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STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT BOARD

IN THE MATTER OF THE APPEAL OF
REGISTRATION NOS. 8270, 8730, AND
8733 UNDER THE GENERAL
CONSTRUCTION PERMIT FOR OIL
AND GAS FACILITIES

WildEarth Guardians,
Petitioner.

Case No. EIB 20-33(A)

TECHNICAL REBUTTAL TESTIMONY
OF ADAM ERENSTEIN,
TRINITY CONSULTANTS

Hearing Date: September 23, 2020

SPUR ENERGY PARTNERS, LLC'S TECHNICAL REBUTTAL TESTIMONY
OF ADAM ERENSTEIN

Pursuant to the July 20, 2020 Procedural Order in this matter, Respondent Spur Energy Partners, LLC ("Spur") submits the attached written technical rebuttal testimony of Adam Erenstein for the September 23, 2020, hearing on this matter.

Dated: September 2, 2020.

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to 20.1.2.112 NMAC, I hereby certify that a copy of the above Technical Rebuttal Testimony of Adam Erenstein was filed and served via electronic mail delivery to the persons listed below on September 2, 2020.

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10 **ENVIRONMENTAL IMPROVEMENT BOARD**

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16 **WildEarth Guardians,**
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18 **Case No. EIB 20-33(A)**

19 **TECHNICAL REBUTTAL TESTIMONY**
20 **OF ADAM ERENSTEIN, TRINITY**
21 **CONSULTANTS**

22 **Hearing Date: September 23, 2020**

23 **September 2, 2020**

24 **Submitted on Behalf of**
25 **Spur Energy Partners LLC**

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I. INTRODUCTION

My name is Adam Erenstein. I am Manager of Consulting Services for Trinity Consultants, Inc. (“Trinity”) in Albuquerque, New Mexico. My business address is 9400 Holly Ave NE #300, Albuquerque, NM 87122. I submitted direct testimony on behalf of Spur Energy Partners LLC on August 3, 2020. I have reviewed the direct technical testimony filed by Dr. Ranajit (Ron) Sahu on behalf of Petitioner, WildEarth Guardians and the other parties to this matter. My testimony provides rebuttal technical testimony to the testimony submitted by Dr. Sahu.

Petitioner has challenged the legality of the New Mexico Environment Department’s (“NMED’s”) approval of Spur Energy Partners LLC’s (“Spur’s”) registration (registration 8733) of its Dorami 2H, 4H and 9H Federal Oil Tank Battery (“Facility”) under the General Construction Permit for Oil and Gas Facilities (“GCP-Oil & Gas”). Dr. Sahu makes the following argument: 1) ozone monitors in Lea and Eddy counties have recorded ozone levels and associated design values that exceed the ozone national ambient air quality standard (“NAAQS”) of 70 ppb; 2) in response, NMED has recognized the issue and taken action under NMSA § 74-2-5.3 to address ozone through the Ozone Attainment Initiative; 3) though not formally designated as non-attainment, the area around the monitors “should be considered to be in an a state of actual non-attainment”; 4) regional models and studies have identified the oil and gas industry on a regional scale as a potential contributor to the increasing ozone levels in the area; and 5) therefore, it is “technically reasonable” to conclude that the emissions from Spur’s Facility are contributing to a violation of the ozone NAAQS.

Through this argument, Dr. Sahu assumes that unless a source demonstrates that it does not contribute to a violation of the ozone NAAQS, it will necessarily contribute to a violation of the NAAQS where exceedances of the standard are occurring. This assumption attempts to take regional information and apply the findings to individual sources. Yet, Dr. Sahu has not attempted to demonstrate that Spur’s Facility contributes to a violation of the ozone NAAQS. To the contrary, the emissions from Spur’s Facility are well under levels determined to contribute to a violation of the NAAQS. To require that an individual minor source - such as Spur’s Facility -

1 demonstrate that it will not contribute to a violation of the ozone NAAQS is contrary to accepted
2 processes and requirements by EPA and NMED.

3 Dr. Sahu also argues that the area around the monitors are in actual non-attainment and
4 that a formal designation of non-attainment will occur at some point in the future. However, as
5 NMED explained, monitored exceedances do not necessarily create a non-attainment area. *See*
6 Technical Testimony of Elizabeth Bisbey-Kuehn, p. 4. In an attempt to avoid non-attainment
7 designation, NMED is undertaking several efforts, including the Ozone Attainment Initiative
8 (“OAI”). If unsuccessful, EPA may pursue a non-attainment designation through CAA §
9 107(d)(3)(A). This prescriptive and public process allows for a thorough evaluation of the area
10 based on predetermined factors intended to properly identify the boundary, status, and timing of
11 resulting controls. For NMED to find that a non-attainment area exists without this process
12 would bypass these requirements and would be arbitrary and inconsistent with past practice.

13 **II. RESPONSE TO OZONE CONTRIBUTION ARGUMENT**

14 Dr. Sahu has not attempted to demonstrate that Spur’s Facility contributes to a violation
15 of the ozone NAAQS despite also asserting that individual source modeling is available, has
16 been done in the past, and should be required by NMED. Dr. Sahu argues that EPA’s Modeled
17 Emission Rates for Precursors (“MERPs”) can be directly applied to minor sources, even though
18 it is designed for Prevention of Significant Deterioration (“PSD”) sources with emissions over
19 250 tons per year. The MERPs, however, act as a screening tool (Tier I) to weed out those
20 sources that do not need to proceed to complicated modeling (Tier II) to determine whether the
21 source makes a significant impact on ozone. *See* NMED, Direct Technical Testimony of Sufi
22 Mustafa, p. 9.

23 As detailed in EPA guidance, for a source to cause or contribute to a violation of the
24 NAAQS, it has been interpreted to require that there is a “significant impact” on ambient air
25 quality.¹ EPA has identified a “significant impact level” or “SIL” for ozone of 1 ppb or 1.96
26

27 ¹ EPA, Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant
28 Deterioration Permitting Program, April 17, 2018, pp. 4, 7. https://www.epa.gov/sites/production/files/2018-04/documents/sils_guidance_2018.pdf

1 $\mu\text{g}/\text{m}^3$. See New Mexico Air Quality Bureau, Air Dispersion Modeling Guidelines, June 6, 2019,
 2 p. 24 (Modeling Guidelines). Application of the MERPs screening tool, as applied by NMED in
 3 its Modeling Guidelines, demonstrates that the emissions from minor sources, such as Spur’s
 4 Facility, that register under GCP-O&G do not exceed the SIL. Although noting that ozone “is
 5 normally modeled only for regional compliance demonstrations,” the Modeling Guidelines
 6 provide an equation for estimating ozone concentrations to compare to the SIL. As shown below,
 7 utilizing the maximum VOC and NOx emission limit under the GCP-Oil & Gas of 95 tons per
 8 year, the ozone concentration is well below the SIL. The following table summarizes the analysis
 9 prescribed in the Modeling Guidelines.

10 **Table 1 – Ozone Concentration**

Averaging Period	NAAQS (ppm)	NAAQS ($\mu\text{g}/\text{m}^3$)	Significance Level ($\mu\text{g}/\text{m}^3$)	GCP-O&G Concentration ($\mu\text{g}/\text{m}^3$)	Is the GCP-O&G Ozone Concentration below Significance?
8-hour	0.07	137.3	1.96 ¹	1.19 ²	Yes

14 ¹ 1.0 ppb, Guidance on Significant Impact Levels for Ozone and Fine Particles in the Prevention of Significant Deterioration Permitting Program, EPA, April 17, 2018.

15 ² Ozone Concentration = ((NOX emission rate (tons/year) /184) + (VOC emission rate (tons/year) /1049)) x 1.96 $\mu\text{g}/\text{m}^3$

16 As demonstrated, the calculated ozone concentration estimate of 1.19 $\mu\text{g}/\text{m}^3$ is well below the
 17 significance level of 1.96 $\mu\text{g}/\text{m}^3$. Therefore, because the ozone concentration is below the SIL,
 18 EPA and NMED guidance provides that the facility will not significantly contribute to ozone
 19 formation and would not be required to move to Tier II for additional analysis.

20 Dr. Sahu’s testimony references several studies to assert that the increase in emissions
 21 from Spur’s Facility directly contributes to increases in the ozone levels in southeastern New
 22 Mexico and violations of the ozone NAAQS. Expert Report by Dr. Ranajit (Ron) Sahu, p. 16.
 23 The studies cited, however, do not support a conclusion that Spur’s Facility contributes to a
 24 violation of the ozone NAAQS. Rather, as detailed below, the studies demonstrate that ozone
 25 emissions were predicted to increase in the model area and that emissions from the oil and gas
 26 industry – as a whole – may contribute to the formation of ozone in the areas studied.

27 For example, Dr. Sahu cites the 2016 Southern New Mexico Ozone Study (“SNMOS”) as
 28

1 support for his argument that New Mexico oil and gas emissions significantly contribute to
2 ozone formation. Yet, the study, which was limited to areas around Dona Ana county, suggests
3 that only a very small amount (3%) of contribution originates from within New Mexico and
4 predicts that small contribution will decrease by 2025. Moreover, the vast majority of sources of
5 ozone formation in the subject area originated outside of New Mexico. SNMOS Technical
6 Support Document, p. 64. While this study predicts a small contribution from oil and gas sources
7 to ozone at the Eddy County monitor, Dr. Sahu attempts to read this study as providing support
8 for Petitioner’s contention “that oil and gas activity, including the permitting of new and/or
9 modified stationary sources, is a primary cause of the increasing ozone pollution levels in the
10 area.” Dr. Sahu Testimony, p. 20. This conclusion ignores the finding that New Mexico sources
11 contributed only 3% to ozone formation in that area.

12 What these studies do not show is that the emissions from Spur’s Facility will contribute
13 to the ozone levels at any monitor or by how much. Rather, the regional models point to the fact
14 that additional analyses – such as the modeling effort being undertaken by NMED – are needed
15 to specifically analyze the sources contributing to the Eddy and Lea county monitors to fully
16 understand the sources impacting the design value. Even more so, the studies demonstrate that
17 because the industry as a whole may contribute only a small amount to ozone formation, any at
18 efforts at mitigation must occur at the industry level to have an impact on ozone levels.

19 **III. RESPONSE TO NON-ATTAINMENT ARGUMENT**

20 Contrary to Dr. Sahu’s statement, NMED has not recognized that Lea and Eddy counties
21 are in non-attainment and the definition in NMAC 20.2.27 does not establish a de facto non-
22 attainment area. NMED affirmatively provided:

23 It is important to note that readings from monitors showing design values that
24 exceed the ozone NAAQS do not in themselves constitute a nonattainment
25 designation or trigger changes to permitting or other actions on the part of the
26 Department. Under the CAA, the AQCA, and the Regulations, an ozone
27 “nonattainment area” means an area that has gone through the formal nonattainment
28 designation process and has been designated as such by EPA.

1 NMED, Technical Testimony of Elizabeth Bisbey-Kuehn, p. 4. As detailed in NMED’s
2 testimony, NMED is taking action under Section 74.2.5.3 of the New Mexico Air Quality
3 Control Act through its Ozone Attainment Initiative to address areas that exceed 95% of the
4 ozone standard. *See* Bisbey-Kuehn Testimony, p. 7. NMED is also taking other actions, such as
5 participation in the EPA Advance Program and regulations through the Regional Haze program
6 to address ozone. *Id.* pp. 8-9.

7 As I discussed in my direct testimony, NMED cannot and should not sidestep the formal
8 designation process and unilaterally determine that a non-attainment area exists based on the
9 monitored data. As Dr. Sahu recognizes, there are unknowns that must be answered in order to
10 properly establish a non-attainment area, including “what its severity will be, and what the
11 geographical extent of the non-attainment area will be.” Dr. Sahu Testimony, p. 2. Moreover, as
12 discussed in detail in the Direct Testimony of Randy Parmley, on behalf of XTO Energy Inc.,
13 designation of a non-attainment area is a regulatory status that does not just occur as a result of
14 monitor data because there are procedures that are followed to designate an area as non-
15 attainment. Parmley Testimony, p. 13-17. Based on the foregoing, an undefined and unbounded
16 non-attainment area does not exist around in Eddy and Lea counties.

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