

**STATE OF NEW MEXICO
BEFORE THE SECRETARY OF THE ENVIRONMENT**

**IN THE MATTER OF THE APPLICATION
OF ROPER CONSTRUCTION, INC.
FOR AN AIR QUALITY PERMIT
NO. 9295, ALTO CONCRETE BATCH PLANT**

No. AQB 21-57(P)

HEARING OFFICER'S REPORT

I. INTRODUCTION

Roper Construction Inc. seeks final approval of Application No. 9295, an air quality construction permit proposing to locate a concrete batch plant north of the small community of Alto N.M. at 135 N.M. Hwy. 220. In the face of overwhelming opposition to the permit, the Cabinet Secretary of N.M. Environment Department directed the Office of Public Facilitation to hold a public hearing and to produce a report and recommended decision after consideration of all the relevant evidence. After an active prehearing motion practice, the parties filed full written technical direct and rebuttal testimony and presented their cases to the public on February 9, 2022.

The proposed construction site is undeveloped pinyon/juniper rangeland within a narrow east-west valley about 7200 feet above sea level approximately three (3) miles east of the Class 1 White Mountain Wilderness. The Little Creek drains the Wilderness on an easterly course through the valley, just south of the Roper site. Within a one-mile radius of the site, eleven (11) residential subdivisions radiate out in every direction like bicycle spokes. Currently New Mexico does not require a setback between a concrete batch plant and residences, and the industrial site does not offend the local zoning ordinances of Lincoln County, NM.

The Draft Permit at issue here imposes various production limits to reduce air pollution. Of significance, Roper is limited to one hundred and twenty-five (125) cubic yards of concrete per operating hour, for up to eighteen (18) hours a day, seven (7) days a week, and is limited to an annual production throughput of 500,000 cubic yards of concrete. At this rate, the Permit Condition A112 allows up to three-hundred and five (305) truck roundtrips daily, delivering supplies and water, and transporting out the final concrete product.

BACKGROUND

Roper Construction, Inc. ("Roper") is a New Mexico-based for-profit corporation and seeks a Minor Source Construction Permit from the Air Quality Bureau ("AQB") for the proposed Alto Concrete Batch Plant ("Alto CBP"). Roper currently operates a ready-mix concrete plant located at 6610 U.S. Hwy. 380, one mile east of Carrizozo, N.M. under Air Quality Permit GCP5-6747.

The proposed construction site lies in a valley about three (3) miles east of the Lincoln National Forest's White Mountain Wilderness and within the Sacramento Mountains at 7200 feet above sea level. The mountain valley is subjected to frequent and sustained high winds from the southwest during the springtime and from the northeast in the wintertime. The air in the valley is often trapped by wintertime temperature inversions especially in the mornings. Eleven (11) residential subdivisions surround the proposed construction site within a one-mile radius. For example, the homeowners of Legacy Lane are a couple of hundred feet south of the Alto CBP. Many of the residents are retirees who purchased their residential lots based on the extraordinary scenic beauty of the area and the pristine air quality.

The Alto CBP will include an aggregate feed hopper (Unit 2), aggregate feed hopper conveyor (Unit 3), 4-bin aggregate bin (Unit 4), aggregate weigh batcher with conveyor (Units 5 and 6), cement/fly ash split silo (Units 9 and 10) with screw conveyors and dust collectors (Units 9b and 10b), cement/fly ash batcher (Unit 8) and concrete truck loading area (Unit 7) with central dust control system (Unit 7b) to control fugitive dust from the truck loading area and cement/fly ash batcher, aggregate and sand storage piles (Unit 11), and three heaters at .19 MMBtu/h each (units 12,13 and 14). AR No. 2 at 0191.

The AQB uses throughput limits to control the amount of air pollution emissions as modeled by Roper's consultant. NMED Exhibit 1 at 3; Hrg. Tr. 89:11-91:2. Permit Condition A108B limits the Alto CBP to an hourly throughput of 125 cubic yards of concrete and an annual throughput of 500,000 cubic yards. Moreover, A108A permits the Alto CBP to operate between the hours of 7 a.m.-6 p.m. November through February, 5 a.m.-7 p.m. March and October, 4 a.m.-9 p.m. April and September, and 3 a.m.-9 p.m. May through August.

During operating hours, a front-end loader will dump aggregate and sand into the aggregate feed hopper. The aggregate feed hopper conveyor transfers the material to the 4-bin aggregate bin. The aggregate and sand in the 4-bin aggregate bin is measured by the aggregate weigh batcher and transferred to the batcher conveyor. From the batcher conveyor, the aggregate and sand are transferred to the truck loading area where they are loaded into the concrete trucks.

Measured amounts of fly ash and cement from the cement/fly ash split silo will be transferred by screw conveyors or gravity feed to the cement/fly ash batcher. From the cement/fly ash batcher, the measured material will be loaded into the concrete

trucks at the same time as the aggregate, sand, and water. Fugitive dust created during transfer to the cement/fly ash batcher is designed to be controlled by the central dust control system. During loading of the cement/fly ash split silo, fugitive dust is designed to be controlled by a dust collector for each compartment of the split silo. Haul-roads on site will be paved and maintained to reduce particulate emissions from truck traffic. AR No. 2 at 0192.

The Draft Permit requires Roper to install a Wet-Dust suppression system to minimize fugitive particulate emissions from Units 3, 4, 5, 6, and 11 under Condition A502A. The permit requires that piles of aggregate and sand be covered or kept “adequately moist” to control dust during storage and handling, “if visible emissions are observed. See Roper Exhibit 2 at 9, 11. In addition, Condition A502B requires Roper to implement a fugitive dust control plan by minimizing particulate emissions from areas such as aggregate feeders, conveyors, storage piles, and other types of fugitive dust emitting sources. Fugitive dust created while loading concrete trucks is reduced by the central dust control system as outlined in Section A502B of the Draft Permit. AR No. 119 Bates 2113-2114. Dust collected in the dust control system will be recycled back to the cement silo. AR No. 2 at 0191.

II. ISSUANCE OF CONSTRUCTION PERMITS

Issuance of a New Source Review (“NSR”) Minor Source Permit for the proposed concrete batch plant is governed by the Air Quality Control Act, NMSA 1978, § 74-2-7 (2021), air quality control regulation 20.2.72 NMAC, and the New Mexico Environment Department’s (“NMED”) permit procedures found at 20.1.4 NMAC. A construction permit is required prior to the start of construction. NMSA 1978, § 74-2-7.A(1) and 20.2.72.200 NMAC. After the determination that an application is

administratively complete, AQB must review the application and grant, grant with conditions, or deny the permit within 90 days. 20.2.72.207 NMAC. If there is significant public interest, the Secretary may delay issuing the decision for an additional 90 days and require a public hearing be held. *Id.*

The Department has limited bases for denying an application. NMSA 1978, § 74-2-7.C and 20.2.72.208 NMAC. NMSA 1978, § 74-2-7.C provides that the Department may deny any application for: “(1) a construction permit if it appears that the construction or modification: (a) will not meet applicable standards, rules or requirements of the Air Quality Control Act or the federal act; (b) will cause or contribute to air contaminant levels in excess of a national or state standard or . . . ; or (c) will violate any other provision of the Air Quality Control Act or the federal [Clean Air] act.” 20.2.72.208 NMAC provides in relevant part:

The department shall deny any application for a permit or permit revision if considering emissions after controls:

A. It appears that the construction, modification or permit revision will not meet applicable regulations adopted pursuant to the Air Quality Control Act;

B. The source will emit a hazardous air pollutant or an air contaminant in excess of any applicable New Source Performance Standard or National Emission Standard for Hazardous Air Pollutants or a regulation of the [Environmental Improvement] Board;

C. For toxic air pollutants, see 20.2.72.400 NMAC - 20.2.72.499 NMAC;

D. 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 requirements of either 20.2.79 NMAC or 20.2.72.216 NMAC, whichever is applicable;

E. The construction, modification, or permit revision would cause or contribute to ambient concentrations in excess of a prevention of significant deterioration (PSD) increment;

F. Any provision of the Air Quality Control Act will be violated;

20.2.72.208 NMAC.

The Department may also impose reasonable conditions on a permit.

20.2.72.210 NMAC states in relevant part:

B. The department shall, as appropriate, specify conditions upon a permit, including:

(1) Placement of individual emission limits determined on a case-by-case basis on the source for which the permit is issued, but such individual emission limits shall be only as restrictive as the more stringent of the following:

(a) the extent necessary to meet the requirements of the Air Quality Control Act and the federal act; or

(b) the emission rate specified in the permit application;

(2) A requirement that such source install and operate control technology, determined on a case-by-case basis, sufficient to meet the requirements of the Air Quality Control Act and the federal act and regulations promulgated under either;

(3) Compliance with applicable NSPS and NESHAP;

(4) Imposition of reasonable restrictions and limitations other than restrictions and limitations relating to emission limits or emission rates; or

(5) Any combination of the above;

20.2.72.210 NMAC.

III. CURRENT PROCEEDINGS

On November 17, 2021, the Property Owners of Sonterra ("Sonterra") filed its Motion to Dismiss the Application. After a full briefing and oral argument on December 15, 2021, the Hearing Officer issued an order Denying Sonterra's Motion to Dismiss

on December 27, 2021. The Office of Public Facilitation conducted a prehearing scheduling conference on December 1, 2021, and filed a Scheduling Order on December 2, 2021, followed by an Amended Scheduling Order on January 15, 2022.

Sonterra filed a Renewed Motion to Dismiss on December 21, 2021. After the Renewed Motion to Dismiss was fully briefed, the Hearing Officer issued an order denying Sonterra's Renewed Motion to Dismiss on January 18, 2022. Statements of intent to present technical testimony were filed on January 19, 2022.

Roper filed a Motion *in limine* to Exclude Evidence on Water Issues on January 25, 2022. After the Motion *in limine* was fully briefed, the Hearing Officer issued an order denying Roper's Motion *in limine* on February 5, 2022.

Statements of intent to present rebuttal testimony were filed on February 2, 2022. The public hearing was held via WebEx virtual conferencing platform and at two physical locations in Alto, N.M. on February 9, 2022.

a. The Parties

NMED's AQB was represented by Christopher J. Vigil, Assistant General Counsel. AQB called the following witnesses: Deepika Saikrishnan, Permit Specialist in the Technical Services Unit of the Permitting Section of the AQB; Rhonda Romero, Minor Source Section Manager for the AQB; Eric Peters, Air Dispersion Modeler for the AQB; and Kathleen Primm, Supervisor in the Minor Source Unit of the Permitting Section of the AQB.

Roper was represented by Louis W. Rose and Kristen J. Burby, Montgomery and Andrews, P.A. and called Mr. Paul Wade, Principal/Senior Project Manager of Montrose Air Quality Services, Inc.

Sonterra was represented by Thomas M. Hnasko and Julie A. Sakura, Hinkle Shanor, LLP and called the following witnesses: Carlos Ituarte-Villarreal, Ph.D., environmental specialist employed by SWCA Environmental Consultants, 20 E. Thomas Rd., Suite 1700, Phoenix, AZ, 85012, Breanna Bernal, air quality specialist employed by SWCA Environmental Consultants, 2201 Brookhollow Plaza Dr., Suite 400, Arlington, TX, Mr. Eluid L. Martinez of Water Resources Management Consultants, LLC, 1795 Paseo de Vista, Santa Fe, NM, and Mr. David Paul Adler, 160 Pronghorn Lane, Alto, NM.

b. Burdens and Standards for Decision

20.1.4.400.A(1) NMAC establishes the burden of persuasion for each party to the hearing and states:

The Applicant or Petitioner has the burden of proof that a permit ... should be issued and not denied. This burden does not shift. The Division has the burden of proof for a challenged condition of a permit or license which the Department has proposed. Any person who contends that a permit condition is inadequate, improper, or invalid, or who proposes to include a permit condition shall have the burden of going forward to present an affirmative case on the challenged condition.

In turn, 20.1.4.400.A(3) NMAC states that “[t]he Hearing Officer shall determine each matter in controversy by a preponderance of the evidence.” In addition, New Mexico’s minor source permitting regulations at 20.2.72.207.D NMAC state that:

[t]he department shall grant the permit, grant the permit subject to conditions, or deny the permit based on information contained in the department’s administrative record. The administrative record shall consist of the application, any other evidence submitted by the applicant, any evidence or written comments submitted by interested persons, any other evidence considered by the department, a statement of matters officially noticed, and if a public hearing is held, the evidence submitted at the hearing. The applicant has the burden of demonstrating that a permit or permit revision should be approved.”

The determination of whether to issue the Draft Permit must be based on the evidence in the Hearing Record as defined by 20.1.4.7 NMAC.

c. Written Comment and Sworn Testimony Provided by Public Members

NMED recently instituted the Public Comment Portal ("Portal") to facilitate effective public feedback regarding environmentally impactful projects, rule changes, and permit applications. The Portal is a convenient tool for any individual to provide general (non-technical) comment, to view other general comment, and for the Hearing Officer to consider relevant evidence outside the parties' technical evidence. The Roper Application was the initial use of the Portal, and the Office of Public Facilitation ("OPF") received one hundred and fifty-six (156) written comments into the evidentiary record. At the close of the hearing record, OPF compiled the written comments into a report which has been incorporated by reference into this Report and Recommended Decision. A map of the public members who used the Portal is also attached to this report.

On February 9, 2022, residents of Alto, N.M. appeared in person at two physical sites to provide sworn non-technical testimony. The members of the public who testified at 12:00 pm are listed below with excerpts of their relevant testimony.

- i. Ms. Suzanne Santo testified in opposition to the Draft Permit, and that she lives in the Enchanted Forest and owns three properties approximately 33 linear feet from the Alto CBP site. Ms. Santo retired to Alto N.M. in part because of the clean mountain air. Ms. Santo personally observed the amount of particulate matter released from a Concrete Batch Plant in El Paso. Her husband was a quality control manager for the largest concrete plant in El Paso and witnessed the impact of the

- surrounding neighborhoods that lived with silica dust which settled over El Paso and adversely impacted residents who suffered from breathing problems. Ms. Santo testified that she would hear the constant noise generated by the Alto CBP and that Lincoln County does not have a noise ordinance to protect residents from the noise from trucks and heavy equipment necessary for operations. Hrg. Tr. At 114-118.
- ii. Mr. Tom Stewart, a Lincoln County Commissioner, testified that he is personally opposed to the Draft Permit and lives at 116 Tanglewood Lane in Alto NM. The Alto CBP is located approximately 1.2 miles from his residence. Hrg. Tr. at 118-121.
 - iii. Mr. James Kalvelage testified in opposition to the Draft Permit and objected to the climate data Roper used to model the emissions. The data was topographically very different from the construction site. He also testified that the winds could vary dramatically depending on the weather conditions. Hrg. Tr. at 121-123.
 - iv. Mr. Stanley Mathis testified in opposition to the Draft Permit, and lives less than 1.5 miles from the Alto CBP. He testified that he was personally familiar with the Carrizozo Concrete Batch Plant owned by Roper and the dust all around the Carrizozo plant, and the lack of vegetation there. Hrg. Tr. at 124-125.
 - v. Mr. Bill Horton testified in opposition to the Draft Permit, and that he lives in Legacy Estates, directly across N.M.200 and six hundred and sixty (660) feet from the Alto CBP. His wife has reactive airway disease which dramatically improved after they moved to this pristine environment. He

and his wife are in their late 70s and testified that their community has a very high concentration of retirees. Mr. Horton testified that he has been unable to find any history of monitoring or observations made by the Department's inspectors of Roper's plant in Carrizozo. Hrg. Tr. at 125-126.

- vi. Mr. Galen Farrington testified in opposition to the Draft Permit and that he and his wife live in Legacy Estates. He objected to Roper's emission modeling because of the elevation difference of almost 3500 feet, and the topographic change from high desert near Holloman, forty-five (45) miles distant, and the mountainous, two vegetative life zone differences, and eighty (80) climate zone differences. Finally, he testified that there is no fail-safe zone within a half-mile of the Alto CBP. Hrg. Tr. at 126-132.
- vii. Ms. Kathleen Weems testified in opposition to the Draft Permit and that she and her husband are retired educators who built their home last year, less than two-tenths of a mile from the construction site. Hrg. Tr. at 132-133.
- viii. Mr. Donnie Weems testified in opposition to the Draft Permit, and that he purchased his property at 116 Legacy Lane on February 7, 2020 and did not receive the certified letter from Roper as required by the rules. Hrg. Tr. at 133-135.
- ix. Ms. Brenda Restivo testified in opposition to the Draft Permit as the President of the Ranches of Sonterra Property Owners Association, a community of over 480 property owners directly northeast and anywhere from one-half mile to four miles from the construction site. She and her

husband live less than three-quarters of a mile from the site and moved to the valley because of the pristine air and the quiet. She testified that in the springtime winds more than 30 mph carry fugitive dust to the Ranches on a regular basis. She testified that in the past year winds carried over to the Fall and Winter with gusts of over 60 mph. Hrg. Tr. at 135-138.

- x. Mr. Craig Cathey testified in opposition to the Draft Permit and that the construction site is surrounded by established residential neighborhoods. His home is less than one hundred yards across the highway from the perimeter of the Alto CBP. He objected to the Draft Permit's operating hours and the lack of a state mandated setback from schools or residences. Hrg. Tr. at 138-141.
- xi. Ms. Ellen Hightower testified in opposition to the Draft Permit as a local resident of Alto since 1997.

Members of the public who testified at 5:00 pm and the relevant portions of their testimony are listed below.

- i. Mr. Jeff Bleau testified in opposition to the Draft Permit as a resident who lives east of the construction site, and that the prevailing winds are from the west. He testified that the proposed construction site is not a big site, so to get to the fence line doesn't take very long, and that dust will accumulate outside of perimeter. Hrg. Tr. at 271-272.
- ii. Mr. John Skinner testified in opposition to the Draft Permit as a local resident of 123 Coyote Mesa Trail, Alto N.M. about one mile north/northeast of the Alto CBP. This puts his home directly inline of the

prevailing winds. His wife suffers from allergies and dry eye conditions.
Hrg. Tr. at 273-274.

- iii. Mr. Josh Botkin testified in opposition to the Draft Permit as the owner of the High-Country Landscapes and Nursery whose property abuts the Alto CBP about 100 feet west of the proposed silo site. His academic qualifications include a master's degree from Colorado State University in ecology through the Warner College of Natural Resources and has worked in rangeland ecology. Mr. Botkin testified that the dust produced by the Alto CBP will degrade the health of his trees and all abiotic responses by the roots. He testified that the dust from the Alto CBP that falls on his outdoor plants will cause degradation in plant health, bee health, and all abiotic responses by the roots. Hrg. Tr. at 272-278.
- iv. Mr. Frank Cannella testified in opposition to the Draft Permit as a local resident of an overwhelmingly residential neighborhood (eleven subdivisions within just a mile or so of the construction site). He testified that the Little Creek drainage provides water for hundreds of people and private wells and voiced his concern that the cleaning of concrete delivery trucks would pollute the groundwater with wastewater. Hrg. Tr. at 278-281.
- v. Dr. Barbara Yount, M.D. testified in opposition to the Draft Permit as a 78-year-old local resident whose home is less than 100 yards from the construction site, and one of 140 properties within one-half mile radius of the Alto CBP. Dr. Yount testified that invisible respirable silica dust is one one-hundredth the size of a grain of beach sand. This invisible silica dust,

- when inhaled, bypasses our body's defenses, and goes straight to our lungs, creating scars in the delicate lung fibers that can never be repaired and may eventually lead to terminal silicosis. It also exacerbates asthma, heart and lung disease, and limits outdoor activities. Hrg. Tr. at 278-284.
- vi. Ms. Sue Catterton testified in opposition to the Draft Permit as a resident of the Ranches of Sonterra about 1.5 miles northeast from the construction site. She testified that in December, winds were recorded at the Sierra Blanca Airport at 83 miles per hour. She testified that she is not opposed to the concrete plant, but the Alto CBP is in the wrong place. Hrg. Tr. at 285-286.
- vii. Mr. Steven Hightower testified in opposition to the Draft Permit as a commercial pilot who has lived in Lincoln County for fifty (50) years and is familiar with temperature inversions in the valley. Mr. Hightower has flown out of Sierra Blanca airport since its construction in 1987 and objected to the air quality modeling that ignored the unique environment in the valley. He testified that temperature inversions happen on his property every single day in the wintertime. In fact, on the day of the public hearing he recorded a negative 4-degree Fahrenheit temperature near the proposed industrial site. He further testified that along Little Creek, on top of a hill on his property, it was 32 degrees Fahrenheit where a strong temperature inversion takes place every single day. The Alto CBP sits in a bowl, and nothing affects air quality in N.M. as much as a temperature inversion does, and it has not even been considered, therefore disqualifying the emission modeling in his opinion. He testified

- that Sierra Blanca airport sits on top of a mesa, and the valleys that surround the airport invert nightly based on the fog that forms in the valleys and not on the mesa. Thus, data from Holloman and Sierra Blanca do not fairly represent the air quality at the construction site because inversions trap particulate matter which takes hours to disperse. Hrg. Tr. at 286-291.
- viii. Ms. Nancy Fegely testified in opposition to the Draft Permit as a local resident who is concerned about the fugitive dust and the carcinogen crystalline silica. She lives three miles downwind of the site and had sustained downslope winds of over 35 mph and gusts between 65 and 75 mph this past January. She testified they can be affected by dust storms created by White Sands, about 40 miles away which brings chips of gypsum (heavier than crystalline silica) into the valley.
- ix. Ms. Diorly Stierwalt testified in opposition of the Draft Permit as a local resident of Coyote Mesa less than one half mile downwind of the Alto CBP and is afraid that her cancer will be aggravated by the blowing carcinogen crystalline silica. Hrg. Tr. at 294-298.
- x. Mr. Louis Goode testified in opposition to the Draft Permit as a retired U.S. Army field artillery school chemical weapons department analyst and resident who lives three-quarters of a mile downwind of the Alto CBP and is concerned that the Draft Permit will not control the "RSC" or silica dust – a by-product of fly ash aggregate cement mixing. He also testified that in the springtime, 50 to 60 mph winds are common and that in the wintertime, winds from the northeast will carry hot spot fugitive emissions

directly into the Class 1 White Mountain wilderness area. He testified that he has firsthand knowledge and experience with radiation inhalation and monitoring fugitive hot spots and the harmful effects of RSCs on humans and animals. Hrg. Tr. at 298-302.

- xi. Mr. Dennis Venski testified in opposition to the Draft Permit and challenged the use of water to mitigate the dust and pollutants. Use of water on the haul-roads will wash the pollutants into the ditch and sweeping the haul-roads will put the dust into the air. Hrg. Tr. at 303.

IV. APPLICABLE LAW

New Mexico Air Quality Control Act, NMSA 1978, §§ 74-2-1 to 74-2-17.

New Mexico Air Quality Regulations - Construction Permits, 20.2.72 NMAC.

New Mexico Environment Department Permitting Procedures, 20.1.4 NMAC.

V. RECOMMENDATION

Based upon the Hearing Record as defined in 20.1.4.7 NMAC, including the post-hearing submissions, I recommend that the Roper Draft Permit be denied. What follows is drawn from Roper, AQB, and Sonterra's proposed findings of fact and conclusions of law based on the evidence that I found relevant, reliable and credible.

VI. FINDINGS OF FACT

a. The Application

1. On June 14, 2021, Roper filed an application for a NSR Minor Source construction permit for a concrete batch plant, to be located near Alto in Lincoln County, N.M. AR 3, 0199. The Application was received by the New Mexico Environment Department on June 22, 2021. NMED Exhibit 1 at 5.

2. The Application proposed construction of a 125 cubic yards per hour concrete batch plant that would include: an aggregate feed hopper (Unit 2), aggregate feed hopper conveyor (Unit 3), 4-bin aggregate bin (Unit 4), aggregate weigh batcher with conveyor (Units 5 and 6), cement/fly ash split silo (Units 9 and 10) with screw conveyors and dust collectors (Units 9b and 10b), cement/fly ash batcher (Unit 8) and concrete truck loading area (Unit 7) with a central dust control system (Unit 7b) to mitigate fugitive dust from the truck loading area and cement/fly ash batcher, aggregate and sand storage piles (Unit 11) and three heaters 0.19 MMBtu/h each (units 12,13 and 14). AR 2, 0191.
3. The Application requested a concrete production capacity limit of 500,000 cubic yards per year and an hourly concrete production capacity limit of 125 cubic yards per hour. *Id.*
4. The Application included proof of Roper's public notice, including notice by certified mail to the surrounding landowners. AR 1, 0084-0134.
5. AQB ruled the Application administratively complete on July 22, 2021. AR 3, 0199.

b. The AQB's Public Outreach

6. The Application instigated significant public opposition as represented by phone calls, emails and hard copy letters sent through U.S. Postal Service since June 3, 2021. AQB staff reached out to several of the members of the public by telephone and email and explained the permitting process. The AQB also sent out emails to concerned citizens on June 24, 2021, indicating that the Application was received, outlining the permitting process, and indicating that their concerns were recorded. Initial citizen letters were sent to concerned

citizens on record on June 30, 2021, July 1, 2021, July 22, 2021, and September 17, 2021. NMED Exhibit 1 at 10; AR No. 95, Bates 1742-1835.

7. The AQB sent an email to citizens on record providing more clarity on the permitting process on July 22, 2021. On July 1, 2021, and July 23, 2021, the AQB provided hard copy citizen letters to be mailed out to citizens who did not provide an email address. NMED Exhibit 1 at 10-11; AR No. 103, Bates 1968-1979; AR No. 95, Bates 1742-1835.
8. The Initial Citizen letter is a template developed to comply with requirements in 20.2.72.206.B(1) NMAC. A typical letter confirms citizens' written comments will be included as part of the permit application record. The letter also provides general information about the permit process, the pending availability of the Department's analysis, and the option to request a public hearing. NMED Exhibit 1 at 11; AR No. 95, Bates 1749.
9. Interested persons had thirty (30) days from the date notice was published to express an interest in writing in the permit application per 20.2.72.206.A(5) NMAC. Public notice was published in the newspaper on July 28, 2021, thus ending the 30-day comment period as of August 27, 2021. NMED Exhibit 1 at 11; AR No. 104, Bates 1980.
10. Based on the many requests for a public hearing, the AQB sent a Hearing Determination Request to the Office of the Department's Secretary. On November 2, 2021, the Secretary approved the request for a public hearing based "significant public interest." The AQB relayed this information to the concerned citizens with email addresses on record via email. Several more concerned citizens letters and emails were received after the result of the

hearing determination and the AQB sent Initial Citizen letters on September 17, 2021, to citizens who had sent their comments after July 23, 2021. NMED Exhibit 1 at 11; AR No. 92, Bates 0982-1271; AR No. 93, Bates 1272-1667; AR No. 94, Bates 1712; AR No. 95, Bates 1742-1834.

11. The AQB's analysis, including the Statement of Basis and modeling review report was timely posted on the new Department webpage for public notices under Lincoln County. NMED Exhibit 1 at 11; AR No. 106, Bates 2002-2023.

12. On September 21, 2021, the AQB sent out a Second Citizen letter to all citizens who had expressed an interest in the Application in writing up to date. The letter had a link to the Department's analysis, including the Statement of Basis and modeling review report, which were posted on the new Department webpage for public notices under Lincoln County. NMED Exhibit 1 at 11; AR No. 98, Bates 1851-1916.

c. The Draft Permit

13. Pursuant to 20.2.72.210 NMAC, a permit must specify what equipment is authorized to be installed and operated, place limits on air pollutants, and place requirements on how equipment will be operated. A permit is an enforceable legal document, and will include emission limits, methods for determining compliance on a regular basis, and will place monitoring, recordkeeping, and reporting requirements to ensure and verify compliance with the requirements of the permit. Conditions in Part A of the permit are Facility Specific Requirements, unique to the facility. They are site-specific and based on information provided in the Application. Conditions in Part B of the permit are General Conditions and standard language which apply to all applications. Part

C is also standard language about supporting on-line documents, definitions, and acronyms which apply to all permits. NMED Exhibit 1 at 13-14.

14. A draft permit is a dynamic working document subject to updates throughout the review process. Draft Permit began with standardized language in an AQB permit template with standardized AQB monitoring protocols added as necessary for the sources of emissions and control devices at the proposed industrial site. NMED Exhibit 1 at 14.

15. AQB staff wrote unique permitting conditions for site specific operations and equipment, based on information provided in the Application. The draft permit was returned to Roper and its consultant for review and comment. Roper proposed changes to monitoring requirements for facility throughput and visible emissions. NMED Exhibit 1 at 14; AR No. 69 at 0694-0711.

16. The AQB reviewed Roper's proposed changes and confirmed that the requests would be enforceable, and then made edits to the Condition. The AQB did not agree with all the requests that Roper requested. In the updated Draft Permit (Version 2021-12-30), monitoring and record keeping requirements for Condition A108B facility throughput and visible emissions were revised from hourly to daily. NMED Exhibit 1 at 14; AR No. 74, Bates 0806-0810.

17. Regarding Permit Condition A503C that requires consistent plant monitoring, the AQB determined that Roper must, at minimum, conduct weekly monitoring and rejected Roper's proposed monthly schedule. Regarding Condition A503D which dictates required recordkeeping of the differential pressure, it was strengthened from daily to each time cement (unit 9) or fly ash (Unit 10) loading takes place. NMED Exhibit 1 at 14-15; AR No. 81, Bates 0842-0860.

18. Pursuant to 20.2.72.206.B(2) NMAC, the Draft Permit could not be issued until at least 30 days after the Department's analysis was available for review. The Draft Permit incorporated all the calculation updates provided by Roper's consultant. Updates related to typographic errors, address updates for the facility and incorrect unit number references were provided by Roper later and all the updates were posted on the Department's webpage for public notice under Lincoln County. NMED Exhibit 1 at 11-12; AR No. 106, Bates 2002 - 2023.
19. An updated version of the Draft Permit (Version 2021-12-30), an updated version of the draft Statement of Basis (Version 2021-12-30), and the draft Database Summary (Version 2021-12-30), were posted on the Department's webpage for public notice under Lincoln County. NMED Exhibit 1 at 12; AR No. 9, Bates 0338-0395; AR No. 2, Bates 0191-0198; AR No. 3, Bates 0199-0203.
20. The AQB created a document titled "Frequently Asked Questions" ("FAQs") in response to citizens' comments and questions regarding the Application and Draft Permit and posted it on the Department's webpage for public notice under Lincoln County on December 30, 2021. The FAQs were developed by grouping like-kind public comment questions into 19 FAQs with associated answers. NMED Exhibit 1 at 12; AR No. 99-102, Bates 1917-1967; AR No. 106; Bates 2002 -2023; AR No.103; Bates 1968-1979.
21. It is the AQB's position that the decision-maker approve the Draft Permit in its current version and issue the permit. Hrg. Tr. 88:19-22.

d. Public Notice of the Hearing and the Public Hearing

22. Because of significant opposition to the permit by members of the public, the Cabinet Secretary directed the OPF to hold a hearing and filed an order appointing the undersigned Hearing Officer. NMED Exhibit 1 at 11.
23. The Hearing Officer held a prehearing scheduling conference on December 1, 2021, with all parties attending, and calendared the public hearing to commence on February 9, 2022. AQB staff scheduled a Spanish interpreter to be present at the hearing and for a court reporter to transcribe the hearing verbatim. NMED Exhibit 1 at 12.
24. Due to the public health orders related to the Coronavirus pandemic, the Hearing Officer ordered that the public hearing would be held in a “hybrid” fashion, allowing for both virtual and in-person participation. See Scheduling Order at 1.
25. AQB staff drafted the Notice of Hearing, and translated it into Spanish on December 21, 2021. NMED Exhibit 1 at 12.
26. On December 30, 2021, the Notices of Hearing in both English and Spanish were posted on the Department’s webpage under Lincoln County and Roper Construction, Inc. documents. On the same day the AQB’s staff e-mailed requests for publication of the Notice of Hearing in English and in Spanish to *The Albuquerque Journal* and *Ruidoso News*. *Id.*
27. On January 3, 2022, the AQB e-mailed the Notice of Hearing in English and Spanish to EPA Region 6, the Lincoln County Clerk, the Ruidoso Village Clerk, Ruidoso Downs City Clerk, Capitan Village Clerk, and to Christina Thompson, Travis Moseley, Camille Howes, Andres Bolanos, Laura Rabon and Sean Donaldson at the Lincoln National Forest White Mountain Wilderness and

Smokey Bear Ranger District. NMED Exhibit 1 at 13; AR No. 101, Bates 1949-1956.

28. Contemporaneously, the AQB mailed hardcopies of a cover letter and Notice of Hearing in English and Spanish to interested citizens. These citizens had submitted written comments only by U.S. Postal Service and did not provide their email addresses in their comment letters. The AQB emailed the same to all citizens who provided written comment via email or provided their email address as of January 3, 2022. AR No. 99, Bates 1917-1937; AR No.100, Bates 1938-1948.

29. The Notice of Hearing was published in English and in Spanish in *The Albuquerque Journal* and *Ruidoso News* on January 5, 2022. NMED Exhibit 1 at 12; AR No. 104, Bates 1980-1997.

30. Public Service Announcements were requested at 104.5 FM Radio (Spanish), KENW-TV/DT, KENW/KMTH-FM (English) radio stations on January 14, 2022. AR 105, 1998-99.

31. The hybrid public hearing in this matter was held on February 9, 2022. The Hearing Officer, the Parties, and many members of the public appeared virtually and at two Alto locations via the WebEx platform. The AQB provided a venue at the Capitan Municipal Schools where the public could view and participate in the Hearing. In addition, Alto citizens privately arranged a separate venue for the same purpose.

e. Roper's Testimony in Support of The Application

32. Roper presented the full written direct and rebuttal testimony of Mr. Paul Wade, a principal at Montrose Environmental who has over 27 years of

experience in air quality permitting and dispersion modeling. He holds two Bachelor of Science degrees in Mechanical Engineering and Industrial Arts. Roper Ex. 1 (Resume of P. Wade).

33.Mr. Wade adopted his direct and rebuttal testimony under oath and described what a concrete batch plant is and how it works. See Roper Ex. 2 at 2 (Wade Direct).

34.Mr. Wade provided rebuttal testimony in response to issues identified by Sonterra including: (1) reliability of the modeling; (2) appropriateness of the modeling software used; (3) the meteorological data relied on for modeling; (4) emission sources modeled; (5) terrain and modeling options selected for use in dispersion modeling; (6) operating hours of the Alto CBP; (7) malfunction emission limits; (8) moisture content calculations for aggregate; (9) haul truck emissions; (10) particle density data sources; (11) inclusion of water trucks in the emission calculations; (12) control efficiencies for baghouses; (13) windspeeds at the Alto CBP; and (14) cleaning operations at the Alto CBP. Roper Ex. 3 (Wade Rebuttal).

35.Mr. Wade testified that if the Alto CBP operates in conformance with the terms and conditions of the Draft Permit, it should comply with all applicable air quality regulations, PSD increments, and federal and state ambient air quality standards. Hrg. Tr. at 33:9-16 (Wade); Roper Ex. 2 at 23 (Wade Direct); Roper Ex. 3 at 21 (Wade Rebuttal).

36.Mr. Wade explained the modeling he prepared to demonstrate compliance with ambient air quality standards and PSD increments. He discussed his

consultation with AQB on selection of meteorological data. Hrg. Tr. at 31:6-33:8 (Wade).

37. Mr. Wade explained that he consulted with AQB on the appropriate meteorological data to use and determined that Holloman Air Force Base was the closest meteorological data to the site and met the applicable criteria for use. He also testified that use of the Sierra Blanca Regional Airport meteorological data, as suggested by Sonterra, was inappropriate because it did not meet the EPA requirement of a complete database prior to data substitutions. Hrg. Tr. at 36:6-13 (Wade); 73:5-25 (Wade).

38. Mr. Wade explained that he re-ran the models with the Sierra Blanca data, and it resulted in lower modeled concentrations. In his expert opinion, the Holloman data yielded a more conservative result than the Sierra Blanca data. Hrg. Tr. at 33:23-34:14 (Wade); 49:21-50:1 (Wade).

39. Mr. Wade explained that he used AERMOD and AERMET Version 19191 because it was the approved version when he ran the model for submission with the Application. He re-ran the models in the updated version, and the results of modeled concentrations were unchanged. Hrg. Tr. at 34:15-25 (Wade).

40. Mr. Wade discussed Draft Permit Condition A112 permits a maximum limit of 305 truck roundtrips per day and explained that his emission calculations and A112 applies to all trucks using the haul-road, including water delivery trucks. Hrg. Tr. at 35:1-9 (Wade); 72:21-23 (Wade).

41. Mr. Wade testified that water trucks will transport water to the site. Hrg. Tr. 75: 6-7. Mr. Wade assumed that water would be held in storage tanks at the site, but no such tanks exist, and the AQB has not authorized storage tanks at

the site. Hrg. Tr. 75: 23; 76: 1-12; AQB's Statement of Intent to Present Rebuttal Testimony, filed 2/2/2022, NMED Exhibit 4, p. 3: 6-10.

42. Mr. Wade testified that the particle density values he relied on were NMED-approved values and that he mistakenly used the density for lime (3.3 grams per cubic centimeter) rather than for cement (2.85 grams per cubic centimeter). He elaborated that when he corrected the particle density value for cement, it yielded a lower ambient concentration of particulates than the concentration using the lime density. Hrg. Tr. at 35:10-36:5 (Wade).

43. Finally, Mr. Wade testified that he ran the original model using low windspeed Holloman meteorological data with no controls (i.e.: additional moisture) added to the aggregate piles, and that even without the addition of moisture, the modeling demonstrated compliance with ambient air quality standards and PSD increments. Hrg. Tr. At 36:11-22(Wade).

44. He explained that AQB's proposed additional permit condition requiring the addition of moisture to sources when visible emissions were observed will reduce emissions further than originally modeled. Hrg. Tr. at 36:6-22 (Wade); 72:24-73:25 (Wade).

45. On cross-examination, Mr. Wade was asked about EPA's 40 CFR Part 51, Subpart W concerning the use of meteorological data. Mr. Wade explained that the meteorological data selected for the modeling was chosen because of its *large amount of low wind and calm wind speed days*, which produce the higher modeled concentrations for the Alto CBP (emphasis added). Hrg. Tr. at 38:18-39:23 (Wade).

46. Mr. Wade testified that low windspeed or calm days cause the highest concentrations of particulates. Hrg. Tr. at 44:9-45:24 (Wade). Higher wind speeds disperse the particulates, resulting in lower modeled concentrations¹.
47. Further, when Sonterra asserted that Sierra Blanca meteorological data might be more representative than Holloman Air Force Base, Mr. Wade explained that use of the Sierra Blanca airport data would not be allowed under EPA requirements for meteorological data set to be used in modeling because it was incomplete. Hrg. Tr. at 48:9-19 (Wade).
48. Cross examined about how Mr. Wade calculated the number of truck roundtrips per day, he testified that 305 truck round-trips per day was calculated based on the number of trucks it would require to make 125 cubic yards per hour of concrete during a 15-hour day. Hrg. Tr. at 57:20-58:9 (Wade).
49. Cross examined about a lack of specifications in the emission calculations regarding water trucks, he testified that emissions calculations for fugitive dust of trucks is based on the weight of the truck and the weight of the water truck will not exceed the weight of the truck for aggregate, sand, cement or fly ash trucks. Therefore, even if a water truck were substituted for a raw material truck, and the 305 trucks per day limit was observed, the projected emissions would remain the same. Hrg. Tr. at 61:11-62:17 (Wade); 63:13-24 (Wade).
50. Cross examined as to why a more in-depth discussion of the actual application of water for the maintenance of roads was not included in the operation plan as part of the Application. Mr. Wade explained that the section of the

¹ 1. Roper's counsel did not re-call Mr. Wade to rebut the Alto residents' evidence regarding frequent and sustained high speed springtime winds, highspeed wintertime winds from the northeast, and frequent wintertime temperature inversions and their effect on air pollution.

Application that Sonterra was looking at only applied to the startup and shutdown of the Alto CBP and that Roper was not requesting separate, higher emission limits for startup and shutdown. Hrg. Tr. at 64:8-66:22 (Wade).

51. Cross examined about the AP-42 Emission Factor used in the emission calculations for haul-roads, Sonterra identified that the Application used the emission factor for *publicly traveled paved roads, rather than for roads inside a concrete batch plant* (emphasis added). Mr. Wade testified that the emission factor for publicly traveled paved roads was more appropriate because the roads at the Alto CBP will be paved and maintained at a much higher level than the emission factor for roads a concrete batch plants anticipates. Hrg. Tr. at 66:23-70:5 (Wade). Mr. Wade did not elaborate on the type of road the AP-42 Factor is based on (dirt, gravel etc.) and did not explain what "higher level" meant.

f. AQB's Testimony on its Review of the Permit Application

52. AQB presented the prefiled written direct and rebuttal testimony of four technical witnesses who testified at the public hearing. Hrg. Tr. at 19:7-14.

53. Dr. Deepika Saikrishnan is a Permit Specialist and employed by AQB since 2019. She holds a Bachelor of Science in Chemistry, a Master of Science in Analytical and Separation Science and a Ph.D. in Biochemistry. NMED Ex. 2 (Saikrishnan Resume).

54. Dr. Saikrishnan adopted her written testimony under oath which addressed her qualifications, a summary of the Application, her administrative and technical review of the Application, the public outreach completed for the

Application, her basis for additional permit conditions, and her conclusion about the Application. NMED Ex. 1 (Saikrishnan Direct).

55. Dr. Saikrishnan testified that in order to achieve compliance with the proposed emission limits, Draft Permit Condition A502B requires that "stockpiles are kept adequately moist" in accordance with the fugitive dust control plan². Hrg. Tr. 94: 13-15.

56. Dr. Saikrishnan presented no testimony concerning the quantity of water necessary to implement the Wet-Dust suppression system necessary to reduce fugitive emissions from Units 3, 4, 5, 6 and 11, as required by condition A502A.

57. Dr. Saikrishnan testified on rebuttal that the Draft Permit establishes production-based limits and explained that the hours of operation represented in the Application are consistent with the production limits at the Alto CBP. *Id.* at 2.

58. Dr. Saikrishnan recommended the approval and issuance of the Draft Permit. NMED Ex. 1 at 15-16 (Saikrishnan Direct); NMED Reb. Ex. 1 at 4 (Saikrishnan Rebuttal).

59. Eric Peters has been with AQB since 1997 and has analyzed and performed emissions modeling for over 100 projects. He holds a bachelor's degree in Mechanical Engineering and a master's degree in Environmental Engineering. NMED Ex. 4 (Peters Resume).

² No evidence was offered as to the minimum quantity of water necessary to maintain sufficient moisture in the stockpiles as required by Condition A502A, or the triggering event beyond the vague term "if visible emissions are seen (or observed)," in light of the Alto residents' evidence that windspeeds in excess of 25 mph are frequent during the spring and winter months.

60. Mr. Peters submitted written testimony that addressed his qualifications and asserted that the emissions modeling was performed in accordance with the New Mexico Modeling Guidelines. NMED Ex. 3 at 1-2 (Peters Direct).

61. Mr. Peters adopted his prefiled written testimony under oath and testified on rebuttal that the Alto CBP is a minor source with respect to PSD, and the AQB does not require minor sources to collect their own meteorological data, "so we are limited to existing sites that collect this data." Hrg. Tr. 99:19-100:9. He stated that "it is not feasible or necessary to collect meteorological data at every location that a small industrial source proposed to locate." NMED Reb. Ex. 2 at 1. Further, he explained that highest concentrations for this type of Alto CBP are expected to occur when wind speeds are slow or low, that Holloman Air Force Base is an appropriate and reliable source of data to use in modeling. *Id.* at 2. Mr. Peters did not rebut the evidence of sustained high winds and temperature inversions.

62. Mr. Peters discussed that when corrections were made to the Application that reduced emissions, new modeling was not required because the pollutant concentrations would not be expected to increase from a decrease in emissions. NMED Reb. Ex. 2 at 3 (Peters Rebuttal).

63. Mr. Peters testified that Sonterra witnesses' concerns that AQB had not approved the use of "non-default" modeling options in AERMET were unfounded. NMED Reb. Ex. 2 at 4 (Peters Rebuttal). Mr. Peters explained that the non-default option to use flat terrain for non-buoyant sources is suggested by both the AERMOD Implementation Guide and the New Mexico Modeling Guidelines. Therefore, "the use of the non-default option for flat terrain is not

only approved but recommended.” *Id.* at 5. Mr. Peters did not address the topography of the narrow east-west valley and how that might affect the modeling.

64. Mr. Peters addressed several other modeling concerns raised by Sonterra such as: (1) the particle density parameters used were AQB approved values, and as such, no further justification by the Roper is expected, (2) that Units 13 and 14 were modeled together as one source – Unit 12, and (3) that the wind speeds used in the modeling were appropriate and representative. NMED Reb. Ex. 2 at 5-6 (Peters Rebuttal).

65. Mr. Peters summarized his written direct and rebuttal testimony and reiterated his conclusion that the modeling was completed in conformance with the New Mexico Modeling Guidelines. Hrg. Tr. at 97:16-105:2 (Peters); 104:19-105:1 (Peters).

66. Rhonda Romero is the Staff Manager for the AQB’s Minor Source Permit Program. She holds two bachelor’s degrees in environmental geology and natural sciences geology. Ms. Romero has worked for the Department in the AQB since 2013. NMED Ex. 5 (Romero Resume).

67. Ms. Romero submitted prefiled written rebuttal testimony which she adopted under oath and summarized at the hearing. Hrg. Tr. at 108:16-24 (Romero).

68. Ms. Romero testified that the Application did not identify any predicted separate startup, shutdown, or maintenance (“SSM”) emissions requested for the Alto CBP. NMED Reb. Ex. 3 at 2 (Romero Rebuttal). She acknowledged that any maintenance events will need to be performed during periods with no

production. *Id.* Therefore, the Application is complete because there are no SSM predicted or requested. *Id.*

69. Ms. Romero testified that pursuant to 20.2.72.10 NMAC, AQB imposed emission control technology conditions on the Alto CBP, which are necessary to meet the requirements of the Air Quality Control Act, including applicable NSPS, NESHAP, and PSD increments, and the emission rate specified in the permit Application. The primary emission control technologies imposed by the AQB include the installation of two specific baghouses manufactured by JEC Manufacturing and the use of a Wet-Dust suppression system to minimize fugitive emissions and achieve the emission rate specified in the permit application. AR 1868-1869 (Permit Conditions A503A, A503C, A503D, and A502B).

70. Ms. Romero explained that Conditions A503A, A503C, and A503D establish the requirements for the baghouse emission controls, including the installation of a particular type of baghouse, the use of a special sensor, the installation of a differential pressure gauge, and continuous monitoring of the differential pressure across each baghouse. Hrg. Tr. 107: 17-18; 110: 5-22. Ms. Romero did not rebut the Alto residents' evidence of the frequent and sustained high winds in the springtime and the frequent wintertime temperature inversions, and their effect on the baghouse performance or the Wet-Dust suppression system.

71. Ms. Romero testified that AQB also required a Wet-Dust suppression system to ensure that Roper achieves compliance with applicable air quality standards and the emission rates specified in the Application. Specifically, the sole

emission control method at four of the regulated emission sources identified in the Application is the addition of water at the sources. A minimum quantity of water and the amount of blowing particulate matter necessary to trigger the system is not in evidence. See AR 0714 (Roper Application, dated August 25, 2021, Rev. No. 2, Table 2-A of Application); AR 0010 (Roper Application, dated June 14, 2021, Rev. No. 0, Table 2-C of Application). Those four units are the Feed Hopper Conveyor (Unit #3), the Aggregate Bin (Unit #4), and the Aggregate Weight Batcher and Conveyor (Units #5 and #6).

72. Particulate matter ("PM") emissions from the proposed concrete batch plant are subject to NAAQS, NSPS, and PSD increments pursuant to 20.2.72.208 NMAC. The NSPS or PSD increment for PM₁₀, based on a 24-hour period, is limited to 30 ug/m³. See AR 0165-0166 (Application, Section 16-W, dated June 14, 2021). The NAAQS for PM₁₀, based on a 24-hour period for H2H, is 150 ug/m³, and the PSD increment for PM₁₀, based on an annual period for Class II areas, is 17 ug/m³. See *id.* These values represent the maximum cumulative concentrations allowed under the applicable PSD increment and NAAQS. *Id.* According to the modeling results set forth in the Application, emissions at the facility, with the implementation of the emission control technology consisting of specific baghouses and a Wet-Dust suppression system, will consume 83.1% of the allowable NAAQS for PM₁₀ based on a 24-hour period, 99.3% of the allowable NSPS standard or PSD increment for PM₁₀ based on a 24-hour period for Class II areas, and 70% of PM₁₀, based on an annual period for Class II areas. See *id.*; AR 0249 (Air Dispersion Modeling Summary for Permit No. 9295, February 7, 2022, page 8 of 8).

73. Ms. Romero rebutted Sonterra's assertion that 99.9% control efficiency for a baghouse is unrealistic. NMED Reb. Ex. 3 at 2 (Romero Rebuttal). She explained that the manufacturer of the baghouse guarantees a 99.99% control efficiency if the device is maintained and operated per the manufacturer's specifications. *Id.* Further, she testified that Draft Permit Condition A503 requires Roper to demonstrate compliance with the manufacturer's maintenance and operation specifications. *Id.* Ms. Romero also explained the other ways in which compliance with a 99.9% control efficiency will be assured: (1) use of EPA Reference Method 22 to observe visible emissions, (2) self-monitoring of the baghouse's differential pressure gauge, and (3) performance of self-maintenance checks on the baghouse. *Id.* at 2-3.

74. Ms. Romero addressed fugitive dust control via the central dust collection system by describing how the system operates. NMED Reb. Ex. 3 at 3-4. She explained that like the baghouse, Roper is required by Permit Conditions A105 and A503 to self-monitor fugitive emissions, as well as operate and maintain the central dust collection system per the manufacturer's recommendations. *Id.*

75. Neither Roper nor AQB offered any evidence about Roper's recordkeeping and monitoring performance and compliance history at the existing Carrizozo concrete facility's Air Quality Permit GCP5-6747. Many of the permit conditions that require accurate and diligent self-monitoring and self-reporting ensure compliance with critical emissions limitations. Moreover, an Alto resident testified that he was unable to find any compliance or inspection history for the Carrizozo facility.

76. Ms. Romero testified that in response to the concern about concrete truck washout pollution, the AQB added permit condition A503B to establish more stringent requirements on the central dust control system, as well as self-monitoring and self-recordkeeping requirements, to ensure everything is well documented. *Id.*; NMED Reb. Ex. 5 (Draft Permit).
77. Ms. Romero concluded that the Application demonstrates that operation of the Alto CBP should comply with applicable federal and state air quality regulations and applicable ambient air quality standards and PSD increments, and recommended issuance of the permit. NMED Reb. Ex. 3 at 6 (Romero Rebuttal).
78. Ms. Kathleen Primm is the Supervisor for the NSR Construction Permit Program at AQB. She holds a bachelor's degree in agriculture. Ms. Primm has worked at AQB since 2008 in various positions within the AQB. NMED Ex. 6 (Primm Resume).
79. Ms. Primm submitted prefiled written rebuttal testimony which she adopted under oath at the hearing. Hrg. Tr. at 147:16-24 (Primm); NMED Reb. Ex. 4 (Primm Rebuttal). Ms. Primm testified that the AQB does not have the authority to require Roper to prove that water resources are available to control the emissions. *Id.* at 2-3. It does, however, have authority to enforce the failure to apply water, ensuring the Draft Permit conditions are effective. *Id.* She stated that "[t]he AQB cannot deny any Roper an air quality permit based on non-air quality issues." *Id.* at 3.
80. Ms. Primm testified that the amount of water required to control fugitive particulate emissions is a *flexible number* that will depend on multiple variables

such as precipitation, wind, and temperature. NMED Reb. Ex. 4 at 2-3 (Primm Rebuttal). To wit:

Compliance with allowable particulate emission limits for Units 3-6 is demonstrated by maintaining and operating a wet dust suppression system in accordance with the requirements in Condition A502A of the Draft Permit [AR 9, Bates 0369-0370]. On each day of operation, Condition A502A requires the permittee to inspect the wet dust suppression system for malfunctions and deficiencies in dust control effectiveness. Any problems with the control devices must be corrected before commencement of operation. The amount of water required to control emissions is not quantified in the Alto CBP application or Draft Permit because the amount of water required to control fugitive particulate emissions depends on multiple variables such as precipitation, wind, and temperature.

81. Ms. Primm testified about the potential of water trucks delivering water from an off-site location. NMED Reb. Ex. 4 at 3 (Primm Rebuttal). She explained that compliance with the identified haul-road emissions is required by Condition A112A of the Draft Permit that limits the truck traffic on the paved roads within the industrial site to 305 round trips per day. *Id.* She clarified that water trucks are included under this Condition. *Id.*

82. AQB's witnesses were cross-examined as a panel. Hrg. Tr. at 154:20-21.

g. Sonterra's Testimony in Opposition to the Draft Permit

83. Dr. Carlos Ituarte-Villarreal ("Dr. Ituarte") is an Air Quality and Modeling Specialist with SWCA Environmental Consultants. Dr. Ituarte has been in his position since 2013. He holds a Bachelor of Science and a Master of Science in Industrial Engineering, and a Ph.D. in Environmental Science & Engineering, Energy Science & Engineering. Sonterra Ex. 1 (CV of Dr. Ituarte).

84. Sonterra's witnesses did not submit complete pre-filed written direct and rebuttal testimony, rather provided summaries³ of each witness's opinion. See Sonterra SOI and Sonterra Rebuttal SOI.

85. At the hearing, Dr. Ituarte adopted the written direct and rebuttal summaries of his expert opinions. Hrg. Tr. at 196:6-8 (Ituarte).

86. Dr. Ituarte testified that appropriate air modeling is governed by the modeling guidance published by the U.S. EPA in Part 50, subpart W, known as the Federal Modeling Guidelines. According to Appendix W of Part 51, entitled "Summaries of Preferred Air Quality Models," meteorological data used as input to the AERMET modeling must possess an adequate degree of representativeness to ensure that the wind, temperature, and turbulence profiles derived by a model are both laterally and vertically representative of the source impact area. Hrg. Tr. 197: 4-25; 198: 1-2. According to Dr. Ituarte, wind speed and wind direction drive the dispersion and are the most significant conditions to determine effects from particulate emissions. Hrg. Tr. 198: 18-23.

87. Dr. Ituarte testified that the use of Holloman Air Force Base meteorological data was not representative of conditions at the Alto CBP because of the vast differences in the terrain and elevation. Holloman AFB is flat desert located at 4000 feet above sea level and the Alto CBP is 7200 feet above sea level and in rugged forested mountain terrain. Dr. Ituarte testified that using the Sierra

³ Under 20.1.4.300.B(1)(a)(vii) the Statement of Intent to Present Technical Testimony instructs ... "attach a summary of the testimony of each witness, stating any opinion(s) to be offered by such witness, and an explanation of the basis for such opinion(s)." Thus, Sonterra's direct and rebuttal SOIs complied with the applicable rule and were admitted into evidence.

Blanca Regional Airport located approximately 8 miles east of the Alto CBP on N.M.220 would produce a more accurate modeling. Hrg. Tr. 199: 23-25; 200: 1-3. See Sonterra Exhibits 6 and 7 (comparing land uses near the Sierra Blanca Regional Airport and Holloman Air Force Base). Hrg. Tr. 199: 18-21.

88.Dr. Ituarte testified that the land use and terrain of the Sierra Blanca Regional Airport more closely resembled the Alto CBP, with evergreen forests and shrubs and various plant coverings. Additionally, he testified that the wind rose plots for Holloman Air Force Base and Sierra Blanca Regional Airport are markedly different. Hrg. Tr. 204: 1-18. As depicted in the exhibits relied on by Dr. Ituarte, most dispersion events from the Holloman data will occur from winds blowing from the southeast, while most of the wind events for the Alto meteorological area are winds blowing from the southwest. Accordingly, one would expect impacts at the northeastern boundary of the proposed site to be higher than impacts derived from the use of Holloman Air Force Base data. Hrg. Tr. 204: 5-18. See Sonterra Exhibits 8 and 9 (wind rose plots for Holloman Air Force Base and Sierra Blanca Regional Airport).

89.Dr. Ituarte concluded that the model is unreliable because “we don’t know what the results will be if the Sierra Blanca meteorological data is used and what inputs were used when estimating or repossessing the MET data when Mr. Wade re-ran the model.” Hrg. Tr. 204: 19-25; 205: 1.

90.However, on cross-examination, Dr. Ituarte acknowledged that a meteorological data set would be inappropriate to rely on if it did not meet the EPA’s 90% completeness criteria. Hrg. Tr. at 265:5-18 (Ituarte).

91. Dr. Ituarte also submitted opinions about the version of AERMET and AERMOD used for the modeling; the failure to include multiple emission sources in the modeling; the failure to update PM₁₀ and PM_{2.5} models to account for haul-road revisions; the use of “non-default” modeling options; and the use of AQB approved particle density parameters. See Sonterra SOI at 5-7.
92. Dr. Ituarte testified about Roper’s erroneous use of the AP-42 emission factor for paved public roads in the modeling instead of the specific AP-42 factor for industrial roads with a concrete batch plant. Hrg. Tr. at 206:17-207:12 (Ituarte).
93. With respect to haul-road emissions predicted by the Application, Dr. Ituarte testified that the Application used an incorrect loading value from Table 13.2.1-2 of AP-42. According to both Mr. Wade and Dr. Ituarte, U.S. EPA AP-42 guidance is the typical document used to determine appropriate calculations of emissions for specific sources. Hrg. Tr. 67: 4-7; Tr. 206: 13-15. Dr. Ituarte testified that Mr. Wade used the loading value applicable to paved public roads, which calculates emissions as 0.6 grams per meter squared (ug/m³). However, AP-42 includes a specific loading value for paved roads at industrial facilities, and specifically for concrete batching facilities, of 12 grams ug/m³. Dr. Ituarte testified that this error underestimated emissions from the haul-roads by a factor of 15⁴. Hrg. Tr. 207: 5-18. Even with the annual limit on throughput of 500,000 cubic yards of concrete, using the correct AP-42 value for paved roads within a concrete batching facility results in at least 39.6 tons of PM per year

⁴ The transcript incorrectly stated Dr. Ituarte’s testimony that the emissions were underestimated by a factor of 50. Dr. Ituarte testified that the increase is 15 times, not 50 times.

(2.64 tons/year reported in Section 6, page 16 of Application, multiplied by 15). Hrg. Tr. 207: 13-18.

94. Sonterra cross examined Roper's witness about the use of incorrect load values for haul-road emissions under AP-42, and whether as an expert in air pollution modeling, he knew about U.S. EPA's preference for emission calculations based on paved roads within an industrial complex as opposed to publicly-traveled roads, Mr. Wade stated that he was not familiar with the concept. Hrg. Tr. 25: 3-5; Tr. 38: 11-17.

95. AQB similarly had no witness who could testify about the Roper's use of an erroneous emission factor in AP-42 to calculate emission concentrations on paved haul-roads within a concrete batching plant. Hrg. Tr. 96: 21-25; Tr. 97: 1-3; Tr. 99: 19-20.

96. Ms. Romero, the Staff Manager for the Minor Source Unit of the Permitting Section who "reviewed all applicable regulations and reviewed the permit language and supporting documents for legal enforceability of the construction permit regulation 20.2.72 NMAC," presented no testimony concerning the consequences of failing to use the correct emission factors for concrete batch plant haul-roads as set forth in AP-42. Hrg. Tr. 108: 25; 109: 1-5. As a result, Dr. Ituarte presented the only credible evidence that quantified emissions resulting from the use of the correct value for concrete batch plant haul-roads in AP-42. His expert opinion is the Application understated PM emissions by a factor of 15. Hrg. Tr. 207: 17-18.

97. Roper expert presented no testimony or evidence, including modeling, which would indicate whether emissions using the correct concrete batch plant haul-

road values would cause impermissible emissions of PM₁₀ that would exceed the applicable NAAQS and PSD increment levels. Notably, even without considering such omitted evidence, the Application acknowledges that PM₁₀ for a 24-hour period has already consumed 99.3% of the allowable PSD increment and 83.1% of the allowable standard for NAAQS. AR 0165-0166. Similarly, AQB presented no evidence that additional emissions derived from using the correct AP-42 haul-road values would not exceed the percentages available for the PSD increment and the NAAQS.

98. Ms. Breanna Bernal is an Air Quality Specialist with SWCA Environmental Consultants. Ms. Bernal has been in her current position since July 2021. She holds an Associate Degree in Liberal Arts and a Bachelor of Science in Environmental Geoscience. Sonterra Ex. 10 (CV of Breanna Bernal).

99. Ms. Bernal adopted her prefiled written technical testimony under oath that: (1) the incorrect version of AERMOD was used; (2) the operating schedules were not represented consistently throughout the Application; (3) there were no SSM emissions listed; (4) the moisture content for sand and gravel was listed without support; (5) hourly emission factors rather than annual factors were used; (6) maximum haul truck emissions were not supported; (7) the use of particle densities were not justified; (8) the incorrect density value of cement was used in calculations; (9) the AQB density value for fugitive dust on roads was used without justification; (10) emissions sources were not included in the Application; and (11) an incorrect type of modeling was used. Hrg. Tr. at 213:9-24 (Bernal); Sonterra SOI at 7-11.

100. Ms. Bernal's pre-filed rebuttal summary opinion questioned several aspects of the permit: (1) AQB's oversight on the permitting process, (2) the basis for a permitted capacity of 305 truck trips per day, (3) the additional moisture content added to the aggregate piles, and (4) the lack of SSM emissions. Sonterra Reb. SOI at 3-4.
101. Ms. Bernal testified that Table 6-1 of Roper's Application identified the pre-controlled material handling particulate emissions for each unit. Those units included Process Unit #2, the aggregate/sand feeder loading equipment, Process Unit #3, the feed hopper conveyor, Process Unit #4, the four-bin aggregate bin, and Units #5 and #6, the aggregate weight batcher and conveyor. Ms. Bernal testified that the addition of water sprays is the only control equipment proposed for those units. Without the addition of sufficient water, Unit #2 would have a PM emission rate of 3.66 tons per year and Units #3 through #6 would each have a PM emission rate of 2.46 tons per year, for total emissions of 9.8 tons per year. Hrg. Tr. 214: 24-25; Tr. 215: 1-9.
102. Ms. Bernal testified that without adequate water sprayed on Units 3-6, as represented in Table 6-1 of the Application, and required by the Draft Permit, the emissions would be significantly higher than specified. Hrg. Tr. at 214:24-215:12 (Bernal).
103. Ms. Bernal also testified that if there was not adequate water to spray the roads, the only other control that could be used would be a sweeper. Hrg. Tr. at 216:10-14 (Bernal).

104. On cross-examination, Ms. Bernal acknowledged that she has not conducted any modeling and only completed emission calculations for the applications she prepared. Hrg. Tr. at 267:13-15 (Bernal).

105. Sonterra called David Edler who has twenty years of hands-on experience in the concrete industry. Mr. Edler's address is 160 Pronghorn Lane, Alto, NM, 88312. For a majority of his twenty years working in the concrete industry, Mr. Edler drove concrete mixer trucks for the ready-mix concrete operation of the Kienstra Concrete Inc. plant in Illinois. Kienstra is a company that owns and operates six concrete plants in Missouri and Illinois. Mr. Edler also has experience as a front-end loader operator at the Kienstra facilities as well as trucking materials for the Kienstra facilities. Sonterra SOI at 15.

106. Mr. Edler submitted prefiled direct and rebuttal technical testimony and adopted both under oath at the public hearing. His direct testimony offered the following opinions: (1) the control efficiency of the baghouse is unrealistic; (2) the windspeed used in the Application does not match the "on the ground conditions"; (3) Roper will fail to implement controls and significant fugitive dust will occur as a result; (4) the central dust control system control efficiency is unrealistic; (5) the operational plan identified asphalt production instead of concrete; and (6) the Application does not include emissions from cleaning operations. Sonterra SOI at 15-18; Sonterra Reb. SOI at 7-8, Hrg. Tr. at 227:22-24.

107. Mr. Edler testified that in his hands-on experience, concrete plants typically have long gray streaks running down the silos, a telltale sign the baghouses are leaking. Hrg. Tr. at 229:12-21 (Edler).

108. Mr. Edler also testified that meteorology is a hobby of his and he has measured sustained winds of over 25 miles per hour at his home weather station near the proposed construction site. Hrg. Tr. at 230:19-231:7 (Edler).
109. Mr. Edler testified that the aggregate piles will also be a source of emissions because the additional moisture added to the piles are only “like a sprinkler system” and will not permeate the pile. Hrg. Tr. at 232:4-233:1 (Edler).
110. Finally, Mr. Edler testified that concrete truck cleaning operations will also be a source of dust emissions and that such emissions will not be contained to the Alto CBP because of the wind. Hrg. Tr. at 234:24-235:7 (Edler).
111. On cross-examination, Mr. Edler testified that the last time he worked at a concrete batch plant was in 2006. Hrg. Tr. at 268:1-7 (Edler). Mr. Edler explained that he was not aware of any advances in technology in this industry since 2006, specifically, he was not familiar with the baghouse or the central dust collection system that was proposed for use at the Alto CBP. Hrg. Tr. at 268:8-269:18 (Edler).
112. Sonterra called Mr. Eluid Martinez to testify about the applicant’s failure to demonstrate a sufficient source of water for the proposed manufacturing process and emission controls. Mr. Martinez has a degree in civil engineering from New Mexico State University. He served as the New Mexico State Engineer from 1990 through 1994, a position appointed by the Governor and confirmed by the New Mexico Senate. In 1995, President Bill Clinton appointed Mr. Martinez as the Commissioner of the United States Bureau of Reclamation.

The United States Senate confirmed Mr. Martinez's appointment, and he served in that role for five years. Mr. Martinez has since operated a water rights consulting business dealing with water rights and water resources management in New Mexico. Tr. 242: 21-25; Tr. 243: 1-6.

113. Mr. Martinez testified to several opinions: (1) the Application was incomplete because it did not identify a water source to be used for control equipment; (2) trucking water from off-site would be the only viable option for water; (3) increased water truck trips will increase truck traffic and emissions; (4) water trucks were not requested in the permitted capacity; (5) haul-road fugitive particulate emissions relating to water trucks were not provided in the Application; and (6) the amount of water to be added as additional moisture content was not specifically quantified. Sonterra SOI at 12-14.

114. Mr. Martinez adopted his summary of his pre-filed opinions. Hrg. Tr. at 246:4-6 (Martinez). He made one correction to the pre-filed opinion that the State Engineer's Office is accepting applications for new appropriation in the Hondo Underground Water Basin. Hrg. Tr. at 246:22-247:7 (Martinez). The sentence was corrected to: "The Roper can seek a new appropriation of groundwater for industrial uses at the facility because the State Engineer's Office is accepting applications for new appropriation." Hrg. Tr. at 247:3-7 (Martinez)

115. Mr. Martinez testified that the Application was incomplete because it did not identify a source of water, and that it would only be possible for Roper to bring in water to the site via truck. Hrg. Tr. at 247:18-248:21 (Martinez).

116. Mr. Martinez testified that Roper had obtained a permit from the Office of the New Mexico State Engineer (“OSE”) for a livestock well, which would allow diversion of up to three acre-feet per year for livestock purposes only. This permit would not allow the use of water for the operation of a concrete batch plant. Hrg. Tr. 249: 1-16. Moreover, the current filings at the OSE demonstrated that Roper requested to withdraw the permit and cancelled, a request that was granted on January 24, 2022, only two weeks before the hearing in this matter. Hrg. Tr. 249: 21-25; 250: 1-3. Accordingly, trucking water to the site is the only available option to deliver the water necessary for production and to effectuate the emission controls. Hrg. Tr. 248: 19-21.
117. Mr. Martinez testified that 48-acre feet or 15,600,000 gallons of water would be needed for production of 500,000 cubic yards of concrete at the Alto CBP each year. Hrg. Tr. at 250:4-20 (Martinez). In fact, it would take approximately 22 truck roundtrips per day, each carrying 2,000 gallons to satisfy the 42,000 gallons of water required for just the production of concrete. Hrg. Tr. at 250:21-251:15 (Martinez).
118. Mr. Martinez estimated the amount of water necessary to achieve the required 2.65% of moisture volume within the aggregate and sand piles under A502A was 14 acre-feet per year above and beyond the water for production of concrete. Hrg. Tr. 252: 18-25; 253: 1-4.
119. In Mr. Martinez’s expert opinion, Roper must truck in 62 acre-feet of water each year to the industrial site. Hrg. Tr. 253: 5-8; 15-18.
120. Mr. Martinez was not able to estimate the amount of water necessary to implement the emission control technology required for Units 3, 4, 5 and 6

because the Application has not provided any information about the amount of water necessary to effectuate the wet spray emission controls. Hrg. Tr. 253:19-23.

121. On cross-examination, Mr. Martinez testified that his calculations of how much water would be needed are all based on his experience as a registered professional engineer, rather than experience with operations of a concrete batch plant. Hrg. Tr. at 256:3-257:9 (Martinez).

h. Applicable Regulations

122. The following air quality regulations apply to the Alto CBP:

- a. 20.2.61 NMAC Smoke and Visible Emissions. The regulation requires an owner or operator of a stationary combustion source to limit opacity to no more than 20% as determined by EPA Method 9. Compliance with the regulation assures proper combustion is taking place. Permit Condition A111 regulates smoke and visible emissions. AR 9, 0365-0366. Condition A111 applies to Units 12, 13, and 14, the Concrete Batch Plant Heaters. AR 1, 0019.
- b. Roper was required to include a regulatory compliance discussion demonstrating compliance with applicable standards under 20.2.72.203.A(4) Dispersion Modeling. The analysis "may require use of US EPA-approved air dispersion models." Roper submitted a dispersion modeling protocol with its Application. AR 1, 0168.
- c. National and New Mexico Ambient Air Quality Standards
 - i. 40 CFR Part 50 specifies NAAQS for NO², CO, PM₁₀, PM_{2.5}, SO², and ozone.

- ii. 20.2.3 NMAC specifies ambient air quality standards for NO², CO, and SO².
- d. The ambient air quality standards for NO² are:
 - i. Federal (40 C.F.R. § 50.11)
 - 1. NO² Annual: 53 ppb (99.66 µg/m³)⁵
 - 2. NO² 1-Hour: 100 ppb (188.03 µg/m³)
 - ii. New Mexico (20.2.3.111(B) NMAC)
 - 1. NO² Annual: 50 ppb (94.02 µg/m³)
 - 2. NO² 24-Hour: 100 ppb (188.03 µg/m³)
- e. The PSD increments for NO² are (20.2.74.504 NMAC):
 - i. Class I Increment (annual): 2.5 µg/m³
 - ii. Class II Increment (annual): 24 µg/m³
 - iii. The SILs for NO² are:
 - 1. NO² Annual: 1.0 µg/m³
 - 2. NO² 24-Hour: 5.0 NO₂ µg/m³
 - 3. NO² 1-Hour: 7.52 µg/m³
- f. The ambient air quality standards for CO are:
 - i. Federal (40 C.F.R. § 50.8)
 - 1. CO 8-Hour: 9,000 ppb (10,303.6 µg/m³)
 - 2. CO 1-Hour: 35,000 ppb (40,069.6 µg/m³)
- g. New Mexico (20.2.3.111(A) NMAC)
 - 1. CO 8-Hour: 8,700 ppb (9,960.1 µg/m³)

⁵ See NMED's Air Dispersion Modeling Guidelines at 30. AR 7, 0279. The methodology for converting ppb to µg/m³ is contained in the Air Dispersion Modeling Guidelines at 18 & 19. AR 7, 0267-0268.

2. CO 1-Hour: 13,100 ppb (14,997.5 $\mu\text{g}/\text{m}^3$)

h. The SILs for CO are:

i. CO 8-Hour: 500 $\mu\text{g}/\text{m}^3$

ii. CO 1-Hour: 2,000 $\mu\text{g}/\text{m}^3$

i. The ambient air quality standards for SO^2 are:

i. Federal (40 C.F.R. § 50.17)

1. SO^2 3-Hour: 500 ppb (1309.3 $\mu\text{g}/\text{m}^3$)

2. SO^2 1-Hour: 75 ppb (196.4 $\mu\text{g}/\text{m}^3$)

ii. New Mexico (20.2.3.110(A) NMAC)

1. SO^2 annual: 20 ppb (52.4 $\mu\text{g}/\text{m}^3$)

2. SO^2 24-Hour: 100 ppb (261.9 $\mu\text{g}/\text{m}^3$)

j. The PSD increments for SO^2 are:

i. Class I increment (20.2.74.504 NMAC):

1. SO^2 Annual: 2 $\mu\text{g}/\text{m}^3$

2. SO^2 24-Hour: 5 $\mu\text{g}/\text{m}^3$

3. SO^2 3-Hour: 25 $\mu\text{g}/\text{m}^3$

ii. Class II increments (20.2.74.504 NMAC):

1. SO^2 Annual: 20 $\mu\text{g}/\text{m}^3$

2. SO^2 24-Hour: 91 $\mu\text{g}/\text{m}^3$

3. SO^2 3-Hour: 512 $\mu\text{g}/\text{m}^3$

k. The SILs for SO^2 are:

i. SO^2 Annual: 1 $\mu\text{g}/\text{m}^3$

ii. SO^2 24-Hour: 5 $\mu\text{g}/\text{m}^3$

iii. SO^2 3-Hour: 25 $\mu\text{g}/\text{m}^3$

- iv. SO² 1-Hour: 7.8 µg/m³
- I. The ambient air quality standards for PM_{2.5} are:
 - i. Federal (40 C.F.R. § 50.18)
 - 1. PM_{2.5} Annual: 12 µg/m³
 - 2. PM_{2.5} 24-Hour: 35 µg/m³
 - m. The PSD increments for PM_{2.5} are:
 - i. Class I increment (20.2.74.504 NMAC):
 - 1. PM_{2.5} Annual: 1 µg/m³
 - 2. PM_{2.5} 24-Hour: 2 µg/m³
 - n. Class II increments (20.2.74.504 NMAC):
 - i. PM_{2.5} Annual: 4 µg/m³
 - ii. PM_{2.5} 24-Hour: 9 µg/m³
 - o. The SILs for PM_{2.5} are:
 - i. PM_{2.5} Annual: 0.2 µg/m³
 - ii. PM_{2.5} 24-Hour: 1.2 µg/m³
 - p. The ambient air quality standards for PM₁₀ are:
 - i. Federal (40 C.F.R. § 50.10)
 - 1. PM₁₀ 24-Hour: 150 µg/m³
 - ii. The PSD increments for PM₁₀ are:
 - 1. Class I increment (20.2.74.504 NMAC):
 - a. PM₁₀ Annual: 4 µg/m³
 - b. PM₁₀ 24-Hour: 8 µg/m³
 - 2. Class II increments (20.2.74.504 NMAC):
 - a. PM₁₀ Annual: 17 µg/m³

b. PM₁₀ 24-Hour: 30 µg/m³

iii. The SILs for PM₁₀ are:

1. PM₁₀ Annual: 1.0 µg/m³

2. PM₁₀ 24-Hour: 5.0 µg/m³

q. Roper did not submit modeling for Ozone. NMED guidelines do not require modeling for Ozone because the Application is not for a PSD permit. AR 1, 0152]

VII. CONCLUSIONS OF LAW

1. The Cabinet Secretary of Environment or his designee has jurisdiction over the subject matter of the Application and the parties to this proceeding and is authorized by the Air Quality Act to issue or deny permits for new and existing facilities based upon information submitted in a permit application and relevant information in the Hearing Record as defined in 20.1.4.7 NMAC. NMSA 1978, § 74-2-7 (1972 as amended through 2003); 20.2.72.206-207 NMAC.
2. The Cabinet Secretary has the power to delegate his decision-making authority and has done so in this matter to Deputy Secretary of Environment Stephanie Stringer. See 20.1.4.100.E(1).
3. Review and approval of the Application is subject to the Air Quality Control Act, NMSA 1978, § 74-2-5, and 20.2.72 NMAC.
4. Roper's Application complied with the application requirements of 20.2.72.203 NMAC.

5. Roper substantially complied⁶ with public notice requirements of 20.2.72.203 NMAC.
6. AQB met all public notice requirements of 20.2.72 NMAC and 20.1.4 NMAC for the public hearing.
7. AQB determined the Application to be administratively and technically complete.
8. The hearing was conducted in accordance with AQB's permit public hearing procedures in 20.1.4 NMAC.
9. Air quality construction permits must be obtained from AQB pursuant to 20.2.72.200 NMAC.
10. Roper has the affirmative burden of establishing its entitlement for a permit by a preponderance of the evidence, and that burden does not shift to any other party. 20.1.4.100.A(1) NMAC.
11. Roper did not meet its burden of proof to demonstrate that the Alto CBP will meet the applicable requirements of the Air Quality Control Act and Air Quality Control Regulations and that the Alto CBP will not cause or contribute to air contaminant concentrations more than applicable state and federal ambient air quality standards, or applicable PSD increments based on the following conclusions of law:
 - a. Roper did not establish that the Wet-Dust Suppression System mandated by the Draft permit can control particulate emissions in light of the unrefuted evidence of frequent sustained winds in excess of 25

⁶ Roper's compliance with the public notice requirements of this rule was the subject of Sonterra's first and second motion to dismiss the application. Both motions were denied by the undersigned Hearing Officer.

mph blowing from the southwest during the springtime and from the northeast in the wintertime, and the frequent wintertime temperature inversions trapping air pollution in the valley:

- i. Moreover, the Draft Permit does not specify a sufficient (minimum) quantity of water to be effective at suppressing particulate matter. The only testimony to a quantity of water is that it is a “flexible number,” and varies with conditions. A502A is dependent on Roper’s self-monitoring and adding moisture content when “visible emissions are noticed.” The evidentiary record is nonexistent to support the phrase “when visible emissions are noticed,” which raises the unanswered question of the ultimate effectiveness of the Wet-Dust suppression system.
- b. Roper’s emissions modeling arbitrarily and unjustifiably used the haul-road value for “paved public roads” instead of the EPA’s AP-42 value for industrial haul-roads within a concrete batching facility.
- c. Roper’s evidence did not rebut the credible evidence entered by Sonterra’s witnesses that it can comply with Draft Permit Condition A502B, which requires sufficient water as part of a fugitive dust control plan, where there was no technical or factual evidence as to the quantity of water necessary to provide the additional moisture required to achieve compliance with the fugitive dust control plan, or that the necessary water was available for Roper’s use.
- d. The meteorological data utilized for modeling is not representative of conditions at the proposed Alto CBP. Roper’s own witness testified that

the Holloman data is low wind speed meteorologic data, based on the Alto residents' credible and unrefuted testimony, and Dr. Ituarte's expert opinion, the terrain and wind rose data at Holloman Air Force Base are markedly different than that of the proposed facility. In short, while the low wind speed Holloman data increases the concentrations of pollutants, it does not speak to the high wind speeds and their effects on the sand and aggregate piles. These high winds routinely occur in the springtime blowing from the southwest, and blowing from the northeast in the wintertime, toward the nursery and the Class 1 Wilderness. Moreover, the emissions modeling does not take into consideration the evidence of temperature inversions that routinely occur in the wintertime in this valley, and trap air pollution at the ground level.

- e. Roper assumed without explanation, that water would be held in storage tanks at the site, but no such tanks exist, and the AQB has not authorized storage tanks at the site.

12.AQB had the burden to establish that any challenged condition is necessary and appropriate to assure that the Alto CBP meets the requirements of the Air Quality Control Act and Air Quality Control Regulations.

13.Roper did not challenge any permit conditions.

I. RECOMMENDED FINAL ORDER

A draft Final Order consistent with the recommendations above is attached and incorporated by reference.

Respectfully submitted,

**Gregory
Chakalian** Digitally signed by
Gregory Chakalian
Date: 2022.05.06
12:21:23 -06'00'

GREGORY ARA CHAKALIAN
Administrative Law Judge,
Office of Public Facilitation

Certificate of Service

I hereby certify that on May 6, 2022, A copy of the attached Hearing Officer's Report was sent via electronic mail to the persons listed below. A hard copy will be mailed upon request.

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