

**STATE OF NEW MEXICO
ENVIRONMENTAL IMPROVEMENT BOARD**

**IN THE MATTER OF THE PETITION FOR
HEARING ON AIR QUALITY PERMIT NO.
9295, ROPER CONSTRUCTION, INC.'S
ALTO CONCRETE BATCH PLANT,**

No. EIB 22-34

**Roper Construction Inc.,
Petitioner.**

**DIRECT TESTIMONY OF RYAN ROPER,
ON BEHALF OF ROPER CONSTRUCTION, INC.**

September 21, 2022

**Direct Testimony of Ryan Roper
Docket No. EIB 22-34**

I. INTRODUCTION

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Ryan Roper. My business address is PO Box 969; Alto, NM 88312.

Q. ON WHOSE BEHALF ARE YOU SUBMITTING DIRECT TESTIMONY?

A. I am submitting this direct testimony on behalf of Roper Construction Incorporated.
(“Roper Construction”)

Q. BY WHOM ARE YOU EMPLOYED AND WHAT IS YOUR POSITION?

A. I am the President of Roper Construction.

Q. WHAT ARE YOUR RESPONSIBILITIES AS THE OWNER AND PRESIDENT?

A. My responsibilities include overseeing daily operations and all aspects of the business.

II. PURPOSE OF TESTIMONY

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to address the questions on the Carrizozo facility, the change in the Alto project layout, and water availability for dust suppression and concrete production raised in the hearing before the New Mexico Environment Department.

III. WATER AND WATER-RELATED FACILITIES

Q. DURING THE NMED HEARING, SONTERRA AND SOME PUBLIC COMMENTERS RAISED QUESTIONS ABOUT WATER AVAILABILITY FOR THE DUST SUPPRESSION SYSTEMS PROPOSED FOR THE FACILITY. ARE YOU FAMILIAR WITH THOSE QUESTIONS?

A. Yes.

Q. PLEASE EXPLAIN HOW WATER WILL BE USED AT THE PROPOSED FACILITY?

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A. The bulk of the water used at the facility will be used in the production of concrete. Approximately 30 gallons of water is required to make a cubic yard of concrete. A much smaller amount of water will be required for dust suppression, including water sprays, the addition of water to the aggregate stockpiles, and water required for haul road maintenance. Concrete aggregates will be delivered to the facility already containing adequate moisture to prevent dust; thereafter, water will be added to the aggregate as required to maintain aggregate moisture levels that prevent dust.

Q. HOW MUCH WATER DO YOU EXPECT TO USE?

A. Given expected market demand, I anticipate that the facility will need on average 3,000 gallons of water for the production of concrete and 500 gallons of water for dust control per day of operation. On an annual basis, that's 750,000 gallons or 2.3 acre ft of water per year in the production of concrete and 125,000 gallons or 0.38 acre ft of water per year for dust control.

Q. PLEASE EXPLAIN HOW YOU DETERMINED THE EXPECTED WATER USE.

A. There is about 18 cubic ft of aggregate in a cubic yard of concrete. So, if you need to increase the moisture percentage by:

1% you would need to add 1.3 gal of water per cy of concrete aggregate

2% you would need to add 2.7 gal of water per cy of concrete aggregate

3% you would need to add 4.0 gal of water per cy of concrete aggregate

My experience is that concrete aggregates will average at least 2% moisture. So, at most, we might have to add 2%. Aggregates are never at 0% moisture unless you put them in the oven.

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Theoretical Permitted Yearly Maximums: 50,000 cubic yards = 1,500,000 gallons or 4.6 acre ft for production and 135,000 gallons or 0.4 acre ft for dust control (this is adding 2% to the aggregate).

Q. DOES ROPER CONSTRUCTION INTEND TO HAVE WATER STORAGE TANKS AT THE PROPOSED FACILITY?

A. Yes. We intend to have two 11,000-gallon water tanks that will be used to store water for the wet dust suppression system and also to supply the concrete production. Those tanks will store water that is trucked to the facility. At present, Roper Construction does not have authorization for groundwater extraction at the site.

Q. HOW WILL YOU OBTAIN WATER TO USE AT THE PROPOSED FACILITY?

A. We intend to purchase water from a number of possible sources, including nearby municipalities (Town of Carrizozo, Village of Capitan, Village of Ruidoso), and multiple private water sources, and have it delivered by truck to the water storage tank approximately 4-5 times per week. Each water delivery truck holds about 4,000 gallons.

**IV. CHANGES TO PROPOSED SITE PLAN, PLANT THROUGHPUT,
AND TRUCK TRAFFIC**

Q. IN MR. WADE'S DIRECT TESTIMONY, HE DISCUSSED ROPER CONSTRUCTION'S PROPOSED SITE PLAN CHANGES AND REDUCTION IN PLANT THROUGHPUT AND TRUCK TRAFFIC. PLEASE EXPLAIN THE CHANGES.

A. The proposed changes to the site plan were based on my intent to lower other impacts, in addition to air quality impacts, on the surrounding neighbors. The proposed production equipment did not change. The changes are to the location of the equipment, haul roads, and storage facilities. Also, during the hearing process, it became apparent to me that there

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was confusion between the theoretical maximum operations proposed for air permitting and the actual expected operations. Expected operations are based on actual market conditions; that is to say, what amount of concrete can actually be sold in the area. As a result, I advised Mr. Wade to lower the requested plant throughput and resulting truck traffic to more closely reflect expected **maximum** operations.

Q. WILL THE CHANGES IDENTIFIED BY MR. WADE CHANGE YOUR ESTIMATE OF WATER NEEDS FOR THE PLANT?

A. The changes identified by Mr. Wade will not change the actual amount of water used to produce a cubic yard of concrete, but they will significantly reduce the theoretical amount of water required to produce the permitted volume. On an annual basis, they will reduce the theoretical permitted yearly maximum amount of water required to produce the permitted volume of concrete by 90%.

V. CARRIZOZO FACILITY

Q. DURING THE HEARING BEFORE NMED, PUBLIC COMMENTERS QUESTIONED ROPER CONSTRUCTION'S COMPLIANCE WITH AIR QUALITY REGULATIONS AT ITS CARRIZOZO FACILITY. COULD YOU DISCUSS THE CARRIZOZO FACILITY'S COMPLIANCE STATUS?

A. The Carrizozo facility is in compliance with the applicable air quality permit. NMED has not issued notices of violation or compliance orders for that facility.

Q. CAN YOU EXPLAIN THE DIFFERENCES BETWEEN YOUR EXISTING CARRIZOZO FACILITY AND THE PROPOSED FACILITY?

A. Roper Construction purchased the Carrizozo plant from another concrete batch plant owner/operator in central Ruidoso and relocated it to the Carrizozo location in 2015. The

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Carrizozo plant was manufactured and has been in production since 1985. The Carrizozo facility consists of a concrete batch plant and a construction yard. The construction yard houses several different types of construction materials. The Carrizozo plant is permitted under GCP-5, the general construction permit for concrete batch plants. GCP-5 does not require haul roads to be paved and authorizes particulate emissions that are much less stringent than the proposed Alto operation. The proposed Alto facility is a new batch plant, which consists of newly manufactured equipment, modern dust suppression systems, and paved haul roads. Further, there will not be a construction yard at the proposed Alto facility.

VI. CONCLUSION

- Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**
- A. Yes.**