

## FAQs

### Air Quality Application 9295, Roper Construction Inc's Alto Concrete Batch Plant

#### **1) What is an NSR permit?**

NSR stands for New Source Review, a Clean Air Act program that requires that a construction permit be issued prior to construction to limit air emissions from industrial facilities. The NSR permit specifies all state and federal regulations as well as the emission limits that apply to the facility. Monitoring, recordkeeping, reporting, and testing requirements are incorporated into the permit to make it enforceable.

#### **2) What is the function of an Air Quality permit?**

An Air Quality permit places restrictions on what construction is allowed, what air emission limits must be met, and how a facility can be operated. A permit is an enforceable legal document that an industrial facility must comply with. To assure that a facility complies with a permit's emission limits, a permit contains monitoring, recordkeeping, and reporting requirements.

If Air Quality Bureau (AQB) staff determines, upon reviewing a permit application and air quality analysis, that a facility will not meet air quality regulations and standards, a permit will not be issued.

#### **3) How does the Air Quality Bureau ensure the health of citizens is protected from the proposed impacts on the ambient air from a facility?**

The Environmental Protection Agency (EPA) and the New Mexico Environment Department (NMED) have established health-based ambient air quality standards for pollutants. These health-based standards consider our most sensitive populations, such as children and the elderly. Emissions calculations and computer-based ambient air modeling analyses are used to determine if a facility will meet or exceed these standards. A facility is required to demonstrate through modeling that it will meet all state and federal ambient standards before the NMED will issue an air quality permit. If the permit is issued, it will contain conditions to ensure that the facility will operate as represented by the company in the application and in compliance with all applicable state and federal regulations and ambient air quality standards.

#### **4) What is the process to get an air quality permit to construct a concrete batch plant?**

In New Mexico, Construction Permits are required for facilities that exceed a certain threshold for regulated pollutants (10 pounds per hour (lb/hr) or 25 tons per year). The NMED reviews applications to ensure that the facility, as represented in the application, demonstrates compliance with all federal and state regulations. Construction of a facility is not authorized until a permit is issued.

The NMED's review includes multiple steps, including ensuring that all parts of the application are provided in accordance with state regulations, public notice was completed, reviewing emissions calculations, and air dispersion modeling.

Please note the proposed Alto Concrete Batch Plant is a concrete batch plant, not a cement manufacturing facility. Cement is an ingredient in concrete, and manufacturing cement is a different industrial process than concrete batch plants.

**5) What is the timeline for the review of an NSR Construction Permit application?**

The company requested a NSR Construction Permit for this facility. Normally, the NMED has 30 days to rule an application administratively complete, then 90 days to complete the review of the application and issue or deny a permit. Because this permit is going to a public hearing, permit issuance or denial is delayed until after the hearing.

**6) What environmental considerations are there for each application?**

The NMED evaluates each application to determine compliance with primary and secondary national ambient air quality standards ("NAAQS") as established by the Environmental Protection Agency. Primary standards provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. Both primary and secondary NAAQS specify the maximum concentrations of these pollutants that can be present in the ambient air.

**7) What is the difference between the two notices dated May 26,2021 and July 28, 2021?**

The May 26, 2021 notice was the applicant's (Roper) pre-application notice. The content requirements of the applicant's notice are in 20.2.72.203.C New Mexico Administrative Code (NMAC). The July 28, 2021, notice was the NMED's notice. The content requirements of this notice are in 20.2.72.206.A NMAC.

**8) How does the NMED review and verify calculations?**

The application must explain the basis for all emissions calculations, which are generally based on manufacturer's data and EPA-approved emission factors. The application must contain the information relied on in making those calculations. The NMED reviews that data and other applicable information, including monitoring data, and information from EPA.

**9) This facility is going to produce particulate matter and other pollutants. Has this been reviewed and assessed by the NMED?**

The NMED has completed a technical review of this application. The facility, as represented in the application, demonstrates compliance with all federal and state regulations. The facility's operations, as represented in this application, would not cause nor significantly contribute to any exceedances of applicable air quality standards. These results are based on the modeling analysis and emissions calculations for Carbon Monoxide (CO), Nitrogen Dioxide (NO<sub>2</sub>), Particulate Matter 10 micrometers or less in aerodynamic diameter (PM<sub>10</sub>), Particulate Matter (2.5 microns or less) (PM<sub>2.5</sub>), and Sulfur Dioxide (SO<sub>2</sub>).

## FAQs

### Air Quality Application 9295, Roper Construction Inc's Alto Concrete Batch Plant

#### **10) Please explain the basis for the windspeeds used in this application. Is the data from 1996-2006 still valid?**

The windspeed for the dispersion modeling emission rate calculation was based on the Ruidoso airport wind speeds from 1996 to 2006. The maximum permitted emission calculation was based on the NMED default of 11 MPH. The highest modeled concentrations occur at low wind speeds, when the pollution travels slowly and steadily. The higher the wind speed, the more mixing and dispersion occurs, reducing concentrations. The model looks at each hour of meteorological data, including windspeed, when determining the modeled pollutant concentration. Climate change is gradual, and an updated ten year-average wind speed is not expected to produce significant changes to the emission rates.

#### **11) Can the public obtain information regarding emissions from the applicant's other permitted facilities?**

Yes, the public may request information regarding any air quality permit or application via the Inspection of Public Records Act: [www.web-q.env.nm.gov/public-record-request/](http://www.web-q.env.nm.gov/public-record-request/). The Air Permit Map (APMAP) also has information about permitted facilities in New Mexico <https://air.net.env.nm.gov/rsmt/>.

#### **12) What impact will there be to the White Mountain Wilderness which is a Class 1 area?**

Sources that are close to Class I areas must determine what impact they will have upon that area. If the predicted concentrations are shown to be below the Prevention of Significant Deterioration (PSD) Class I area PSD increment thresholds, then there is no basis for denial of the permit for this cause. The Class I areas have a much, much lower threshold for pollution increases than other areas, but the PSD increment thresholds are the thresholds that are used to decide if a facility has unallowable impact on that area.

The modeling report provided by the applicant was reviewed by the NMED Air Dispersion Modeler and it was determined that the plant demonstrated compliance with applicable air quality regulatory requirements. The Class I area analysis is based on concentration of pollutants at the Class I area, White Mountain Wilderness Area. Concentrations at the property fence line are the maximum concentrations and beyond the fence line the pollutant concentration of the pollutants decrease much further. The PM<sub>10</sub> PSD Class I increment was predicted to be 8.4 percent of the allowed increase. There is extra confidence from the distance from standards. This facility is a small facility (minor source) and the emissions represented in the application meet the air quality standards required for a new source review permit.

General Construction Permits (GCP) have different standardized requirements from new source review permits such as requirement to locate at a specific distance away from Class I area. This application is not for a general construction permit.

**13) What is modeling? What makes modeling reliable and does the modeling consider prevailing winds?**

Air dispersion modeling is a computerized model predicting the pollutant concentrations at various points around the facility resulting from emissions from the facility. Thus, it predicts the transport of air pollutants around the facility. The EPA developed models to conservatively predict concentrations of pollutants such that the predicted concentrations are greater than actual concentrations of pollutants. The model ensures the most sensitive individuals (elderly, infirmed, and children) that live near the facility will be protected. Modeling is performed mathematically using a computer program that accounts for meteorology, calculated emissions, and equipment specifications. It models calculated pollutant concentrations in the air at specific intervals all around the facility. Meteorological information considered in modeling is based on meteorological data from the area and includes wind speed and direction, temperature, mixing height, and atmospheric stability.

**14) What is the significance of the question in the modeling report about sensitive populations and public opposition?**

The AQB asks if the applicant expects permit opposition or has hospitals or schools nearby to enable the AQB to plan its review with time to meet its deadline of taking final action on the permit within its ninety-day deadline from when the permit is determined to be complete. If there is significant opposition to a permit then a public hearing is likely, so the modeling will need to be reviewed right away to have time for the hearing before the regulatory deadline. Such a permit may get reviewed before an application that arrived earlier, but each application is still expected to be reviewed carefully. Each modeling analysis treats all places where the public could be standing as if a sensitive population were located there, so there is no obvious difference in the modeling based on the answers to these questions.

**15) How is Meteorological data selection done?**

It is not feasible or necessary to collect meteorological data at every location that a small industrial source proposes to locate. Instead, the best available data in an area is used. The reasons that it is not necessary are that the model was designed to analyze the potential outcome for each hour of a year (or more) of data and that the maximum concentrations are produced for most sources when wind is slow and steady. Over an entire year, every collection of meteorological is likely to have winds pointed in every direction and a substantial fraction of steady, slow winds (with low turbulence during those hours). The model identifies the maximum concentrations from all the combinations of wind conditions and directions. Because so many hours are analyzed and wind is so variable, the conditions that create the greatest concentrations are expected to be encountered even if the data is not a perfect match.

**16) Why was the terrain modeled as flat instead of complex terrain?**

Emissions from fugitive sources such as haul roads and concrete truck loading are not buoyant like the emissions from combustion sources. This means that the emissions tend to follow the terrain instead of being lifted into the air before dispersing. The maximum concentrations from such sources will occur right at the fence of that facility, but tall, buoyant sources may take a while to reach the ground. The NM Air Quality Bureau recommends modeling fugitive sources as flat terrain because it better represents

## FAQs

### Air Quality Application 9295, Roper Construction Inc's Alto Concrete Batch Plant

the terrain following nature of the sources and recommends modeling buoyant sources with terrain because that better represents the buoyant nature of those sources.

#### **17) Does the background concentration from Del Norte High School in Albuquerque equate to “the rest of New Mexico”?**

The background location was selected from the New Mexico Modeling Guidelines. The Guidelines provide the highest concentration that would be expected to be found in an area. For an area such as Alto, the actual concentrations in the area would be expected to be significantly lower than the concentrations detected by the Del Norte High School monitor, which adds extra confidence that the concentrations produced after construction of a modeled facility would not exceed the predicted concentrations.

#### **18) How does the NMED's Air Quality Bureau regulate issues such as noise, vehicle traffic on public roads, degradation of natural beauty, quality of life for residents, threats to wildlife, threats to historic structures and tourism, water quality, water conservation, and property values?**

The Clean Air Act and state regulations are health-based regulations and do not provide the AQB legal authority to regulate impacts that are not specifically related to air quality. Thus, the AQB cannot deny any applicant an air quality permit based on these other issues. Many of these issues, such as noise, odor, nuisance issues, truck traffic, quality of life issues, and property values, fall under the jurisdiction of local ordinances. The AQB does not have the authority to regulate mobile sources (autos, trucks, etc.).

#### **19) Is additional information available regarding this air permit application?**

Any person may review the permit application, associated documents, and the draft permit on the NMED's public notice website under the Lincoln County dropdown, in the section for Roper Construction Inc. The NMED's public notice website is at [www.env.nm.gov/public-notices/](http://www.env.nm.gov/public-notices/).