. The EPA SIL Guidance is clear that it does *not* establish a blanket threshold on which permitting authorities can rely to determine that any contribution to ambient ozone levels below the 1.0 ppb SIL would automatically be deemed not to "cause or contribute" to exceedances of the ozone NAAQS. Instead, the EPA SIL Guidance was intended to provide "non-binding guidance so that [EPA] may gain valuable experience and information as permitting authorities use their discretion to apply and justify the application of the SIL values identified below on a case-by-case basis in the context of individual permitting decisions."[57] EPA specifically acknowledged that the agency has yet to determine whether "the recommended SIL values are suitable in all circumstances to show that an increase in air quality concentration below the value does not cause or contribute to a violation of the NAAQS."[58] The EPA guidance repeatedly emphasized that it did not establish a magic threshold below which an increase in ambient ozone levels could automatically be deemed an insignificant contribution:

> [T]his guidance is not a final agency action and does not reflect a final determination by the EPA that any particular proposed source with a projected impact below the recommended SIL value does not cause or contribute to a violation. A determination that a proposed source does not cause or contribute to a

[57] EPA SIL Guidance, at 2 (WEG Ex. 12).
[58] *Id.* at 3.

> violation can only be made by a permitting authority on a permit-specific basis after consideration of the permit record.[59]

Accordingly, EPA's guidance specifically requires that "[i]f a permitting authority chooses to use these SIL values to support a case-by-case permitting decision, it must justify the values and their use in the administrative record for the permitting action."[60]

Critically, the EPA SIL Guidance is clear that it did not establish the ozone SIL as a blanket threshold, below which increases in ozone levels could be assumed to not "cause or contribute" to ozone violations, because the agency lacked the legal authority to do so. Illustrating this, EPA had finalized a rule in 2010 to codify particular SIL values for small particulate matter ("PM2.5"), below which permitting authorities were permitted to assume that emissions did not significantly contribute to violations of the PM2.5 NAAQS.[61] That rule was challenged because by "automatically exempt[ing] a source with a proposed impact below the SIL from demonstrating it will not cause or contribute to a violation of the NAAQS, unlimited numbers of sources whose impacts are less than the SILs could cumulatively cause a violation of the NAAQS or increments."[62] Accordingly, "EPA conceded the regulation was flawed because it did not preserve the discretion of permitting authorities to require additional analysis in certain circumstances, and the court granted the EPA's request to vacate and remand the rule so that the EPA could address the flaw."[63] In issuing the rule, EPA had acknowledged that, regardless of the existence of a SIL, there are certain circumstances where "it may be appropriate to conclude that

---

[59] *Id.*
[60] *Id. See also id.* at 19 ("The case-by-base use of SIL values should be justified in the record for each permit.").
[61] U.S. EPA, Prevention of Significant Deterioration (PSD) for Particulate Matter Less Than 2.5 Micrometers (PM2.5)—Increments, Significant Impact Levels (SILs) and Significant Monitoring Concentration (SMC), 75 Fed. Reg. 64864 (Oct. 20, 2010).
[62] *Sierra Club v. EPA*, 705 F.3d 458, 463 (D.C. Cir. 2013).
[63] EPA SIL Guidance, at 2 (WEG Ex. 12).

even a *de minimis* impact will 'cause or contribute' to an air quality problem," requiring remedial action from the proposed new source.[64] Because the final regulatory text failed to account for such circumstances, and instead unlawfully established significant impact levels as a blanket threshold, EPA voluntarily remanded the PM2.5 SIL rule, and instead issued the non-binding guidance establishing recommended SIL values to be applied – and justified – on a case-by-case basis.

Here, the permitting record is completely devoid of any such case-by-case analysis and justification. The record contains no analysis or discussion of ozone impacts from the 3 Bear facility, failing to even mention application of a SIL for ozone, much less any justification for such application. The record contains no ozone modeling, MERP analysis, or other quantification of the impact of the new emissions from the 3 Bear facility on ambient ozone levels. There is nothing in the record showing that the Department ever actually applied the EPA's SIL to the 3 Bear facility. The record does not show any consideration by the Department as to whether it was appropriate to apply a SIL threshold in the particular context of the 3 Bear facility, particularly in light of the monitored exceedances of the ozone NAAQS in the area. Nor does the record demonstrate any consideration by the Department of the cumulative ozone impacts of the 3 Bear Permit in conjunction with other contributing facilities in the area. Accordingly, under the Department's apparent interpretation of an automatic 1.0 ppb significance threshold, "unlimited numbers of sources whose impacts are less than the SILs could cumulatively cause a violation of the NAAQS or increments."[65] When asked to confirm that "there is nothing in the record indicating or documenting the Department's application of the

[64] 75 Fed. Reg. at 64892.
[65] *Sierra Club*, 705 F.3d at 463.

SIL," the Department's witness Dr. Mustafa acknowledged: "I think that it was missed somehow, it was missed in the permit. I don't know why it got missed, but it was missed."[66]

The Department subsequently argued "[t]hat type of documentation is only required for PSD major sources and is not required by guidance for minor source applications. Therefore that documentation was not necessary for the administrative record."[67] But the Department's application of the 1.0 ppb SIL is not only undocumented in the 3 Bear Permit record. The Department's blanket application of a SIL to obviate the need to assess ozone impacts for individual minor sources – including 3 Bear – is not documented *anywhere*. As the Department's witnesses testified, "[i]n general, the Bureau has been aware since the MERPs guidance was finalized by EPA that minor sources in the region would be – contribute below the significance level."[68] But not only was that "general awareness" not documented in the 3 Bear permit record;[69] it is not documented in the Department's formal regulations;[70] nor is it documented in "any publicly available guidance promulgated by the Department."[71] Further, even assuming that the Department is correct in assuming that any minor source would not individually cause more than 1.0 ppb impact on ambient ozone levels, the Department has failed to explain how it can possibly be appropriate to apply this Significant Impact Level threshold in an area that is *already exceeding the NAAQS.* It is simply common sense that measurable impacts – even below 1.0 ppb – will contribute to increased ozone pollution, including exceedances of the NAAQS.

When asked whether it was "the Department's position that a minor source will never be considered as contributing to an ozone violation," the Department's response was that "w[e]

[66] Day 1 Transcript, at 179.
[67] *Id.*
[68] *Id.* at 173.
[69] *Id.*
[70] *Id.* at 173-74.
[71] *Id.* at 174.

don't know the answer to that question." [72] But when pressed as to how the Department estimates impacts from minor sources, the Department responded that any contribution from a minor source "is not required to be specifically addressed."[73] In other words, the Department apparently acknowledges that there could be circumstances where minor sources might contribute to ozone violations, but refuses to actually evaluate whether the 3 Bear Permit represents such a circumstance. This contradiction is fundamentally arbitrary.

The Department claims that for minor sources like the 3 Bear facility, "there are currently no requirements for a demonstration to be made in the administrative record that a facility does not cause or contribute to [] ozone concentrations above the SIL."[74] But while the EPA Guidance may be specifically applicable only to major PSD sources, the Department's own regulations require it to deny a minor source permit where emissions from the minor source will "cause or contribute" to exceedances of the ozone NAAQS. 20.2.72.208.D NMAC. "A ruling by an administrative agency is arbitrary and capricious if it is unreasonable or without a rational basis, when viewed in light of the whole record." *Rio Grande Chapter of Sierra Club v. New Mexico Mining Comm'n*, 133 N.M. 97, 104. Absent *anything* in the record to indicate that – prior to issuing the 3 Bear permit – the Department considered potential impacts on ambient ozone levels *at all*, the Department's decision to issue the 3 Bear permit was unreasonable and lacked a rational basis. Without record support, the Department claims a "general awareness" that minor sources never cause ambient ozone levels to increase more than 1.0 ppb.[75] But the Department cannot simply assume that – *in all circumstances* – an impact of less than 1.0 ppb can be considered not to contribute to ozone exceedances. For example, it is completely inappropriate

[72] *Id.* at 226.
[73] *Id.* at 226-227.
[74] *Id.* at 180.
[75] *Id.* at 173-74.

and without scientific or legal support for the Department to simply assume that increasing ozone levels by just under 1.0 ppb would not contribute to ozone exceedances in the Greater Carlsbad area, which is already out of compliance with the ozone NAAQS.

The Legal Notice for the 3 Bear Permit is notably devoid of any discussion of significant impact levels related to ambient ozone impacts, disclaiming any need to conduct ozone ambient impact analysis, with the following non-sequitur: "VOCs are a pre-cursor to ozone and the [Department] does not require an individual ozone ambient impact analysis for each application. To determine compliance with national ambient air quality standards for ozone, [the Department] uses air monitors to monitor ozone concentrations." 3 Bear Legal Notice, at 2. But, in fact, the monitored ozone concentrations – which are demonstrably in excess of the NAAQS – actually have *no bearing whatsoever* on the Department's permitting process, with the Department admitting at the hearing that the "exceedances at the Carlsbad monitor do not impact the issuance of air permits for minor sources."[76]

The Department's regulations require the denial of any permit that will "cause or contribute" to exceedances of the ozone NAAQS. 20.2.72.208.D NMAC. That regulatory language does not contemplate any *de minimis* exemption or significance threshold. But even if such a significance threshold could be applied in certain circumstances, as contemplated by the EPA SIL Guidance, those circumstances are not applicable here. The Department did not make a case-by-case determination that application of a significance threshold was appropriate, and, in fact, completely failed to assess ozone impacts of the 3 Bear facility before issuing that permit. After-the-fact, the Department now tries to rely on a purported "general awareness" that minor sources by definition do not significantly contribute to ambient ozone levels. But absent any

[76] *Id.* at 181.

support in the record to show that the Department ever considered whether emissions from the 3 Bear facility, located in an area already out of compliance with the ozone NAAQS, would contribute to ozone exceedances, the Department's issuance of the 3 Bear Permit was unreasonable, lacking in rational basis, and therefore arbitrary and capricious.

II. The General Permit Registrations Challenge

Guardians also challenges the Department's approval of three registrations under the agency's General Construction Permit for Oil and Gas ("GCP-O&G"). The three Facilities at issue are projected to collectively release hundreds of tons of new ozone precursors each year without offsets or other effective mitigation. The respective registration applications authorize annual ozone precursor emissions of up to 103.0 tons of VOCs and 31.8 tons of NOx (GCP No. 8729)[77]; 100 tons VOCs and 39.1 tons NOx (GCP No. 8730)[78]; and 90.5 tons VOCs and 19.9 tons NOx (GCP No. 8733)[79].

The GCP-O&G is a fast-track permit process that allows for a streamlined review process of certain oil and gas facilities, whereby compliance with the terms and conditions of the General Construction Permit is deemed to be compliance with applicable requirements of the Clean Air Act and associated regulations. Under the terms of the GCP-O&G, registrations are unavailable for facilities in areas that fail to comply with the ozone NAAQS, based on the Board's reasonable policy choice to limit the availability of this fast-track permit to geographic areas in compliance with air quality standards. Accordingly, because the monitored ozone data shows ozone pollution levels in the Greater Carlsbad area are out of compliance with the NAAQS, new registrations are impermissible in the area.

[77] 20-33_AR_223-24.
[78] 20-33_AR_453-54.
[79] 20-33_AR_664.

A. The Challenged Facilities Cannot Demonstrate Compliance with all Applicable Requirements of the GCP-O&G, Including the Ozone NAAQS.

First, operators are only eligible to apply for registration of facilities where the "[t]he Facility can comply with all of the requirements" of the GCP-O&G.[80] The Department is specifically required to deny a registration where the proposed source "is not qualified to register for GCP-Oil and Gas."[81] Table 103 lists the "Applicable Requirements" that the permittees must "comply with" in order to be eligible to register under the GCP-O&G.[82] Among the "applicable requirements" specifically listed in the GCP-O&G is "40 CFR 50 National Ambient Air Quality Standards."[83] This plainly includes the 2015 ozone NAAQS, which is specifically listed at 40 C.F.R. § 50.19. As explained above, the challenged Facilities are all located in areas shown by monitored data to be out of compliance with the ozone NAAQS.[84] Accordingly, the Facilities cannot comply with the ozone NAAQS. Because the ozone NAAQS is one of the applicable requirements for registration under the GCP-O&G, the Facilities at issue in this appeal are ineligible for registration under the GCP-O&G.

At the hearing, the Department argued that "by definition [minor] sources emit less than the Significant Impact Level and therefore do not cause or contribute to ozone exceedances."[85] Accordingly, the Department made no attempt to analyze the ozone impacts from the registered Facilities, but simply assumed that ozone impacts from each individual facility would not exceed more than 1.0 ppb, based on the Department's "general awareness" that individual "minor

[80] Air Quality Bureau, General Construction Permit for Oil and Gas Facilities GCP-Oil & Gas ("GCP-O&G") (April 27, 2018) at 4, A100.G(1) (attached to WildEarth Guardians Petition for Hearing, EIB No. 20-33(A)).
[81] GCP-O&G, A100.H(2).
[82] GCP-O&G, A103, tbl.103.
[83] GCP-O&G, A103, tbl.103.
[84] *See supra* n.14.
[85] Day 1 Transcript, at 208.

sources contribute below one part per billion impact of incremental ozone increase in the Carlsbad area."[86] However, this "general awareness" of the ambient ozone impacts of individual minor sources completely fails to take into account the actual pollution levels documented in the area. Instead, the Department continues to silently impose a significance threshold in determining contribution to ozone violations, even in an area that is already out of compliance with the ozone NAAQS. With over 400 individual facilities registered under the GCP-O&G since April 2018,[87] largely within the Greater Carlsbad region, it is obvious that the cumulative impact of these facilities is contributing to the well-documented ongoing violation of the ozone NAAQS. As Dr. Mustafa acknowledged, the "cumulative impact" from the hundreds of facilities permitted under the GCP-O&G "would undoubtedly be significant," and exceed 1 ppb.[88] Instead of evaluating whether the registered facilities could demonstrate compliance with the ozone NAAQS – in an area already out of such compliance – the Department simply approved the registrations *without any assessment* of ozone impacts. In an area already out of compliance with the ozone NAAQS, a general awareness that an individual minor source registration would not increase ambient ozone levels by more than 1.0 ppb is insufficient to show that the registered facilities are able to comply with the ozone NAAQS.

Permittees also claim that compliance with the ozone NAAQS was conclusively demonstrated when the Department issued the GCP-O&G, and that requiring registrants to demonstrate compliance with the ozone NAAQS represents a collateral attack on the prior issuance of the GCP-O&G.[89] That argument, however, ignores the fact that the ozone NAAQS is specifically identified as an "applicable requirement" that a facility must meet to qualify for

[86] *Id.*; *See also id.* at 173-74.
[87] *Id.* at 184-85.
[88] *Id.* at 185-86.
[89] *See* Direct Testimony of T. Mucha, at 5 (Spur Energy Ex. A).

registration.[90] The Department apparently assumes that compliance with the maximum emission limits under the GCP-O&G by definition demonstrates compliance with the ozone NAAQS, a circular argument that effectively renders meaningless the GCP-O&G's inclusion of the ozone NAAQS as an applicable requirement. In interpreting the terms of the GCP-O&G, it should be presumed that the Board did not use any surplus words, so the permit should be interpreted so that "each word is to be given meaning." *Velasquez v. Regents of N. New Mexico Coll.*, No. A-1-CA-36781, 2020 WL 6111009, at *21 (N.M. Ct. App. Sept. 28, 2020); *see also Smith v. City of Santa Fe*, 2006-NMCA-048, ¶ 16, 139 N.M. 410, 415, 133 P.3d 866, 871, *aff'd*, 2007-NMSC-055, ¶ 16, 142 N.M. 786, 171 P.3d 300 (applying principles of statutory construction to interpretation of permit language); *Johnson v. N.M. Oil Conservation Comm'n,* 1999–NMSC–021, ¶ 27, 127 N.M. 120, 978 P.2d 327 (holding that canons of construction that apply to statutes also apply to interpretation of agency rules and regulations). So the Board's inclusion of the ozone NAAQS as an "applicable requirement" that permittees must comply with must be given meaning.

Moreover, if emissions below the total maximums permitted under the GCP-O&G were sufficient to demonstrate NAAQS compliance, permittees would not need to demonstrate NAAQS compliance for any other criteria pollutants. Yet, as Spur Energy noted in its permit application, the facility purportedly demonstrated compliance with "applicable national ambient air quality standards for NOx, CO, CO2, H2S, PM10, and PM2.5."[91] If emissions below the applicable maximum emissions limits for GCP-O&G eligibility was conclusive evidence of NAAQS compliance, there would be no reason for the NAAQS to be identified as an "applicable

[90] GCP-O&G, A103, tbl.103.
[91] 20-33_AR_553; see also Direct Testimony of A. Erenstein, at 6 (Spur Energy Ex. 3).

requirement" that applicants must be able to comply with in order to be eligible to apply for registration.[92]

B. The Facilities at Issue Are Ineligible to Register Under the GCP-O&G Because Monitored Data Shows the Greater Carlsbad Area to be a Nonattainment Area, as Defined by Applicable Departmental Regulations.

Second, the GCP-O&G clearly requires the Department to deny registration for any facility "located in a nonattainment area [defined by 20.2.72.216 and 20.2.79 NMAC]."[93] While the Greater Carlsbad area has not been formally designated as a nonattainment area by the EPA, that formal designation is not required to meet the applicable regulatory definition specifically referenced in the GCP-O&G. Instead, 20.2.79 NMAC defines "nonattainment area" as follows:

> **"Nonattainment area"** means, for any air pollutant an area which is shown by monitored data or which is calculated by air quality modeling (or other methods determined by the administrator to be reliable) to exceed any national ambient air quality standard for such pollutant. Such term includes any area identified under Subparagraphs (A) through (C) of Section 107(d)(1) of the federal Clean Air Act.

20.2.79.7.AA NMAC.

Under this regulatory definition – specifically referenced in the GCP-O&G – the Greater Carlsbad area plainly qualifies as a "nonattainment area" for ozone because it is "shown by monitored data … to exceed any national ambient air quality standard for such pollutant." As Department witness Elizabeth Bisbey-Kuehn acknowledged, "the counties of Eddy, Lea, and the remainder of Dona Ana are monitoring ozone levels in violation of the [2015 ozone NAAQS]."[94] Further, in its Answer, the Department acknowledged that it "does not dispute that design values calculated based on data from air quality monitors in Hobbs and Carlsbad in 2017, 2018, and

[92] GCP-O&G A100.G(1), A100.(H)(2), A103, tbl.103.
[93] A100.H(6).
[94] Direct Testimony of E. Bisbey-Kuehn, at 6 (NMED Ex. 5).

2018 show levels of ozone above the federal 2015 National Ambient Air Quality Standard ('NAAQS')."[95]

There is no dispute that the Greater Carlsbad area where the three registered facilities at issue are located is a "nonattainment area" under the regulatory definition at 20.2.79.7.AA NMAC. That definition is specifically incorporated into the terms of the GCP-O&G, whereby facilities located in such nonattainment areas are not eligible for registration under the general permit. Tellingly, instead of arguing that the Greater Carlsbad area does not meet the applicable regulatory definition of "nonattainment area," the Department argues that the Board should effectively ignore the specific language of this definition.[96] According to the Department, applying the plain meaning of the regulatory definition "would run contrary to the stringency provisions in the New Mexico Air Quality Control Act [and] would mean that the Department would have to conduct its own non-attainment designation process under state law."[97]

The Department's 11th hour argument regarding the "no more stringent than" clause is a complete red herring. The regulatory definition of "nonattainment area" is not "more stringent than" what is required under the federal Clean Air Act, and does not impose any emissions limits or other restrictions that would be more stringent than federal requirements. Instead, the Department's regulatory definition of "nonattainment area" is simply geographically broader than the definition provided in the federal Act. Critically, the federal Clean Air Act does not mandate that general permits for oil and gas facilities be made available in any geographic area. Moreover, the GCP-O&G is a *permit*, not a "regulation," so limiting its geographical applicability does not establish a "more stringent" *regulation* than provided by federal law.

[95] NMED Answer, at 3(d).
[96] Day 1 Transcript, at 147, 204-05
[97] Rebuttal Testimony of E. Bisbey-Kuehn, (NMED Ex. 11), at 3

Permittee witnesses acknowledged that the Department could lawfully limit the scope of the GCP-O&G to explicitly exclude Lea and Eddy Counties.[98] Hence, applying the plain meaning of the applicable regulatory definition of "nonattainment area" does not result in any "more stringent" regulation in nonattainment areas than what is required under federal law.

Further, the fact that the definition "includes" but is not expressly limited to areas formally designated by EPA as nonattainment under the Clean Air Act indicates that the definition was not intended to be limited solely to designated nonattainment areas. Under applicable principles of statutory interpretation, definitions based on the term "includes" are interpreted in an "extensive" manner, whereas the word "means" implies a "restrictive" definition.[99] In other words, "includes" should generally interpreted to mean "includes, but is not limited to…." Thus, if the Board had intended to limit the regulatory definition of "nonattainment area" to only include formally designated nonattainment areas, the Board could have readily done so. But by expansively defining "nonattainment area," the Board expressed its intent to adopt a broader definition incorporating all areas shown by monitored data (or otherwise) to be exceeding the applicable NAAQS, including but not limited to formally designated nonattainment areas.[100]

---

[98] EIB Transcript (Sept. 24, 2020) ("Day 2 Transcript"), at 450-51.

[99] New Mexico Legislative Counsel Service, Legislative Drafting Manual, at 53 (Sept. 22, 2015) (available at https://www.nmlegis.gov/publications/Legislative_Procedure/drafting_manual.pdf). *See also Matter of Estate of Corwin*, 1987-NMCA-100, ¶ 3, 106 N.M. 316, 317, 742 P.2d 528, 529 (affirming extensive interpretation of statutory term "includes": "A term whose statutory definition declares what it 'includes' is more susceptible to extension of meaning by construction than where the definition declares what a term 'means.' It has been said 'the word 'includes' is usually a term of enlargement, and not of limitation. … It, therefore, conveys the conclusion that there are other items includable, though not specifically enumerated.'") (quoting *Sutherland Statutory Construction* Section 47.07 (Sands 4th ed. 1984)).

[100] The Department asserts that its regulatory definition of nonattainment area was adopted prior to the 1990 Clean Air Act amendments, but offers no evidence to support this assertion. Day 1 Transcript, at 204-05. In fact, the brief regulatory history provided by the State Records Center & Archives shows that 20.2.79.7 NMAC was adopted on November 30, 1995, and subsequently amended several times between 2002 and 2011. http://www.srca.nm.gov/parts/title20/20.002.0079.html. But irrespective of the timing of

Ms. Bisbey-Kuehn posits that the use of the term "area" necessary implies that formal boundaries must be identified through the formal attainment process. But the Department's draft proposal for new ozone precursor regulations, discussed by Ms. Bisbey-Kuehn's testimony, shows that this is plainly not the case.[101] Under NMSA 1978 § 74-2-5.3, the Board is required to adopt a plan, including regulations, to control ozone precursor emissions from "sources of emissions within *the area of the state* where the ozone concentrations exceed ninety-five percent of the national ambient air quality standard." (emphasis added). The Department's draft rule defines the scope of that applicable "area" based solely on monitoring data, applying the rule "to sources located within counties that have areas with ambient ozone concentrations in excess of ninety-five percent of the national ambient air quality standard for ozone," including but not limited to Eddy and Lea counties.[102] Accordingly, use of the term "area" does not imply that a nonattainment area can only be identified through establishment of formal boundaries through the EPA designation process.

To be eligible for registration under the GCP-O&G, a permittee must demonstrate compliance with "all applicable requirements," including the ozone NAAQS. Further, a facility is ineligible for registration if it is located in a "nonattainment area," which is specifically defined to include: "for any air pollutant an area which is shown by monitored data or which is calculated by air quality modeling (or other methods determined by the administrator to be reliable) to exceed any national ambient air quality standard for such pollutant." 20.2.79.7.AA

---

the initial *adoption* of this definition of nonattainment, in 2018 the Board indisputably *incorporated by reference* that specific regulatory definition into the GCP-O&G.

[101] Bisbey-Kuehn Direct, at 7 (NMED Ex. 11).

[102] NMED, Draft Ozone Precursor Rule for Oil and Natural Gas Sector (July 20, 2020), § 20.2.50.2 (available at: https://www.env.nm.gov/new-mexico-methane-strategy/wp-content/uploads/sites/15/2020/07/Draft-Ozone-Precursor-Rule-for-Oil-and-Natural-Gas-Sector-Version-Date-7.20.20.pdf).

NMAC. The Department has acknowledged that the air quality monitors in Lea and Eddy counties show ozone pollution levels demonstrably exceeding the ozone NAAQS.[103] Thus, under the plain language of the regulatory definition of "nonattainment area" specifically referenced in the GCP-O&G, it is clear that the Greater Carlsbad area, where the challenged facilities are located, is a "nonattainment area." Accordingly, under the terms of the GCP-O&G, the facilities at issue are ineligible for general permit registration. The Department's approval of Registration Nos. 8729, 8730, and 8733 is therefore arbitrary, capricious, and unlawful, and the Registration approvals should be vacated.

III. Conclusion

Ozone pollution represents a serious problem and public health threat in southeastern New Mexico, with monitored ozone values demonstrably exceeding federal public health standards. The Department and Permittees repeatedly try to characterize Guardians' challenge as "extreme,"[104] raising dire – and unsupported – claims regarding potential economic impacts to the oil and gas industry. Instead of addressing the ozone problem head-on, the Department points to scientific complexities, legal technicalities, and possible future rules that are not yet promulgated. But at core, Guardians is simply asking the Department to take the reality of the ozone problem into account before authorizing new emissions that will undoubtedly make the problem worse. What we are asking for is really quite simple – stop making the ozone problem worse.

The Board's regulations require the Department to deny the 3 Bear Permit because it will "cause or contribute" to further ozone exceedances. Instead of offering technical evidence to refute this straight-forward proposition, the Department attempts to insert a tacit significance

[103] *See* n.14.
[104] Day 1 Transcript, at 34, 35, 36, 150, 152; Day 2 Transcript, at 317, 497.

threshold into its regulations and offers up an unsupported, undocumented "general awareness" that individual minor sources do not *significantly* contribute to the ozone problem because they do not increase ambient ozone levels by more than 1.0 ppb. But the evidence shows that the additional emissions from the 3 Bear Permit *will* exacerbate the ozone problem and contribute to further ozone exceedances, so the Department's issuance of the permit was arbitrary, capricious, and unlawful.

The plain language of GCP-O&G and the Department's regulations make it clear that the Greater Carlsbad area is a "nonattainment area" based on the monitored ozone data showing the air pollution levels to be demonstrably in excess of the NAAQS; therefore, facilities in the Greater Carlsbad area are ineligible for registration under this type of fast-track general permit process. The Department asks the Board to ignore the plain language of the GCP-O&G and its own regulations to avoid an inconvenient result. But because monitored data shows the Greater Carlsbad area to be a nonattainment area, the Department's approval of the Registrations was arbitrary, capricious, and unlawful.

Before approving the 3 Bear permit or the Registrations, the Department never considered the impacts of additional VOC and NOx emissions on ambient ozone levels. The Department argues that it didn't have to and, instead, takes the position that it can continue to issue new permits and registrations, irrespective of the impact of new emissions in exacerbating already-unhealthy levels of regional ozone pollution. But under the Department's regulations and the terms of the GCP-O&G, that is simply not the case.

Guardians respectfully requests that the Board declare the Department's approvals of the 3 Bear Permit and the Registrations to be arbitrary, capricious, and unlawful, and that the Board vacate the challenged approvals. However, while vacatur is the most appropriate remedy to

address the Department's fundamental failure to analyze ozone impacts prior to issuing the 3 Bear Permit and the Registrations, Guardians acknowledges the Board may be hesitant to unwind these approvals for facilities that may already be in operation. Accordingly, as an alternative to vacatur, the Board could direct that the Department hold the 3 Bear Permit in abeyance pending compliance with all applicable regulations, including quantitative analysis by the Department of the 3 Bear Permit's contribution to the ozone problem. Similarly, the Board could direct that any facilities already operating under the Registrations need not immediately shut down, but will instead be required to apply for an individual air permit within 6o days of the Board's decision. The Board could further direct that the Department would be required to expeditiously process such individual permit applications and render a final decision within a reasonable period of time, not to exceed one year. At minimum, however, the Board must direct the Department to (1) fully evaluate ozone impacts in all future individual permitting actions to assess whether a proposed facility causes or contributes to exceedances of the ozone NAAQS, and (2) deny any future registrations under the GCP-O&G in geographic areas where monitoring data shows ozone pollution levels in exceedance of the NAAQS, including Lea and Eddy Counties.

EIB NO. 20-21(A)

PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW

Pursuant to the Hearing Officer's September 17, 2020 Procedural Order, as amended by the November 3, 2020 order granting the Department's motion for extension of the deadline for post-hearing submittals, WildEarth Guardians submits the following Proposed Findings of Fact and Conclusions of Law in EIB No. 20-21(A).

Findings of Fact

Background and Procedural Facts

1. WildEarth Guardians (Guardians) submitted written comments to the New Mexico Environment Department (Department, or NMED) regarding Permit No. 7482-M1 (the 3 Bear Permit) on January 17, 2020 and March 27, 2020.
2. On April 8, 2020, the Department provided notice to Guardians of the Department's intent to grant the 3 Bear Permit on that same day.
3. On May 8, 2020, Guardians filed a Petition for Hearing with the New Mexico Environmental Improvement Board (Board, or EIB), initiating an appeal of the Department's approval of the 3 Bear Permit.
4. The Petition asserted that Guardians' members "are directly affected by the permitting action because the 3 Bear Permit allows for the emission of increased levels of air pollutants, exacerbating the already existing cumulative air pollution impacts in the area surrounding the [3 Bear Gas] Plant."
5. On September 10, 2020, the Parties jointly filed a Stipulation to WildEarth Guardians' Standing to Bring Appeals, stipulating that "no party will challenge WildEarth Guardians' standing during the consolidated hearing on these appeals."

6. On May 29, 2020, Permittee 3 Bear Delaware Operating – NM, LLC (3 Bear) petitioned for party status in this matter as holder of the challenged Permit.
7. On June 20, 2020, the Hearing Officer filed an Order of Consolidation for Hearing, consolidating EIB No. 20-21(A) and EIB NO. 20-33(A) for purposes of hearing.
8. On July 20, 2020, the Hearing Officer entered a Procedural Order describing procedures and establishing scheduling deadlines for filing and service of documents, technical testimony, limitations on scope of testimony, exhibits, virtual hearing, and post-hearing submittals.
9. On September 23rd and 24th, 2020, the Board held a two-day virtual hearing in this matter.

Facts Regarding Ozone Pollution

10. It is uncontested that ozone is a dangerous air pollutant with significant public health implications.
11. Ozone is regulated as a criteria pollutant under the Clean Air Act.
12. The EPA has established National Ambient Air Quality Standards for ozone.
13. The 2015 National Ambient Air Quality Standard for ozone is 70 ppb.
14. It is uncontested that the calculated ozone design values – the three-year average of the fourth-highest annual daily eight hour maximum – based upon the monitoring data from the Carlsbad and Hobbs monitoring stations from 2017 – 2019, are above 70 ppb.
15. Ozone is not emitted directly from human or natural sources, but is considered a secondary pollutant.
16. Ozone is created by a series of photochemical reactions whereby ozone precursor chemicals react in the presence of heat and sunlight to create ozone.

17. Volatile organic compounds (VOCs) and nitrogen oxides (NOx) are ozone precursors.
18. In general, increased emissions of VOCs and NOx causes ambient ozone levels to increase to some degree.
19. The 3 Bear Permit authorizes the new emissions of ozone precursor chemicals in the following amounts: 72 tons of VOCs and 21 tons of NOx. 20-21_AR_798-99 tbl.102A.
20. Although the exact amount that ambient ozone levels will increase as a result of the 3 Bear Permit is unknown, it is likely that the new emissions from the 3 Bear Gas Plant, as authorized by the 3 Bear Permit, will increase ambient ozone levels in the surrounding area to some degree.
21. Based on the MERP-derived equation provided in the Department's 2019 Modeling Guidance, new emissions from the 3 Bear Gas Plant are projected to result in an increase in ambient ozone levels of approximately 0.18 ppb.

Facts Regarding the Department's Analysis of Ozone Impacts

22. The record contains no evidence to indicate that the Department conducted any quantitative analysis to assess the ambient ozone impacts from the 3 Bear Permit prior to its issuance.
23. The Department asserts a general awareness that minor sources emitting less than 250 tons per year of VOCs and NOx will not increase ambient ozone levels by more than 1.0 ppb.

Conclusions of Law

24. Guardians' petition was timely filed within 30 days from notice of the Department's issuance of the 3 Bear Permit.

25. Guardians has standing to bring this appeal under NMSA 1978, § 74-2-7.H and 20.1.2.202.A(2) NMAC.
26. Under 20.2.72.208.D NMAC, the Department is required to deny any air permit application if "the construction, modification, or permit revision will cause or contribute to air contaminant levels in excess of any National Ambient Air Quality Standard or New Mexico ambient air quality standard unless the ambient air impact is offset by meeting the requirement of either 20.2.79 NMAC or 20.2.72.216 NMAC, whichever is applicable."
27. Under 20.2.72.208, the Department is required to deny any air permit application if it will "cause or contribute" to exceedances of the 2015 Ozone NAAQS.
28. Lea County, where the 3 Bear Gas Plant is located, is currently out of compliance with the 2015 Ozone NAAQS, based on the design value calculated from 2017-2019 air quality monitoring data.
29. The record shows that emissions resulting from the Department's issuance of the 3 Bear Permit will likely cause ambient ozone pollution levels to rise to some degree.
30. Under the plain meaning of the term "contribute," the newly-permitted emissions will contribute to violations of the 2015 Ozone NAAQS.
31. In the Prevention of Significant Deterioration (PSD) permitting context, the U.S. EPA has promulgated guidance supporting the application of "significant impact levels" to help permitting authorities determine whether incremental emissions will *significantly* contribute to ozone NAAQS violations (EPA SIL Guidance).
32. The EPA's suggested "significant impact level" for the ozone NAAQS is 1.0 ppb.

33. The EPA SIL Guidance is not directly applicable to the 3 Bear Permit because it is not a PSD permit.

34. The EPA SIL Guidance is also not applicable to the 3 Bear Permit because the guidance is only applicable in attainment areas where air quality levels do not exceed the applicable NAAQS.

35. Where applicable, the EPA SIL Guidance recognizes that "[i]f a permitting authority chooses to use these SIL values to support a case-by-case permitting decision, it must justify the values and their use in the administrative record for the permitting action."

36. Even if the EPA SIL Guidance were applicable to the 3 Bear Permit, the Department has failed to make a case-by-case determination that application of the EPA's suggested 1.0 ppb significant impact level is justified for the 3 Bear Permit.

37. The Department has failed to adequately explain why application of a significance threshold is appropriate or lawful in the context of a geographical area demonstrably out of compliance with the applicable NAAQS.

38. The Board need not resolve the legal question as to whether the Department has the authority to apply a "significant impact level" test under the "cause or contribute" standard for PSD sources in areas that are in compliance with the applicable NAAQS.

39. In light of the air quality monitoring data that shows Lea County, and the broader Greater Carlsbad area, to be out of compliance with the 2015 Ozone NAAQS, the application of a 1.0 ppb "significant impact level" for new emissions is unjustified and unsupported.

40. Because monitored air pollution levels are already in violation of the applicable 2015 Ozone NAAQS and the record shows that issuance of the 3 Bear Permit will likely lead

to increased levels of ozone pollution in the area, the new emissions from the 3 Bear Permit will contribute to exceedances of the 2015 Ozone NAAQS.

41. Because the 3 Bear Permit will contribute to air contaminant levels in excess of the 2015 Ozone NAAQS and 3 Bear has not proposed to offset its new emissions, the Department was required to deny the 3 Bear Permit under 20.2.72.208D.

42. The Department's approval of the 3 Bear Permit was arbitrary, capricious, and unlawful.

EIB NO. 20-33(A)

PROPOSED FINDINGS OF FACT AND CONCLUSIONS OF LAW

Pursuant to the Hearing Officer's September 17, 2020 Procedural Order, as amended by the November 3, 2020 order granting the Department's motion for extension of the deadline for post-hearing submittals, WildEarth Guardians submits the following Proposed Findings of Fact and Conclusions of Law in EIB No. 20-33(A).

Findings of Fact

Background and Procedural Facts

1. WildEarth Guardians (Guardians) submitted written comments to the New Mexico Environment Department (Department, or NMED) regarding Registration Nos. 8729, 8730, and 8733 (the Registrations) on March 11, 2020.
2. On May 12, 2020, the Department provided notice to Guardians of the Department's approval of the Registrations.
3. On June 12, 2020, Guardians filed a Petition for Hearing with the New Mexico Environmental Improvement Board (Board, or EIB), initiating an appeal of the Department's approval of the Registrations.
4. The Petition asserted that Guardians' members "are directly affected by the permitting action because the Registrations allow for the emission of increased levels of air pollutants, exacerbating the already existing cumulative air pollution impacts in the area surrounding the Facilities."
5. On September 10, 2020, the Parties jointly filed a Stipulation to WildEarth Guardians' Standing to Bring Appeals, stipulating that "no party will challenge WildEarth Guardians' standing during the consolidated hearing on these appeals."

6. On June 26, 2020, counsel for Permittee Spur Energy Partners, LLC entered an appearance in this proceeding.
7. On June 30, 2020, counsel for Permittee XTO Energy Inc. entered an appearance in this proceeding.
8. On June 20, 2020, the Hearing Officer filed an Order of Consolidation for Hearing, consolidating EIB No. 20-21(A) and EIB N0. 20-33(A) for purposes of hearing.
9. On July 20, 2020, the Hearing Officer entered a Procedural Order describing procedures and establishing scheduling deadlines for filing and service of documents, technical testimony, limitations on scope of testimony, exhibits, virtual hearing, and post-hearing submittals.
10. On September 23rd and 24th, 2020, the Board held a two-day virtual hearing in this matter.

Facts Regarding Ozone Pollution

11. It is uncontested that ozone is a dangerous air pollutant with significant public health implications.
12. Ozone is regulated as a criteria pollutant under the Clean Air Act.
13. The EPA has established National Ambient Air Quality Standards for ozone.
14. The 2015 National Ambient Air Quality Standard for ozone is 70 ppb.
15. It is uncontested that the calculated ozone design values – the three-year average of the fourth-highest annual daily eight hour maximum – based upon the monitoring data from the Carlsbad and Hobbs monitoring stations from 2017 – 2019, are above 70 parts per billion (ppb).

16. Ozone is not emitted directly from human or natural sources, but is considered a secondary pollutant.
17. Ozone is created by a series of photochemical reactions whereby ozone precursor chemicals react in the presence of heat and sunlight to create ozone.
18. Volatile organic compounds (VOCs) and nitrogen oxides (NOx) are ozone precursors.
19. In general, increased emissions of VOCs and NOx causes ambient ozone levels to increase to some degree.
20. Registration No. 8729 authorizes the new emissions of ozone precursor chemicals in the following amounts: 103.0 tons of VOCs and 31.8 tons of NOx. 20-33_AR_223-24
21. Registration No. 8730 authorizes the new emissions of ozone precursor chemicals in the following amounts: 100 tons of VOCs and 39.1 tons of NOx. 20-33_AR_453-54.
22. Registration No. 8733 authorizes the new emissions of ozone precursor chemicals in the following amounts: 90.5 tons of VOCs and 19.9 tons of NOx. 20-33_AR_664.
23. Although the exact amount that ambient ozone levels will increase as a result of the Registrations is unknown, it is likely that the new Registrations will increase ambient ozone levels in the surrounding area to some degree.

Facts Regarding the General Construction Permit – Oil & Gas

24. Operators are only eligible to apply for registration of facilities under the GCP-O&G where the "[t]he Facility can comply with all of the requirements" of the GCP-O&G.
25. Among the "applicable requirements" listed in Table 103 of the GCP-O&G is "40 CFR 50 National Ambient Air Quality Standards."
26. Listed at 40 C.F.R. § 50.19, the 2015 Ozone NAAQS is an "applicable requirement" that permittees must "comply with" in order to be eligible to register under the GCP-O&G.

27. The GCP-O&G provides that the Department is required to deny registration for any facility "located in a nonattainment area [defined by 20.2.72.216 and 20.2.79 NMAC]." A100.H(6).

28. 20.2.79 NMAC defines "nonattainment area" as follows:

> **"Nonattainment area"** means, for any air pollutant an area which is shown by monitored data or which is calculated by air quality modeling (or other methods determined by the administrator to be reliable) to exceed any national ambient air quality standard for such pollutant. Such term includes any area identified under Subparagraphs (A) through (C) of Section 107(d)(1) of the federal Clean Air Act.

20.2.79.7.AA NMAC.

29. The Greater Carlsbad area, including Lea and Eddy Counties where the Facilities are located, is "shown by monitored data … to exceed any national ambient air quality standard for such pollutant," namely ozone.

Conclusions of Law

30. The 2015 Ozone NAAQS constitutes an "applicable requirement" that operators must "comply with" to be eligible to register under the GCP-O&G.

31. Lea and Eddy Counties, where the Facilities are located, are currently out of compliance with the 2015 Ozone NAAQS.

32. The registered Facilities will emit ozone precursor pollutants that will increase ambient ozone levels in an area that already exceeds the NAAQS.

33. Because the Facilities have failed to demonstrate that they are able to comply with the 2015 Ozone NAAQS, they are ineligible to register under the GCP-O&G.

34. Because the monitored data from the Carlsbad and Hobbs monitors show that ozone pollution in Lea and Eddy Counties exceeds the 2015 Ozone NAAQS, Lea and Eddy Counties meet the regulatory definition of "nonattainment area" at 20.2.79.7.AA NMAC.

35. Facilities located in a "nonattainment area" as defined at 20.2.79.7.AA NMAC are ineligible to register under the GCP-O&G.

36. Facilities located in Lea and Eddy Counties are ineligible to register under the terms of the GCP-O&G.

37. Accordingly, the Facilities associated with the Registrations in paragraphs 20-22 are ineligible to register under the GCP-O&G.

38. The Department's approval of the Registrations was arbitrary, capricious, and unlawful.

Respectfully submitted this 30th day of November, 2020,

/s/ Daniel L. Timmons
Daniel L. Timmons
WildEarth Guardians
301 N. Guadalupe Street, Suite 201
Santa Fe, NM 87501
dtimmons@wildearthguardians.org

/s/ Samantha Ruscavage-Barz
Samantha-Ruscavage-Barz
WildEarth Guardians
301 N. Guadalupe Street, Suite 201
Santa Fe, NM 87501
sruscavagebarz@wildearthguardians.org

Counsel for Petitioner WildEarth Guardians

CERTIFICATE OF SERVICE

I hereby certify that on November 30, 2020 I filed and served the foregoing **WILDEARTH GUARDIANS' CLOSING ARGUMENT AND FINDINGS OF FACT AND CONCLUSIONS OF LAW** by electronic mail delivery to the following:

public.facilitation@state.nm.us
Administrator, Environmental Improvement Board

Pamela Jones
Pamela.Jones@state.nm.us
Hearings Administrator, Environmental Improvement Board

John Volkerding
JVNatrc@aol.com
Hearing Officer and Board Chair, Environmental Improvement Board

Karla Soloria
ksoloria@nmag.gov
Counsel for the Environmental Improvement Board

Lara Katz
Lara.Katz@state.nm.us
Counsel for the New Mexico Environment Department

Chris Colclasure
Beatty & Wozniak, P.C.
CClolclasure@bwenergylaw.com
Counsel for Applicant 3 Bear Delaware Operating – NM LLC

Jody Rittenhouse
Beatty & Wozniak, P.C.
jrittenhouse@bwenergylaw.com
Counsel for Applicant 3 Bear Delaware Operating – NM LLC

Adam G. Rankin
Holland & Hart LLP
agrankin@hollandhart.com
Counsel for Applicant Spur Energy Partners, LLC

Jill H. Van Noord
Holland & Hart LLP
jhvannord@hollandhart.com
Counsel for Applicant Spur Energy Partners, LLC

Louis W. Rose
Montgomery & Andrews, P.A.
Lrose@montand.com
Counsel for Applicant XTO Energy Inc.

Kari E. Olson
Montgomery & Andrews, P.A.
kolson@montand.com
Counsel for Applicant XTO Energy Inc.

Andrew Torrant
Exxon Mobil Corporation
Andrew.j.torrant@exxonmobil.com
Counsel for Applicant EXT Energy Inc.

/s/ Daniel L. Timmons
Daniel L. Timmons
Counsel for Petitioner WildEarth