High Wind Event of February 12, 2018 Data Flagging and EPA Concurrence Documentation



City of Albuquerque

Environmental Health Department

Air Quality Program



High Wind Event of February 12, 2018

As required by the 40 CFR § 50.14 - Treatment of air quality monitoring data influenced by exceptional events:

- (3) Submission of demonstrations.
- i. Except as provided under paragraph (c)(2)(vi) of this section, a State that has flagged data as being due to an exceptional event and is requesting exclusion of the affected measurement data shall, after notice and opportunity for public comment, submit a demonstration to justify data exclusion to the Administrator according to the schedule established under paragraph (c)(2)(i)(B).
- ii. [Reserved]
- iii. [Reserved]
- iv. The demonstration to justify data exclusion must include:
 - A. A narrative conceptual model that describes the event(s) causing the exceedance or violation and a discussion of how emissions from the event(s) led to the exceedance or violation at the affected monitor(s);
 - B. A demonstration that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation;
 - C. Analyses comparing the claimed event-influenced concentration(s) to concentrations at the same monitoring site at other times to support the requirement at paragraph (c)(3)(iv)(B) of this section. The Administrator shall not require a State to prove a specific percentile point in the distribution of data;
 - D. A demonstration that the event was both not reasonably controllable and not reasonably preventable; and
 - E. A demonstration that the event was a human activity that is unlikely to recur at a particular location or was a natural event.
 - v. With the submission of the demonstration containing the elements in paragraph (c)(3)(iv) of this section, the State must:
 - A. Document that the State followed the public comment process and that the comment period was open for a minimum of 30 days, which could be concurrent with the beginning of the Administrator's initial review period of the associated demonstration provided the State can meet all requirements in this paragraph;
 - B. Submit the public comments it received along with its demonstration to the Administrator; and
 - C. Address in the submission to the Administrator those comments disputing or contradicting factual evidence provided in the demonstration.
- vi. Where the State has submitted a demonstration according to the requirements of this section after September 30, 2016 and the Administrator has reviewed such demonstration and requested additional evidence to support one of the elements in paragraph (c)(3)(iv) of this section, the State shall have 12 months from the date of the Administrator's request to submit such evidence. At the conclusion of this time, if the State has not submitted the requested additional evidence, the Administrator will notify the State in writing that it considers the demonstration to be inactive and will not pursue additional review of the demonstration. After a 12-month period of inactivity by the State, if a State desires to pursue the inactive demonstration, it must reinitiate its request to exclude associated data by following the process beginning with paragraph (c)(2)(i) of this section.

Initial Notification the February 12, 2018 exceptional event

In AQS the data were flagged with the appropriate "R" flag necessary to show that the data were impacted by an event. The data were appropriately flagged by the 2018 data certification deadline of 5/1/2019.

The City of Albuquerque-EHD (Agency) submitted an initial notification to EPA Region 6 on 5/23/2019 and engaged in discussions with the EPA Regional office regarding the demonstration prior to formal submittal. A summary of those discussions and their impact on the final demonstration submittal follows:





City of Albuquerque Environmental Health Department



Timothy M. Keller, Mayor

May 23, 2019

Jeffery J. Robinson, Branch Chief Air Monitoring & Grants Section (6ARPM) U.S. EPA, Region 6 1445 Ross Avenue, Suite 1200 Dallas, TX 75202-2733

Dear Mr. Robinson,

Please consider this letter the City of Albuquerque's initial notification of intent to prepare demonstrations as a preliminary step before submitting a demonstration per the 2016 Exceptional Events Rule (EER) effective September 30, 2016. These demonstrations will address high wind events which occurred at site 35-001-0029 (South Valley) for parameter 81102 (PM10) on:

| Date | PM10 Concentration |
|------------|--------------------|
| 2018/01/15 | 157 |
| 2018/02/12 | 229 |
| 2018/04/19 | 283 |
| 2018/07/11 | 200 |

These events can be considered as having regulatory significance. The associated data has been appropriately flagged in the AQS system. Attached are the AQS AMP300 and AMP350 reports. Our agency looks forward to working with EPA Region 6 to establish a timeframe for the demonstrations.

Sincer dy,

Jolene Slowen, Deputy Director

City of Albuquerque, Environmental Health Department, Air Quality Programs

1 Civic Plaza NW

Albuquerque, NM 87102

cc: Dwayne Salisbury, Air Quality Assurance Programs Monitoring Section Manager Christella Armijo, Environmental Health Scientist, Air Quality Assurance Programs Monitoring Section

1 - Initial Notification Letter

EPA responded to the initial notification and set a conference call on June 5, 2018 to discuss the event demonstrations. The Agency and EPA Region 6 agreed that the data met the requirements for a demonstration submittal and that the event met the requirements of a Tier-2 without SIP demonstration. Following the conference call the Agency received Region 6's letter, dated 6/14/2019, detailing the elements agreed to in the conference call.

From: Crawford, Dorothy < Crawford.Dorothy@epa.gov>

Sent: Wednesday, June 5, 2019 12:11 PM
To: Salisbury, Dwayne N.; Gates, Dan E.

Cc: Verhalen, Frances

Subject: RE: Exceptional Event Demonstration, PM10 2018 South Valley 35-001-0029, four

exceedances

Thanks for talking today. Fran will be sending the response to your 5/23/19 letter. Some notes from today's call:

- The city has entered 'rj' (request for exclusion, High Wind) flags into AQS for each hour on the days of the four exceedances.
- City's research indicates winds during the exceedances exceeded the regulatory High Wind Threshold of 25 mph.
- It appears the four 2018 PM10 exceedances fit into the Tier 2 analyses category for areas without SIP/TIP/FIP since Bernalillo County has not been designated as non-attainment.
- We agreed to a target date for the demonstrations submittal.
- The city plans on a 30 day public notice of demonstrations prior to submittal.
- The city hopes to provide us with pre-public notice draft documents for review.
- Since the city's last Demonstration preparation and submittal in 2018, EPA has issued national guidance for High Wind events (Guidance on the Preparation of Demonstrations in Support of Requests to Exclude Ambient Air quality Data Influenced by High Wind Dust Events Under the 2016 Exceptional Events Rule).
- Suggest the city review the April 2019 High Wind guidance for various recommended Tier 2 analyses and
 'conclusion statements' for the various Exceptional Event regulatory criteria.

Below is my understanding of the recommended topics in an Exceptional Event Demonstration for Tier 2 non-SIP/TIP/FIP areas, based on 2019 High Wind guidance:

Conceptual Model

Clear Causal

Clear Causal Analyses (see Table 3)

Historical Concentrations Comparison Analyses (see Table 4)

Conclusion statement

Not Reasonably Controllable and Preventable

Basic Sources and Controls Analyses (see Table 1)

Reasonableness of Controls Analyses (see Table 2)

Implementation/enforcement of Controls

Conclusion statement

Natural Event

Conclusion statement

Public Notice

Address and provide copy of any comments, and conclusion statement

The subject Tables in the 2019 High Wind guidance provides examples of elements or factors for the analyses. Analyses and level of supporting documentation for any demonstration will vary on a case-by-case basis.

Dorothy Crawford U.S. EPA, Region 6, Air Monitoring (214) 665-2771

2 - EPA Region 6 email response and conference call notes



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 6 1201 ELM STREET, SUITE 500 DALLAS, TEXAS 75270 – 2102

June 14, 2019

Jolene Slowen, Deputy Director City of Albuquerque, Environmental Health Department Air Quality Program 1 Civic Plaza NW Albuquerque, NM 87102

Dear Ms. Slowen.

Thank you for the Initial Notification letter dated May 23, 2019, regarding the planned submittal of Exceptional Events Demonstrations for particulate matter less than 10 micrometers in diameter (PM_{10}) exceedances which occurred during 2018. Your letter listed four measurements from the South Valley monitor (AQS ID 35-001-0029-81102-3) which are in excess of the PM_{10} National Ambient Air Quality Standard level of 150 μ m³. We understand the City of Albuquerque believes the exceedances were caused by High Wind Dust events. The PM_{10} exceedances listed in the letter were:

| Date | PM ₁₀ Measurement (μg/m ³) | AQS Flag |
|-----------|---------------------------------------------------|----------------|
| 1/15/2018 | 157 | rj, high winds |
| 2/12/2018 | 229 | rj, high winds |
| 4/19/2018 | 283 | rj, high winds |
| 7/11/2018 | 200 | rj. high winds |

As agreed during the June 5, 2019, conference call between our staff, the City of Albuquerque plans to submit the Exceptional Event Demonstrations by October 11, 2019, after a 30-day public notice period. We appreciate all your efforts to run an effective ambient air monitoring program and look forward to reviewing the Demonstrations. Please call Frances Verhalen at 214-665-2172, if you have any questions.

Sincerely.

Branch Chief Air Permits, Monitoring & Grants Branch

3 - EPA Region 6 response letter

| | | VIOLA | VIOLATION DAY COUNT ERPORT | Z PORT | | | |
|-------------------------------|-----------------------------------------------------------------------------|-----------------|-------------------------------------|----------------------|-------------------------|----------------------|------------------------|
| | | | | | | | Apr. 9, 2019 |
| | | PNIO To | PNIO Total 0-10um STP (81102) | 1102) | | | |
| | | Micrograms | Micrograms/cubic meter (25 C) (001) | (1001) | | | |
| | | 2 | 24-HR BLK AVG (X) | | | | |
| | | | 2018 | | | | |
| | | | New Mexico | | | | |
| CBSA: (10740) Albuquerque, NN | que, MN | | | | | | |
| | | | DATE OF | MAXIMUM VIOLATION | RXCEPT | NUMBER OF PRIMARY | NUMBER OF SECONDARY |
| POC | COUNTY NAME | | VIOLATION | VALUE | DATA? | VIOLATIONS | VIOLATIONS |
| 35-001-0029 3 Be | Bernslillo | | 2018/01/15 | П | 157 2 | H | - |
| | | | 2018/02/12 | N | 229 2 | ₽ | H |
| | | | 2018/04/19 | N | 283 2 | г | н |
| | | | 2018/07/11 | DI | 200 2 | Ţ | H |
| | SUMMARY POR SITE | 35-001-0029 POC | 3 YEAR 2018 | MAX | MAXIMUM VIOLATION VALUE | N VALUE | 283 |
| | VIOLATION DAYS PRIMARY VIOLATIONS SECONDARY VIOLATIONS VALID DAYS MONITORED | | a a a c.t. | | | | |

^{4 -} EPA AQS database Violation Day Count Report

Flagged data, requested for Exclusion as an Exception Event-High Winds

⁵ - EPA AQS database Raw Data Report, Data Flagged for EER

City of Albuquerque Authority

The authority of the Agency is limited to those lands not under Native American Tribal authority. Within Bernalillo County these Tribal lands consist of, approximately, 334.6 square miles (miles²). Bernalillo County consists of a total of 1,167.19 miles², excluding the Tribal land from the total Bernalillo County land area leaves approximately 832.59 miles², or approximately 71% of the total land area of Bernalillo County.

Conclusions

Based on the following EER documentation the Agency will provide data to support the following conclusion statements

Not Reasonably Controllable or Preventable

The documentation and analysis presented in this documentation demonstrates that all identified sources, with the exception of State and Tribal sources, that caused or contributed to the exceedance were reasonably controlled, effectively implemented, and enforced within Bernalillo County at the time of the event, therefore emissions associated with the high wind dust event were not reasonably controllable or preventable.

Human Activity Unlikely to Recur at a Particular Location or a Natural Event

Based on the documentation provided in this demonstration, the event qualifies as a natural event. The exceedance associated with the event meets the regulatory definition of a natural event at 40 CFR 50.14(b)(8). This event transported windblown dust from anthropogenic sources that were reasonably controlled at the time of the event within the jurisdiction of the Agency and accordingly, The City of Albuquerque-EHD has demonstrated that the event is a natural event and may be considered for treatment as an exceptional event.

Clear Causal Relationship between the Event/Monitored Concentration

On February 12, 2018 a high wind event occurred that generated PM10 and resulted in elevated concentrations at AQS ID 35-001-0029, South Valley-2ZV. The monitored PM10 concentrations of 229 $\mu g/m^3$ were in excess of typical days in any January and that wind speeds were high enough to entrain dust and overwhelm existing reasonable controls in place within the Agency's jurisdiction.

The comparisons and analyses, provided in this demonstration support the City of Albuquerque-EHD's position that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance on February 12, 2018 at AQS ID 35-001-0029, South Valley-2ZV site, and thus satisfies the clear causal relationship criterion.

Prior Exceptional Events Rule (EER) and Mitigation Plan Evaluation

Bernalillo County typically experiences elevated and high winds meeting the EER wind speed criteria in the months of March-July. This time period is called our "windy season" and some years are more extreme than others. The South Valley-2ZV site has experienced high wind exceptional events in 2014 and 2016. In 2014 one exceptional event occurred on 5/7/2014. In 2016 three events occurred on 3/22/2016, 3/29/2016, and 5/6/16. All of these events were flagged as exceptional events and documentation was submitted to EPA Region 6 by the Agency. These events are not annual occurrences but they do occur seasonally based on a quarterly basis but not on a monthly basis. The event discussed in this demonstration is not an event that has recurred in the past five years at this site from 2013-2017 and in the current year of 2019 for any month of February of these years. In fact a February high wind exceptional event of this nature is a deviation from the normal seasonal pattern where these types of events, when they do occur, tend to occur between the months of March-July.

Based on "40 CFR § 50.14 - Treatment of air quality monitoring data influenced by exceptional events" documentation the site has accumulated 2 of the necessary 3 points for submitting a mitigation plan (40 CFR § 50.14 - Treatment of air quality monitoring data influenced by exceptional events, section V. Mitigation).

Table 1 - Event Count

| Site | Year | Q1 | Q2 | Q3 | Q4 | # of Events |
|--------------------|------|----|----|----|----|-------------|
| 35-001-0029 | 2016 | 2 | 1 | 0 | 0 | 3 |
| 35-001-0029 | 2017 | 0 | 0 | 0 | 0 | 0 |
| 35-001-0029 | 2018 | 2 | 1 | 1 | 0 | 4 |
| 3 Year Event Count | | 2 | 2 | 1 | 0 | 7 |

Based on the 3 year event count the site does not meet the required number of three (3) annual seasonal events in a given three year period and is therefore not considered as "known seasonal" since these events do not recur every year. These events are "historically documented" and EER documentation has been submitted for the events that occurred in 2016. Yet, since these events do not result in annual recurrence and the value of the annual number of events is not 3 the Agency does not fall under the requirement for submitting a mitigation plan as described in "40 CFR § 50.14 - Treatment of air quality monitoring data influenced by exceptional events, section V. Mitigation.

Narrative Conceptual Model

On Monday, February 12, 2018 Bernalillo County, New Mexico experienced a high wind event that generated windblown dust and caused one of the Agency's PM10 monitors to exceed the PM10 NAAQS. The event lasted approximately 4 hours from 13:00 to 17:00. National Weather Service data show that the maximum sustained wind speed was 39 mph from 170 degrees with maximum wind gust at 44 mph from 170 degrees.

The event originated from the east from 170 to 180 degrees, traveling across the south and south-eastern counties of New Mexico, and directly impacted the South Valley-2ZV monitoring site. Currently this site in designated as meeting the attainment requirements for PM10. Yet, in 2016 this site experienced 3 exceedances of the PM10 NAAQS, all three 2016 events were flagged as high wind exceptional events. These events occurred on 3/22/2016, 3/29/16, and 5/6/16. There is no history of this site exceeding the PM10 NAAQS in February.



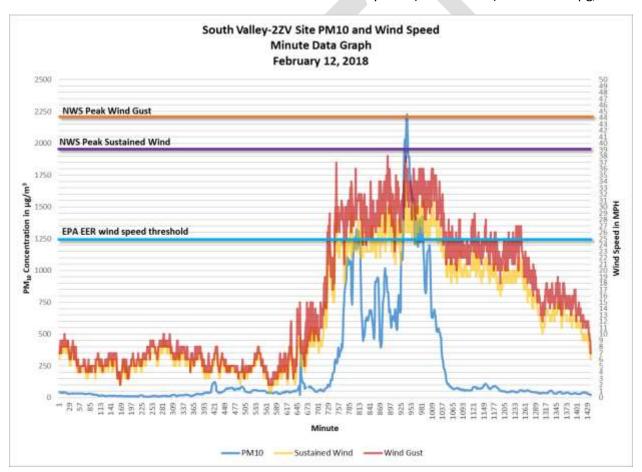


Figure 1 - Event Overview Graph, minute data

NWS data show that the wind speeds remained above the EER threshold of 25 MPH for 5 of the 10 hours of the event.

Table 2 - NWS Hourly Data

U.S. Department of Commerce
National Oceanic & Atmospheric Administration
National Environmental Satellite, Data, and Information Service
Current Location: Elev: 5310 ft. Lat. 35.0419° N Lon: -106.8155° W
Station: ALBUQUERQUE INTERNATIONAL AIRPORT, NM US WE

Local Climatological Data Hourly Observations February 2018 Generated on 04/03/2019 National Centers for Environmental Information 151 Patton Avenue Asheville, North Carolina 28801

| The color The | (KAE | n ALB | UQUER | QUE INTERN | ATIONA | AL AIRPORT, NM US WBAN: 723650230 | | | | | | | | | | | | | _ | | | | |
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| 1 | a | | tion | | | | Te | mp | Wet Te | Bulb mp | Dew Te | mp | Hum | Speed | Dir | Gusts | Press | | l Hr | Level | | Total | Alti- meter |
| 12 1002 7 | ė | | | | • | | | | | | | | | | | | | | (inHg) | (inHg) | | | (InHg) |
| 1 | - | | _ | | | 6 | _ | | | | | | _ | _ | | 16 | | 18 | 19 | | | | |
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| 12 0562 7 | 12 | 0500 | 4 | | 9.94 | | 33 | 0.6 | 27 | -2.8 | 16 | -8.9 | 49 | 8 | 010 | | 24.69 | 5 | +0.01 | 29.99 | FM-12 | | |
| 12 0852 7 SEMURA 30 10.00 32 0.00 27 2.8 17 8.3 54 5 010 24.68 3 0.01 FM-15 0.00 30.5 FM-15 0. | 12 | 0552 | 7 | FEW:02 70 SCT:04 90 | 10.00 | | 32 | 0.0 | 26 | -3.3 | 16 | -8.9 | 52 | 6 | 350 | | 24.68 | | | 30.01 | FM-15 | 0.00 | 30.02 |
| 12 1752 7 SCT_04_70 10.00 35 1.7 28 2.2 17 8.3 48 5 030 24.69 3 -0.01 30.03 FM-15 0.00 30.05 12 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 | 12 | 0652 | 7 | FEW:02 60 SCT:04 85 | 10.00 | | 32 | 0.0 | 27 | -2.8 | 17 | -8.3 | 54 | 5 | 010 | | 24.68 | | | 30.01 | FM-15 | 0.00 | 30.02 |
| 12 0852 7 FEW0275 100 30.04 FM-15 0.00 30.0 12 0852 7 FEW0275 100 42 56 33 0.6 20 -6.7 41 0 000 24.71 30.04 FM-15 0.00 30.0 12 1052 7 FEW0275 100 48 8.9 37 2.8 22 -5.6 36 11 1 VRB 17 24.69 8 0.00 29.8 FM-15 0.00 30.0 12 11052 7 FEW0275 100 56 11.1 40 4.4 24 4.4 34 10 20 4.4 24.57 2 10 29.8 FM-15 0.00 30.0 12 12 12 17 FEW0275 100 VCBL5 DU5 58 14.4 42 5.6 23 -5.0 26 25 10 2 10 31 24.61 29.8 FM-15 0.00 29.8 FM-15 10 29.8 FW-15 10 | 12 | 0752 | 7 | SCT:04 70 BKN:07 240 | 10.00 | | 35 | 1.7 | 28 | -2.2 | 17 | -8.3 | 48 | 5 | 030 | | 24.69 | 3 | -0.01 | 30.03 | FM-15 | 0.00 | 30.03 |
| 12 0852 7 FEW02 50 10.00 39 3.9 3.1 -0.6 18 -7.8 43 6 330 24.72 30.04 FM-15 0.00 30.05 50.00 24.71 30.04 FM-15 0.00 30.05 50.00 24.71 30.02 FM-15 0.00 30.05 FW-15 0.00 30.05 | 12 | 0800 | 4 | | 9.94 | | 35 | 1.7 | 28 | -2.2 | 17 | -8.3 | 48 | 5 | 030 | | 24.70 | 3 | -0.01 | 30.03 | FM-12 | | |
| 12 1052 7 FEW022 50 10.00 42 5.6 33 0.6 20 -0.7 41 0 000 24.71 30.02 FM-15 0.00 30.02 50.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 20.00 | 12 | 0852 | 7 | FEW:02 70 BKN:07 240 | 10.00 | | 39 | 3.9 | 31 | -0.6 | 18 | -7.8 | 43 | 6 | 330 | | 24.72 | | | 30.04 | FM-15 | 0.00 | 30.06 |
| 12 1162 | 12 | 0952 | 7 | FEW:02 210 SCT:04 240 | 10.00 | | 42 | 5.6 | 33 | 0.6 | 20 | -6.7 | 41 | 0 | 000 | | 24.71 | | | 30.02 | FM-15 | 0.00 | 30.05 |
| 1152 7 FEWO2 250 10.00 52 11.1 40 4.4 24 4.4 34 10 200 24.67 29.94 FM-15 0.00 30.00 24.67 29.94 FM-15 0.00 30.00 29.67 29.94 FM-15 29.94 | 12 | 1052 | 7 | | 10.00 | | 48 | 8.9 | 37 | 2.8 | 22 | -5.6 | 36 | 11 | VRB | 17 | 24.69 | 8 | 0.00 | 29.98 | FM-15 | 0.00 | 30.03 |
| 12 1252 7 FEW02 25 10.00 VCBL:5 DU:5 56 13.3 43 6.1 27 -2.8 33 21 200 36 24.63 29.88 FM-15 0.00 29.6 12 1352 7 FEW02 75 FEW02 25 10.00 VCBL:5 DU:5 58 14.4 42 5.6 23 -5.0 28 26 190 37 24.59 8 +0.11 29.83 FM-15 0.00 29.6 12 1400 4 74 9.94 58 14.4 42 5.6 23 -5.0 28 26 190 24.60 8 +0.11 29.83 FM-15 0.00 29.6 12 1452 7 FEW02 250 9.00 VCBL:5 DU:5 58 14.4 42 5.6 23 -5.0 26 31 190 44 24.57 29.82 FM-15 0.00 29.8 12 1552 7 FEW02 250 9.00 VCBL:5 DU:5 58 14.4 43 6.1 24 4.4 27 31 180 39 24.57 29.81 FM-15 0.00 29.8 12 1652 7 FEW02 250 9.00 VCBL:5 DU:5 58 14.4 43 6.1 24 4.4 29 34 170 41 24.59 3 0.00 29.84 FM-15 0.00 29.8 12 1652 7 FEW02 250 9.94 56 13.3 42 5.6 24 4.4 29 34 170 41 24.59 3 0.00 29.84 FM-15 0.00 29.8 12 1700 4 74 9.94 56 13.3 42 5.6 24 4.4 29 34 170 41 24.59 3 0.00 29.84 FM-15 0.00 29.8 12 1752 7 FEW02 250 9.94 56 13.3 42 5.6 24 4.4 29 34 170 24.60 3 0.00 29.84 FM-12 12 1752 7 FEW02 250 9.94 56 13.3 42 5.6 24 4.4 29 34 170 24.60 3 0.00 29.87 FM-15 0.00 29.8 12 1952 7 FEW02 250 9.94 56 11.7 40 4.4 24 4.4 32 23 170 33 24.63 29.90 FM-15 0.00 29.8 12 1952 7 FEW02 150 10.00 53 11.7 40 4.4 24 4.4 32 20 170 29 24.65 3 -0.06 29.92 FM-15 0.00 30.00 29.8 12 2000 4 FEW02 150 10.00 53 11.7 40 4.4 24 4.4 32 20 170 24.66 3 -0.06 29.92 FM-15 0.00 30.00 29.8 FM-15 | 12 | 1100 | 4 | | 9.94 | | 48 | 8.9 | 37 | 2.8 | 22 | -5.6 | 36 | 11 | 170 | | 24.70 | 8 | 0.00 | 29.98 | FM-12 | | |
| 12 1352 7 | 12 | 1152 | 7 | FEW:02 85 FEW:02 230 | 10.00 | | 52 | 11.1 | 40 | 4.4 | 24 | 4.4 | 34 | 10 | 200 | | 24.67 | | | 29.94 | FM-15 | 0.00 | 30.00 |
| 12 1400 4 74 9.94 58 14.4 42 5.6 23 5.0 28 28 190 24.60 8 40.11 29.83 FM-12 | 12 | 1252 | 7 | FEW:02 230 | 10.00 | VCBL:5 DU:5 | 56 | 13.3 | 43 | 6.1 | 27 | -2.8 | 33 | 21 | 200 | 38 | 24.63 | | | 29.88 | FM-15 | 0.00 | 29.95 |
| 12 1400 4 74 9.94 58 14.4 42 5.6 23 5.0 28 28 190 24.60 8 40.11 29.83 FM-12 | 12 | 1352 | 7 | FEW:02 75 FEW:02 250 | 10.00 | VCBL:5 DU:5 | 58 | 14.4 | 42 | 5.6 | 23 | -5.0 | 26 | 26 | 190 | 37 | 24.59 | 8 | +0.11 | 29.83 | FM-15 | 0.00 | 29.91 |
| 12 1562 7 FEW02 30 9.00 VCBL:5 DU:5 58 14.4 43 6.1 24 4.4 27 31 180 39 24.57 29.81 FM-15 0.00 | 12 | 1400 | 4 | 74 | 9.94 | | 58 | 14.4 | 42 | 5.6 | 23 | -5.0 | 26 | 26 | 190 | | 24.60 | 8 | +0.11 | 29.83 | FM-12 | | |
| FEW/02 230 FEW/02 200 FEW | Н | | | FEW:02 250 FEW:02 80 | | | | | | | | | | | | | | | | | | | 29.89 |
| 12 1662 7 SCT:04 140 10.00 56 13.3 42 5.6 24 4.4 29 34 170 41 24.59 3 0.00 29.8 FM-15 0.00 29.8 FM-15 12 1700 4 74 9.94 56 13.3 42 5.6 24 4.4 29 34 170 24.60 3 0.00 29.8 FM-15 0.00 29.8 FM-15 12 1752 7 SCT:04 140 10.00 54 12.2 40 4.4 23 -5.0 30 22 160 31 24.61 29.87 FM-15 0.00 29.8 FM-15 12 1852 7 SCT:04 140 10.00 53 11.7 40 4.4 24 4.4 32 23 170 33 24.63 29.9 FM-15 0.00 29.8 FM-15 12 1852 7 SCT:04 140 10.00 53 11.7 40 4.4 24 4.4 32 20 170 29 24.65 3 -0.06 29.9 FM-15 0.00 29.8 FM-15 12 2000 4 9.94 58.00 250 10.00 53 11.7 40 4.4 24 4.4 32 20 170 29 24.65 3 -0.06 29.9 FM-15 0.00 29.8 FM-15 12 2000 4 9.94 53 11.7 40 4.4 24 4.4 32 20 170 29 24.65 3 -0.06 29.9 FM-15 0.00 29.8 FM-15 12 2000 4 9.94 53 11.7 40 4.4 24 4.4 32 20 170 29 24.65 3 -0.06 29.9 FM-15 0.00 29.8 FM-15 12 2000 4 9.94 53 11.7 40 4.4 24 4.4 32 20 170 24.68 3 -0.06 29.9 FM-15 0.00 30.8 FM-1 | 12 | 1552 | 7 | FEW:02 230 | 9.00 | VCBL:5 DU:5 | 58 | 14.4 | 43 | 6.1 | 24 | -4.4 | 27 | 31 | 180 | 39 | 24.57 | | | 29.81 | FM-15 | 0.00 | 29.89 |
| 12 1752 7 SCT-04 140 10.00 54 12.2 40 4.4 23 -5.0 30 22 160 31 24.61 29.87 FM-15 0.00 29.87 | | | | SCT:04 140 SCT:04 200 | | | | | | | | | | | | 41 | | | | | | 0.00 | 29.91 |
| 12 1752 7 SCT:04 140 10.00 54 12.2 40 4.4 23 5.0 30 22 160 31 24.61 29.87 FM-15 0.00 29.8 FM-1 | 12 | 1700 | 4 | | 9.94 | | 56 | 13.3 | 42 | 5.6 | 24 | 4.4 | 29 | 34 | 170 | | 24.60 | 3 | 0.00 | 29.84 | FM-12 | | |
| 12 1852 7 | 12 | 1752 | 7 | SCT:04 140 BKN:07 180 | 10.00 | | 54 | 12.2 | 40 | 4.4 | 23 | -5.0 | 30 | 22 | 160 | 31 | 24.61 | | | 29.87 | FM-15 | 0.00 | 29.93 |
| 12 1952 7 BKN-07 190 10.00 53 11.7 40 4.4 24 4.4 32 20 170 29 24.65 3 -0.06 29.92 FM-15 0.00 29.8 12 2000 4 9.94 53 11.7 40 4.4 24 4.4 32 20 170 29 24.66 3 -0.06 29.92 FM-12 12 2052 7 FEW-02 100 53 11.7 40 4.4 24 4.4 32 22 180 31 24.67 29.93 FM-15 0.00 30.0 12 2152 7 BKN-07 250 10.00 53 11.7 40 4.4 22 5.6 30 14 180 24.69 29.94 FM-15 0.00 30.0 12 2252 7 OVC-08 250 10.00 52 11.1 39 3.9 22 5.6 31 15 180 24.69 1 -0.05 29.93 FM-15 0.00 30.0 12 2252 7 OVC-08 180 10.00 52 11.1 39 3.9 2.2 5.6 31 15 180 24.69 1 -0.05 29.93 FM-15 0.00 30.0 12 2252 7 OVC-08 180 10.00 52 11.1 39 3.9 2.2 5.6 31 15 180 24.69 1 -0.05 29.93 FM-15 0.00 30.0 12 2252 7 OVC-08 180 10.00 52 11.1 39 3.9 22 5.6 31 15 180 24.69 1 -0.05 29.93 FM-15 0.00 30.0 12 2252 7 OVC-08 180 10.00 52 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 12 2252 1 0.00 15 2 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 12 2252 1 0.00 15 2 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 12 2252 1 0.00 15 2 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 12 2252 1 0.00 15 2 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 12 2252 1 0.00 15 2 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 15 2 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 15 2 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 15 2 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 15 2 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 15 2 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 15 2 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 15 2 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 15 2 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 15 2 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 15 2 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 15 2 11.1 39 30 20 25 5.6 31 15 180 24.69 1 0.05 29.93 FM-15 0.00 30.0 15 2 11.1 39 20 25 5.6 31 11.1 30 24.69 1 0. | 12 | 1852 | 7 | BKN:07 180 BKN:07 250 | 10.00 | | 53 | 11.7 | 40 | 4.4 | 24 | -4.4 | 32 | 23 | 170 | 33 | 24.63 | | | 29.90 | FM-15 | 0.00 | 29.95 |
| 12 2052 7 \$\begin{array}{cccccccccccccccccccccccccccccccccccc | 12 | 1952 | 7 | FEW:02 100 BKN:07 180 BKN:07 250 | 10.00 | | | 11.7 | 40 | 4.4 | 24 | 4.4 | 32 | 20 | 170 | 29 | 24.65 | 3 | -0.08 | 29.92 | FM-15 | 0.00 | 29.98 |
| 12 2052 7 SCT:04190 10.00 53 11.7 40 4.4 24 4.4 32 22 180 31 24.67 29.93 FM-15 0.00 30.0 12 2152 7 BKN:07.180 10.00 53 11.7 40 4.4 22 5.6 30 14 180 24.69 29.94 FM-15 0.00 30.0 12 2252 7 OVC:08.20 10.00 52 11.1 39 3.9 22 5.6 31 15 180 24.69 1 -0.05 29.38 FM-15 0.00 30.0 12 2252 7 OVC:08.180 10.00 52 11.1 39 3.9 22 5.6 31 15 180 24.69 1 -0.05 29.38 FM-15 0.00 30.0 12 2252 7 OVC:08.180 10.00 52 11.1 39 3.9 22 5.6 31 15 180 24.69 1 -0.05 29.38 FM-15 0.00 30.0 12 2252 7 OVC:08.180 10.00 52 11.1 39 3.9 22 5.6 31 15 180 24.69 1 -0.05 29.38 FM-15 0.00 30.0 12 2252 7 OVC:08.180 10.00 52 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.38 FM-15 0.00 30.0 12 2252 7 OVC:08.180 10.00 52 11.1 39 3.9 22 5.6 31 15 180 24.69 1 0.05 29.38 FM-15 0.00 30.0 12 2252 7 OVC:08.180 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.00 10.0 | 12 | 2000 | 4 | EEW/02 100 | 9.94 | | 53 | 11.7 | 40 | 4.4 | 24 | 4.4 | 32 | 20 | 170 | | 24.66 | 3 | -0.06 | 29.92 | FM-12 | | |
| 12 252 7 OVC.08 250 10.00 52 11.1 39 3.9 22 -5.6 31 15 180 24.69 1 -0.05 29.93 FM-15 0.00 30.1 | 12 | 2052 | | SCT:04 190 BKN:07 250 | 10.00 | | 53 | 11.7 | 40 | 4.4 | 24 | 4.4 | 32 | 22 | 180 | 31 | 24.67 | | | 29.93 | FM-15 | 0.00 | 30.00 |
| | | | - / | OVC:08 250 | 10.00 | | | 11.7 | 40 | 4.4 | | | 30 | 14 | | | | | | 29.94 | FM-15 | 0.00 | 30.03 |
| 16 2300 4 999 999 102 11.1 39 3.9 22 10.0 31 10 180 24.70 1 1 0.05 28.93 FM-12 12 28.5 7 100 0.08 190 19.00 52 11.1 39 3.9 22 5.8 31 11 190 24.70 1 20.0 FM.45 1.00 30.0 | 12 | | | OVC:08 180 | | | | | | | | | | | | | | 1 | | | | 0.00 | 30.03 |
| | | 2352 | | OVC:08 190 | 10.00 | | 52 | 11.1 | 39 | 3.9 | 22 | -5.6 | 31 | 15 | 190 | \vdash | 24.70 | 1 | -0.05 | | | 0.00 | 30.05 |

Table 3 - NWS Daily Weather Results for February 2018

U.S. Department of Commerce National Oceanic & Atmospheric Administration National Environmental Satellite, Data, and Information Service Current Location: Elev: 5310 ft. Lat: 35.0419° N Lon: -106.6155° W

Local Climatological Data Daily Summary February 2018 Generated on 04/03/2019 National Centers for Environmental Information 151 Patton Avenue Asheville, North Carolina 28801

| Station | ALBU | QUER | QUE IN | TERNA | TIONAL | L AIRP | ORT, N | MUSW | /BAN: 7 | 236502 | 23050 | | | | 1/03/2016 | | | | | | | | | | | | |
|-------------|---------|--------|---------|---------|---------|---------|--------|----------|------------------|--------|----------|------------|----------------|---------|-------------|---------------|--------------|----------|-----------|--------------------------------------------------------------|------------------|-----------|--------------|---------------|-------------|---------------------------|--------------|
| D | | | | peratu | | | | Degre | e Days e 65F) | Sun | | | | Wea | ather | | | Pre | cipitatio | n (in) | Pres (inl | sure | Wind | _ | | d Speed | |
| a t e | Max | Min | Avg | Dep | ARH | ADP | AWB | Heat | Cool | Rise | Set | | | Weath | er Type | | | TLC | Snow | Snow Depth | Avg | Avg SL | Avg Speed | Peak Speed | Peak Dir | = Degree Sust Speed | Sust. Dir |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | | | - | 13 | | | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 22 | 23 |
| 01 | 67 | 32 | 50 | 11.6 | 23 | 11 | 35 | 15 | 0 | 0706 | 1735 | | | | 13 | | | 0.00 | 0.0 | 0 | 24.81 | 30.06 | 4.1 | 22 | 080 | 20 | 080 |
| 02 | 61 | 33 | 47 | 8.4 | 33 | 18 | 35 | 18 | 0 | 0705 | 1736 | | | | | | | 0.00 | 0.0 | 0 | 24.84 | 30.14 | 5.7 | 14 | 010 | 12 | 200 |
| 03 | 63 | 32 | 48 | 9.2 | 30 | 18 | 36 | 17 | 0 | 0704 | 1737 | | | | | | | 0.00 | 0.0 | 0 | 24.72 | 29.97 | 10.6 | 37 | 330 | 28 | 320 |
| 04 | 65 | 34 | 50 | 11.0 | 31 | 19 | 36 | 15 | 0 | 0703 | 1738 | | | | | | | 0.00 | 0.0 | 0 | 24.76 | 30.02 | 4.0 | 19 | 340 | 16 | 340 |
| 05 | 65 | 34 | 50 | 10.8 | 29 | 17 | 36 | 15 | 0 | 0702 | 1739 | | | | | | | 0.00 | 0.0 | 0 | 24.68 | 29.92 | 6.9 | 26 | 310 | 20 | 330 |
| 06 | 55 | 37 | 46 | 6.6 | 32 | 18 | 35 | 19 | 0 | 0702 | 1740 | | | | | | | 0.00 | 0.0 | 0 | 24.71 | 29.94 | 10.2 | 28 | 360 | 21 | 350 |
| 07 | 56 | 32 | 44 | 4.4 | 34 | 15 | 33 | 21 | 0 | 0701 | 1741 | | | | | | | 0.00 | 0.0 | 0 | 24.98 | 30.30 | 7.9 | 20 | 360 | 15 | 360 |
| 08 | 61 | 29 | 45 | 5.2 | 28 | 15 | 35 | 20 | 0 | 0700 | 1742 | | | | | | | 0.00 | 0.0 | 0 | 24.90 | 30.21 | 4.5 | 19 | 020 | 17 | 030 |
| 09 | 65 | 30 | 48 | 7.9 | 29 | 17 | 36 | 17 | 0 | 0659 | 1743 | | | | | | | 0.00 | 0.0 | 0 | 24.69 | 29.95 | 5.0 | 19 | 020 | 16 | 020 |
| 10 | 67" | 39 | 53 | 12.7 | 25 | 15 | 37 | 12 | 0 | 0658 | 1744 | DU | | | | | | 0.00 | 0.0 | 0 | 24.50 | 29.68 | 15.8 | 40 | 270 | 30 | 250 |
| 11 | 46 | 31 | 39 | -1.5 | 41 | 16 | 30 | 26 | 0 | 0657 | 1745 | | | | | | | 0.00 | 0.0 | 0 | 24.71 | 30.00 | 7.3 | 29 | 330 | 23 | 350 |
| 12 | 59 | 31 | 45 | 4.3 | 37 | 21 | 35 | 20 | 0 | 0656 | 1746 | DU | | | | | | 0.00 | 0.0 | 0 | 24.67 | 29.94 | 14.3 | 44 | 170 | 39 | 170 |
| 13 | 60 | 37 | 49 | 8.0 | 30 | 18 | 36 | 16 | 0 | 0655 | 1747 | | | | | | | 0.00 | 0.0 | 0 | 24.86 | 30.11 | 5.9 | 22 | 190 | 15 | 200 |
| 14 | 59 | 41 | 50 | 8.8 | 42 | 23 | 38 | 15 | 0 | 0654 | 1748 | RA | | | | | | 0.20 | 0.0 | 0 | 24.81 | 30.09 | 6.1 | 27 | 240 | 21 | 250 |
| 15 | 49 | 41 | 45 | 3.5 | 80 | 38 | 41 | 20 | 0 | 0653 | 1749 | RA FG BR | ì. | | | | | 0.24 | 0.0 | 0 | 24.79 | 30.06 | 5.3 | 14 | 170 | 12 | 160 |
| 16 | 48 | 35 | 42 | 0.3 | 74 | 34 | 38 | 23 | 0 | 0652 | 1750 | | | | | | | т | 0.0 | 0 | 24.83 | 30.15 | 4.8 | 17 | 160 | 14 | 160 |
| 17 | 57 | 31 | 44 | 2.1 | 59 | 29 | 38 | 21 | 0 | 0651 | 1751 | FG FZFG | BR | | | | | 0.00 | 0.0 | 0 | 24.81 | 30.12 | 5.0 | 19 | 300 | 15 | 360 |
| 18 | 62 | 36 | 49 | 6.8 | 58 | 34 | 42 | 16 | 0 | 0649 | 1752 | | | | | | | т | 0.0 | 0 | 24.57 | 29.82 | 8.2 | 32 | 280 | 26 | 280 |
| 19 | 57 | 36 | 47 | 4.6 | 55 | 34 | 42 | 18 | 0 | 0648 | 1753 | RA | | | | | | 0.05 | т | 0 | 24.38 | 29.54 | 19.1 | 46 | 210 | 37 | 220 |
| 20 | 42 | 29 | 36 | -6.7 | 50 | 17 | 28 | 29 | 0 | 0647 | 1754 | DZ SN BL | SN | | | | | 0.01 | 0.3 | т | 24.67 | 29.96 | 9.4 | 28 | 010 | 22 | 350 |
| 21 | 52 | 30 | 41 | -1.9 | 49 | 21 | 32 | 24 | 0 | 0646 | 1755 | | | | | | | т | 0.0 | 0 | 24.71 | 30.05 | 9.1 | 35 | 180 | 29 | 190 |
| 22 | 48 | 29 | 39 | -4.2 | 49 | 18 | 30 | 26 | 0 | 0645 | 1756 | SN | | | | | | 0.01 | 0.1 | 0 | 24.71 | 30.04 | 8.0 | 32 | 270 | 24 | 270 |
| 23 | 57 | 25 | 41 | -2.4 | | | | 24 | 0 | 0644 | 1757 | | | | | | | 0.00 | 0.0 | 0 | | | 12.3 | 40 | 220 | 30 | 230 |
| 24 | 45 | 26 | 36 | -7.7 | | | | 29 | 0 | 0642 | 1758 | | | | | | | 0.00 | 0.0 | 0 | | | 9.7 | 31 | 320 | 21 | 320 |
| 25 | 4 | 24 | 34 | -9.9 | | | | 31 | 0 | 8641 | 1758 | | | | | | | 0.00 | 0.0 | 0 | | | 10.5 | 34 | 320 | 25 | 330 |
| 26 | 57 | 20" | 39 | -5.1 | 28 | 10 | 31 | 26 | 0 | 0640 | 1759 | | | | | | | 0.00 | 0.0 | 0 | 24.73 | 29.99 | 10.3 | 30 | 170 | 24 | 170 |
| 27 | 62 | 30 | 46 | 1.6 | 21 | 6 | 32 | 19 | 0 | 0639 | 1800 | | | | | | | 0.00 | 0.0 | 0 | 24.60 | 29.86 | 9.8 | 41 | 220 | 33 | 220 |
| 28 | 51 | 27 | 39 | -5.6 | 44 | 18 | 32 | 26 | 0 | 0638 | 1801 | | | | | | | т | Т | 0 | 24.63 | 29.89 | 7.7 | 32 | 330 | 24 | 290 |
| | 56.4 | 31.8 | 44.1 | | | | | | | | | | Monthly Ave | rages | Totals | | | 0.51 | 0.4 | | 24.72 | 30.00 | 8.5 | | | | |
| | 3.9 | 1.5 | 2.7 | D. | gree Da | | | | Dep | arture | from N | ormai (18 | 981-2010) | | | | Mon | 0.03 | days w | :aL | | | | | | | |
| | | _ | | Monthly | | ays | | eason- | to data | | ┰ | | To | mperat | hiro | | Nui | liber or | | | | _ | | _ | | | |
| | | + | Total | |)epartu | re | Tota | | Depa | rture | | М | lax | претас | | Min | | 1 | Preci | pitation | | | Snow | | W | eather | |
| He | ating | | 583 | | -78 | _ | 273 | | | | > | =90° | <=32° | | <=32° | T | <=0° | >= | 0.01" | >= | 0.1" | \top | >=1" | T- | Storms | Heav | vy Fog |
| | oling | | 0 | | 0 | | 0 | | | | | 0 | 0 | | 17 | | 0 | | 5 | | 2 | | 0 | | | | |
| | Date of | 5-sect | o 3-sec | wind e | quipm | ent cha | inge | | | | | | Sea Level | Pressu | | | | | | | | | Great | est | | | |
| | | | | | | | | <u> </u> | | | | | | | Date | _ | Tim | | + | | 24-Hr Snow Depth | | | | oth | | |
| | | | 200 | 7-05-22 | | | | \vdash | | mum | _ | | .39 .42 | | 07 19 | \rightarrow | 095 172 | | + | Precip Snowfall 0.44 0.3 T | | | | | | | |
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| | | | | | | | | | | | | | Station | Auam | entation | | | | | 145 | | | 20- | | | 20 | |
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6 Midwestern Regional Climate Center Daily Average Summary

Evaluation of other February data

The event of February 12, 2018 has not happened in the past 5 years (2013-2017) since the event or in one year past (2019) the event. The data do show that compared to other years it is not normal for Bernalillo County to experience an event such as this, especially in February. While data do show occasional elevated PM10 values or elevated winds, this event was out of the normal expectation for any February for any other year.

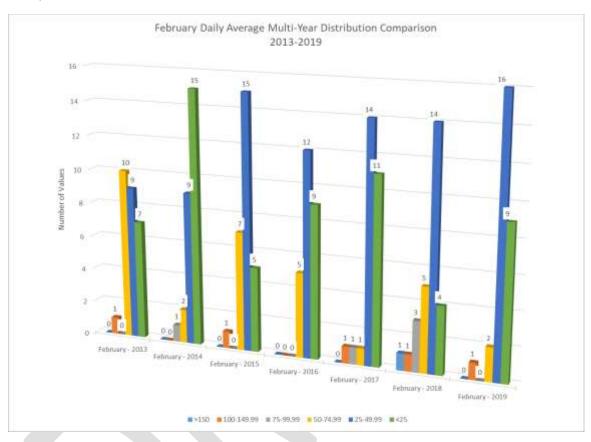


Figure 2 - Daily Average Distribution Comparison - Multi Year February

There is only one year from the above graph where the daily average is above the NAAQS, that day was February 12, 2018. During February of these years, February 12, 2018 does show to be an event that deviates from the normal monthly pattern. The data shows that in February the majority of PM10 concentrations for all years other than 2018 are below $100 \, \mu g/m^3$.

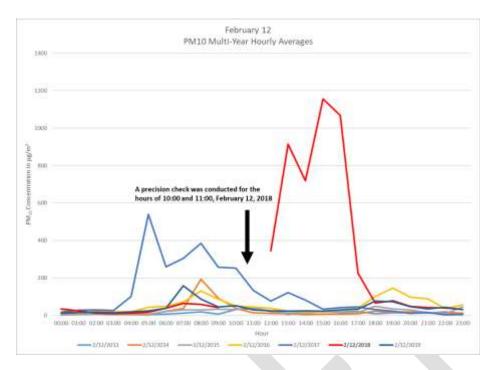


Figure 3 - February 12, 2018 Hourly Averages - Multi Year

Additionally, the monthly average PM10 concentration for 2018 is significantly higher than the monthly average PM10 concentration values for other years (see Figure 4).

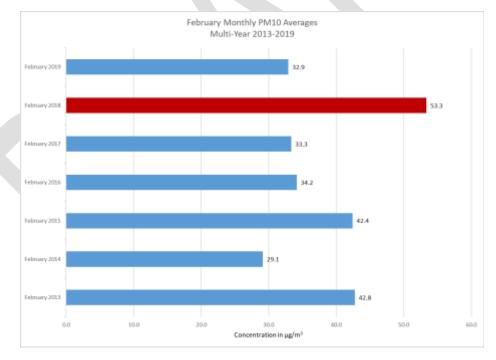


Figure 4 - Monthly Average - Multi Year

Monthly average data results from February 2018 also eclipse February monthly averages from the other years. It can be seen that the data has been impacted by elevated PM10 for the month of February 2018.

Excluding the event of February 12, 2018 from the monthly average graphs shows that excluding the event brings the monthly average closer to the rest of the evaluation years.

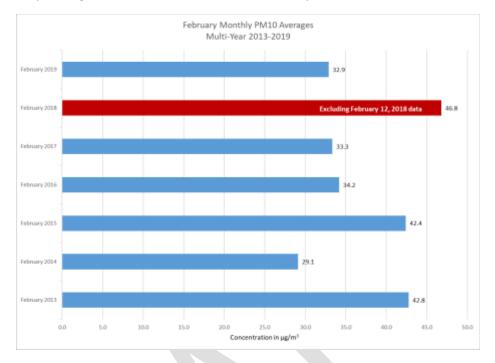


Figure 5 February Monthly PM10 Average =s Excluding Event Data

With the exclusion the monthly average drops from 53.3 $\mu g/m^3$ to 46.8 $\mu g/m^3$, a 6.5 $\mu g/m^3$ (13%) reduction.

Data Evaluation

The evaluation of the minute data produce the following results for February 2018:

Table 4 - Minute Data Wind Speed Results

| | Expected N PM10 minutes | Total N PM10 minutes | Correlation r WS:PM10 | WS >25MPH minutes |
|-------------------|----------------------------|-------------------------|--------------------------|----------------------|
| February 2018 | 40320 | 44041 | 0.25 | 311 |
| February 12, 2018 | 1440 | 1435 | 0.70 | 194 |

Of the minutes where the wind speeds met the EER criteria of 25 MPH or greater the entire month of February 2018 had 260 minutes with wind speeds meeting the EER criteria. Of these 311 minutes 194 minutes (62.3%) occurred on February 12, 2018. Correlation r value is good for the day of the event and shows good correlation between the wind speed and PM10 concentration.

Table 5 - Minute Data PM10 Concentration Results

| | | PI | /10 Concentrati | on | |
|---------------------|-------|----------|-----------------|-----------|-------|
| | <500 | 500-1000 | 1000-1500 | 1500-2000 | >2000 |
| February 2018 | 35008 | 210 | 82 | 23 | 6 |
| February 12, 2018 | 1187 | 141 | 78 | 23 | 6 |
| % of total February | 3.3 | 67.1 | 95.1 | 100 | 100 |
| PM10 Concentration | | | | | |

Of the minutes where PM10 concentrations were elevated from 500 $\mu g/m^3$ to over 2,000 $\mu g/m^3$ the entire month of February saw 321 minutes of elevated PM10 with 248 minutes (77%) occurring on February 12, 2018. The minute data does detail that the event was generated primarily by data in the 500-1,999 $\mu g/m^3$ range. The 6 minutes of data where the PM10 concentrations were over 2,000 $\mu g/m^3$ occurred on February 12, 2018.

PM2.5 Minute Data

PM2.5 at the South Valley-2ZV monitoring site was also impacted on February 12, 2018.

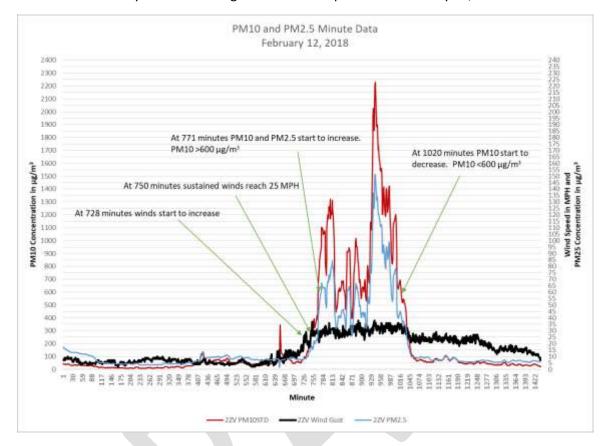


Figure 6 - PM2.5 Minute Data February 12, 2018

The morning hours and early afternoon hours are followed by an event that greatly increased the PM10 and PM2.5 concentrations across Bernalillo County starting at approximately 12:30 and lasted approximately 4 hours. The time between the sustained winds reaching the EER threshold of 25 MPH and the area experiencing elevated particulate matter concentrations where PM10 increases to over 600 $\mu g/m^3$ is only 21 minutes. As winds increased and were sustained at or above the EER wind speed threshold there are increases in both PM10 and PM2.5 concentrations at the site.

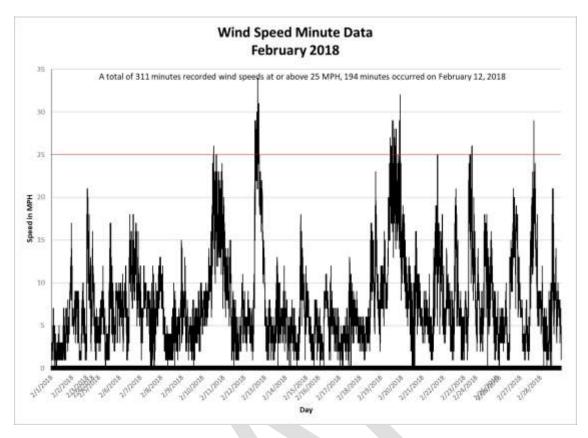


Figure 7 - Minute Wind Speed Data February 2018

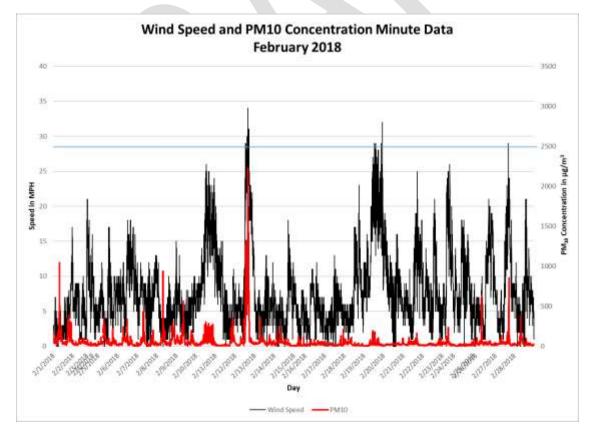


Figure 8 - Minute Wind Speed and PM10 Data February 2018

Evaluation of the data for NAAQS determination

Table 6 - NAAQS Determination Including all 2018 Events

| 2018 Quarter | Days in Quarter | Days <18 Hours of Data | Days in Quarter with | | Observed Exceedances | Estimated Exceedances |
|-------------------------|--------------------|---------------------------|-------------------------|----------------|---------------------------------|---------------------------------|
| | (N _q) | | Data (n _q) | $N_q \div n_q$ | in Quarter (v _q) | in Quarter (e _q) |
| 1 (1/15/18, 2/12/18) | 90 | 3 | 87 | 1.03 | 2 | 2.07 |
| 2 (4/19/18) | 91 | 3 | 88 | 1.03 | 1 | 1.03 |
| 3 (7/11/18) | 92 | 1 | 91 | 1.01 | 1 | 1.01 |
| 4 | 92 | 5 | 87 | 1.06 | 0 | 0.00 |
| Total | 365 | 12 | | | 4 | 4.1 |

The three year average, assuming the prior two years are zero (0), is 1.3. Since 1.3 exceeds the allowable number of expected exceedances, this monitoring site would fail the attainment test.

Table 7 - NAAQS Determination Excluding February 12, 2018 Events

| 2018 Quarter | Days in | Days <18 | Days in | | Observed | Estimated |
|--------------|-------------------|---------------|------------------------|--------------------------------|-------------|-------------------|
| | Quarter | Hours of Data | Quarter with | | Exceedances | Exceedances |
| | | | Data (n _q) | Nin | in Quarter | in Quarter |
| | (N _q) | | | N _q ÷n _q | (v_q) | (e _q) |
| 1 (1/15/18) | 90 | 3 | 87 | 1.03 | 1 | 1.03 |
| 2 (4/19/18) | 91 | 3 | 88 | 1.03 | 1 | 1.03 |
| 3 (7/11/18) | 92 | 1 | 91 | 1.01 | 1 | 1.01 |
| 4 | 92 | 5 | 87 | 1.06 | 0 | 0.00 |
| Total | 365 | 12 | | | 4 | 3.1 |

The three year average, assuming the prior two years are zero (0), is 1.02, rounded to one decimal place the three year average is 1.0. Since 1.0 does not exceed the allowable number of expected exceedances, this monitoring site would not fail the attainment test for 2018.

(Federal Register/ Vol. 71, No. 200 / Tuesday, October 17, 2006 / Rules and Regulations, Appendix K to Part 50—Interpretation of the National Ambient Air Quality Standards for Particulate Matter.)

"The comparison with the allowable expected exceedance rate of one per year is made in terms of a number rounded to the nearest tenth (fractional values equal to or greater than 0.05 are to be rounded up; e.g., an exceedance rate of 1.05 would be rounded to 1.1, which is the lowest rate for nonattainment)."

Percentile Ranking

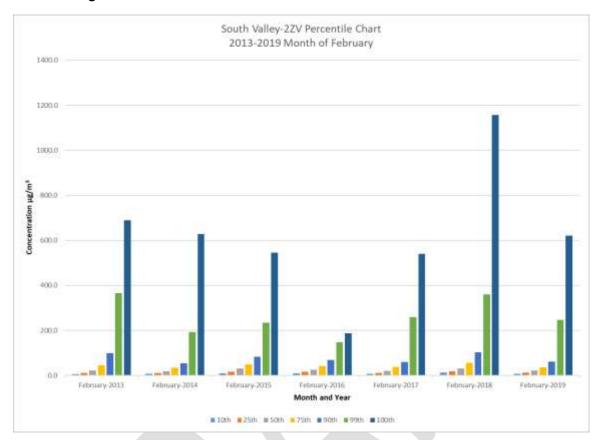


Figure 9 - Multi Year Percentile Ranking

Table 8 - Percentile Ranking February of Year

| Month & Year | 10th | 25th | 50th | 75th | 90th | 99th | 100th |
|---------------|------|------|------|------|-------|-------|--------|
| February-2013 | 6.5 | 11.3 | 22.3 | 45.5 | 100.1 | 366.3 | 690.0 |
| February-2014 | 8.2 | 11.5 | 19.5 | 34.0 | 54.0 | 193.7 | 628.6 |
| February-2015 | 10.4 | 17.3 | 30.4 | 49.2 | 84.0 | 234.1 | 545.2 |
| February-2016 | 10.4 | 16.7 | 25.5 | 42.7 | 68.4 | 148.1 | 186.8 |
| February-2017 | 8.6 | 12.1 | 20.6 | 37.5 | 60.5 | 258.8 | 540.2 |
| February-2018 | 12.8 | 18.7 | 31.1 | 55.9 | 103.8 | 361.1 | 1156.7 |
| February-2019 | 7.9 | 12.9 | 22.5 | 36.6 | 61.4 | 247.2 | 621.3 |

Calculated data.

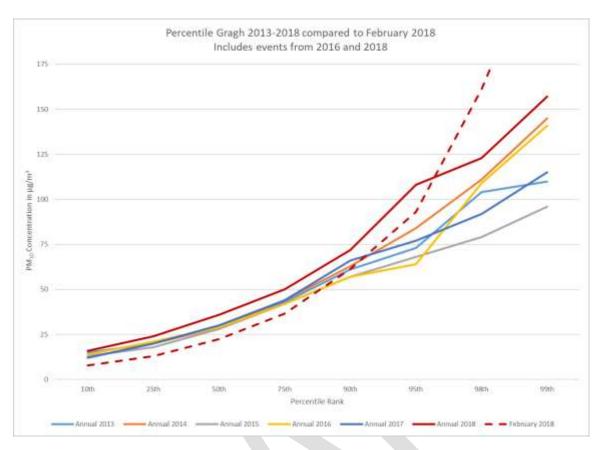


Figure 10 - Percentile Ranking Multi Year Compared to February 2018

The percentile graph shows that 2018 was an exceptional year and that it shows higher values across all percentile ranges. Additionally, February 2018 was higher from the 92nd percentile range and higher than that of similar ranges for years 2013-2017.

Table 9 - Percentile Ranking Multi Year and February 2018 Data

| Percentile | 10th | 25th | 50th | 75th | 90th | 95th | 98th | 99th |
|---------------|------|------|------|------|------|------|------|------|
| Annual 2013 | 15 | 20 | 30 | 43 | 61 | 73 | 104 | 110 |
| Annual 2014 | 12 | 20 | 29 | 44 | 63 | 84 | 111 | 145 |
| Annual 2015 | 13 | 18 | 28 | 42 | 57 | 68 | 79 | 96 |
| Annual 2016 | 14 | 21 | 29 | 42 | 57 | 64 | 109 | 141 |
| Annual 2017 | 12 | 20 | 30 | 44 | 66 | 77 | 92 | 115 |
| Annual 2018 | 16 | 24 | 36 | 50 | 72 | 108 | 123 | 157 |
| February 2018 | 7 | 12 | 22 | 36 | 61 | 93 | 161 | 247 |

Report AMP 230 for annual data. Calculated for February 2018.

Other Monitoring Station Data



7 - Map of three PM10 Monitoring sites

The event was localized at the South Valley-2ZV monitoring site. Data evaluated for the Del Norte High School-2ZM (AQS ID 35-001-0023) and the Singer-2ZS (AQS ID 35-001-0026) does show a impact on the other monitoring sites in Bernalillo County.

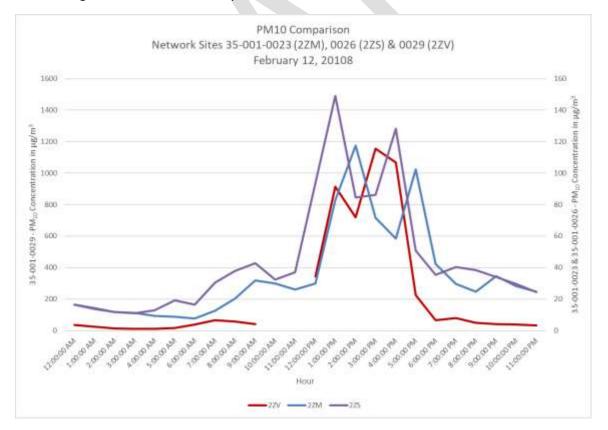


Figure 11 Multi Site Data Comparison for Event Date

While it would be useful to evaluate additional data from monitoring sites in other New Mexico counties, for 2018 there is only one other PM10 monitor outside of Bernalillo County. That site is located to the

North at Santa Ana Pueblo in Sandoval County. This site (AQS ID 35-043-9028) does not have data for February 2018.

Although there is a lack of additional data from other monitoring sites outside of Bernalillo County this event is not isolated event at the South Valley-2ZV site and did show an impact on other monitoring sites within Bernalillo County. The event has been well documented as having originated outside of Bernalillo County, with high winds occurring in counties located to the east of Bernalillo County. The event moved into the county from the south across several other New Mexico Counties and Tribal lands into Bernalillo County with a direct impact on the South Valley-2ZV site and the area the site represents. It is not clear as to the potential impact of PM10 being transported into the county from other counties or from the Tribal lands, yet due to the lack of data other than wind speed data, it is difficult to evaluate that impact.

The impact on PM10-PM2.5 data shows that it was a vigorous event that suspended a huge volume of large particles over a short term time period.

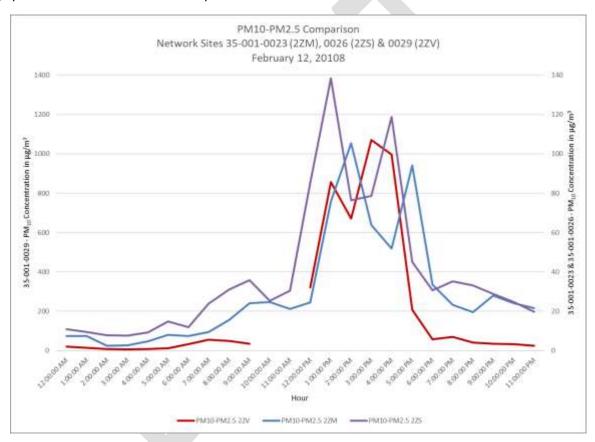


Figure 12 OM10-PM2.5 Multi Site Comparison of Event Date

The resulting graphs, PM10 and PM10-PM2.5, are almost identical. This shows that PM2.5 had little impact on the PM10 data results and the PM10 exceedance was primarily due to a large increase in the particulate range of PM10-PM2.5.

In addition to this the ratio of PM2.5 to PM10 is greatly impacted by the February 12, 2018 winds. During the event the South Valley-2ZV site's ratio of PM2.5 in PM10 dropped to below 10%, this is due to a large increase of PM10 as compared to the relatively smaller increase in PM2.5. It can also be seen that for the other two sites the ratio of PM2.5 to PM10 drops significantly during the event period and stays below 15% for the entire event period for all sites except for the Del Norte-2ZM site.

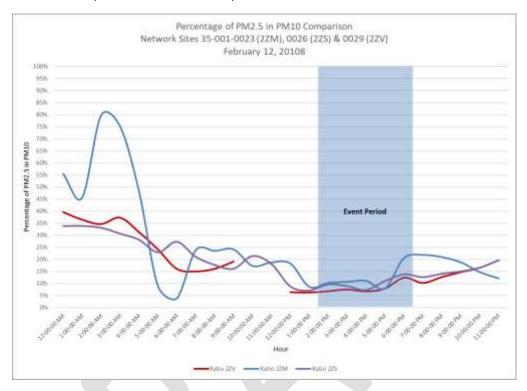
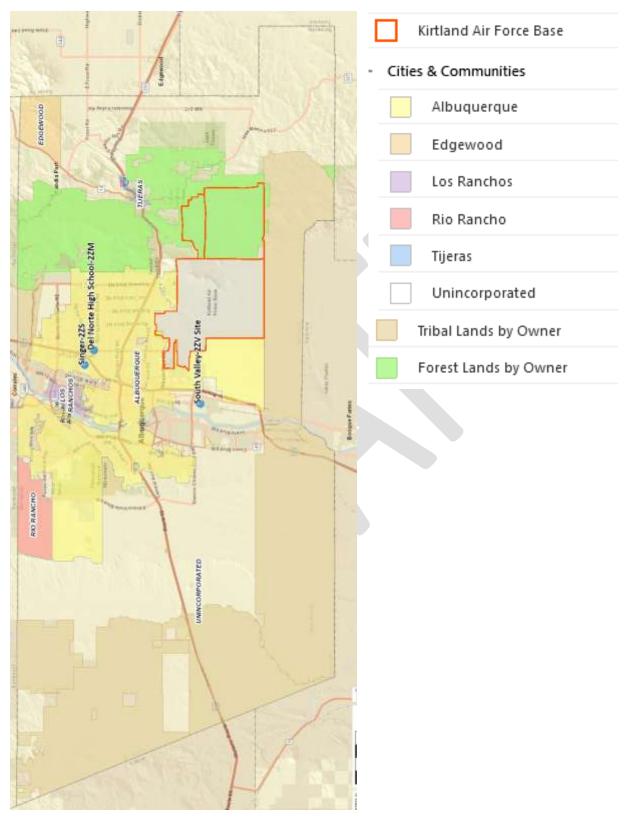


Figure 13 PM2.5 as a ratio of PM10

Typically, the ratio of PM2.5 to PM10 is 25% or higher. When the ratio of PM2.5 drops significantly this is a sign that winds are transporting large volumes of larger particles. When the ratio is significantly high, such as the early morning hours at Del Norte High School-2ZM, this is a possible sign of some type of biomass combustion.

County Overview



8 - County Map Overview Map with PM10 Sites

The County of Bernalillo has a wide variety of Cities, Communities and other Federal properties within its boundary. The County is made up of four Tribal Pueblos, Kirtland Air Force Base, Cibola National Forest, and five townships and metropolitan areas including the City of Albuquerque, the City Rio Rancho, Los Ranchos de Albuquerque, Tijeras, and Edgewood. Bernalillo County residents are represented by approximately 86 neighborhood associations. See Appendix A-Bernalillo County Neighborhood Associations.

Monitoring Site Area Description



9 – County Map South Valley-2ZV site Location

The South Valley-2ZV site was established to monitor PM10 in a potential sensitive area of the County. The site also monitors for PM2.5, Carbon Monoxide and Ozone. For PM10 the site is listed in the AQS database as meeting SLAMS siting criteria starting January 1, 2011. Based on the area's actual land use and zoning allowances the area allows a variety of usage and many areas have mixed residential and commercial properties. Often the land use pattern and the zoning pattern do not coincide for this area. Many properties contain a commercial activity and a residence on the same property. While most of the zoning is some level of commercial or industry these areas also allow for residences although these areas are rarely zoned for residential activities or mixed use activities, but the residential land usage may be allowed by zoning variances. The Agency does not have jurisdiction over the zoning within Bernalillo County.

The site features include, to the immediate north, a mixture of agricultural, small commercial and residential structures. To the far north lies the metro area of the City of Albuquerque. Further north is the City of Rio Rancho in Sandoval County and the Pueblo of Sandia which straddles the north eastern corner of Bernalillo County and Sandoval County.

To the east lies several commercial and residential properties, most of the commercial properties are junk yards and other automotive recycling facilities. Farther to the east lies the Tijeras Arroyo that can often channel easterly winds from the Manzano Mountains into the Rio Grande valley. Also to the east are Kirtland Air Force Base and the Albuquerque International Airport.

The South is comprised mostly of mixed residential and agricultural land. The Tribal lands of the Pueblo of Isleta straddles the southern border of Bernalillo County and Valencia County.

To the West lies the Rio Grande (River), immediately to the west is also the waste water treatment facility serving the metro City of Albuquerque and much of Bernalillo County. Further west is the Tribal lands of the Pueblo of Laguna and of Canoncito (Navajo Nation).

The South Valley-2ZV local anthropogenic sources of dust include small residential properties and small commercial properties. The residential properties typically provide no ground cover and are comprised of exposed dirt lots with exposed dirt yards and exposed dirt driveways. The commercial properties are similar to the residential properties with no ground cover and consist or small lots of exposed dirt. Several of the small commercial facilities include a residence on the property and may often be a combination of private residence and home based business including junk yards, semi-truck parking yards, pallet recycling, and fire wood storage.

The South Valley-2ZV site is located in an area where the dominant source of dust is anthropogenic. Due to the area having been a farming and grazing community it is unlikely that the area has remained untouched by human activity. Sources are predominately due to residential and small commercial properties with little to no vegetative cover and with the small commercial properties having no soil stabilization such as asphalt or cement paving. Other areas that also impact the area are due to off road vehicle usage to the east and some active agricultural use to the northwest, west, southwest.



10 - South Valley-2ZV Area Specific Location

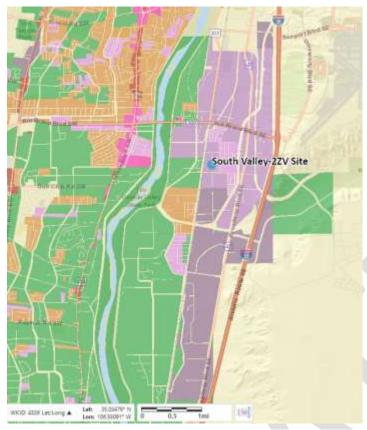


11 - South Valley-2ZV Generalized land use of area

The prolonged drought across the Southwest has also reduced normal vegetative cover. A USGS study suggests

"... that sustained drought conditions across the Southwest will accelerate loss of grasses and some shrubs and increase the likelihood of dust production on disturbed soil surfaces in the future." (Responses of wind erosion to climate-induced vegetation changes on the Colorado Plateau, Seth M. Munson, Jayne Belnap, Gregory S. Okin, Proceedings of the National Academy of Sciences Feb 2011, DOI: 10.1073/pnas.1014947108).

This is an issue which the Agency is concerned. If the instances of high winds increase the probability of generating windborne dust then it is likely the area will experience an increase in events that exceed or nearly exceed the PM10 NAAQS. The fact that one high wind event occurred in 2014, three in 2016 and four in 2018 may point to the reality that the recurrence of these events will continue to increase.



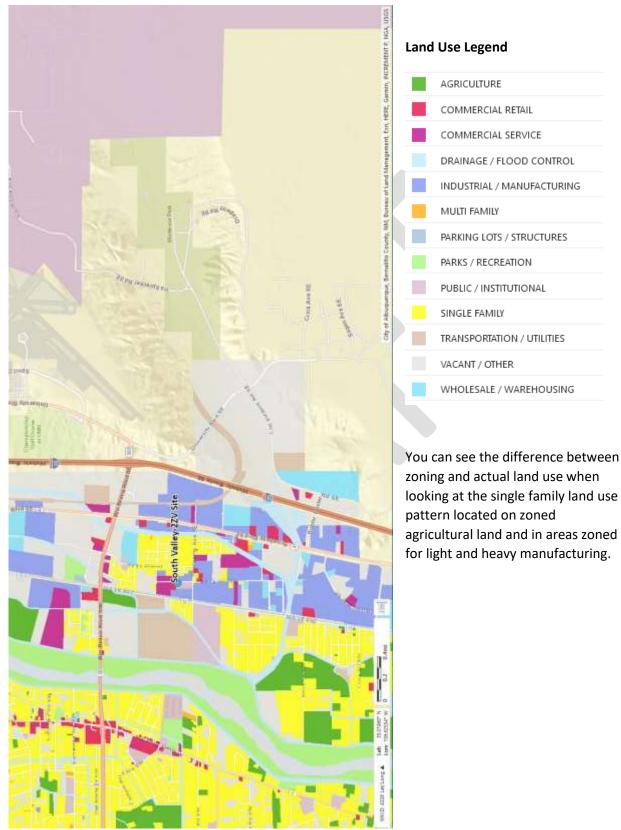
Zone Map of the affected area (Bernalillo County Advanced Data Viewer, https://ash.bernco.gov)

12 - South Valley-2ZV Area Zone Map

Zoning Legend

- A-1 = Rural Agricultural 1-Acre Minimum Zone
- A-2 = Rural Agricultural 2-Acre Minimum Zone
- C-1 = Neighborhood Commercial Zone
- C-2 = Community Commercial Zone
- C-LI = Commercial Light Industrial Zone
- C-N = Community Neighborhood Commercial Zone
- M-1 = Light Manufacturing Zone
- M-2 = Heavy Manufacturing Zone
- M-H = Mobile Home & Single Family Residential Zone
- O-1 = Office & Institutional Zone
- R-1 = Single Family Residential Zone
- R-2 = Apartment Zone
- Sector Development Zone

Land Use Pattern of the affected area (Bernalillo County Advanced Data Viewer, https://ash.bernco.gov)



You can see the difference between zoning and actual land use when looking at the single family land use pattern located on zoned

13 - South Valley-2ZV Land Use Map

Monitoring Station Description

The South Valley-2ZV monitoring station (AQS ID 35-001-0029) was established On 3/22/2002, PM10 sample period start was 8/6/2002 and PM10 SLAMS begin date was 1/1/2011. For the evaluation period of this demonstration the equipment used at the site for PM10 monitoring are:

Table 10 - AQS PM10 Monitoring Methods for South Valley-2ZV

| Date Range | Equipment | Method Code |
|------------------|-------------------------------------------|-------------|
| 1/1/13-4/17/13 | INSTRMENTAL ANDERSEN SA246B BAM | 076 |
| 4/18/13-1/5/2017 | MET ONE BAM 1020 | 122 |
| 1/6/17-1/31/19 | Teledyne API T640X Broadband spectroscopy | 239 |

AQS Maintain Monitor Methods

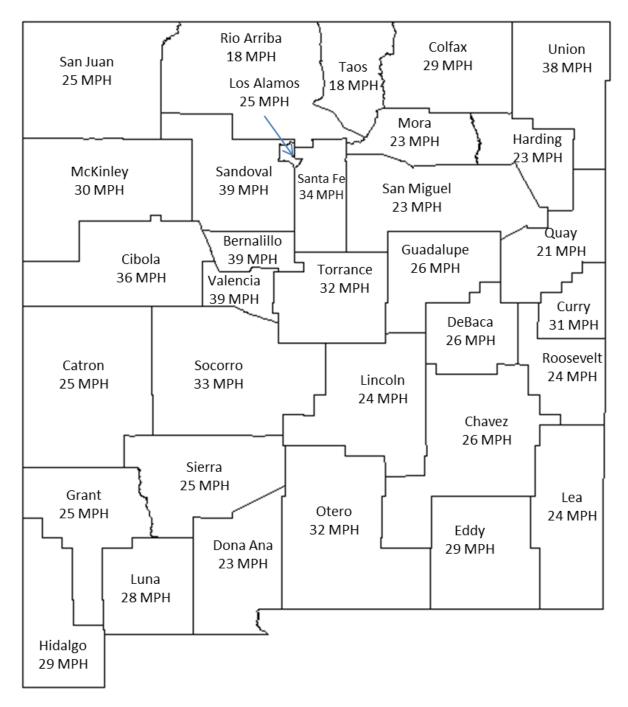
Table 11 - Annual and Quarterly Data Capture for South Valley-2ZV Site

| Year | Quarter | Data Capture | Annual Average | |
|------|---------|--------------|----------------|--|
| 2013 | 1 | 98 | | |
| | 2* | 70 | 88.5 | |
| | 3 | 98 | 88.3 | |
| | 4 | 88 | | |
| 2014 | 1 | 92 | | |
| | 2 | 94 | 92.5 | |
| | 3 | 96 | 92.3 | |
| | 4 | 88 | | |
| | 1 | 94 | | |
| 2015 | 2 | 93 | 94.75 | |
| 2013 | 3 | 94 | 34.73 | |
| | 4 | 98 | | |
| | 1 | 93 | | |
| 2016 | 2 | 93 | 92.25 | |
| 2010 | 3 | 94 | 32.23 | |
| | 4 | 89 | | |
| | 1 | 98 | | |
| 2017 | 2 | 98 | 97 | |
| | 3 | 98 | 57 | |
| | 4 | 94 | | |
| 2018 | 1 | 97 | | |
| | 2018 | | 97 | |
| | 3 | 99 | 31 | |
| | 4 | 95 | | |

^{*} Data loss due to equipment failure. AMP 430 Report.

Cause and Point of Origin

On the day of the event 23 of the State's 33 counties (69%) experienced wind speeds at or above the EER wind speed threshold of 25 mph.



14 - New Mexico County Map of Max Wind Speeds on February 12, 2018

It is likely that due to the wind direction and recorded wind speeds of this event that dust was brought across the Bernalillo County line from the east. The impact of the wind speeds on counties to the east were at or above the EER wind speed threshold of 25 MPH and the potential for impact cannot be discounted.

The winds were predominately south (180 degrees) and South-easterly (170 degrees) and the winds were pushed across New Mexico's south-eastern counties across Isleta Pueblo (Tribal land) into Bernalillo County.

The winds impacted the Mountain View neighborhood containing residential, commercial and industrial properties and the South Valley-2ZV air monitoring station.



15 - Map of Generalized Wind Direction of the February 12, 2018 Event

Wind Rose pattern results are similar to the expected wind direction based on the wind patterns across the state. Whether based on the 24 hour period or the event period of 14:00-23:00 the winds are predominately from approximately 110 degrees.

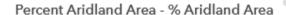
Due to the direction of the winds it is possible that dust was transported from other New Mexico counties, Sandia Pueblo tribal lands, National Forest land, Federal Air Force Base, and Bernalillo County lands.

Most of Bernalillo County, and the counties to the east, are designated at 61% arid land. The exception is the mountain ranges of Sandia and Manzano that are classified as 27% arid land.



16 - County Map Arid Land Designations

Legend



More than 80%

61 - 80%

41 - 60%

21 - 40%

Less than 20%

None

While the area is dominated by anthropogenic sources that is not the reason the area exceeded the PM10 NAAQS. Data shows that the winds experienced on this day were very high and exceeded the EER threshold resulting in large amounts of dust becoming airborne. The data shows that this event overwhelmed efforts to reasonably control how much dust become airborne due to human activities but the high winds overwhelmed those efforts. The data also shows that this is an event that has deviated from prior and current years and should not be expected to occur again for any February in the future.

ALBUQUERQUE INTL AP (NM) Wind Rose

Feb. 12, 2018 - Feb. 12, 2018 Sub-Interval: Feb. 12 - Feb. 12, 0 - 23

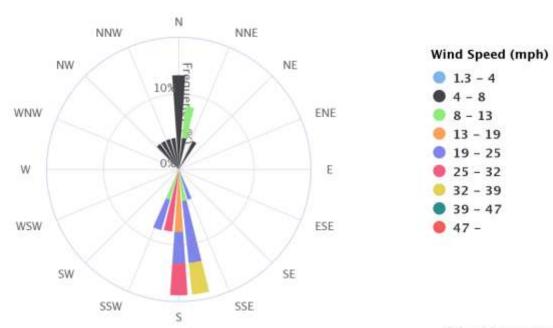


Figure 14 – Wind Rose 24-Hour Period on February 12, 2018

Click and drag to zoom

ALBUQUERQUE INTL AP (NM) Wind Rose

Feb. 12, 2018 - Feb. 12, 2018 Sub-Interval: Feb. 12 - Feb. 12, 13 - 16

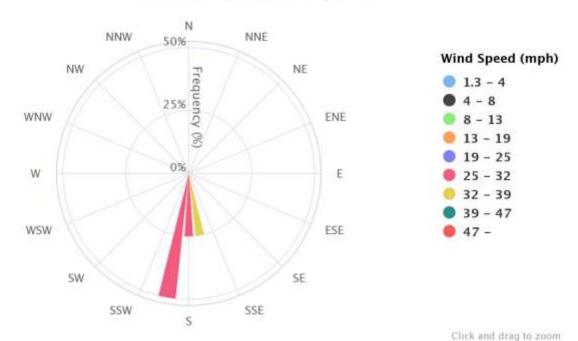


Figure 15 – Wind Rose Hours 13:00-16:00 on February 12, 2018

The HySplit analysis of the event shows winds moving into Bernalillo County from the direction of 180 degrees and reinforces the results of the Wind Rose patterns.

NOAA HYSPLIT MODEL Backward trajectories ending at 2300 UTC 12 Feb 18 NAMS Meteorological Data

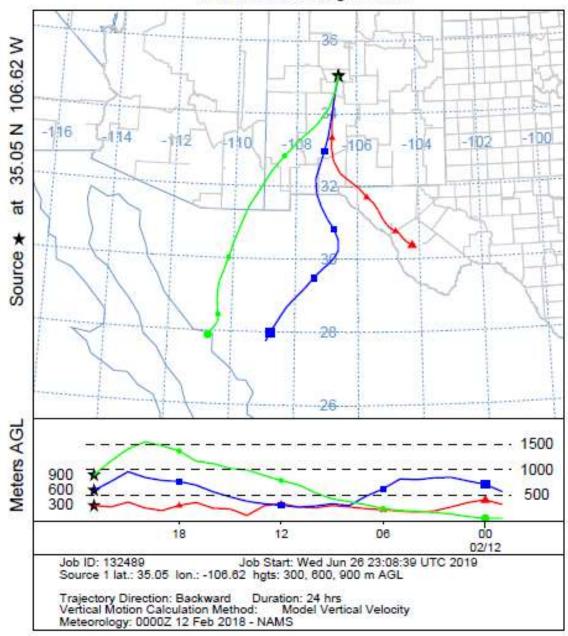


Figure 16 - Hysplit

This HySplit shows that the winds moved into Bernalillo County primarily from approximately 180 degrees. The HySplit shows that the winds crossed several New Mexico counties and over Tribal Land into Bernalillo County to the South Valley-2ZV site.

Meteorology

An upper level low pressure system digging through California and Nevada is evident on 500 millibar charts. This low pressure system created a surface pressure gradient over New Mexico that generated south winds in Albuquerque. The Rio Grande Valley constricts as air moves northward resulting in a channeling effect. In other words, south winds are stronger in the Albuquerque metro area than surrounding areas due to the narrowing of the Valley as air moves northward. This terrain effect generally appears to add 4-8 mph of speed to south winds in the Albuquerque metro area.

In addition to strong south winds, soils were unusually dry even by Albuquerque standards. Precipitation records show that the Albuquerque International Airport received less than a tenth of an inch of rain from 01Oct2017 through 12Feb2018. The lack of rainfall has resulted in severe drought status for central New Mexico.



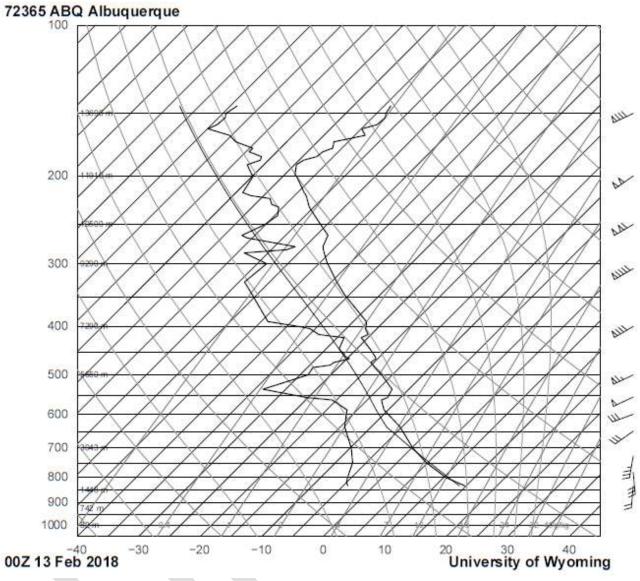


Figure 17 - 00Z 13Feb2018 Sounding

City of Albuquerque Public Information and Outreach Efforts

At 04:19 the National Weather Service issued an advisory:

National Weather Service

Watches, Warnings & Advisories

One product issued by NWS for: Albuquerque NM

Hazardous Weather Outlook

Hazardous Weather Outlook National Weather Service Albuquerque NM 419 AM MST Mon Feb 12 2018

NMZ501>540-131200-

Northwest Plateau-Chuska Mountains-Far Northwest Highlands-Northwest Highlands-West Central Plateau-West Central Mountains-West Central Highlands-Southwest Mountains-San Francisco River Valley-San Juan Mountains-Jemez Mountains-West Slopes Sangre de Cristo Mountains-Northern Sangre de Cristos above 9500 feet/Red River-Southern Sangre de Cristos above 9500 feet-East Slopes Sangre de Cristo Mountains-Upper Rio Grande Valley-Lower Chama River Valley-Santa Fe Metro Area-Middle Rio Grande Valley/Albuquerque Metro Area-Lower Rio Grande Valley-Sandia/Manzano Mountains-Estancia Valley-Central Highlands-South Central Highlands-Upper Tularosa Valley-South Central Mountains-Raton Ridge/Johnson Mesa-Far Northeast Highlands-Northeast Highlands-Union County-Harding County-Eastern San Miguel County-Guadalupe County-Quay County-Curry County-Roosevelt County-De Baca County-Chaves County Plains-Eastern Lincoln County-Southwest Chaves County-419 AM MST Mon Feb 12 2018

This hazardous weather outlook is for portions of northern and central New Mexico.

.DAY ONE...Today and Tonight

As a low pressure system moves over Nevada and California today, moist southwesterly flow aloft will push over New Mexico. This flow will be strong over portions of the state with gusty winds expected to mix down to the Chuska mountains and portions of the southwestern mountains of New Mexico.

In addition, the southwesterly flow will push moisture over the San Juan and Tusas mountains where a few to several inches of snow accumulation are expected, mainly above 8,000 feet.

17 NWS Weather Advisory

Prior to issuing a health alert, the Agency's staff meteorologist, Jeff Stonesifer, issued a Wind and Dust Alert for February 12, 2018.

Stonesifer, Jeff W.

 From:
 Air Quality Program <aqd@cabq.gov>

 Sent:
 Monday, February 12, 2018 11:30 AM

 To:
 Stonesifer, Jeff W.

 Subject:
 12Feb2018 wind and dust forecast

South winds 20-30 mph and gusty possible today.

View this email in your browser



Wind and Dust Alert

WIND AND DUST FORECAST

Strong south winds may develop this afternoon in Albuquerque. The winds could develop in response to an approaching low pressure system. South winds get channeled up the Rio Grande Valley and so tend to be stronger over most of the metro area than out on the West Mesa.

On the other hand, thick cloud cover is nearby and if it moves in, the clouds would temper the winds this afternoon. If the sun continues to shine over most of Albuquerque today, and that is looking more and more likely...then south winds will reach 20-30 mph this afternoon with gusts to 40 mph resulting in blowing dust.

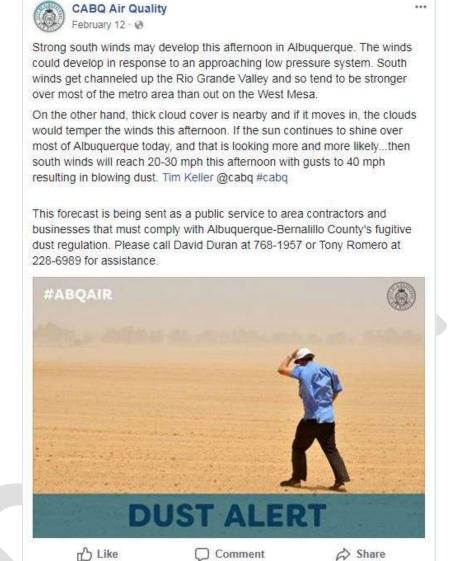
This forecast is being sent as a public service to area contractors and businesses that must comply with Albuquerque-Bernalillo County's fugitive dust regulation. Please call David Duran at 768-1957 or Tony Romero at 228-6989 for assistance.

ADD AIR TO YOUR FACEBOOK FEED.

Follow us on social media!

18 Agency Wind and Dust Forecast

The forecast was also published on the City of Albuquerque's Facebook page.



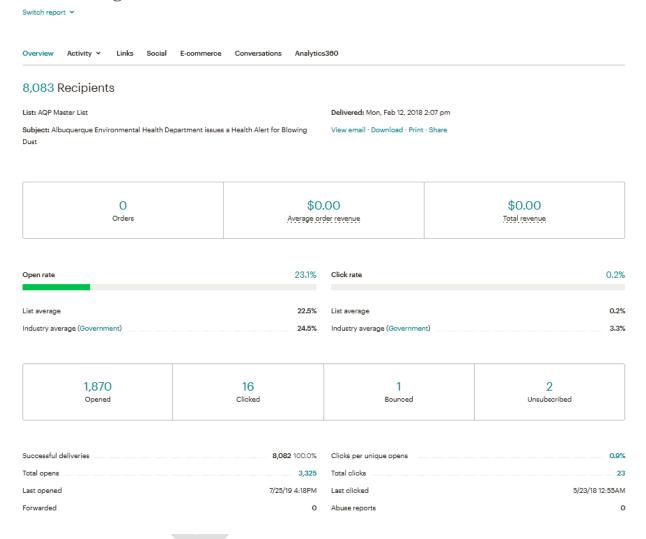
Comment Comment

Share

19 Agency Wind and Dust Forecast Facebook Post

The Agency issued a health alert for blowing dust at 14:10. The health alert was sent to the public via the Agency's MailChimp account. The MailChimp service delivered the health alert to 8,083 email accounts. 1,870 of those emails were opened. Additionally, all media outlets and schools were sent the health alert. Other social media resources were utilized with the health alert information being posted on the Agency's Facebook page and links included in the Agency's twitter account.

Albuquerque Environmental Health Department Issues A Health Alert For Blowing Dust



20 Agency's MailChimp Health Alert Metrics



Health Alert

Issue time: Monday, February 12, 2018 at 2:10 PM

FOR IMMEDIATE RELEASE CONTACT: Jeff Stonesifer (505) 767-5624

CITY OF ALBUQUERQUE ENVIRONMENTAL HEALTH DEPARTMENT ISSUES HEALTH ALERT DUE TO BLOWING DUST

The City of Albuquerque Environmental Health Department's Air Quality Program is issuing a health alert for those with respiratory conditions. High winds may cause elevated levels of particulate matter. This alert is in effect for the following period:

Monday, February 12, 2018 at 2:10 PM

То

Monday, February 12, 2018 at 7:00 PM

Blowing dust contributes to particulate pollution. People who are sensitive to blowing dust, such as those with asthma, chronic bronchitis and other respiratory and heart diseases, are encouraged to limit outdoor activity. Children and older adults may also be affected by particulate pollution. Schools and senior citizen facilities may want to provide indoor activities to minimize exposure to elevated outdoor particulate levels.

During blowing dust events, the following actions are recommended, especially for individuals sensitive to particulate pollution:

- Keep windows and doors closed. If needed for comfort, use air conditioners or heating systems on recycle/recirculation mode.
- · Limit your time spent outdoors.
- If symptoms of heart or lung disease occur, (including shortness of breath, chest tightness, chest pain, palpitations or unusual fatigue) contact your health care provider.
- Individuals with heart or lung disease should follow their health management plan from their health care nowlder
- · Asthmatic individuals should follow a prescribed asthma management plan.
- Avoid outdoor exercise.

Click here for more information about how to stay healthy with Action Alerts.

Additional Information

Stonesifer, Jeff W.

From: Air Quality Program <aqd@cabq.gov>
Sent: Monday, February 12, 2018 2:09 PM

To: Stonesifer, Jeff W.

Subject: Albuquerque Environmental Health Department issues a Health Alert for Blowing

Dust

An air quality health alert from the city of Albuquerque.

Click here to view in browser



Health Alert

Issue time: Monday, February 12, 2018 at 2:10 PM

FOR IMMEDIATE RELEASE

CONTACT: Jeff Stonesifer (505) 767-5624

CITY OF ALBUQUERQUE ENVIRONMENTAL HEALTH DEPARTMENT ISSUES HEALTH ALERT DUE TO BLOWING DUST

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During blowing dust events, the following actions are recommended, especially for individuals sensitive to particulate pollution:

22- Outlook email Health Alert Notice sent to the Press Release mail list

The alert was also sent to the Agency's Twitter account.



23 Agency's Health Alert on Twitter

At 14:18, Monday February 12, 2018 the staff meteorologist, Jeff Stonesifer, also sent a Shutdown Notice to Contractors in Bernalillo County. This MailChimp email was sent to 8,083 email recipients and was opened by 1,746 of those recipients.

12Feb2018 Shutdown Notice To Contractors In

Bernalillo County Switch report 🕶 8,083 Recipients List: AQP Master List Delivered: Mon, Feb 12, 2018 2:18 pm Subject: 12Feb2018 Shutdown Notice to Contractors in Bernalillo County 0 \$0.00 \$0.00 Total revenue Orders Average order revenue 0% Open rate 21.6% Click rate 21.4% 0.1% List average List average Industry average (Government) 24.5% Industry average (Government) 3.4% 0 1,746 0 3 Clicked Unsubscribed Opened Bounced

24 – MailChimp Shutdown notice Analytics for February 12, 2018

A Shutdown Notice email was also sent using the Agency's Outlook email server.

Stonesifer, Jeff W.

From: Air Quality Program <aqd@cabq.gov>
Sent: Monday, February 12, 2018 2:20 PM

To: Stonesifer, Jeff W.

Subject: 12Feb2018 Shutdown Notice to Contractors in Bernalillo County

Contractors and businesses that generate dust need to shutdown operations immediately. View this email in your browser



Shutdown Notification

Shutdown notice

Subject: notice to area contractors regarding fugitive dust regulation

Issued: 02/12/2018, 2:20 PM Expires: 02/12/2018, 7:00 PM

From: Albuquerque Environmental Health Department, Air Quality Program

This notice is being sent as a public service to area contractors and businesses that must comply with Albuquerque-Bernalillo County's fugitive dust regulation.

The Air Quality Program has documented a high wind event. In accordance with 20.11.20.16 NMAC which states during a high wind event all persons who own or operate a fugitive dust source where active operations have occurred or are occurring must use reasonably available control measures found in Paragraph 5 of subsection C of 20.11.20.16 NMAC. Paragraph 5 states that it is MANDATORY during a high wind event that all active operations that are capable of producing fugitive dust be stopped. Active operations are defined as earth moving, discing, trenching, blading, scraping, clearing, detonation and demolition activities, movement of any motorized vehicles on any unpaved roadway or surface.

This forecast is being sent as a public service to area contractors and businesses that must comply with Albuquerque-Bernalillo County's fugitive dust regulation. Please call David Duran at 768-1957 or Tony Romero at 228-6989 for assistance.

The shutdown notice was also published on the City of Albuquerque's Facebook page:



Shutdown notice for area contractors

Issued: 02/12/2018, 2:20 PM Expires: 02/12/2018, 7:00 PM

From: Albuquerque Environmental Health Department, Air Quality Program

This notice is being sent as a public service to area contractors and businesses that must comply with Albuquerque-Bernalillo County's fugitive dust regulation.

The Air Quality Program has documented a high wind event. In accordance with 20.11.20.16 NMAC which states during a high wind event all persons who own or operate a fugitive dust source where active operations have occurred or are occuring must use reasonably available control measures found in Paragraph 5 of subsection C of 20.11.20.16 NMAC. Paragraph 5 states that it is MANDATORY during a high wind event that all active operations that are capable of producing fugitive dust be stopped. Active operations are defined as earth moving, discing, trenching, blading, scraping, clearing, detonation and demolition activities, movement of any motorized vehicles on any unpaved roadway or surface.

Tim Keller @cabq #cabq

This forecast is being sent as a public service to area contractors and businesses that must comply with Albuquerque-Bernalillo County's fugitive dust regulation. Please call David Duran at 768-1957 or Tony Romero at 228-6989 for assistance.



26 Shutdown notice issued February 12, 2018 Facebook Post

Media Coverage

Since local televised new reports are aired locally by 5:30 and 6 PM and due to the late afternoon/early evening notification release media coverage was limited and there was no Albuquerque Journal newspaper coverage of the event. Televised news media coverage was limited to the KRQE News 13 website.

City issues health alert for blowing dust Monday

by: KRQE Media

Posted: Feb 12, 2018 / 02:37 PM MST / Updated: Feb 12, 2018 / 02:37 PM MST

ALBUQUERQUE, N.M. (KRQE) – The City of Albuquerque has issued a health alert due to blowing dust.

The health alert will go into effect Monday at 2:10 p.m. and will remain in affect until 7:00 p.m.

The Environmental Health Department recommends the following tips to those sensitive to blowing dust.

- Keep windows and doors closed. If needed for comfort, use air conditioners or heating systems on recycle/re-circulation mode.
- · Limit your time spent outdoors.
- If symptoms of heart or lung disease occur, (including shortness of breath, chest tightness, chest pain, palpitations or unusual fatigue) contact your health care provider.
- Individuals with heart or lung disease should follow their health management plan from their health care provider.
- · Asthmatic individuals should follow a prescribed asthma management plan.
- Avoid outdoor exercise.

27 KRQE Website Notification of the Health Alert - Text Based

High winds blowing across New Mexico; fire danger high



KOB com Web Staff April 12, 2018 07,06 PM

ALBUQUERQUE, N.M. — A high wind warning is in place for many areas in New Moxico. Winds have the potential to reach 35 to 45 miles per how with guids from 50 to 75 miles per how.

Blowing dust and high fire threats will be a concern. Albuquerque's Environmental Health Department issued an alert because of that blowing dust. It will expire at 8 p.m. tonight. City officials suggest.

- Keeping windows and doors closed
- . Limiting time outdoors and avoiding outdoor exercise.
- Contact your physician if you develop symptoms like shortness of breath, chest tightness, chest pain palptations or fatigue

Meanwhile, the National Weather Senice says visitality will be severely reduced along I-49 between Winslow, Arizona and the New Mexico border in northero Arizona. Winds are also expected to pick up along I-10 in the Willicox area of southeastern Arizona.





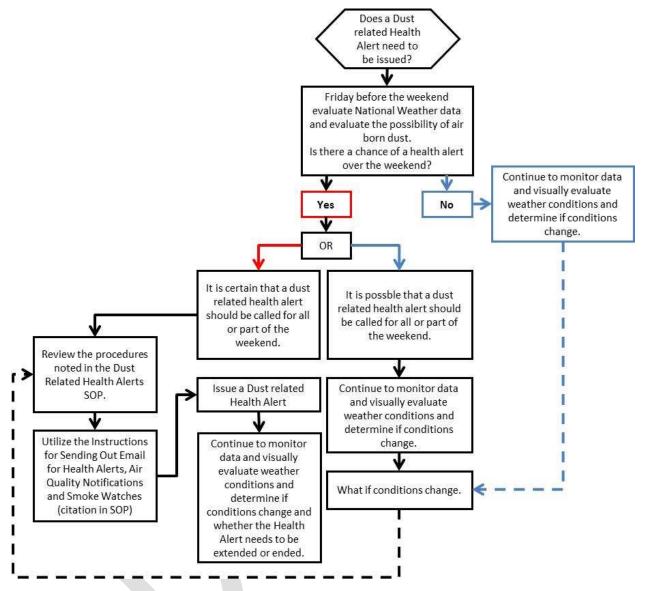
Sand is starting to be blown of White Sands. #NMWx #windy #GOESEast #Goes16 pic.hwiter.com/SdQxwE9NX

- NWS Albuquerque (@NWSAlbuquerque) April 12, 2018

The New Mexico Department of Transportation says Luna and Hidalgo counties in southwestern can expect blowing dust to create for low-visibility on the roadways.

28 - KOB Website Notification of the Health Alert

Decision Process for Dust Related Health Alerts



29 - Decision Tree for Evaluating Need for a Health Aalerts

The City of Albuquerque utilizes a decision process for evaluating the need for dust related health alerts. For more on the Agency's process for determining a dust related health alert see Appendix B-HAWG SOP.

Reasonable Controls Analysis

Fugitive Dust Control Program

Although the Agency is currently in attainment for the PM10 NAAQS and does not have a PM10 SIP, in 2008 the Albuquerque-Bernalillo County Control Board (AQCB) adopted the PART 20 Fugitive Dust Control ordinance. The objective of the ordinance is to

"ensure that every person shall use reasonably available control measures or other effective measures on an ongoing basis to prevent or abate fugitive dust, if the fugitive dust may with reasonable probability injure human health or animal or plant life or as may unreasonably interfere with the public welfare, visibility or the reasonable use of property, as required by 20.11.20 NMAC."

The ordinance defines

"Reasonably available control measure" or "control measure" means a device, system, process modification, apparatus, technique, work practice, or combination thereof, that mitigates fugitive dust and includes the measures in 20.11.20.23 NMAC and any other regulatory control program that results in equivalent protection of a disturbed surface or inactive disturbed surface area, whether or not the purpose of the control measure is to mitigate dust or to meet another requirement of 20.11.20 NMAC or any other statute or regulation."

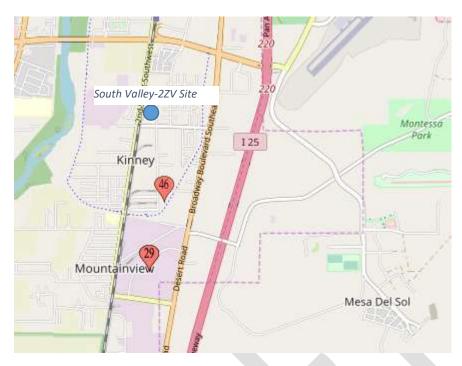
Since the area has not experienced an exceedance of the NAAQS in any February prior to the February 12, 2018 event shows the reasonableness of the efforts by the Agency implementing the Fugitive Dust Program and the reasonably available control measures.

The Agency has statutory jurisdiction over the County of Bernalillo County with the exclusion of Native American Tribal lands.

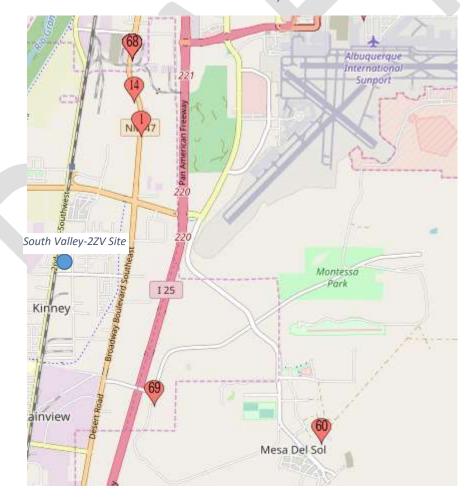
"STATUTORY AUTHORITY: 20.11.20 NMAC is adopted pursuant to the authority provided in the New Mexico Air Quality Control Act, NMSA 1978 Sections 74-2-4, 74-2-5; the Joint Air Quality Control Board Ordinance; Bernalillo county Ordinance No. 94-5, Sections 4 and 5; and the Joint Air Quality Control Board Ordinance, Revised Ordinances of Albuquerque 1994 Sections 9-5-1-4 and 9-5-1-5. [20.11.20.3 NMAC - Rp, 20.11.20.3 NMAC, 3/17/08]"

For more information concerning this ordinance please see Appendix C – Part 20.

The Agency had 85 new construction dust permits across the county. Approximately 5 (6%) new construction dust permits are located in the area impacted by the February 12, 2018 event, of these approximately 2 (2%) of the new construction dust permits were from the wind direction during the event period. The Agency had 157 Routine (programmatic permits covering parking lots, salvage yards, etc.) across the County. Approximately 5 (6%) Routine permits are located in the area impacted by the February 12, 2018 event. Approximately 2 (1.2%) of the Routine permits were from the wind direction during the event period. See Appendix D - List of Permits active on February 12, 2018 for a list of permits.



30 - Map of New Construction Permits in the area around the South Valley-2ZV site



31 - Map of Routine Permits in the area around the South Valley-2ZV site

The Agency is confident that these controls are reasonable and effective since the County does not experience frequent exceedances of the NAAQS. With the exception of Tribal land within the County of Bernalillo and those counties outside Bernalillo County the ordinance was in place for those businesses or activities that may have contributed to the event.

Based on the documentation provided in this demonstration package, the event qualifies as a natural event. The February 12, 2018 associated with the event meets the regulatory definition of a natural event at 40 CFR 50.14(b)(8). This event transported windblown dust from anthropogenic sources within Bernalillo County, excluding Tribal lands, which were reasonably controlled at the time of the event. Accordingly, the Agency has demonstrated that the event is a natural event that should be considered for treatment as an exceptional event.

On February 12, 2018 the Agency received five (5) citizen complaints. The follow are screen captures of those complaints and the Agency's response.



Resolution: I called Stephanie from the site of the complaint. The city had issued a Work Stoppage due to winds and I was already on-site ensuring the contractor got the word to shut down but to continue watering. This site will actually receive a Post Inspection Notification for not having adequate dust control measures on the site. I thank Stephanie for utilizing 311, as we try our best to ensure everyone is in compliance, and 311 is a valuable tool for our program.

Auto Note 🔄 No Channel Administrator, 02/12/2018 02:53 PM

Description: East of Yale Blvd SE on South side of Gibson Blvd SE- construction being done, no water truck on site, and heavy dust blowing everywhere. Summary: Fugitive Dust



Auto Note 🔙 No Channel Administrator, 02/15/2018 01:36 PM

Resolution: On 2-16-2018, I went to the site in regards to the concern of fugitive dust. The City of Albuquerque Air Quality had called a work shutdown due to high winds that day. Upon arrival I spoke with Darren Mortensen Project Manager for Bradbury Stamm. I discussed the citizens concern of large amounts of dust leaving the property. I requested that Mr. Darren Mortensen look over his fugitive dust control permit and abide by the reasonable control measures, which includes Water trucks. and silt fencing maintenance. I relayed If those measures are not capable of mitigating dust his contingency plan would need to be put in place adding additional water truck. Also, we had discussions on sending his workers to our Fugitive Dust Control Workshop for refreshers on controls. I reemphasized watering during ground disturbance and at the end of the work day. I contacted the citizen prior to inspecting to get specific details on this issue. We will continue to monitor the site.

Auto Note 🛜 No Channel Administrator, 02/12/2018 12:52 PM

Description: Over weekend massive amounts of blowing dirt. Summary: SW corner-Construction with dirt work.



Auto Response 🤚 No Channel Administrator, 02/14/2018 07:56 AM

Resolution: On 2-12-18, I went to the frontage road of Montgomery & San Antonio in regards to concern of Fugitive Dust. Upon my arrival, I witnessed active operations occurring. Due to high wind event the COA called a worrk stoppage on all active operations and to water disturbed areas. I met with Desert Fox contractor JR to discuss the dust issues and watering schedule. JR. ordered his employees to stop active operations and begin watering. JR stated they water the site regularly. I emphasized the safety concern of working on the highway and we take these complanits seroulsly and if they can not keep up with mitigating dust, they would need to put in place their contingency plan for dust supressant. I then met with the Superintendent Matt Via Lobo of Altero Construction who is the Prime Contractor for the site. I discussed the same details mentioned above. I added that his workers should attend our Fugitive Dust Control Workshop to sharpen their skills on mitigating dust. I will continue to monitor the site and make sure the are following the reasonable available control measures for mitigation of dust. If the customer would like to discuss further please contact me at 768-1971. An attempt was made to contact citizen, although may have wrong contact information.

Auto Note 🔙 No Channel Administrator, 02/12/2018 12:45 PM

Description: Citizen states there is fugitive dust from the construction along I25 SB frontage road between Montgoemry and San Antonio NE. Summary: Fugitive Dust



Auto Response 📒 No Channel

Administrator, 02/13/2018 09:19 AM

Resolution: The city had issued a work stoppage due to the high winds and dry soil conditions on the 12th. I was on-site after the issuance to ensure the construction company had ceased earth-disturbing activities and that they continued to water the site. There were a couple construction vehicle driving on the disturbed areas and I told the crews to shut down. Only the paving activities were allowed to continue because their operations were not disturbing the soil. The water trucks were already active when I arrived on site, but I told the superintendent to make sure they water all disturbed areas. If Brian needs to add additional information, or has questions, please call Troy at 768-1951.

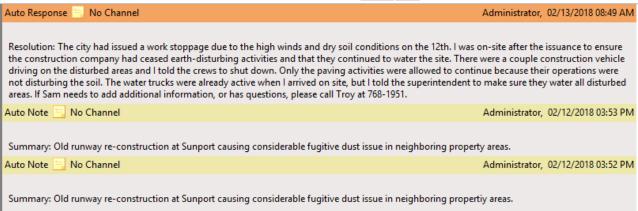
Auto Note 🔚 No Channel

Administrator, 02/12/2018 12:35 PM

Description: Citizen all the dust from the construction project is creating white out conditions on Gibson. It is very dangerous and needs to be addressed. Citizen stated the wind is so high usually unearthing is discontinued but we are still doing the project.

Summary: Complaint of fugitive dust - North end of Sunport, along Gibson SE





Conclusion

- i. Except as provided under paragraph (c)(2)(vi) of this section, a State that has flagged data as being due to an exceptional event and is requesting exclusion of the affected measurement data shall, after notice and opportunity for public comment, submit a demonstration to justify data exclusion to the Administrator according to the schedule established under paragraph (c)(2)(i)(B).
- ii. [Reserved]
- iii. [Reserved]
- iv. The demonstration to justify data exclusion must include:
 - A. A narrative conceptual model that describes the event(s) causing the exceedance or violation and a discussion of how emissions from the event(s) led to the exceedance or violation at the affected monitor(s);

RESPONSE: The Agency's documentation has provided a narrative conceptual model describing the event which caused the exceedance of the PM10 NAAQS. The Agency also discussed the area of the exceedance, identified potential sources that contributed to the exceedance, and how this impacted the monitor that exceeded the PM10 NAAQS.

B. A demonstration that the event affected air quality in such a way that there exists a clear causal relationship between the specific event and the monitored exceedance or violation;

RESPONSE: The Agency, in this demonstration, has shown that the event affected air quality in such a way that there is a clear causal relationship between the event and the monitored exceedance of the PM10 NAAQS. Winds were elevated and meet the EER wind speed threshold. The event originated outside of the County crossed New Mexico Counties outside of Bernalillo County and crossed Tribal Land not under the authority of the Agency.

C. Analyses comparing the claimed event-influenced concentration(s) to concentrations at the same monitoring site at other times to support the requirement at paragraph (c)(3)(iv)(B) of this section. The Administrator shall not require a State to prove a specific percentile point in the distribution of data;

RESPONSE: The Agency has provided ample data comparisons that show the event concentrations for this event deviates from what is normal for any February on any other given year. The multi-year assessments shows that for any given year February is not a month where the Agency has experienced prior exceedances of the PM10 NAAQS.

D. A demonstration that the event was both not reasonably controllable and not reasonably preventable; and

RESPONSE: The Agency has provided information that Bernalillo County has reasonable control measures as noted by the adoption of PART 20 Fugitive Dust Control ordinance. This ordinance has full jurisdiction over all land within Bernalillo County with the exception of Tribal lands.

E. A demonstration that the event was a human activity that is unlikely to recur at a particular location or was a natural event.

RESPONSE: The Agency has recognized that the event was due to high winds and that the primary source of windborne dust was from anthropogenic sources that overwhelmed the areas reasonable controls.

Appendices

Appendix A – Bernalillo County Neighborhood Associations

Appendix B – Health Alert Workgroup SOP

Appendix C – Part 20

Appendix D – List of Permits active on February 12, 2018



Appendix A - Bernalillo County Neighborhood Associations

Acequia Madre de Carnuel Association

Adobe Acres Neighborhood Association

Alameda North Valley Association

Alamosa Neighborhood Association

Alban Hills Neighborhood Association

Anderson Hills Neighborhood Association

Atrisco Viejo Neighborhood Association

Avalon Neighborhood Association

Blake Road Neighborhood Association

Bosque Dell Acres Neighborhood Association

Canyon Estates Neighborhood Association

Columbine Thompson Neighborhood Association

Conita Real Neighborhood Association

Crestview Bluff Neighbors Association

Daniel/Jacobson Neighborhood Association

East Gateway Coalition of Association

East Mountain District 5 Coalition

Echo Canyon Neighborhood Association

El Camino Real Neighborhood Association

El Paraiso Neighborhood Association

Foothill Neighborhood Association

Forest Park Property Owners Cooperative Association

Four Hills Village Association

Heatherland Hills Landowners Association

Hermosilla Estates Neighborhood Association

Horseshoe Valley Landowners Association

La Cienega Del Norte Neighborhood Association

Lee Acres Neighborhood Association

Loma Del Rey Neighborhood Association

Los Duranes Neighborhood Association

Los Poblanos Neighborhood Association

Los Suenos Neighborhood Association

Maria Diers Neighborhood Association

Merritt Acres Neighborhood Association

Mesa Del Sol Neighborhood Association

Monticello Neighborhood Association

Mountain Shadows Homeowners Association

Mountain View Community Action

Mountain View Commercial Property Association

Mountain View Neighborhood Association

Neighborhood Association of the Lands of Edward P. Bass

Neighbors of Nichols Road Neighborhood Association

North Albuquerque Acres Community Association

North Edith Corridor Association

North Valley Coalition, Inc.

Oakland Heights Homeowners Association

Paa-ko Communities Homeowner's Association

Pajarito Mesa Stake Holders Neighborhood Association

Pajarito Village Association

Paradise Hills Civic Association

Pinion Ridge Estates Neighborhood Association

Ponderosa Ranch Estates Landowners, Inc.

Ramble Wood Neighborhood Association

Rancho Verde Home Owners Association

Rio Oeste Homeowners Association

Route 66 West Neighborhood Association

Sabino Canyon Neighborhood Association

Adrienne Pease Linda WinterfeldNovember4

Sandia Heights Homeowners Association

Sandia Knolls Neighborhood Association

Sandia Mountain Ranch Neighborhood Association

San Jose Neighborhood Association

Sedillo Road Greater Neighborhood Association

Sierra Vista Estates Neighborhood Association

Sierra Vista West Neighborhood Association

Sky View Acres Neighborhood Association

South Skyland Neighborhood Association

South Valley Alliance

South Valley Coalition of Neighborhood Association

South Valley Los Padillas Neighborhood Association

South West Alliance of Neighbors

South Side Farms Community Association

Sunset Southwest Neighborhood Association

Sunstar Neighborhood Association

Tablazon Neighborhood Association

Taylor Ranch Neighborhood Association

Thunderbird Lane Neighborhood Association

Vecinos del Bosque Neighborhood Association

Ventana del Sol Homeowners Association

Vista Bonita Neighborhood Association

West Juan Tomas Neighborhood Association

West Mesa Neighborhood Association

Western Meadows Area Civic Association

Westgate Heights Neighborhood Association

Wildflower Neighborhood Association

Yakima Neighborhood Association

Standard Operating Procedure (SOP) Issuing a Dust Related Health Alert



The issuance of Dust Related Health Alerts is an important function of the City of Albuquerque's Environmental Health Department. Health alerts provide valuable information to the public and provides them the tools to better protect themselves and their families.

In Albuquerque and Bernalillo County there are situations where the weather generates significant winds that increase the amount of airborne dust. These situations most often are caused by unusual weather situations where winds are significantly high, often exceeding 25 MPH for a sustained period of time and often with gust greater than 30 MPH.

This SOP will provide you with the guidance and tools to use when evaluating the possibility that weather conditions will be extreme enough to cause a significant amount of airborne dust which in turn can impact the residents of Bernalillo County.



☐ TOOLS YOU NEED

Hardware:

- 1. Laptop Computer with MS Word and internet access
- 2. Cell Phone

Websites:

- National Weather Service (NWS)
 (http://www.srh.noaa.gov/abq/getforecastinfo.php?zone=NMZ519)
- NWS Severe Weather Statement
 (http://forecast.weather.gov/product.php?site=NWS&issuedby=ABQ&format=TXT&version=1&glossary=1&product=SVS)
- 3. Albuquerque International Airport http://w1.weather.gov/data/obhistory/KABQ.html
- 4. Albuquerque Double Eagle II Airport http://w1.weather.gov/data/obhistory/KAEG.html



The following is broken down by daily activities in order to simplify the process.

<u>Friday Afternoon</u> – Before leaving work check with the staff meteorologist and review the local forecast at http://www.srh.noaa.gov/abq/getforecastinfo.php?zone=NMZ519.

The following Decision Process contains the basic principles that you should consider for calling a Dust Health Alert.

☐ DECISION PROCESS

- A. If no severe weather or high winds are forecast then finish the review and do not issue a dust related health alert.
 - a. If a combination of the following is occurring then a health alert needs to be issued
 - i. Email PM Alerts several alarms over consecutive hours
 - ii. Multiple hours of sustained winds above 25 mph
 - iii. NWS Albuquerque Forecast office has issued high wind advisory, warning or alert for the Albuquerque area
 - b. Does the staff meteorologist recommend a dust related health alert?

If the NWS has issued or will issue a high wind alert, and it may include blowing dust and reduced visibility, then you should consider calling a dust related health alert for the time period noted by the NWS.

If the severe weather or high winds aren't expected until later in the weekend then you should re-evaluate the data prior to the NWS issuing the alert. If the NWS still shows that the alert will happen then you should put into place the requirements for issuing a health alert. You should also visually observe your local weather conditions and watch for high PM alerts. If conditions worsen before the NWS issues their alert then you should issue the Dust Based Health Alert based on you visual observations, the alerts sent concerning high particulate matter, and the NWS issuing a high wind alert.

<u>NOTE:</u> You should review the high PM Alerts you receive. If the alerts are showing fairly low PM values, typically less than 150-200 $\mu g/m^3$, then you may want to wait to see if the values increase. If the values are in the 300 $\mu g/m^3$ or greater range you should consider calling a health alert. The reason being is that it takes numerous hours at lower concentrations to impact the total PM concentration than it does if the concentrations are much higher.

<u>Saturday Morning</u> – review and evaluate the NWS local forecast at http://www.srh.noaa.gov/abq/getforecastinfo.php?zone=NMZ519.

Repeat the Decision Process.

<u>Sunday Morning</u> – review and evaluate the NWS local forecast at http://www.srh.noaa.gov/abq/getforecastinfo.php?zone=NMZ519.

Repeat the Decision Process.

You can also reference the Procedural Checklist on page 5 of this SOP.

| 1. | Call the | e National Weather Service (See Table 1) | | | | |
|----|----------------------------------------------------------------|---------------------------------------------------------|-----|--------|---------|--|
| 2. | Does Friday's data support a weekend Dust Health Alert? Yes No | | | | | |
| 3. | If Yes: | | | | | |
| | a. | NWS has or will issue a high wind/dust alert on | | | , or | |
| | b. | High winds are forecast that will impact Bernalillo Cou | nty | | | |
| | c. | Prepare Dust alert materials | | | | |
| | d. | Issue the Dust Health Alert | | | | |
| 4. | If No, v | No, wait until Saturday Morning | | | | |
| 0 | <u>Saturday</u> | | | | | |
| O | Call the | all the National Weather Service (See Table 1) | | | | |
| 1. | Does S | es Saturday's data support a Dust Health Alert? Yes No | | | | |
| 2. | If Yes: | | | | | |
| | a. | NWS has or will issue a high wind/dust alert on | | | , and/o | |
| | b. | I have received several high PM alerts if yes | Yes | No | | |
| | c. | And the NWS forecasts high winds | Yes | No, or | | |
| | d. | High winds are visually observed | Yes | No | | |

If you receive 3 or more consecutive high PM alerts ($\geq 300 \ \mu g/m^3$) and the NWS has forecast high winds (they may not issue an alert) you should call a Dust Health Alert. You should review the high PM Alerts you receive. If the alerts are showing fairly low PM values, typically $\leq 150\text{-}200 \ \mu g/m^3$, then you may want to wait to see if the values increase. If the values are $\geq 300 \ \mu g/m^3$ you should consider calling a health alert. The reason being is that it takes numerous hours at lower concentrations to impact the total PM concentration than it does if the concentrations are much higher.

If you do not receive any, or you receive an occasional high PM alert, even if the NWS has forecast high winds, then you should continue to observe local conditions and monitor the weather and the high PM alerts. If the high PM alerts become more frequent and/or elevated, or the NWS issues a high wind/dust alert, then you should call a dust health alert.

| O | Sunda | <u>v</u> | | | | | |
|----|--------------------------------------------------------|---------------------------------------------------|-----|--------|----------|--|--|
| O | Call the | Call the National Weather Service (See Table 1) | | | | | |
| 1. | Does Sunday's data support a Dust Health Alert? Yes No | | | | | | |
| 2. | If Yes: | | | | | | |
| | a. | NWS has or will issue a high wind/dust alert on _ | | | , and/or | | |
| | b. | I have received several high PM alerts | Yes | No | | | |
| | | if yes | | | | | |
| | C. | And the NWS forecasts high winds | Yes | No, or | | | |
| | d. | High winds are visually observed | Yes | No | | | |

Table 1. Contacts for information on haze (dust and/or smoke)

| Individual/Organization | Phone/Email | What to ask |
|-------------------------|------------------------|--------------------------------------------|
| Albuquerque National | 224-9007, or | 1) Identify yourself and ask to speak |
| Weather Service office | 244-9148 (emergency | with a forecaster |
| | backup) | 2) "It's hazy outside. Do you know |
| | They often post | whether it's smoke or dust? Where is |
| | information at | it coming from? Will it dissipate |
| | twitter.com/NWS | gradually or remain hazy through the |
| | Albuquerque | day?" (This is the info you need for a |
| | | health alert or notification.) |
| | | 3) "I saw at XYZ website that smoke was |
| | | heading for Albuquerque. Do you |
| | | think it might be concentrated |
| | | enough to reduce visibility? When |
| | | would it most likely arrive in |
| | | Albuquerque? How long might it be |
| | | hazy?" (This is the information you |
| | | need for a Smoke Watch.) |
| Josh Hall, US Forest | jdhall@fs.fed.us | "Jeff is out of the office. Are there any |
| Service | (505)438-5319 | forest fires that might affect Albuquerque |
| | (505)697-1465 | in the next 24 hours?" |
| Claudia Standish, BLM | (505)920-0874, | "Jeff is out of the office. Are there any |
| Contractor | Oceanblues58@gmail.com | forest fires that might affect Albuquerque |
| | | in the next 24 hours?" |

If you receive 3 or more consecutive high PM alerts ($\geq 300 \ \mu g/m^3$) and the NWS has forecast high winds (they may not issue an alert) you should call a Dust Health Alert. You should review the high PM Alerts you receive. If the alerts are showing fairly low PM values, typically $\leq 150-200 \ \mu g/m^3$, then you may want to wait to see if the values increase. If the values are $\geq 300 \ \mu g/m^3$ you should consider calling a health alert. The reason being is that it takes numerous hours at lower concentrations to impact the total PM concentration than it does if the concentrations are much higher.

If you do not receive any, or you receive an occasional high PM alert, even if the NWS has forecast high winds, then you should continue to observe local conditions and monitor the weather and the high PM alerts. If the high PM alerts become more frequent and/or elevated, or the NWS issues a high wind/dust alert, then you should call a dust health alert.

Specifics on Analyzing Wind Data

For Dust Related Health Alerts there are two aspects to wind data.

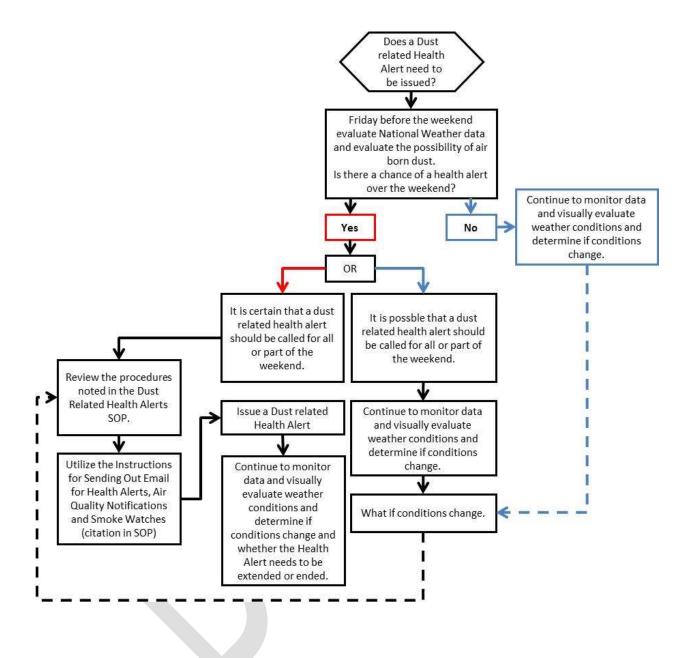
1. The first is the local monitoring stations wind speed data. If you have access to that information you should be considering a health alert if the local wind speeds exceed 25 mph for a sustained period. The sustained period is subjective to how strong the local monitoring stations wind speeds are, if they hover around 25 mph then you should consider a sustained period of 2 or more hours, if they are greater that 35 mph then the sustained period would be less. The sustained period

- would also be subjective to the particulate matter concentration being reported and the NWS forecast or NWS alerts.
- 2. The second is the Airport wind speed data should be considered when wind speeds are 30 mph or greater. The same issue of the sustained winds as above should be considered. The reason for the difference is that the airport monitors are in an open area not impacted by trees or buildings. The site for the airport data is http://w1.weather.gov/data/obhistory/KABQ.html.

The data you will be looking at is the "Date", "Time", "Wind (mph)" and "Vis. (mi.)" columns. The Wind column will give you sustained wind speed, wind gust and wind direction data. If the Wind column is showing sustained wind speeds of 30 mph or greater then you should be prepared to call a Dust Related Health Alert.



Decision Process for Dust Related Health Alerts



NWS Reports

The NWS reports often contain language that are key to evaluating the information provided. An example of the local forecast is shown below (http://www.srh.noaa.gov/abq/getforecastinfo.php?zone=NMZ519)

Local Forecast

NMZ519-062200-MIDDLE RIO GRANDE VALLEY/ALBUQUERQUE METRO AREA-331 AM MDT MON JUN 6 2016

TODAY: MOSTLY SUNNY THIS MORNING. PARTLY CLOUDY WITH ISOLATED SHOWERS AND THUNDERSTORMS IN THE AFTERNOON. HIGHS IN THE 90S. SOUTHEAST WINDS 10 TO 15 MPH SHIFTING TO THE SOUTH 10 TO 20 MPH IN THE AFTERNOON.

TONIGHT: PARTLY CLOUDY. BREEZY. ISOLATED SHOWERS AND THUNDERSTORMS IN THE EVENING. LOWS IN THE UPPER 50S TO MID 60S. SOUTHEAST WINDS 10 TO 20 MPH IN THE EVENING. BELOW CANYONS...SOUTHEAST WINDS 15 TO 25 MPH WITH GUSTS TO AROUND 35 MPH.

TUESDAY: PARTLY CLOUDY. HIGHS IN THE 90S. SOUTH WINDS 10 TO 15 MPH IN THE AFTERNOON.

.TUESDAY NIGHT...MOSTLY CLEAR. LOWS IN THE UPPER 50S TO LOWER 60S. SOUTH WINDS 10 TO 15 MPH.

WEDNESDAY: MOSTLY SUNNY. ISOLATED SHOWERS AND THUNDERSTORMS IN THE AFTERNOON. HIGHS IN THE 90S. SOUTHWEST WINDS 10 TO 15 MPH.

.WEDNESDAY NIGHT...PARTLY CLOUDY WITH A SLIGHT CHANCE OF SHOWERS AND THUNDERSTORMS. LOWS IN THE UPPER 50S TO MID 60S.

THURSDAY: PARTLY CLOUDY WITH A SLIGHT CHANCE OF SHOWERS AND THUNDERSTORMS. HIGHS IN THE LOWER TO MID 90S.

.THURSDAY NIGHT...PARTLY CLOUDY WITH A SLIGHT CHANCE OF SHOWERS AND

THUNDERSTORMS. LOWS IN THE LOWER TO MID 60S.

FRIDAY: PARTLY CLOUDY WITH A SLIGHT CHANCE OF SHOWERS AND THUNDERSTORMS. HIGHS IN THE UPPER 805 TO MID 905.

.FRIDAY NIGHT...PARTLY CLOUDY WITH A SLIGHT CHANCE OF SHOWERS AND

THUNDERSTORMS. LOWS IN THE UPPER 50S TO LOWER 60S.

SATURDAY: PARTLY CLOUDY WITH A SLIGHT CHANCE OF SHOWERS AND

THUNDERSTORMS. HIGHS IN THE MID 80S TO LOWER 90S.

.SATURDAY NIGHT...PARTLY CLOUDY WITH A SLIGHT CHANCE OF SHOWERS AND

THUNDERSTORMS. LOWS IN THE UPPER 50S TO LOWER 60S.

SUNDAY: PARTLY CLOUDY. HIGHS IN THE UPPER 80S TO LOWER 90S.

Header

Location

Report

What you should be looking for are specifics concerning winds. Elevated winds will likely show as over 25 MPH with gust information as well.

This report contains additional information but the information above provides a quick and easy to read forecast for a week. A quick look at this report on Friday, then Saturday and Sunday mornings should give you a general idea of the forecast and what you can expect over the weekend.

NWS Reports

The NWS reports often contain language that is important in evaluating the information provided. An example of the Hazardous Weather Outlook is shown below

(http://forecast.weather.gov/product.php?site=NWS&issuedby=ABQ&product=HWO&format=TXT&version=2&glossary=1):

Hazardous Weather Outlook

Issued by NWS Albuquerque, NM

<u>Current Version</u> | <u>Previous Version</u> | <u>Graphics & Text</u> | <u>Print</u> | <u>Product List</u> | <u>Glossary Off</u> Versions: <u>1 2 3 4 5 6 7</u>

000

FLUS45 KABQ 050914 HWOABQ

HAZARDOUS WEATHER <u>OUTLOOK</u>
NATIONAL WEATHER SERVICE ALBUQUERQUE <u>NM</u>
314 AM MDT SUN JUN 5 2016

NMZ501>540-061200-

NORTHWEST PLATEAU-CHUSKA MOUNTAINS-FAR NORTHWEST HIGHLANDS-NORTHWEST HIGHLANDS-WEST CENTRAL PLATEAU-WEST CENTRAL MOUNTAINS-WEST CENTRAL HIGHLANDS-SOUTHWEST MOUNTAINS-SAN FRANCISCO RIVER VALLEY-SAN JUAN MOUNTAINS-JEMEZ MOUNTAINS-WEST SLOPES SANGRE DE CRISTO MOUNTAINS-NORTHERN SANGRE DE CRISTOS ABOVE 9500 FEET/RED RIVER-SOUTHERN SANGRE DE CRISTOS ABOVE 9500 FEET-EAST SLOPES SANGRE DE CRISTO MOUNTAINS-UPPER RIO GRANDE VALLEY-LOWER CHAMA RIVER VALLEY-SANTA FE METRO AREA-MIDDLE RIO GRANDE VALLEY/ALBUQUERQUE METRO AREA-LOWER RIO GRANDE VALLEY-SANDIA/MANZANO MOUNTAINS-ESTANCIA VALLEY-CENTRAL HIGHLANDS-SOUTH CENTRAL HIGHLANDS-UPPER TULAROSA VALLEY-SOUTH CENTRAL MOUNTAINS-RATON RIDGE/JOHNSON MESA-FAR NORTHEAST HIGHLANDS-NORTHEAST HIGHLANDS-UNION COUNTY-HARDING COUNTY-EASTERN SAN MIGUEL COUNTY-GUADALUPE COUNTY-QUAY COUNTY-CURRY COUNTY-ROOSEVELT COUNTY-DE BACA COUNTY-CHAVES COUNTY PLAINS-EASTERN LINCOLN COUNTY-SOUTHWEST CHAVES COUNTY-314 AM MDT SUN JUN 5 2016

THIS HAZARDOUS WEATHER ${\hbox{\tt OUTLOOK}}$ IS FOR PORTIONS OF NORTH AND CENTRAL NEW MEXICO.

.DAY ONE...TODAY AND TONIGHT

WIDESPREAD SHOWERS AND THUNDERSTORMS ARE EXPECTED THIS AFTERNOON AND TONIGHT FROM THE NORTHERN MOUNTAINS SOUTHEASTWARD ACROSS MUCH OF EASTERN NM. SOME STORMS MAY BE STRONG OR SEVERE WITH LARGE HAIL AND DAMAGING WINDS...ESPECIALLY DURING THE AFTERNOON AND EARLY EVENING. HOWEVER...GIVEN ABUNDANT ATMOSPHERIC MOISTURE FOR EARLY JUNE...HEAVY RAINFALL AND FLASH FLOODING WILL BE A CONCERN BOTH THIS AFTERNOON AND THROUGH THE OVERNIGHT HOURS.

.DAYS TWO THROUGH SEVEN...MONDAY THROUGH SATURDAY

SHOWERS AND THUNDESTORMS WILL REMAIN ON TAP THROUGH THE WORK WEEK...FAVORING AREAS ALONG AND EAST OF THE CENTRAL MOUNTAIN CHAIN MONDAY THROUGH WEDNESDAY. A FEW STRONG STORMS WILL BE POSSIBLE MONDAY AFTERNOON AND EARLY EVENING ESPECIALLY NORTH OF I-40. HIGH TERRAIN AREAS WILL BE FAVORED LATER IN THE WEEK.

.SPOTTER INFORMATION STATEMENT...

SPOTTERS ARE ENCOURAGED TO REPORT HAIL...STRONG WIND GUSTS...RAINFALL AMOUNTS OR FLOODING THROUGH THE NATIONAL WEATHER SERVICE ALBUQUERQUE WEB SITE AT WEATHER.GOV/ABQ OR BY CALLING 1.888.386.7637. YOU CAN ALSO SUBMIT STORM REPORTS AND PHOTOS ON OUR FACEBOOK PAGE OR VIA TWITTER USING THE HASHTAG NMWX.

Header

Location

Areas Covered by this report

The important areas noted in this report are the Middle Rio Grande Valley/Albuquerque Metro Area, and the Lower Rio Grande Valley – Sandia/Manzano Mountains.

Report

What is important here is that the report states that some storms may be strong or severe with damaging winds.

☐ What Materials do you need?

To submit a Dust Related Health Alert you will need the following materials and internet access:

- 1. Access to Constant Contact via the internet
- 2. Dust Related Health Alert template in Constant Contact
- 3. Contractor Notification Template in Constant Contact
- 4. Email lists for sending the Alert to the media and notifying contractors

Once it is determined that a Dust Related Health Alert should be issued you will need to complete the Dust Health Alert Template and email the alert to the appropriate people and agencies. The next page contains the Dust Related Health Alert template. To complete the template you will need to know the following information:

- 1. Date and time the Dust Related Health Alert was or will be issued
- 2. Time frame for the Dust Related Health Alert. If the NWS has issued an alert you can simply use their timeframe, if not then you may need to rely on local weather reports or the NWS local forecast to determine a time frame.
 - a. Start date and time
 - b. End date and time

This template is located in the Department's Constant Contact account.



FOR IMMEDIATE RELEASE

CITY OF ALBUQUERQUE ENVIRONMENTAL HEALTH DEPARTMENT ISSUES HEALTH ALERT DUE TO BLOWING DUST

Issue Time: [Enter date here] at [Enter time here] AM/PM

The City of Albuquerque Environmental Health Department is issuing a health alert for those with respiratory issues. High winds may cause elevated levels of particulate matter in areas of Bernalillo County. This alert is in effect for the following time period:

starting at Day of week, month, day, year at time AM/PM ending at Day of week, month, day, year at time AM/PM

Blowing dust contributes to particulate pollution. Individuals who are sensitive to blowing dust, such as those with asthma, chronic bronchitis or other respiratory or heart diseases, are encouraged to limit outdoor activity. Children and older adults may also be affected by particulate pollution. Schools and senior citizen facilities may want to provide indoor activities to minimize exposure to elevated outdoor particulate matter levels.

During blowing dust events the following actions are recommended:

- Limit your time spent outdoors.
- Avoid outdoor exercise.
- Keep windows and doors closed. If needed for comfort, use air conditioners or heating systems on recycle/recirculation mode if possible.
- If symptoms of heart or lung disease occur, including shortness of breath, chest tightness, chest pain, palpitations or unusual fatigue, contact your health care provider.

Media Contact

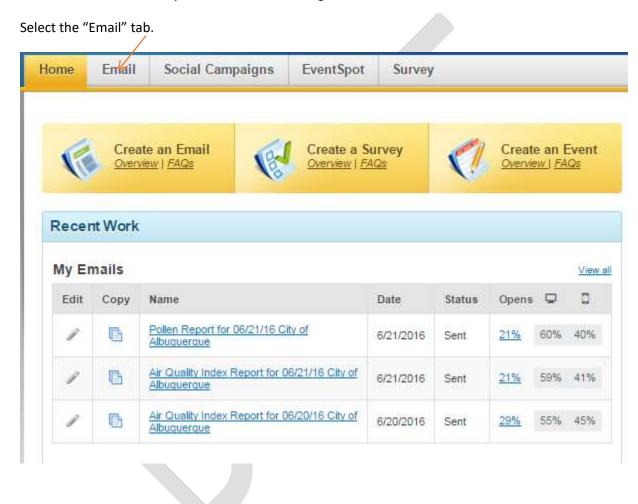
Name Phone: Email address:

Sending the Dust Related Health Alert

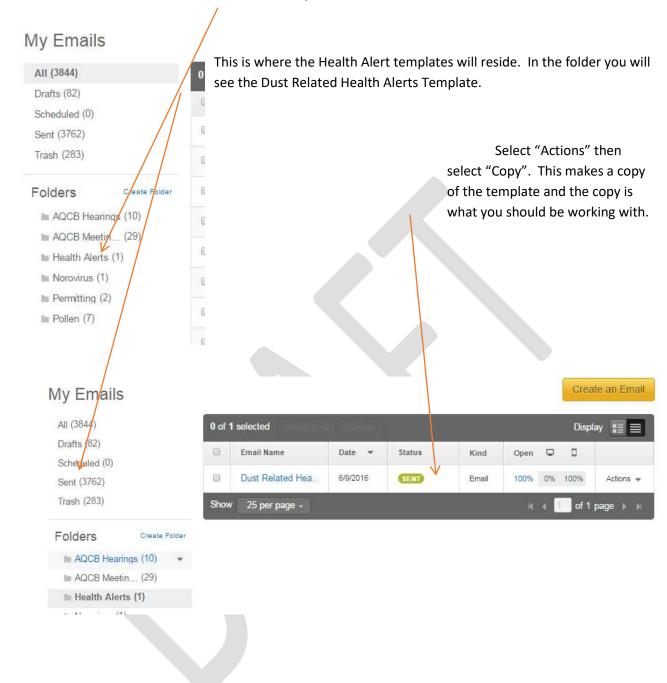
To send the dust health alert you will need access to the internet and the Department's Constant Contact account at:

- 1. https://login.constantcontact.com/login/
- 2. LogIn ID:
- 3. Password:

Within Constant Contact you will see the following:

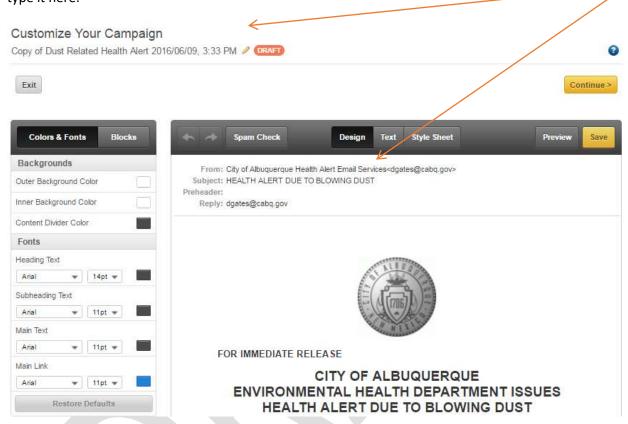


On the next screen select the "Health Alerts" tab/folder on the left hand side of the screen:

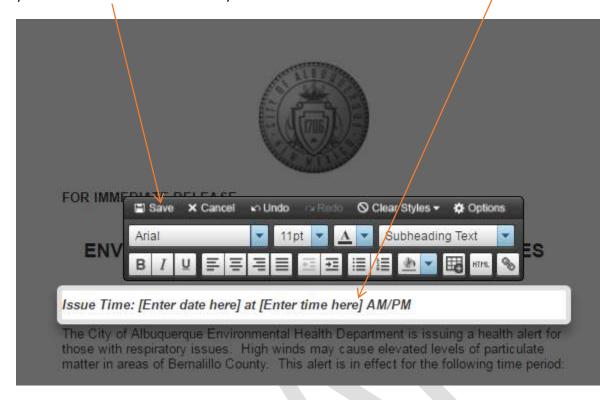


The next screen you will see is:

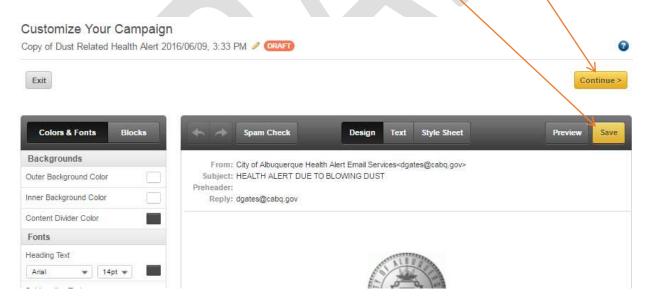
You will notice that the title of the template is "Copy of Dust Related Health Alert 2016/06/09, 3:33 PM". The "Copy of" verifies that you are working from a template copy. You will need to change the title for the event you are calling. Change the Date and time of the event, for example, if the event is going to occur on March 23, 2017 at 05:00 PM then title the alert "Dust Related Health Alert for 3/23/2017 05:00 PM", and type it here.



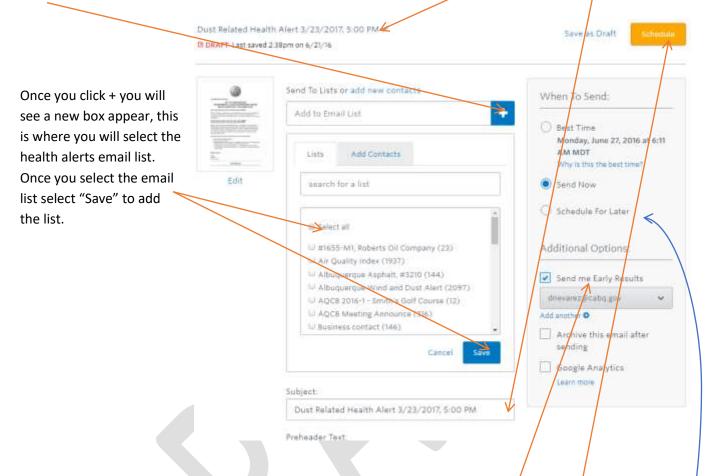
Constant Contact text is entered in blocks. To edit a block simply select the block to edit the text. When you are done select "Save" to save your information.



When you are done with your edits and saved your health alert select "Save" then "Continue".



After you click "Continue" you will see the following screen. Check your document title and subject then select the + to add an email list.



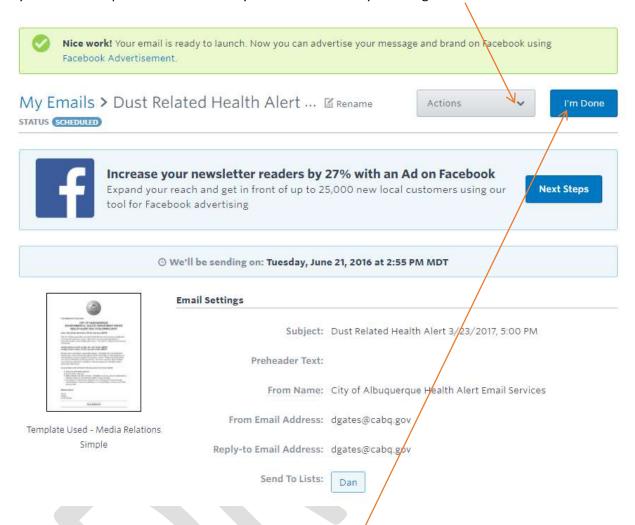
If you want to receive or send an early email to someone you can select that here.

Once all the information is correct select the "Schedule" button near the top-right of the page.

If you want to delay the sending of the alert you can select the radio button "Schedule for Later" and enter a date and time for the system to send the Alert.

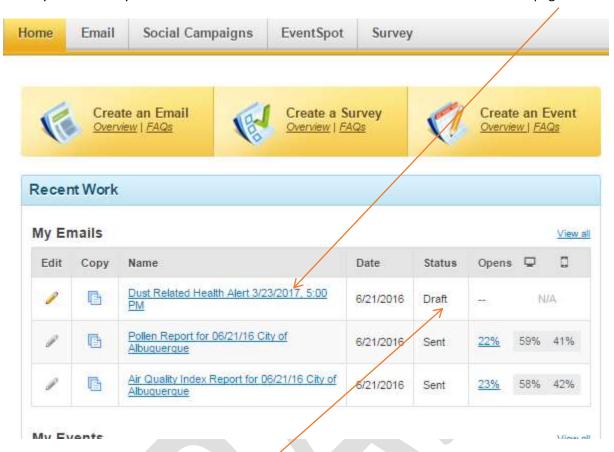
After you select "Schedule" you will see:

If you want to stop the scheduled Alert you can do so here by selecting "Actions" then "Unschedule".



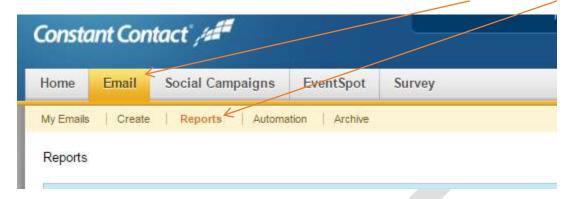
When you are done select "I'm Done" to schedule the alert.

When you are done you will see the Alert in the email list on the Constant Contact home page:



This will say "Scheduled" instead of "Draft". Once the Alert is sent it will say "Sent". Once the Alert is sent you will be able to see what percentage of the emails were opened.

To see the specifics of who did or did not open the email you can select "Email" then "Reports".



From there you will see a graph and all the emails that have been sent. To see specifics about your email find it in the list and select it.

TITLE 20 ENVIRONMENTAL PROTECTION

CHAPTER 11 ALBUQUERQUE - BERNALILLO COUNTY AIR QUALITY CONTROL BOARD PART 20 FUGITIVE DUST CONTROL

20.11.20.1 ISSUING AGENCY: Albuquerque - Bernalillo County Air Quality Control Board. P.O. Box 1293, Albuquerque, New Mexico 87103. Telephone: (505) 768-2601. [20.11.20.1 NMAC - Rp, 20.11.20.1 NMAC, 3/17/08]

20.11.20.2 SCOPE:

- **A.** 20.11.20 NMAC is applicable to all sources of fugitive dust in Bernalillo county, unless otherwise exempt.
- **B.** Exempt: 20.11.20 NMAC does not apply to sources within Bernalillo county that are: (1) located on Indian lands over which the Albuquerque Bernalillo county air quality control board lacks jurisdiction;
- (2) hard rock mining pits and operations contained within the mining pit and permitted pursuant to the state of New Mexico Mining Act; for the purposes of 20.11.20 NMAC, sand and gravel mining operations are not exempt;
- (3) emergency maintenance operations that are intended to address an imminent threat to property or persons; however, reasonably available control measures must be employed once the emergency has been addressed, if appropriate, and a report of all activities shall be filed with the department no later than 10 days after the incident has been concluded and the department shall determine if additional action, including a permit application submittal, is required before additional non-emergency activities occur at the site; and
- (4) stationary source operations subject to 20.11.41 NMAC, *Authority to Construct*, or 20.11.42 NMAC, *Operating Permits*, that produce fugitive dust as defined in 20.11.20 NMAC, but only if the source of fugitive dust is addressed and controlled through permit conditions required by a 20.11.41 NMAC or 20.11.42 NMAC permit; however construction at a stationary source site, whether it involves new construction or a site modification, is subject to 20.11.20 NMAC.
- C. Conditionally Exempt: The following five sources of fugitive dust emissions in Bernalillo county shall be conditionally exempt from the requirements of 20.11.20 NMAC, unless the department determines that the fugitive dust emitted from a conditionally exempt source's active operations or inactive disturbed surface area may adversely and significantly affect human health within Bernalillo county:
 - (1) areas zoned for agriculture and used for growing a crop;
- (2) bicycle trails, hiking paths and pedestrian paths, horse trails or similar paths used exclusively for purposes other than travel by motor vehicles;
 - (3) unpaved roadways on privately-owned easements serving residential dwellings;
 - (4) lots smaller than three-quarters of an acre used for any purpose; and
- (5) unpaved roadways within properties used for ranching, or properties owned or controlled by the United States department of energy or department of defense, or United States department of agriculture forest service lands or United States department of interior park service lands if the public does not have motor vehicle access to the roadways.

 [20.11.20.2 NMAC Rp, 20.11.20.2 NMAC, 3/17/08]



20.11.20.3 STATUTORY AUTHORITY: 20.11.20 NMAC is adopted pursuant to the authority provided in the New Mexico Air Quality Control Act, NMSA 1978 Sections 74-2-4, 74-2-5; the Joint Air Quality Control Board Ordinance; Bernalillo county Ordinance No. 94-5, Sections 4 and 5; and the Joint Air Quality Control Board Ordinance, Revised Ordinances of Albuquerque 1994 Sections 9-5-1-4 and 9-5-1-5. [20.11.20.3 NMAC - Rp. 20.11.20.3 NMAC, 3/17/08]

20.11.20.4 DURATION: Permanent. [20.11.20.4 NMAC - Rp, 20.11.20.4 NMAC, 3/17/08]

- **20.11.20.5 EFFECTIVE DATE:** March 17, 2008, unless a later date is cited at the end of a section. [20.11.20.5 NMAC Rp, 20.11.20.5 NMAC, 3/17/08]
- **20.11.20.6 OBJECTIVE:** To ensure that every person shall use reasonably available control measures or other effective measures on an ongoing basis to prevent or abate fugitive dust, if the fugitive dust may with reasonable probability injure human health or animal or plant life or as may unreasonably interfere with the public welfare, visibility or the reasonable use of property, as required by 20.11.20 NMAC. [20.11.20.6 NMAC Rp, 20.11.20.6 NMAC, 3/17/08]
- **20.11.20.7 DEFINITIONS:** In addition to the definitions in 20.11.20.7 NMAC, the definitions in 20.11.1 NMAC apply unless there is a conflict between definitions, in which case the definition in 20.11.20.7 NMAC shall govern.
- A. "Active operations" means any anthropogenic activity that is capable of generating, or generates fugitive dust, including but not limited to: bulk material storage, handling or processing; earth moving; soil or surface disturbance (e.g. discing, trenching, blading, scraping, clearing, grubbing, topsoil removal); construction, renovation, or demolition activities; movement of motorized vehicles on any paved or unpaved roadway or surface, right-of-way, lot or parking area; or the tracking out or transport of bulk material onto any paved or unpaved roadway.
- **B.** "Anthropogenic" means human-caused changes in the natural or built condition of the environment.
- **C.** "Bulk material" means sand, gravel, soil, aggregate or any other inorganic or organic solid material capable of creating fugitive dust.
 - **D.** "Business day" means Monday through Friday, except city of Albuquerque holidays.
- **E.** "Construction activity" means any activity preparatory to or related to building, altering, rehabilitating, demolishing or improving property that results in a disturbed surface area, including but not limited to grading, excavation, loading, crushing, pavement milling, cutting, clearing, grubbing, topsoil removal, blading, shaping, dry sweeping, blasting and ground breaking.
 - F. "Crop" means an agricultural plant harvested for consumption, utilization or sale.
- G. "Disturbed surface area" or "surface disturbance" means the natural or manmade area of the earth's surface that, as a result of anthropogenic activity, may become a source of transported material, track-out, or visible fugitive dust.
 - **H.** "Division" means the city of Albuquerque air quality division or its successor agency.
 - I. "Dust suppressant" means hygroscopic materials, or non-toxic chemical

stabilizers used to reduce or control fugitive dust emissions during suspended operations and as a long term reasonably available control measure.

- **J.** "Earth moving activity" means grading, cutting, filling, soil disturbance (e.g. discing, trenching, blading, scraping, clearing, topsoil removal, grubbing), soil mulching, loading or unloading of dirt or other bulk materials, including adding to or removing from open storage piles or stockpiles of bulk materials.
- **K.** "Fugitive dust" or "dust" means organic or inorganic particulate matter. Water vapor, steam, or particulate matter emissions emanating from a duct or stack of process equipment are not fugitive dust.
- L. "Fugitive dust control construction permit" or "permit" means a fugitive dust control permit approved by the department and issued pursuant to 20.11.20 NMAC that contains an approved fugitive dust control plan and authorizes active operations to begin when the permit is signed by a division manager, supervisor, scientist, field operations officer or health specialist.
- M. "Fugitive dust control plan" or "plan" means the part or portion of the fugitive dust control construction permit or programmatic permit application that details the reasonably available control measures and other effective measures the permit applicant commits to use to reduce the quantity of visible fugitive dust, transported material, or track-out leaving the property or area under the control of the permittee and shall include contingency fugitive dust control measures, which shall be a requirement of every fugitive dust control permit.
- N. "Greenwaste" means organic matter including, grass clippings, leaves, weeds, small shrub or tree limb cuttings, brush, stumps, and soils.
- of wind speeds of approximately 30 miles per hour or greater that, when accompanied by dry soil conditions, that is likely to result in widespread reduced visibility due to blowing fugitive dust and that may result in elevated monitored particulate levels that may cause or contribute to an exceedance or violation of the national ambient air quality standards.
- **P.** "Inactive disturbed surface area" means any disturbed surface area on which active operations have been suspended.
- Q. "Large area disturbance" means a project or development, totaling more than 25 acres upon which active operations have been conducted and includes areas used for storage of bulk material, building or construction materials, machinery or vehicles.
- **R.** "Open storage pile" means the accumulation of bulk material that is not fully enclosed, covered or chemically stabilized.
- S. "Owner or operator" means a person who owns, leases, operates, controls, or supervises a source that directly or indirectly produces or is capable of producing fugitive dust.
- T. "Parking lot" or "parking area" means a location where motor vehicles routinely park whether or not the area is zoned for parking.
- U. "Paved" or "paving" or "paved roadway" means asphalt, recycled asphalt, concrete or asphaltic concrete, routinely-maintained asphalt millings, or combinations thereof, that cover a surface traveled or used by motor vehicles.
- **v.** "Permittee" means a person and all legal heirs, successors, and assigns who has applied for and obtained a fugitive dust control construction or programmatic permit issued by the department pursuant to 20.11.20 NMAC.
- W. "Person" means an individual, firm, partnership, corporation, association, organization, company, joint stock association, business trust, owner, or body politic, including a municipality, local, state or federal government agency or political subdivision, and includes an

employee, officer, operator, contractor, supplier, installer, user, leaseholder, trustee, receiver, assignee or other person acting in a similar representative capacity with the authority to control transported material or emissions of particulate matter generated at a disturbed surface area or generated by activities associated with a disturbed surface area or inactive disturbed surface area.

- **X.** "Privately-owned" means real property that is not wholly or partially owned, leased or otherwise controlled by a federal, state or local government or governmental agency or political subdivision.
- Y. "Programmatic permit" means a fugitive dust control permit valid for up to five years issued to a permittee that performs routine maintenance or routine ongoing active operations on real property, but does not include full depth reconstruction of a roadway or substantial removal and replacement of a manmade facility. A programmatic permit shall include an approved fugitive dust control plan and shall be effective when signed by a division manager, supervisor, scientist, field operations officer or health specialist.
- **Z.** "**Property line**" means the exterior boundary of real property, as indicated by plats, plot maps or other indication of ownership limits.
- **AA.** "Publicly-maintained" means under the jurisdiction of, or maintained by a federal, state, or local government or governmental agency or political subdivision.
- **BB.** "Publicly-owned" means real property that is wholly or partially owned, leased or otherwise controlled by a federal, state or local government or governmental agency or political subdivision. Publicly-owned real property includes easements and rights-of-ways, streets, roadways, sidewalks, alleys and other public ways, parks, irrigation and drainage facilities, and any other publicly controlled real property that can be the source of fugitive dust.
- **CC.** "Reasonably available control measure" or "control measure" means a device, system, process modification, apparatus, technique, work practice, or combination thereof, that mitigates fugitive dust and includes the measures in 20.11.20.23 NMAC and any other regulatory control program that results in equivalent protection of a disturbed surface or inactive disturbed surface area, whether or not the purpose of the control measure is to mitigate dust or to meet another requirement of 20.11.20 NMAC or any other statute or regulation.
- **DD.** "Responsible person" means the person designated in a fugitive dust control permit application or permit amendment who agrees to be and shall be responsible for complying with 20.11.20 NMAC, and with the permit and plan to the extent specified in the permit.
- **EE.** "Short cut" means a non-dedicated roadway or route used by motor vehicle drivers to save time by avoiding use of a dedicated and authorized roadway.
- **FF.** "Silt" means bulk material that passes through a 200-mesh screen using the ASTM-D 2487-93, "classification of soils for engineering purposes (united soil classification system)" method, or most current ASTM (American society for testing and materials) method. Material that will pass through a 200-mesh screen is 74 microns or less in size.
 - **GG.** "Source" or "source of fugitive emissions" means the origin of fugitive dust emissions.
- **HH.** "Stabilized" or "stabilization" means ongoing practices that are sufficient to prevent elevated monitored particulate levels that may cause or contribute to an exceedance or violation of the national ambient air quality standards by meeting the objective established in 20.11.20.6 NMAC and the requirements of the general provisions established in 20.11.20.12 NMAC.
- **II.** "Stockpile" means the depositing of bulk material by mechanical means for the purpose of creating a pile formation on top of an existing natural or man-made surface.

- **JJ. "Stop work order"** means an order issued by the department pursuant to the provisions of
- 20.11.20 NMAC that requires a person to cease active operations.
- **KK.** "Track-out" or "tracking" means bulk material deposited by a motor vehicle or vehicles upon an unpaved or paved publicly or privately owned roadway if the bulk material can become airborne due to mechanical or wind action.
- **LL.** "Transfer of permit" means an agreement approved in writing by the department that meets the conditions outlined in Paragraphs (1) through (6) of Subsection D of 20.11.20.14 NMAC.
- **MM.** "Transported material" means particulate matter transported by wind, water or other action that, once deposited, can become airborne due to mechanical or wind action.
 - NN. "Unpaved roadway" means an unpaved route traveled by a motorized vehicle.
- **OO.** "Visible fugitive dust" means airborne particulate matter from a source, resulting in particulate matter emissions that can be detected by the human eye or a detection method approved by the department. Visible fugitive dust can be an indicator of PM10.
 - **PP.** "Visible fugitive dust detection method" means the method described in 20.11.20.26 NMAC,

which is one method used to determine compliance with 20.11.20 NMAC. [20.11.20.7 NMAC - Rp, 20.11.20.7 NMAC, 3/17/08]

- **20.11.20.8 VARIANCES:** A person may request a variance from 20.11.20 NMAC in accordance with the procedures established in 20.11.7 NMAC. [20.11.20.8 NMAC Rp, 20.11.20.8 NMAC, 3/17/08]
- **20.11.20.9 SAVINGS CLAUSE:** An amendment to *Fugitive Dust Control*, 20.11.20 NMAC, which is filed with the state records center and archives shall not affect actions pending for violation of a city or county ordinance, or prior versions of 20 NMAC 11.20 and 20.11.20 NMAC, *Airborne Particulate Matter*, 20.11.20 NMAC *Fugitive Dust Control*, or a permit. Prosecution for a violation of a prior statute, ordinance, part or permit shall be governed and prosecuted under the statute, ordinance, part or permit wording in effect at the time the violation was committed. [20.11.20.9 NMAC Rp, 20.11.20.9 NMAC, 3/17/08]
- **SEVERABILITY:** If any section, subsection, sentence, phrase, clause or wording of 20.11.20 NMAC or the federal standards incorporated herein is for any reason held to be unconstitutional or otherwise invalid by any court or the United States environmental protection agency, the decision shall not affect the validity of remaining portions of 20.11.20 NMAC.

[20.11.20.10 NMAC - Rp, 20.11.20.10 NMAC, 3/17/08]

20.11.20.11 DOCUMENTS: Documents incorporated and cited in 20.11.20 NMAC may be viewed at the Albuquerque environmental health department, 400 Marquette NW, Albuquerque, NM.

[20.10.20.11 NMAC - Rp, 20.11.20.11 NMAC, 3/17/08]

20.11.20.12 GENERAL PROVISIONS:

- A. Each person shall use reasonably available control measures or any other effective control measure during active operations or on inactive disturbed surface areas, as necessary to prevent the release of fugitive dust, whether or not the person is required by 20.11.20 NMAC to obtain a fugitive dust control permit. It shall be a violation of 20.11.20 NMAC to allow fugitive dust, track out, or transported material from any active operation, open storage pile, stockpile, paved or unpaved roadway disturbed surface area, or inactive disturbed surface area to cross or be carried beyond the property line, right-of-way, easement or any other area under control of the person generating or allowing the fugitive dust if the fugitive dust may:
 - (1) with reasonable probability injure human health or animal or plant life;
 - (2) unreasonably interfere with the public welfare, visibility or the reasonable use of property; or
- (3) be visible for a total of 15 minutes or more during any consecutive one hour observation period using the visible fugitive dust detection method in 20.11.20.26 NMAC or an equivalent method approved in writing by the department.
- **B.** Failure to comply with 20.11.20.12 NMAC, a fugitive dust control permit, plan, term or condition shall be a violation of 20.11.20 NMAC.
- C. Prior to issuing a fugitive dust control construction permit authorizing commencement of active operations, the department shall:
- (1) document, in the form of photographs in electronic or hard copy formats or video recordings, the conditions of the properties that are closest to the property subject to the permit and any other properties the department believes are appropriate;
 - (2) maintain the documentation for one year after completion of the permitted project;
- (3) include in the permit a requirement that the permittee remedy damage to real properties caused by a violation of the permit; and
- (4) make the documentation available as evidence, upon request, to all parties involved in a property damage dispute allegedly caused by fugitive dust.
- deposited upon real property beyond the limits of the permitted area shall take all actions necessary to remedy damage caused by a violation proven with credible evidence. Such remedies may include, but not be limited to, compensation, removal of the fugitive dust and/or repair of any damage after obtaining permission from property owners or operators before doing any remedial work on the damaged property. It shall be a separate violation of 20.11.20 NMAC to fail to remove the fugitive dust and repair the damage as specified in a written schedule or any extension agreed to by the permittee and the owner of the damaged property. If the parties cannot agree to a schedule, the department may establish deadlines and failure to comply with the deadlines shall be a separate violation of 20.11.20 NMAC. No violation will occur if the failure to perform the corrective action is for reasons beyond the control of the person performing the work including without limitation acts of God or government preemption in connection with a national emergency or if the owner of the allegedly damaged property refuses to grant reasonable permission and access to conduct the remediation activities.
- E. Stockpiles shall be no higher than 15 feet above the existing natural or manmade grade that abuts the stockpile, unless otherwise approved in advance and in writing by the department.

F. Each person shall comply with all applicable provisions of the Clean Air Act, the New Mexico Air Quality Control Act, joint air quality control board ordinances, regulations of the board, and permits issued by the department. [20.11.20.12 NMAC - Rp, 20.11.20.12 NMAC, 3/17/08]

20.11.20.13 FUGITIVE DUST CONTROL PROGRAMMATIC PERMITS:

- A. A fugitive dust control programmatic permit is required for single or multiple facility locations to address real property totaling three-quarters of an acre or more that is subject to routine maintenance, routine surface disturbance activities, or routine ongoing active operations. A programmatic permit application and fugitive dust control plan shall be submitted on forms provided by the department. Programmatic permits are valid for up to five years. The permittee shall pay the annual programmatic permit fee required by 20.11.2 NMAC, *Fees*, for each year covered by the programmatic permit. Receipt of the annual fee by the department shall result in an automatic annual renewal of the programmatic permit. A new programmatic permit application and fugitive dust control plan shall be submitted every five years or sooner if the surface disturbance activities or fugitive dust abatement strategies are modified. A filing and review fee is not required for a programmatic permit.
- B. A person responsible for sloped (i.e. slopes having a steepness of three-to-one or steeper) and bottom portions of interior and riverside drains and canals used for irrigation purposes, and arroyos and public flood control facilities subject to routine maintenance or repair, sedimentation and water erosion shall obtain either a variance as provided by 20.11.7 NMAC or a programmatic permit as provided by Subsection A of 20.11.20.13 NMAC if the person does not elect to submit an application and obtain a fugitive dust control construction permit pursuant to 20.11.20.14 NMAC.
- C. No signs or photographic documentation shall be required for the permits or activities subject to 20.11.20.13 NMAC. Appropriate permit application documentation shall be determined by the department. [20.11.20.13 NMAC Rp, 20.11.20.13 NMAC, 3/17/08]

20.11.20.14 FUGITIVE DUST CONTROL CONSTRUCTION PERMITS:

- A. A person who does not elect to obtain or who does not qualify for a fugitive dust control programmatic permit pursuant to 20.11.20.13 NMAC and who plans to conduct active operations that will disturb three-quarters of an acre or more shall comply with either Subsection A or B of 20.11.20.18 NMAC and obtain a fugitive dust control construction permit. No active operations shall commence until a department manager, supervisor, scientist, field operations officer or health specialist signs the fugitive dust control construction permit (permit) and a copy of the signed permit is available at the site of active operations. A permit shall consist of a complete permit application a fugitive dust control plan, any appended documents, any conditions attached to the
- permit by the department, and a signature and effective date affixed by a department manager, supervisor, scientist, field operations officer or health specialist.
- **B.** The permittee shall comply with the terms of the permit unless the department approves a transfer of the permit or issues a new permit for the active or inactive disturbed surface area of operation to a new permittee. If three-quarters of an acre or more of the real property that is subject to the permit is transferred or sold the new owner is responsible for complying with either 20.11.20.13 NMAC or 20.11.20.14 NMAC unless exempt. Upon receipt of an amended permit signed by a department manager, supervisor, scientist, field

operations officer or health specialist, the permittee who transferred or sold the real property no longer will be responsible for control of fugitive dust originating from the real property that has been transferred or sold. Permit amendment fees shall be paid as required by 20.11.20.14 NMAC.

- C. If a person other than the permittee will be responsible for complying with the permit and
- 20.11.20 NMAC, then the permittee shall designate the responsible person or persons in the permit application who shall be responsible for active operations and inactive disturbed surface areas to the extent specified in the application. Before a responsible person shall be liable for a violation of the permit or 20.11.20 NMAC, the responsible person shall agree in writing to accept responsibility for compliance with the permit conditions. The responsible person shall be the first person the department attempts to contact regarding a violation of the permit or 20.11.20 NMAC. In addition, the department may approve, in writing, a permit amendment that adds or changes the responsible person who has agreed in writing to be responsible for complying with the permit and plan, to the extent specified in the permit. If the responsible person and permittee fail to comply with the provisions of 20.11.20 NMAC, the owner or operator, if different from the responsible person or permittee, shall be responsible for compliance with the permit.
- D. An approved permit shall be valid for one year from the date of issuance by the department or until the project expiration date provided in the permit application, whichever is longer, but no more than five years from the date of issuance. If the project plan, expiration date, total disturbed surface area, completion date or the proposed control measures change in any manner, an amended or new permit is required. At least 10 business days before the expiration date, a fugitive dust control permit shall be renewed by the then-current permittee, or the permit shall expire as of the expiration date. Permit amendment or renewal fees shall be paid as required by Subsection H of 20.11.20.14 NMAC. Permits may be transferred to legal heirs, successors, and assigns, who shall become the new permittee. Permit transfers may qualify as an administrative amendment if:
- (1) the department has received, on a form provided by the department, a written transfer agreement signed by the current and new permittee, and, if different than the new permittee, by the owner of the real property subject to the permit;
- (2) a specific date of the transfer of the permit and plan responsibility, coverage, and liability is established in the transfer agreement;
- (3) the department has determined that no change to the permit and plan other than the administrative change is necessary;
- (4) the new permittee and owner have submitted the application information required by 20.11.20.15 NMAC if changes have been made to the permit and plan as deemed necessary by the department;
 - (5) no grounds exist for permit termination, as otherwise provided by 20.11.20 NMAC; and
 - (6) the transfer agreement has been approved in writing by the department.
- E. After a permit is issued and before the start of active operations, the permittee shall install and maintain a project sign provided by the department or a project sign that meets the requirement of 20.11.20.14 NMAC. The department will establish uniform design guidelines for the sign to ensure that the sign is reasonably legible to the public. If the required information is provided in an existing project sign that has been established for another purpose, an additional sign shall not be required to comply with 20.11.20 NMAC. At

a minimum, the sign shall contain the following:

- (1) project name;
- (2) permittee name;
- (3) phone number of designated responsible person or owner;
- (4) subcontractor name (optional);
- (5) subcontractor phone number (optional);
- (6) air quality division phone number;
- (7) fugitive dust control permit number; and
- (8) total acres of area to be disturbed.
- F. The permittee or responsible person shall make the permit available to all employees, agents, sub- contractors, and other persons performing work in the area of active operations or inactive disturbed surface areas to assist in maintaining compliance with 20.11.20 NMAC. The permittee or responsible person shall explain the requirements of the permit to appropriate employees, contractors and agents working at the site. Upon request, the permittee shall provide information regarding how to obtain a copy of the permit from the department.
- G. It is the responsibility of the permittee or responsible person to ensure that the permit or amended permit contains current contact information and that a copy is maintained at the work site and is provided to the department upon request. Failure to maintain and provide up-to-date contact information shall be a violation of 20.11.20 NMAC.
- H. The department may amend or renew the permit if requested to do so by the permittee. No fee shall be charged for amending or renewing a permit, unless there will be an increase in the number of acres subject to surface disturbance. Both the department and the permittee must sign an amended permit before it will be effective. The department is not required to sign a renewed permit unless the renewed permit increases the number of acres subject to surface disturbance. An amended or renewed permit that involves an increase in the number of acres subject to surface disturbance shall require payment of fees as required by 20.11.2 NMAC.

[20.11.20.14 NMAC - Rp, 20.11.20.14 NMAC, 3/17/08]

20.11.20.15 FUGITIVE DUST CONTROL CONSTRUCTION PERMITS; MINIMUM PERMIT

APPLICATION REQUIREMENTS: Proposed fugitive dust control construction permit applications shall be submitted on forms provided by the department. Fugitive dust control plans may be submitted in any format including a copy of a program that complies with any other statute or regulation so long as the plan provides reasonably available control measures whose purpose is to mitigate fugitive dust and the plan meets the objectives of 20.11.20 NMAC. If extraneous information is supplied that does not apply to mitigation of fugitive dust, then the dust control measures shall be clearly identified in the plan or the permit application shall be deemed incomplete and shall be rejected. An incomplete permit application shall be processed as described in Subsection C of 20.11.20.18 NMAC. Proposed fugitive dust control permit applications shall include the following:

- A. name, address, telephone number and fax number of permittee;
- **B.** owner's name, address, telephone number and fax number if different from permittee;
- C. if different than the permittee, the name, address, telephone number and fax number of the responsible person who is agreeing to, and shall be responsible for activities

on the permitted site; the department shall first attempt to contact the responsible person regarding a violation of the permit;

- **D.** anticipated project start date which shall be no fewer than 10 business days from the department's receipt of the permit application for areas containing greater than three quarters of an acre but no greater than 25 acres, and no fewer than 20 business days from the department's receipt of the permit application for areas containing more than 25 acres;
 - E. anticipated project completion date;
 - **F.** project description;
 - **G.** project location including, if available, street address, major cross streets or nearby intersection;
 - **H.** total area of disturbance in acres or square feet;
- I. a check or money order for the fees due, calculated using the tables provided on the permit application form, payable to the 'city of Albuquerque permits program' (fund 242);
- **J.** a description of the sequencing of the active operations, if phasing is used to reduce the total disturbed area at any time;
- **K.** estimated total volume of bulk material being handled in cubic yards, including any bulk material being imported, exported or relocated;
- L. location from which bulk material is being imported to the site and a statement regarding whether the site where the imported material originates will have a separate fugitive dust control permit, or provide written information to the department as soon as known;
- M. location to which bulk material from the site is being exported and a statement regarding whether the site to which the material is to be exported will have a separate fugitive dust control permit, or provide written information to the department as soon as known;
- N. whether an approved drainage plan exists pursuant to city of Albuquerque or Bernalillo county ordinances and, upon request by the department, provide a copy of the drainage plan;
 - o. site map (e.g. zone atlas page, aerial photograph);
- **P.** type of work being performed and appropriate reasonably available control measures, as described in 20.11.20.23 NMAC, or other effective control measures proposed to be used in the fugitive dust control plan;
- Q. a statement that effective contingency fugitive dust control measures shall be taken by the permittee if the control measures required by Subsection P of 20.11.20.15 NMAC are not effective in maintaining compliance with 20.11.20 NMAC;
- **R.** a commitment to comply with provisions of Subsection B of 20.11.20.16 NMAC if the permittee chooses to preserve the ability to qualify for a high wind affirmative defense:
 - S. high wind contingency measures that will be implemented when high winds occur:
- T. a description of the actions the permittee will take to mitigate damage caused by fugitive dust if generated by active operations or an inactive disturbed surface area on the permitted site;
 - **U.** other proposed conditions;
- **v.** signature of the permittee, and, if a different person, signature of the owner, operator and/or any responsible person certifying that the information in the fugitive dust control permit application is true, accurate and complete, and certifying that all actions

necessary to comply with 20.11.20 NMAC will be taken, including suspending active operations if necessary to comply with the provisions of 20.11.20 NMAC; and

W. a statement regarding whether bulk material will be stockpiled at the project site, the dimension of each stockpile, and the reasonably available control measures or other effective control measures that will be used at the stockpile area to comply with 20.11.20 NMAC. [20.11.20.15 NMAC - Rp, 20.11.20.15 NMAC, 3/17/08]

20.11.20.16 HIGH WIND EVENT REQUIREMENTS; HIGH WIND EVENT AFFIRMATIVE DEFENSE:

- A. General requirements: during a high wind event, all persons responsible for fugitive dust control activities on publicly or privately-owned real property where active operations are occurring or inactive disturbed surface areas exist shall use reasonably available control measures or other effective measures to prevent fugitive dust from leaving the property. All such persons shall implement the control measure required by Paragraph (5) of Subsection C, of 20.11.20.16 NMAC.
- **High wind affirmative defense:** if the department initiates an administrative enforcement action against either a permittee or a responsible person, or both (respondent) alleging a violation of a permit or 20.11.20 NMAC during a high wind event, the respondent may assert an affirmative defense in the enforcement action if the respondent establishes by credible evidence that respondent complied with the requirements established in Subsection C of 20.11.20.16 NMAC. In order to successfully assert the affirmative defense, during the entire duration of a permit the respondent shall utilize the applicable controls described in Subsection C of 20.11.20.16 NMAC, regardless of whether or not a high wind event exists, with the exception of Paragraph (5) of Subsection C of 20.11.20.16 NMAC, which shall be required during a high wind event. The affirmative defense shall not be available if respondent has failed to diligently perform the control measures specified in Paragraphs (1) through (5) of Subsection C of 20.11.20.16 NMAC. The availability of the affirmative defense shall not change the respondent's potential liability for any damage caused by fugitive dust leaving the permitted property, and the affirmative defense shall not change the permittee's obligation to remove fugitive dust originating from the permitted source, or otherwise remedy the damage, as required by Subsection D of 20.11.20.12 NMAC. The board, its members, and employees and officials of the city of Albuquerque and the county of Bernalillo shall not incur individual liability for damage to persons or property caused by fugitive dust leaving the permitted property.
- C. Mandatory control measures: to assert a high wind event affirmative defense as described in Subsection B of 20.11.20.16 NMAC, a permittee shall utilize the applicable control measures in Paragraphs (1) and (2) of Subsection C of 20.11.20.16 NMAC on an ongoing basis. Without prior notice to the department, the permittee may use the measure in Paragraph (3) of Subsection C of 20.11.20.16 NMAC in place of the measure in Paragraph (1) of Subsection C of 20.11.20.16 NMAC. After receiving written permission from the department, the permittee may substitute the measures in Paragraph (4) for the measures in Paragraphs (1) and (2), or (2) and (3) of Subsection C of 20.11.20.16 NMAC. All permittees, whether or not they intend to assert a high wind affirmative defense, shall implement the measure in Paragraph (5) of Subsection C of 20.11.20.16 NMAC during a high wind event.

(1) Use of wet suppression sufficient to attain and maintain eighty percent of the optimal moisture content of the soil as determined by a proctor analysis performed by a certified public or private materials testing laboratory. For proctor analyses, either the standard proctor (ASTM D-698) or the modified proctor (ASTM D-1557) may be used. Daily, representative testing of the soil moisture content shall be taken on exposed new surfaces after the top one-half to one inch of the soil is removed at the sampling area. Three times each day, at intervals that are equally spaced throughout the work day, the respondent shall test and record the soil moisture content at three separate representative locations on the permitted property, which will result in a minimum of nine tests each day.

To demonstrate compliance, any set of three tests shall average 80 percent of the optimal moisture content of the soil and no individual test shall be less than 70 percent of the optimal moisture content of the soil. Failure to meet the soil moisture content standards as required by Subsection C of 20.11.20.16 NMAC for any set of three tests shall require that the respondent immediately apply necessary control measures at the portion or portions of the representative area where the soil moisture content tested as insufficient, and re-test the same representative locations, as necessary, until the soil moisture content complies with the standards as required by Subsection C of 20.11.20.16 NMAC. The respondent or the department shall use a reasonably accurate commercially-available instrument to determine soil moisture content. Where possible, methods for determining soil moisture content shall be consistent with ASTM standards (e.g. ASTM D-1556-90 - sand cone test, ASTM D2922-91 - nuclear density). All tests for soil moisture content shall be documented and retained for the duration of the permit, and shall be made available to the department upon request.

- (2) Use of properly-maintained fabric fencing material around the perimeter of the disturbed surface area with openings no wider than necessary to allow vehicles to enter or exit the area. The fencing material shall be anchored approximately six inches below the surface on the bottom edge, and when installed shall be approximately 24 or more inches above the existing natural or man-made surface. The fence shall be installed in a durable manner. For example, one durable installation method involves use of steel T-posts spaced approximately eight to 10 feet apart with steel mesh wire used as a reinforcement backing to the fabric. Use of fabric fencing standards associated with the national pollutant discharge system may be approved by the department if they are consistent with the requirements of Paragraph (2) of Subsection C of 20.11.20.16 NMAC. The department may also approve alternative fencing material if it provides equal or better control of fugitive dust. Alternatives may include solid walls or sturdy fences that effectively control fugitive dust. To maintain effectiveness of the fence, fugitive dust that accumulates on either side of the fencing shall be removed promptly.
- (3) Use of chemical dust suppressants applied in amounts, frequency and rates recommended by the manufacturer, and maintained as recommended by the manufacturer sufficient to substantially reduce fugitive dust leaving the fugitive dust source while active operations are idle, usually used when active operations are suspended for more than 48 hours.
- (4) A department-approved alternative dust control measure or measures that provide fugitive dust control that is equal to or better than measures in Paragraphs (1) and (2), or (2) and (3) of Subsection C of 20.11.20.16 NMAC. Before a permittee may substitute an alternative control measure, the department must approve the control measure in writing as a permit amendment.
 - (5) Stopping active operations that are capable of producing fugitive dust.
 - D. Active operations during an announced high wind event: The department

shall use national weather service (NWS) data, recorded at either the Albuquerque international airport (Sunport) or Double Eagle II airport, in order to determine forecasted or actual wind speeds when announcing that a high wind event may or will occur. Wind velocity measurements taken in the field by the department, the responsible person, or permittee shall be taken at a representative active operation area on the permitted property or by the department within 200 feet of the permitted property being evaluated to determine whether active operations can be continued, resumed or initiated. Wind measurement results shall be documented and retained throughout the duration of the permit, and shall be made available to the department and the permittee and/or person responsible for controlling fugitive dust at the permitted property. A continuous one-hour wind velocity measurement with an average wind speed of less than 20 miles per hour, along with on-site stable soil conditions and effective dust control measures, as stated in the fugitive dust control plan, shall be sufficient to allow active operations during an announced high wind event. However, fluctuations in average wind speed and high wind gusts may re-occur and can cause ineffective dust control during active operations, which may result in a violation of 20.11.20 NMAC. Therefore, the responsible person or permittee shall continuously assess wind conditions and on-site soil conditions during an announced high wind event and shall maintain the reasonably available control measures which include stopping active operations as required by Paragraph (5) of Subsection C of 20.11.20.16 NMAC.

- **E. Limitations on use of affirmative defense:** A respondent may not assert the affirmative defense described in 20.11.20.16 NMAC:
 - (1) against an action for injunctive relief; or
- (2) to prohibit the EPA or a citizen's group from taking an enforcement action. [20.11.20.16 NMAC Rp, 20.11.20.16 NMAC, 3/17/08]

20.11.20.17 FILING, REVIEW AND INSPECTION FEES: The fees required by 20.11.20 NMAC are

located in 20.11.2 NMAC, Fees. The filing and review fee portion of the total permit application fee due when a fugitive dust control construction application is filed is non-refundable.

[20.11.20.17 NMAC - Rp, 20.11.20.17 NMAC, 3/17/08]

20.11.20.18 FUGITIVE DUST CONTROL CONSTRUCTION PERMIT APPLICATION PROCESSING:

- A. A person who is required to submit a fugitive dust control construction permit (permit) application and plan for active operations that will disturb at least three-quarters of an acre, but no more than 25 acres, shall submit the permit application and plan with the applicable fees to the department no fewer than 10 business days prior to the start of active operations. Within 10 business days of the department receiving the permit application, plan and fees, the department will approve the permit, approve the permit with conditions or deny the permit.
- **B.** A person who is required to submit a permit application and plan for active operations that will disturb more than 25 acres shall submit the permit application and plan with the applicable fees to the department no fewer than 20 business days prior to the start of active operations. Within 20 business days of the department receiving the permit

application, plan and fees, the department will approve the permit, approve the permit with conditions or deny the permit.

- C. The fugitive dust control plan may be in any form including a copy of a program that complies with any other statute or regulation so long as the plan provides reasonably available control measures whose purpose is to mitigate fugitive dust and the plan meets the objectives of 20.11.20 NMAC. If the plan does not specifically enumerate the control measures proposed to mitigate fugitive dust, the permit application shall be deemed incomplete and shall be rejected. If an incomplete application is rejected, a new or amended application may be filed and the time limits in Subsections A or B of 20.11.20.18 NMAC shall apply as if the initial application had not been filed.
- **D.** If all requirements of 20.11.20 NMAC have been met by the applicant, the department shall issue a permit to the permittee, which shall authorize commencement of active operations. If the department has not approved, denied, or notified the applicant regarding the permit application within 30 business days of the department's receipt of the permit application, plan and fees, then the permit shall be automatically approved and operations may commence if the permittee uses the reasonably available control measures and fugitive dust control plan as submitted in the application. However, if the measures and plan are not effective, the department may initiate an enforcement action for violation of 20.11.20 NMAC.

[20.11.20.18 NMAC - Rp, 20.11.20.18 NMAC, 3/17/08]

20.11.20.19 PUBLIC AND PRIVATE UNPAVED ROADWAYS, SHORT-CUTS AND UNPAVED PARKING AREAS:

- A. No unpaved roadway greater than one-quarter mile in length and no unpaved parking areas may be constructed or allowed to be constructed or reconstructed on any publicly-owned land or privately-owned real property, unless the owner has applied for and received a permit pursuant to 20.11.20.13 NMAC or 20.11.20.14 NMAC. Owners in possession of a valid fugitive dust control permit that wish to construct additional unpaved roadways shall apply for an amendment to their permit which shall include payment of any fees required by 20.11.2 NMAC. In addition, no unpaved short-cut of any length on private or public property may be constructed or be allowed to remain usable when it is evident the short cut is being used by motor vehicle drivers to save time by avoiding use of a dedicated and authorized roadway. A variance from Subsection A of 20.11.20.19 NMAC may be granted by the board in a manner consistent with the variance procedures provided in 20.11.7 NMAC.
- **B.** Owners or operators shall use reasonably available control measures on all unpaved roadways and unpaved parking areas and shall comply with the general provisions established in 20.11.20.12 NMAC.
- C. **Public unpaved roadway; complaints.** If the department receives a fugitive dust complaint regarding an unpaved public roadway, the department will forward the complaint by hand delivery, inter-office mail delivery or certified mail, return receipt requested, to the governmental agency responsible for maintenance of the roadway. Within 45 calendar days from the date the complaint was received by the responsible agency, the responsible agency shall make a reasonable effort to address the complaint, and the governmental agency shall provide the department with a written report of the actions taken to resolve the complaint. Failure of the responsible agency to submit a timely report shall be

a violation of 20.11.20 NMAC. [20.11.20.19 NMAC - Rp, 20.11.20.19 NMAC, 3/17/08]

20.11.20.20 ABRASIVE PRESSURE BLASTING OPERATIONS: A person who performs abrasive pressure blasting operations shall employ reasonably available control measures or other effective control measures at all times to comply with 20.11.20.12 NMAC and shall substantially reduce fugitive dust emissions that are leaving the property where the abrasive pressure blasting operations are taking place. A person who is conducting abrasive pressure blasting operations is not required to obtain a fugitive dust control permit from the department. However, stationary source permitting regulations, such as 20.11.41 NMAC and 20.11.42 NMAC, may apply to pressure blasting operations.

[20.11.20.20 NMAC - Rp, 20.11.20.20 NMAC, 3/17/08]

20.11.20.21 CONTROL OF GREENWASTE MATERIAL: To prevent greenwaste from becoming ground up by the abrasive action of tires, which may then be entrained into the atmosphere as particulate matter, all persons causing, directing or authorizing greenwaste to be deposited on publicly-owned real property shall promptly remove or cause the removal of the greenwaste.

[20.11.20.21 NMAC - Rp, 20.11.20.21 NMAC, 3/17/08]

20.11.20.22 DEMOLITION AND RENOVATION ACTIVITIES; FUGITIVE DUST CONTROL CONSTRUCTION PERMIT AND ASBESTOS NOTIFICATION REQUIREMENTS:

No person shall demolish any building containing over 75,000 cubic feet of space without first delivering to the department a fugitive dust control construction permit application and fugitive dust control plan with the fee required by 20.11.2 NMAC. No active operations shall commence until a department manager, supervisor, scientist, field operations officer or health specialist signs a fugitive dust control construction permit and a copy of the signed permit is available at the site of active operations. Failure to obtain a fugitive dust control construction permit prior to commencement of demolition activities as described in 20.11.20.22 NMAC shall be a violation of 20.11.20 NMAC. All demolition and renovation activities shall employ reasonably available control measures at all times, and, when removing asbestos containing materials (ACM), shall also comply with the federal standards incorporated in

20.11.64 NMAC, *Emission Standards for Hazardous Air Pollutants for Stationary Sources*. A person who demolishes or renovates any commercial building, residential building containing five or more dwellings, or a residential structure that will be demolished in order to build a nonresidential structure or building shall file an asbestos notification with the department no fewer than 10 calendar days before the start of such activity. Written asbestos notification certifying to the presence of ACM is required even if regulated ACM is not or may not be present in such buildings or structures. Failure to provide proper asbestos notification shall be a violation of the requirements of 20.11.64 NMAC. Knowingly violating provisions of 20.11.64 NMAC is a fourth-degree felony pursuant to the New Mexico Air Quality Control Act, 74-2-14.C.3 NMSA 1978.

[20.11.20.22 NMAC - Rp, 20.11.20.22 NMAC, 3/17/08]

20.11.20.23 REASONABLY AVAILABLE CONTROL MEASURES FOR FUGITIVE DUST:

The permittee may include in the permit application one or more of the reasonably available control measures included in 20.11.20.23 NMAC or one or more alternative fugitive dust control measures, including measures taken to comply with any other statute or regulation if the measures will effectively control fugitive dust during active operations or on inactive disturbed surface areas. At minimum, all projects requiring a fugitive dust control construction permit shall utilize paved or gravel entry/exit aprons, steel grates or other devices capable of removing mud and bulk material from vehicle traffic tires, and erect a properly-maintained fabric fencing material around the perimeter of the disturbed surface area with openings no wider than necessary to allow vehicles to enter or exit the area. The fencing material shall be anchored approximately six inches below the surface on the bottom edge, and when installed shall be approximately 30 or more inches above the existing natural or man-made surface. To maintain effectiveness of the entry/exit apron, steel grate or other similar device (device), accumulated materials shall be removed promptly. To maintain effectiveness of the fence, fugitive dust that accumulates on either side of the fencing shall be removed promptly.

A. Unpaved roadways:

- (1) paving using recycled asphalt, routinely-maintained asphalt millings, asphaltic concrete, concrete, or petroleum products legal for such use;
- (2) using dust suppressants applied in amounts, frequency and rates recommended by the manufacturer and maintained as recommended by the manufacturer;
 - (3) using wet suppression; or
- (4) using traffic controls, including decreased speed limits with appropriate enforcement; other traffic calming methods, vehicle access restrictions and controls; road closures or barricades; and off-road vehicle access controls and closures.

B. Paved roadways:

- (1) cleaning up spillage and track out as necessary to prevent pulverized particulates from being entrained into the atmosphere;
 - (2) using on-site wheel washes; or
- (3) performing regularly scheduled vacuum street cleaning or wet sweeping with a sweeper certified by the manufacturer to be efficient at removing particulate matter having an aerodynamic diameter of less than 10 microns (i.e. PM10).
 - C. Trucks hauling bulk materials on public and private roadways:
- (1) using properly secured tarps or cargo covering that covers the entire surface area of the load:
 - (2) preventing leakage from the truck bed, sideboards, tailgate, or bottom dump gate;
 - (3) using wet suppression to increase moisture content of the bulk materials being hauled;
- (4) using dust suppressants applied in amounts, frequency and rates recommended by the manufacturer; or
- (5) maintaining a minimum of six inches of freeboard from the rim of the truck bed; freeboard means the vertical distance from the highest portion of the load abutting the bed and the lowest part of the top rim of the truck bed.
 - D. Active operations in construction areas and other surface disturbances:
 - (1) Short term control measures may include:

- (a) wet suppression;
- (b) dust suppressants applied in amounts, frequency and rates recommended by the manufacturer and maintained as recommended by the manufacturer;
 - (c) watering the site at the end of each workday sufficiently to stabilize the work area;
- (d) applying dust suppressants in amounts, frequency and rates recommended by the manufacturer on the worksite at the end of each workweek if no active operations are going to take place over the weekend or if active operations stop for more than two consecutive days;
- (e) starting construction at the location that is upwind from the prevailing wind direction and stabilizing disturbed areas before disturbing additional areas;
 - (f) stopping active operations during high wind; or
 - (g) clean up and removal of track-out material.
 - (2) Long term control measures may include:
- (a) site stabilization using dust suppressants applied in amounts, frequency and rates recommended by the manufacturer and maintained as recommended by the manufacturer;
 - (b) reseeding using native grasses as specified in 20.11.20.24 NMAC;
 - (c) xeriscaping;
- (d) installing parallel rows of fabric fencing or other windbreaks set perpendicular to the prevailing wind direction either onsite or on a nearby property with the permission of the nearby property owner;
- (e) surfacing with gravel or other mulch material with a size and density sufficient to prevent surface material from becoming airborne;
 - (f) mulching and crimping of straw or hay as specified in Subsection D of 20.11.20.24 NMAC;
 - (g) installing permanent perimeter and interior walls;
 - (h) using conventional landscaping techniques; or
 - (i) clean up and removal of track-out material.

E. Bulk material handling:

- (1) using spray bars;
- (2) applying wetting agents (surfactants) to bulk material;
- (3) using wet suppression through manual or mechanical application;
- (4) adding dust suppressants to bulk materials in amounts, frequency and rates recommended by the manufacturer and maintained as recommended by the manufacturer;
 - stopping bulk material handling, processing, loading or unloading during high wind conditions;
 - (6) reducing process speeds; or
 - (7) reducing drop heights.
 - **F.** Industrial sites:
- (1) paving roadways and parking area with recycled asphalt, asphaltic concrete, concrete, or petroleum products legal for use;
 - (2) performing regularly scheduled vacuum street cleaning or wet sweeping;
 - (3) regularly using wet suppression on unpaved areas;
- (4) using dust suppressants applied in amounts, frequency and rates recommended by the manufacturer, and maintained as recommended by the manufacturer;
 - (5) installing wind breaks;

- (6) installing enclosures;
- (7) installing on-site anemometers to measure wind speed; the anemometer should trigger a suitable warning mechanism such as a strobe light or an audible alarm (that will not violate any applicable noise ordinance) to notify on-site personnel of high wind conditions:
 - increasing wet suppression applications before and during high wind conditions; (8)
 - stopping active operations during high wind conditions. (9)
 - Demolition and renovation activities when asbestos-containing materials are not G. present:
 - using constant wet suppression on the debris piles during demolition; (1)
 - using water or dust suppressants on the debris pile, applied in amounts,

frequency and rates recommended by the manufacturer;

- using enclosures; (3)
- using curtains or shrouds; (4)
- using negative pressure dust collectors; or
- stopping demolition during high wind conditions.
- Milling, grinding or cutting of paved or concrete surfaces: H.
 - (1)
 - constantly using wet suppression; continuous wet sweeping during milling, grinding, or cutting operations;
- using dust suppressants applied in amounts, frequency and rates recommended by the manufacturer, and maintained as recommended by the

manufacturer;

- (4) using enclosures; or
- using curtains or shrouds. (5)
- I. Pressure blasting operations:
 - using non-friable abrasive material; (1)
 - using curtains, enclosures or shrouds; (2)
 - using negative pressure dust collectors; (3)
 - (4) using constant wet suppression;
 - maintaining ongoing clean up of abrasive material; or (5)
 - stopping active operations during high wind conditions.
- Spray painting and other coatings:
 - (1) using enclosures that comply with applicable fire codes; or
 - using curtains, enclosures or shrouds.
- High wind contingency measures:
- (1) installing and using on-site anemometers to measure wind speed; the anemometer should trigger a suitable warning mechanism such as a strobe light or an audible alarm that will not violate any applicable noise ordinance to notify on-site personnel of high wind conditions:
 - using constant wet suppression; (2)
- using dust suppressants applied in amounts, frequency and rates recommended by the manufacturer;
 - using wetting agents or surfactants on disturbed areas, bulk materials or stockpiles;
 - (5) slowing down process; or
 - (6) shutting down active operations.
 - Stockpile Formation:
 - (1) Active stockpiles:
 - applying wet suppression on a regular basis;
 - utilizing wind breaks (fabric fencing or other materials);

- (c) reducing vehicle speeds or using other traffic calming measures (e.g. sculpted piles); or
- (d) restricting access to stockpile areas during non-work hours.
- (2) Inactive stockpiles:
 - (a) maintaining a stable outer crust over stockpile area;
- (b) using dust suppressants applied in amounts, frequency and rates recommended by the manufacturer, and maintained as recommended by manufacturer;
 - (c) restricting access to stockpile areas; or
 - (d) utilizing wind breaks (fabric fencing or

other materials). [20.11.20.23 NMAC - Rp, 20.11.20.23 NMAC, 3/17/08]

20.11.20.24 NATIVE GRASS SEEDING AND MULCH SPECIFICATIONS:

- A. If the fugitive dust control permit includes provisions to revegetate a disturbed area, the permittee may use the specifications described in 20.11.20.24 NMAC. When properly applied and maintained, these specifications have provided reasonably successful results in the past in Bernalillo county. They are included here as a reference for permittees and others who choose to use native revegetation as a long-term reasonably available control measure. However, use of these specifications does not guarantee success. Failure of any revegetation method as a long-term reasonably available control measure requires re-application or other control method approved by the department. The disturbed area shall maintain compliance with 20.11.20 NMAC.
- (1) The native seed species used and rate of application should be as provided in Subsection F of 20.11.20.24 NMAC.
- (a) If the area to be seeded is along a recreational trail of any type, the seed mixes for either type of soil listed in Subsection F of 20.11.20.24 NMAC should not include four-wing saltbush and the seeding rate should be reduced by one pound per acre.
- (b) Seeds may be pre-mixed by a seed dealer. Each pre-mixed bag of seed should be sealed and labeled by the seed dealer in accordance with federal seed laws and New Mexico department of agriculture labeling laws. The label should include: variety, kind of seed, lot number, purity, germination, percent crop, percent inert, percent weed (including noxious weeds), origin, test data and net weight. Federal seed laws require that analysis shall be no older than five months for seed shipped interstate and no older than nine months for seed shipped intra-state.
- (c) 48 hours before seeding, the owner or operator should give written notice to the department by hand delivery or facsimile, requesting inspection of the sealed seed bags to be used. The department may inspect the sealed seed bags and labels.
- (2) **Fertilizer and soil amendments:** unless otherwise specified in the fugitive dust control permit, no fertilizer or other soil amendments are required on areas to be reseeded.
 - (3) **Mulch:** areas to be reseeded should be mulched as described below unless otherwise specified in the permit.
- (a) **Hay mulch:** perennial native or introduced grasses of fine-stemmed varieties should be used unless otherwise specified in the plan. At least 65 percent of the herbage by weight of

each bale of hay should be 10 inches in length or longer. Hay with noxious seed or plants should not be used. Rotted, brittle, or moldy hay are not considered acceptable. Marsh grass or prairie hay composed of native grass of species to be seeded is considered acceptable. Tall

wheat grass, intermediate wheat grass, switch grass, or orchard hay will be acceptable if cut prior to seed formation. Marsh grass hay should be composed of mid and tall native, usually tough and wiry grass and grass-like plants found in the lowland areas within the Rocky Mountain region. Hay should be properly cured prior to use. Hay that is brittle, short fibered or improperly cured is not considered acceptable. Hay mulch should be crosshatched crimped to minimum depth of two inches.

- (b) **Straw mulch:** small grain plants such as wheat, barley, rye, or oats should not be used. Alfalfa or the stalks of corn, maize or sorghum are not considered acceptable. Material which is brittle, shorter than 10 inches or which breaks or fragments during the crimping operation are not considered acceptable. Straw mulch should be crosshatched crimped to minimum depth of two inches.
- (c) **Gravel mulch:** gravel mulch should be a maximum of three-quarter to one inch in diameter and must have been crushed or screened with a minimum of one angular face. Experience has demonstrated that gravel mulch provides very successful results on steep slopes and other areas that may be difficult to stabilize.
- (d) **Erosion control mats, fabric or blankets:** the type of erosion control mats, fabric or blankets used should be specified in the fugitive dust control permit.

B. Seed bed preparation:

- (1) Prior to starting seed bed preparation, the final grades of all earthwork should be inspected and certified by a New Mexico licensed engineer, and a copy of the certification should be delivered to the department:
- (a) no soil preparation should be performed when the surface is wet or muddy or when the soil is so moist that the soil is not fully loosened by the discing operation;
- (b) if erosion, crusting or re-compaction occurs in an area before seeding, mulching and crimping are successfully completed, the area should be reworked, beginning with seedbed preparation.
- (2) Mechanical preparation: the seedbed should be loosened to a minimum depth of six inches by disc or harrow. Areas of heavy or compacted soil may require additional preparation by chiseling or ripping if discing alone does not result in preparation to the full minimum depth of six inches. The soil should be worked to a smooth surface and should be free of clods, stones four inches in diameter and larger, and debris or foreign material that could interfere with seeding or crimping operations.
- (3) Hand preparation: areas which cannot be prepared with mechanized equipment because of small size, irregular shape or slope may be prepared to a minimum depth of two inches using hand tools or a rototiller, as specified in the permit.

C. Seeding:

(1) Should not start until the seed bed preparation has been inspected and certified by a New Mexico licensed engineer, a New Mexico licensed landscape architect, or other professional approved by the department (e.g. a department certified erosion control specialist). Notice in writing or by facsimile providing certification pertaining to the seed bed preparation should be given to the department at least 48 hours prior to beginning seeding operations so that the department has an opportunity to inspect the site. No seeding operations should be conducted when steady wind speeds exceed 10 miles per hour.

(2) Seed application:

(a) **Drill seeding:** drill seeding is highly recommended. Seed should be

applied with a "rangeland" type seed drill equipped with packer wheels. Seed should be drilled to a maximum depth of one-half inch. Direction of seeding should be across slopes and on the contour whenever possible.

- (b) **Broadcast seeding:** seed may be applied using the broadcast method when size, irregular shape, or slope exceeding three to one, prevents the use of a seed drill. Seed may be broadcast by hand or by a mechanical seeder provided that the seed is evenly distributed over the seeding area. Areas that are broadcast seeded should be seeded at a rate that is double the rate used for drill seeding. Areas of broadcast seeding should be hand raked to cover seed.
- (c) **Seeding with gravel mulch:** areas to be gravel mulched should be seeded at double the standard seed rate with one-half the seed applied prior to application of gravel and one-half of the seed applied on the surface of the gravel. Water should be applied in a quantity sufficient to wash seed from the surface and into the gravel.
- (d) **Hydro seeding:** hydro seeding with native grass will normally only be successful on areas that will be irrigated.
 - **D.** Hay or straw mulching:
- (1) All seeded areas should be mulched unless otherwise specified in the fugitive dust control permit. On seeded areas that are level or have slopes that are a ratio of three to one or less, any of the four types of mulching below may be used. On erosion control areas or slopes steeper than a ratio of three to one, only gravel mulch or erosion control materials should be used.
 - (2) Hay mulch should be applied at a minimum rate of one and one-half tons per acre of air dry hay.
 - 3) Straw mulch should be applied at a minimum rate of two and one-half tons per acre of air dry straw. inches.
 - (4) Hay or straw mulch should be crosshatched crimped into the soil to a minimum depth of two
 - (a) The mulch should be spread uniformly over the area either by hand or with a mechanical mulch spreader.
 - (b) When spread by hand, the bales of mulch should be torn apart and fluffed before spreading.
 - (c) Mulching should stop when wind speeds exceed 15 miles per hour.
 - (d) The mulch should be wetted down and allowed to soften for approximately 15 to 20minutes prior to crimping.
 - (e) A heavy disc should be used to crimp or anchor the mulch into the soil to a minimum depth of two inches. A mulch-tiller with flat serrated discs at least one-quarter of an inch in thickness, having dull edges with discs spaced six inches to eight inches apart or similar equipment should be used. The discs should be of sufficient diameter to prevent the frame of the equipment from dragging the mulch.
 (f) The crimping operations should be across the slope where practical,
 - (f) The crimping operations should be across the slope where practical but not parallel to prevailing winds. In general, crimping should be in a north-south direction or in tight interlocking "S" curves to avoid straight east-west crimp lines.
 - (g) If small grain straw mulch is used, the mulch should be crimped in two directions in a cross-hatch pattern.
 - (5) **Gravel mulch:** gravel mulch should be laid evenly by hand or by equipment to a thickness of two inches.
 - (6) **Erosion control mats, fabric or blankets:** the type of erosion control mats, fabric or blankets

used should be as specified in the fugitive dust control permit. Anchoring of the erosion control materials should be consistent with the manufacturer's recommendations. Upon completion of the reseeding project, the permittee should deliver written notice to the department in a timely manner, certifying completion of seeding project.

- E. Protection of native grass seeded area: the person, owner or operator who has elected to use native seeding as a control measure shall be responsible for protecting and caring for the seeded area until plants are fully established. After project completion, the owner or operator shall repair any damage to seeded areas caused by pedestrian or vehicular traffic or vandalism. During periods of low rainfall, supplemental watering may be required to successfully establish the native grass seed. Because the owner is responsible for the fugitive emissions leaving the property, failure of the reseeding project shall not be a defense to enforcement of 20.11.20 NMAC. The owner or operator may find it necessary to reseed or use other reasonably available control measures to bring the property into compliance. The department strongly recommends that any area being seeded or mulched be adequately fenced and posted to prevent trespass traffic.
- F. Seed specifications and rates should be used as established by the most recent edition of "city of Albuquerque standard specifications for public works construction native grass seeding" section as updated by the city or as approved in writing by the department.
- G. Variations in seeding due to special environmental conditions: the owner or operator may use a different seeding mixture in order to address special environmental conditions that make it unlikely for success of the reseeding effort. Use of an annual rye (*Lolium sp.*) or cool season grasses (e.g. barley at 10 pounds per acre) may be added to the seed specification in order to help stabilize soils, especially for disturbed areas comprising 25 acres or more when a significant amount of the publicly-owned land or privately-owned real property is not expected to be built upon within one year.

 [20.11.20.24 NMAC Rp, 20.11.20.24 NMAC, 3/17/08]

20.11.20.25 REVIEW MEETING: TIMELY PETITION FOR HEARING BEFORE THE BOARD:

If a permit applicant or permittee (requestor) asks the department to meet informally to review and reconsider the department's decision regarding the applicant's permit application in the manner provided by 20.11.20.25 NMAC, the process shall not extend the 30-day deadline for filling a timely petition for a hearing before the board as provided by 20.11.81 NMAC. If a requestor is adversely affected by, or disagrees with the department's decision regarding the requestor's permit application, the requestor may request an informal review meeting to discuss the department's decision. The request shall be in writing or on a form provided by the department. Within five business days after the requestor receives the department's decision regarding the permit application, the requestor shall deliver the written request to a division manager. Within five business days after a division manager receives the request, a division manager or designee shall hold an informal review meeting with the requestor and an additional division representative (e.g. the person assigned to the permit application review) in an attempt to resolve disagreements. Within two business days after the informal review meeting, a division representative shall mail, hand deliver or deliver by facsimile a statement to the requestor stating whether the department has changed its decision regarding the permit application, and, if so, specifying the change and the reason for the change. A person who participated in a 20.11.20 NMAC permitting action before the department and who is adversely affected by the decision made by the department, may follow the procedures described in 20.11.81 NMAC to petition for a hearing before the board.

[20.11.20.25 NMAC - Rp, 20.11.20.25 NMAC, 3/17/08]

20.11.20.26 VISUAL DETERMINATION OF FUGITIVE DUST EMISSIONS:

The following method, hereafter called the "visible fugitive dust detection method", is used to visually determine the total amount of time that fugitive dust emissions are visible during a continuous one-hour observation period. If a trained department observer records visible fugitive dust crossing a property line of the property being investigated, for a total of 15 minutes or more during a continuous one-hour period, a violation of 20.11.20 NMAC has occurred. The observer does not have to be certified in procedures found in 40 CFR 60, Method 9, Visual Determination of the Opacity of Emissions from Stationary Sources (EPA Method 9). However, the observer shall receive training regarding how to identify a violation of 20.11.20 NMAC that is caused by anthropogenic activities and to distinguish fugitive dust that emanates from a source that is not required by a board regulation other than 20.11.20 NMAC to obtain a permit.

Training shall consist of attendance at and completion of the lecture portion of a Method 9 certification course and familiarity with the written materials provided during the course. The method described in Subsections A through D of 20.11.20.26 NMAC does not require the opacity of emissions to be determined during the observation period.

A. To correctly perform this method, the observer shall use two stopwatches. One stopwatch shall be used to record the continuous one-hour time period during which the observation is conducted. This period shall be known as the "observation period." The second stopwatch shall be used to record the total accumulated amount of

time that visible fugitive dust is crossing a property line during the observation period. The second stopwatch shall establish the "visible fugitive dust emission time".

- **B.** Prior to the observation, the observer shall:
 - (1) determine the location of potential fugitive dust source(s) and the

location of the downwind property line for the source;

- (2) sketch the location of the fugitive dust source(s), and, when available during the observation, record the observer's location on a copy of the fugitive dust control permit map or aerial photograph;
- (3) sketch or photograph the location of the downwind property line and physical features that help define the property line;
 - (4) sketch or photograph the observer's location during the observations;
 - (5) sketch the position of the sun relative to the observer;
- (6) document that the visible fugitive dust is not originating from an upwind source other than the source being evaluated; and
- (7) maintain a minimum distance of at least 15 feet from the visible fugitive dust being observed, and a maximum distance of no more than one-quarter mile away.
 - **C.** The observer shall record:
 - (1) observer's name and affiliation;
 - (2) date of observation:
 - (3) company name, property owner or operators, if known;
 - (4) description of the fugitive dust sources;
- (5) wind speed and direction (explain method of determining the wind speed, i.e., hand-held anemometer); and
 - (6) sky conditions.
- D. The observer shall record the time of day when the observation begins. The observer shall start the first stopwatch to begin recording the observation period and shall observe along the property line. With the second stopwatch, the observer shall record the length of time visible fugitive dust is crossing the property line. The observer shall stop the second stopwatch when the visible fugitive dust is no longer detected crossing the property line. The observer shall continue this procedure during the continuous one-hour observation period or until the visible fugitive dust emission time totals 15 minutes or greater during the continuous one-hour observation period, which is a violation of 20.11.20 NMAC. The observer shall record the time of day when the observation ends. If the observer determines that the visible fugitive dust being observed is of an intensity that may cause immediate danger to human health or safety, then, before the observation period is completed, the observer shall attempt to immediately contact the responsible person, permittee or owner. [20.11.20.26 NMAC Rp, 20.11.20.26 NMAC, 3/17/08]

20.11.20.27 **ENFORCEMENT**:

- A. All persons shall use control measures that are effective in maintaining compliance with 20.11.20 NMAC. Violation of a fugitive dust control permit or fugitive dust control plan approved by the department is a violation of 20.11.20 NMAC. If a violation occurs or is occurring, the department may issue a verbal warning, issue a written warning, initiate an administrative enforcement action and assess an administrative civil penalty, and take all other actions authorized by law and equity, including issuing a stop work order as authorized by 20.11.20.27 NMAC.
 - **B.** If the department determines a person has violated or is violating a requirement or prohibition of

20.11.20 NMAC, the department may initiate an administrative enforcement action and assess an administrative civil penalty for a past or current violation, or both, as authorized by 74-2-12.A.(1) NMSA. As also authorized by 74-2-12.A.(2) NMSA and 74-2-12.1 NMSA, the department may commence a civil action in New Mexico district court for

appropriate relief, including a temporary or permanent injunction. In addition, as authorized by 74-2-14 NMSA, the department also may commence or cause a criminal action to be commenced.

- C. As authorized by 74-2-12.H NMSA, in connection with an administrative enforcement action, the director may issue subpoenas for attendance and testimony of witnesses and the production of relevant papers, books and documents and may adopt rules for discovery procedures.
- **D.** If a person (requestor) asks the department for an informal review meeting to consider the department's decision regarding an administrative compliance order in the manner provided by 20.11.20.27 NMAC, the process shall not extend the 30-day deadline for submitting a written request to the department director requesting a public hearing as provided by 74-2-12.C NMSA. If a person receives an administrative compliance order from the department, that person ("requestor") may request an informal review meeting to discuss the

administrative compliance order. The request shall be in writing or on a form provided by the department. The requestor shall deliver the written request for an informal review meeting to the director and a division manager within five business days after the requestor has received the administrative compliance order. Within five business days of receiving the request, a division manager or designee shall hold an informal review meeting with the requestor and a division representative (e.g. division manager, compliance officer, or person issuing the order) in an attempt to resolve the administrative compliance order. Within two business days after the informal review meeting, a division representative shall mail, hand deliver or deliver by facsimile a statement to the requestor with the department's final decision regarding the administrative compliance order and the reasons for the decision. If the requestor is adversely affected by the final decision made by the department, the requestor may follow the procedures described in Subsection E of 20.11.20.27 NMAC.

- **E.** A person who receives an administrative compliance order and chooses not to sign the compliance order or similar document as requested by the department, and comply with its terms, may request a hearing consistent with 74-2-12.C NMSA. The decision following the hearing may be appealed consistent with 74-2-9.A NMSA.
- F. Payment of an administrative civil penalty shall not prevent the department from taking additional enforcement actions, if the violation is repeated or an additional violation occurs. Payment of an administrative civil penalty for a prior or additional violation shall not be a defense to a subsequent action taken by the department to resolve an additional violation. Actions by the department may include suspension or revocation of a permit, as provided by 74-2-12.B NMSA, and issuance of a stop work order.
- G. The permittee or responsible person as identified in the permit shall take all actions required by the permit to prevent a violation of 20.11.20 NMAC, including stopping active operations, if necessary. If the permittee or responsible person as identified in the permit fails to take all required actions, the owner or operator, if different, shall take all actions required to prevent or satisfactorily resolve a violation of 20.11.20 NMAC, including stopping active operations, if necessary.
- **H.** The department may issue a stop work order, which shall suspend all active operations except for the required application of reasonably available control measures. The department also may revoke a permit issued by the department if the permittee fails to implement the reasonably available control measures required by the fugitive dust control

permit.

- I. If a person fails to obtain a permit as required by 20.11.20 NMAC, the department may issue a stop work order which shall require all active operations at a site to stop except for application of reasonably available control measures.
- J. The stop work order, which shall be effective 24 hours after the person, permittee, owner, operator, or responsible person named in a permit receives the stop work order, unless an earlier deadline for stopping work or other activities is imposed by the department for good reason. The stop work order shall remain in effect until the person, permittee, owner, operator, or responsible person named in the permit demonstrates to the satisfaction of the department that the activities of the person, permittee, owner, operator or responsible person named in the permit comply with the provisions of 20.11.20 NMAC. [20.11.20.27 NMAC Rp, 20.11.20.27 NMAC, 3/17/08]

20.11.20.28 PUBLIC OUTREACH AND TRAINING:

- **A.** The department shall provide or approve public education regarding reducing fugitive dust. The department shall maintain an electronic information system using the Internet in order to provide access to the general public and regulated business community regarding fugitive dust control programs, activities, regulations, regulatory requirements, forms and information.
- **B.** The department shall implement a program to provide training at no cost to individuals who are or may be required to comply with provisions of 20.11.20 NMAC. Approximately twice per year, the department shall provide or approve training workshops on fugitive dust and its control to persons who conduct or participate in projects involving active operations and to other interested persons. When a person attends the training and successfully passes a test, the department or approved trainer shall issue a certificate stating that the person has successfully completed the training.

[20.11.20.28 NMAC - Rp, 20.11.20.28 NMAC, 3/17/08]

20.11.20.29 COMPLAINTS: The department shall respond to complaints from residents, businesses and others in a timely manner, but in no case shall the initial response take longer than three business days. [20.11.20.29 NMAC - Rp, 20.11.20.29 NMAC, 3/17/08]

HISTORY OF 20.11.20 NMAC:

Pre-NMAC History: The material in this part was derived from that previously filed with the commission of public records - state records center and archives.

Regulation No. 8, Airborne Particulate Matter,

filed 3/24/82. Regulation No. 8, Airborne

Particulate Matter, filed 2/17/83.

History of Repealed Material:

20 NMAC 11.20, Airborne Particulate Matter (filed 5/29/96); repealed 3/1/04. 20.11.20 NMAC, Fugitive Dust Control (filed 1/28/04) repealed 3/17/08.

Other History: Regulation No. 8, Airborne Particulate Matter (filed 2/17/83) was renumbered and reformatted into first version of the New Mexico Administrative Code as 20 NMAC 11.20, Airborne Particulate Matter, effective 12/01/95.

20 NMAC 11.20, Airborne Particulate Matter (filed 10/27/95) replaced by 20 NMAC 11.20, Airborne Particulate Matter, effective 07/01/96.

20 NMAC 11.20, Airborne Particulate Matter (filed 5/29/96) renumbered, reformatted and replaced by 20.11.20 NMAC, Fugitive Dust Control, effective 3/1/04.

20.11.20 NMAC, Fugitive Dust Control (filed 1/28/04) replaced by 20.11.20 NMAC, Fugitive Dust Control, effective 3/17/08.

Appendix D – Fugitive Dust Permits New Construction Permits

| Permit | Name | Entered | To Date | Street Address |
|--------|-------------------------------------------------------------------------------|------------|------------|---------------------------------|
| Number | | Date | | |
| 6396-C | PULTE AT MIREHAVEN | 12/20/2013 | 1/13/2019 | 7601 JEFFERSON ST NE STE 320 |
| 6418-C | MONTECITO WEST | 1/16/2014 | 1/17/2019 | 7601 JEFFERSON NE STE 180 |
| 6444-C | EL PORTAL AT PASEO | 1/21/2014 | 1/22/2019 | PO BOX 3529 |
| 6457-C | SOUTH VALLEY DRINKING WATER PHASE 7A | 1/29/2014 | 1/30/2019 | 2400 BROADWAY SE |
| 6485-C | TOWNSEND PROJECT | 2/24/2014 | 2/25/2019 | 4900 MENAUL BLVD NE |
| 6486-C | SAD 228 RAINBOW BLVD PROPERTY OWNERS | 2/25/2014 | 2/25/2019 | 4900 LANG AVE NE |
| 6490-C | SW PRE-K THRU 8 SCHOOL | 2/25/2014 | 2/28/2019 | 915 OAK ST SE |
| 6614-C | FEDEX GROUND-ALBUQUERQUE NM | 5/7/2014 | 5/14/2019 | 470 CENTRAL RD |
| 6694-C | ALBUQUERQUE BIOPARK | 6/12/2014 | 6/19/2019 | 1293 PO BOX NW |
| 6699-C | SUNPORT PARK HOSPITALITY LLC | 6/16/2014 | 6/18/2020 | 817 CENTRAL AVE NE |
| 6711-C | VALLE PRADO UNIT 1 | 6/19/2014 | 6/24/2019 | 6330 RIVERSIDE PLAZA LN NW |
| 6821-C | SIERRA SUNSET PARK | 9/11/2014 | 9/12/2019 | 1 CIVIC PLZ NE |
| 6836-C | GOFF BLVD IMPROVEMENTS | 9/18/2014 | 9/19/2019 | 2400 BROADWAY BLVD SE |
| 6867-C | STOCKPILE SITE | 9/30/2014 | 9/30/2019 | 6020 INDUSTRY WAY SE |
| 6984-C | DOUBLE EAGLE II AIRPORT APRON AND TAXI WAY RECONSTRUCTION | 11/24/2014 | 12/1/2019 | PO BOX 9948 |
| 6998-C | NORTH DIVERSION CHANNEL OUTFALL GRADE CONTROL STRUCTURES MODIFICATION PROJECT | 12/9/2014 | 12/10/2019 | 2600 PROSPECT AVE NE |
| 7004-C | TIBURON HEIGHTS | 12/11/2014 | 12/12/2019 | 27560 PO BOX SW |
| 7062-C | REGINALD F CHAVEZ ELEMENTARY SCHOOL | 1/27/2015 | 1/29/2017 | 915 LOCUST ST SE |
| 7075-C | PUBLIC SERVICE COMPANY OF NM (PNM) SOUTH VALLEY SOLAR ENERGY CENTER | 1/30/2015 | 2/5/2019 | 2401 AZTEC RD SE |
| 7076-C | REGINALD CHAVEZ ELEMENTARY SCHOOL | 2/2/2015 | 12/30/2016 | 915 OAK ST SE |
| 7092-C | PNM ESTRELLA SOLAR ENERGY CENTER | 2/10/2015 | 9/28/2018 | 2401 AZTEC RD SE MS Z120 |
| 7093-C | PNM SANTOLINA SOLAR ENERGY CENTER | 2/10/2015 | 2/18/2019 | 2401 AZTEC RD SE MS Z120 |
| 7320-C | COUNTY WIDE ROAD IMPROVEMENT PROJECT PHASE 3 | 5/13/2015 | 5/14/2020 | 1801 4TH ST NW # A |
| 7367-C | TRACT 1 | 6/10/2015 | 12/28/2018 | 371 CENTENNIAL PKWY STE 200 |
| 7371-C | STOCK PILE @ PRINCE STREET WAREHOUSE | 6/10/2015 | 6/11/2020 | 6020 INDUSTRY WAY SE |
| 7573-C | FREDDY'S AT COORS AND CENTRAL | 10/13/2015 | 10/14/2018 | 5571 MIDWAY PARK PL NE |
| 7588-C | WESTERN UNITED ELECTRIC SUPPLY CORP OFFICE & WAREHOUSE | 10/21/2015 | 10/23/2018 | 7535 2ND ST NW BLDG D |

| | | | 1 | T |
|--------|-----------------------------------------------------------|------------|------------|---------------------------------------|
| 7589-C | PMG PARADISE CLINIC | 10/21/2015 | 10/27/2018 | 3987 PO BOX |
| 7647-C | CIRCLE K | 11/17/2015 | 11/20/2018 | 3092 FM 1502 |
| 7702-C | NORTH DIVERSION CHANNEL GRADE CONTROL STRUCT. | 12/18/2015 | 12/23/2018 | 205 RIO BRAVO BLVD SW STE |
| 7796-C | VILLAGE @ LA ORILLA | 1/13/2016 | 1/15/2019 | 6501 PALOMAS AVE NW |
| 7803-C | CARNUEL WATER SYSTEM IMPROVEMENTS - PHASE IIIA | 1/20/2016 | 1/1/2015 | PO Box 568 NW |
| 7927-C | SUNSET VILLA | 4/6/2016 | 4/12/2019 | 12809 DONETTE CT NE |
| 8037-C | FAMILY SCHOOL NW - APS | 6/6/2016 | 10/31/2018 | 915 OAK ST SE |
| 8061-C | REPAIR REDUNDANT POWER B27496 | 6/14/2016 | 6/28/2019 | 2050 WYOMING BLVD SE |
| 8256-C | PASEO DEL RIO APARTMENTS | 9/15/2016 | 9/16/2018 | 12490 PO BOX |
| 8274-C | SOLIDS DEWATERING FACILITY REHABILITATION | 9/23/2016 | 9/23/2019 | 4201 2ND ST SW |
| 8289-C | LOS DIAMANTES SUBDIVISION | 9/30/2016 | 7/31/2019 | 6300 JEFFERSON ST NE |
| 8304-C | MONTECITO VISTA | 10/10/2016 | 10/31/2018 | 7601 JEFFERSON ST NE STE 320 |
| 8357-C | 4410 COORS BLVD SW | 10/31/2016 | 11/30/2018 | 3109 LOVE RD SW |
| 8373-C | DESERT SANDS SUBDIVISION | 11/10/2016 | 7/31/2019 | 9150 E. DEL CAMINO DR STE 118 |
| 8412-C | NW K THOUGH 8 SCHOOL | 12/2/2016 | 10/31/2018 | 915 OAK ST SE |
| 8422-C | ONE CENTRAL | 12/13/2016 | 12/20/2018 | 2000 16TH ST NE |
| 8484-C | STERLING DOWNTOWN | 1/19/2017 | 1/25/2019 | 320 GOLD AVE SW STE 918 |
| 8492-C | DESERT WILLOW FAMILY SCHOOL | 1/25/2017 | 2/25/2019 | 3987 PO BOX |
| 8540-C | JUAN TABO HILLS WEST | 2/27/2017 | 3/17/2020 | 57060 PO BOX |
| 8555-C | JACKSON MIDDLE SCHOOL - CLASSROOM ADDITION | 3/8/2017 | 3/14/2019 | 915 LOCUST ST SE |
| 8575-C | DESERT RIDGE PLACE UNIT 3 | 3/16/2017 | 3/16/2019 | 8504 WAKERFORD PL NE |
| 8583-C | ANDALUCIA TRACT 6B STE DEVELOPMENT | 3/17/2017 | 3/21/2022 | 6020 INDUSTRY WAY SE |
| 8619-C | EAGLE RANCH NM MVD - RETAIL | 4/6/2017 | 3/27/2022 | 6149 EDITH BLVD NE |
| 8639-C | LA CUENTISTA UNIT II | 4/20/2017 | 4/18/2019 | 440 ALAMEDA AVE NE STE E |
| 8645-C | COORS PAVILION | 4/26/2017 | 5/1/2019 | 8220 SAN PEDRO ST NE STE 500 |
| 8653-C | BITI NETWORK UPGRADE | 5/5/2017 | 5/8/2020 | 2050 WYOMING BLVD SE |
| 8655-C | STORMCLOUD SUBDIVISION UNIT 5 | 5/9/2017 | 9/30/2019 | 1443 PO BOX |
| 8700-C | LEGACY 1 @ JOURNAL CENTER | 5/24/2017 | 5/26/2019 | 6300 RIVERSIDE PLAZA LN SW STE 220 |
| 8702-C | I-25 & RIO BRAVO INTERCHANGE RECONSTRUCTION CN A300280 | 5/25/2017 | 6/20/2020 | PO BOX 91750 |
| 8761-C | CRUZ ESTATES | 6/26/2017 | 6/28/2019 | 3109 LOVE ROAD SW |
| | | | • | |

| 8762-C | CORNERSTONE OFFICE BUILDING | 6/27/2017 | 6/28/2020 | 2509 LUCERO RD SW |
|---------------|------------------------------------------------------------------------|------------|------------|---------------------------------|
| 8773-C | U-HAUL CENTER AT COORS & I-40 | 7/3/2017 | 12/31/2018 | 1700 10TH ST |
| 8779-C | PRELIMINARY GRADING AND DRAINAGE FOR DAYTONA ELECTRIC UPGRADES | 7/6/2017 | 8/13/2017 | 1293 PO BOX SW |
| 8804-C | SMALL DIAMETER WATER REHABILITATION 2017-1, 848.03104 | 7/19/2017 | 7/26/2019 | 1 CIVIC PLAZA CITY HALL FL 5 |
| 8855-C | MCMAHON PROPERTY MASS GRADING | 8/7/2017 | 8/1/2019 | 2403 SAN MATEO SUITE W-24 NE |
| 8873-C | STOCKPILE @ WE THE PEOPLE LLC PROPERTY | 8/17/2017 | 8/21/2022 | 6020 INDUSTRY WAY SE |
| 8931-C | GLENDESTO SUBDIVISION | 9/20/2017 | 9/21/2020 | 7601 JEFFERSON ST NE STE 320 |
| 8934-P | BROADWAY INDUSTRIES | 9/22/2017 | 9/8/2022 | 5505 BROADWAY BLVD SE |
| 8953-C | RAIN TUNNEL | 10/3/2017 | 10/31/2018 | 425 EDMON RD NE |
| 8964-C | NM GAME AND FISH REGIONAL OFFICE COMPLEX | 10/6/2017 | 3/29/2019 | 1 WILDLIFE WAY |
| 8972-C | SOUTHWEST WATER RECLAMATION PLANT PRIMARY CLARIFIERS 5-8 ORDER CONTROL | 10/12/2017 | 12/6/2019 | 4201 2ND ST SW |
| 8981-C | PARADISE VIEW RETIREMENT TOWNHOMES | 10/17/2017 | 4/30/2019 | 1606 CENTRAL SE STE 201 |
| 8989-C | 6500 RIO GRANDE NW | 10/19/2017 | 9/28/2018 | 6500 RIO GRANDE BLVD NW |
| 9017-C | RIO GRANDE CROSSING (DEMO) | 11/13/2017 | 12/31/2018 | 26207 PO BOX |
| 9032-C | ALBUQUERQUE RV & BOAT STORAGE | 11/20/2017 | 11/1/2018 | 3200 CALLE DE LAURA NE |
| 9075-C | 2017 A ARTERIAL STREETS REHABILITATION | 1/3/2018 | 1/13/2020 | PO BOX 1293 |
| 999999- RV | Test Facility | 1/12/2018 | 3/23/2019 | 1 Civic Plaza ST NW |
| 9092-C | DEL NORTE HIGH SCHOOL SOCCER FIELD | 1/16/2018 | 1/17/2020 | 915 OAK ST NE |
| 9093-C | HOWEWOOD SUITES ADDITION | 1/16/2018 | 1/17/2020 | 5400 SAN ANTONIO BLVD NE |
| 9108-C | CROSSDOCK FACILITY - AQE | 1/30/2018 | 12/5/2018 | 3700-B KAVANAUGH BLVD NW |
| 9114-C | LAS LOMITAS PLAZA DEVELOPMENT | 2/1/2018 | 2/12/2020 | 3284A HAWKINS ST NE |
| 9115-C | FACTORY HOMES DIRECT | 2/1/2018 | 2/2/2022 | 600 SAN JOSE SE |
| 9123-C | INDUSTRIAL WATER ENGINEERING | 2/6/2018 | 2/7/2020 | 425 EDMON RD NE |
| 9124-C | PG ENTERPRISES STOCKPILE LOCATION | 2/8/2018 | 1/31/2022 | 301 MURRAY RD SE |
| 9143-C | CNM + APS JOINT USE FACILITY | 2/9/2018 | 2/15/2020 | 525 BUENA VISTA DR SE |
| 9148-C | I-40/LOUISIANA INTERCHANGE | 2/13/2018 | 2/22/2019 | PO BOX 9825 SW |
| 9149-C | NM FLAP52000(1) 2ND ST SW CORRIDOR | 2/13/2018 | 12/31/2018 | 4600 PEDRONCELLI |
| | | | | CT NW |

Routine (programmatic) Permits

| Permit | Name | To Date | Street Address |
|--------|------|---------|----------------|
| Number | | | |

| P05-0007 | AMERICAN TRANSPORTATION SYSTEM CORP | 5/20/2020 | 3524 BROADWAY BLVD SE |
|------------|---------------------------------------------------------------------|-----------|-----------------------------|
| P04-0013 | NM UNDERGROUND CONTRACTORS, INC. | 4/29/2019 | 5028 BROADWAY BLVD SE |
| P05-0002 | HASSE CONTRACTING COMPANY, INC. | 8/5/2019 | 9964 PO BOX |
| P05-0045 | FINCHAM, INC. | 5/25/2020 | 1845 PO BOX |
| P04-0016 | C T TOWING, INC. | 4/29/2019 | 9320 SAN PEDRO DR NE |
| P05-0032 | GOLDEN EQUIPMENT COMPANY | 5/27/2020 | 9321 PO BOX |
| P04-0009 | SYSCO NEW MEXICO LLC | 4/15/2019 | 19040 PO BOX |
| P05-0008 | NM EARTH INDUSTRIES, INC. | 9/23/2021 | 6900 WASHINGTON ST NE |
| P05-0028 | LONGMIRE FAMILY TRUST | 5/14/2020 | 6201 INDUSTRY WAY SE |
| P05-0037 | KEERS INDUSTRIES, INC. | 5/13/2020 | 3327 TOWER RD NW |
| P05-0038 | CH TAYLOR CHARLES H. AND AGNES TAYLOR REVOCABLE TRUST | 5/8/2020 | 5601 WILSHIRE AVE NE |
| P05-0009 | JAYNES CORPORATION | 8/6/2019 | 9303 SAN PEDRO DR NE |
| P05-0012 | AUI, INC. | 8/5/2019 | 721 CANDELARIA BLVD NE |
| P05-0015 | CORONADO WRECKING & SALVAGE CO., INC. | 5/13/2020 | 601 COMANCHE RD NE |
| P05-0025 | WILLIAM THOMAS TRUCKING | 5/12/2020 | 10506 PO BOX NW |
| P05-0030 | MIDDLE RIO GRANDE CONSERVANCY DISTRICT | 7/29/2021 | 311 DON ST SE |
| P05-0036 | COUNTY SERVICES, INC. | 5/12/2020 | 5904 FLORENCE AVE NE |
| P05-0029 | PIONEER EQUIPMENT SALES | 5/20/2020 | 1337 PO BOX |
| P05-0021 | RIO CONCHOS CONSTRUCTION | 5/29/2020 | 2906 BROADWAY BLVD NE |
| P05-0022 | IRON HORSE WELDING | 5/14/2020 | 7420 READING AVE SE |
| P05-0014 | SOUTH COORS TRUCK SALVAGE | 4/22/2020 | 4200 BROADWAY BLVD SE |
| P05-0005 | THERMO FLUIDS, INC. | 8/4/2019 | 10194 PO BOX |
| P04-0002 | SOUTHWEST AUTO RECYCLERS | 5/1/2019 | 1931 |
| P07-0038 | SALL'S BROTHERS CONSTRUCTION | 6/2/2022 | 4124 |
| P07-0019 | NEW MEXICO EXPO | 1/25/2022 | 7707 LOMAS BLVD NE |
| P07-0060R1 | BMC WEST | 4/27/2022 | 5702 |
| P07-0056 | BROADWAY TRUCK SALVAGE | 6/24/2021 | 5100 BROADWAY BLVD SE |
| P05-0042 | BUILDOLOGY INC. | 5/7/2020 | 1125 OLD COORS RD SW |
| P05-0040 | RODGERS PLUMBING AND HEATING CO., INC. | 6/25/2020 | 42 LONGWATER DR |
| P05-0048 | NEW CONCEPTS INC. | 5/4/2020 | 4025 |
| P07-0059 | STEVEN CARMAN | 2/2/2021 | 7301 READING DR SE |
| P05-0001 | COPART | 7/29/2019 | 8546 PO BOX |
| P07-0024 | EL MEXICANO TRUCK SALVAGE | 3/20/2022 | 119 Llano Del Sur SE |
| P07-0031 | EL PINTO RESTAURANT | 3/20/2022 | 3405 BROADWAY BLVD SE |
| P05-0041 | HILLTOP LANDSCAPE ARCHITECTS | 5/13/2020 | 3601 PAN AMERICAN FWY NE |
| P07-0023 | ALBUQUERQUE PUBLIC SCHOOLS (APS) | 3/22/2022 | 5721 INDUSTRY WAY SE |
| P07-0005 | THE BURLINGTON NORTHERN AND SANTE FE RAILWAY COMPANY | 5/16/2022 | 508 |
| P08-0035 | KIRTLAND AIR FORCE BASE CONSTRUCTION AND DEMOLITION DEBRIS LANDFILL | 2/9/2023 | PO BOX 9254 |

| P07-0070- R1 | GUZMAN CONSTRUCTION SOLUTIONS, LLC | 10/5/2022 | 14185 DALLAS PWKY STE 300 |
|-----------------|--------------------------------------------------|------------|-----------------------------------|
| P05-0049 | TOBIAS BUILDERS | 5/21/2020 | 1200 OLD COORS DR SW |
| P07-0036 | D&A AUTO SALES | 3/27/2022 | 10500 4TH ST NW |
| P07-0018 | T & T STONE | 3/27/2022 | 7909 EDITH BLVD NE |
| P04-0003 | PACE IRONWORKS | 6/25/2019 | 915 LOCUST ST SE RM 8 |
| P04-0006 | A-ALBUQUERQUE TOWING | 5/28/2019 | 1624 1ST ST NW |
| P05-0047 | A-1 FIREWOOD INC. | 4/29/2020 | 2050 SE WYOMING |
| P05-0054 | SAGEBRUSH SALES | 5/27/2020 | 7501 HOLLY AVE NW |
| P05-0061 | ALSTATE STEEL INC. | 6/30/2021 | 5228 EDITH BLVD NE |
| P06-0007 | ADVANCED CHEMICAL TRANSPORT, INC. | 6/24/2021 | 6020 INDUSTRY WAY SE |
| P08-0001R1 | B&F TRUCKING | 12/19/2023 | 4321 BROADWAY BLVD SE |
| P08-0008R1 | PRAXAIR | 8/9/2023 | 4548-A TOWER SW |
| P08-0024R1 | UNITED PETROLEUM TRANSPORTS | 11/14/2023 | 7421 READING RD |
| P08-0032R1 | AMERICAN RECOVERY | 8/17/2023 | 305 CONCHAS ST SE |
| P08-0034R1 | CIBOLA NATIONAL FOREST | 8/9/2023 | 3134 BRIDGE BLVD SW |
| P08-0036R1 | SOILS AMENDMENT FACILITY | 2/2/2023 | 6300 STATE RD SW |
| P08-0037R1 | 101 PIPE & CASING | 11/29/2023 | 208 MURRAY RD SE |
| P08-0038 | U PULL AND PAY, LLC | 7/22/2021 | 208 MURRAY RD SE |
| P08-0046R1 | HEADS UP LANDSCAPE CONTRACTORS | 11/16/2023 | 6110 COORS BLVD SW |
| P08-0048R1 | BAKER UTILITY SUPPLY | 8/10/2023 | 2520 2ND ST SW |
| P08-0045R1 | PRO-BUILD | 9/24/2023 | 4312 SOUTH GEORGIA PL |
| P08-0055 | CORDERO TRUCKING | 4/3/2018 | 30566 PO BOX |
| P09-0002 | MCT INDUSTRIES INC | 7/30/2019 | 2113 OSUNA RD NE |
| P09-0011 | NM MUTUAL | 4/10/2019 | 4201 SECOND ST SW |
| P10-0001 | CATHOLIC CEMETERY ASSOCIATION DBA GATE OF HEAVEN | 5/8/2020 | 5609 ALAMEDA PL NE |
| P10-0002R1 | AMERICAN IRON & METAL | 2/17/2023 | 4560 BROADWAY BLVD SE |
| P10-0004 | LKQ OF NM | 5/27/2020 | 7525 2ND ST NW |
| P10-0010 | W&G INVESTMENT LLC. | 5/13/2020 | 4320 2ND ST NW |
| P10-0011 | 4 RIVERS EQUIPMENT | 5/27/2020 | 7801 TIBURON DR NE |
| P10-0012 | ACE AUTO PARTS, INC. | 5/20/2020 | 1307 CAMINO AMPOR NW |
| P10-0015 | B&G TRUCK SALVAGE | 5/7/2020 | 5201 BALLOON FIESTA PARKWAY NE |
| P10-0016 | UNIVERSAL CONSTRUCTORS, INC. | 5/1/2020 | 5201 BALLOON FIESTA PARKWAY NE |
| P10-0017 | ABQ TRUCK EQUIPMENT, INC. | 4/7/2020 | 7999 WYOMING BLVD NE |
| P11-0003 | RMCI, INC. | 6/10/2021 | 1801 LACROSSE AVE |
| P11-0004 | SOILUTIONS, INC. | 6/23/2021 | 5701 BROADWAY BLVD SE |
| P12-0004 | PAREX USA | 6/13/2021 | 6201 INDUSTRY WAY SE |
| P04-0008 | PLANT WORLD INC. | 4/21/2019 | 2301 CANDELARIA RD NE |
| P04-0019 | PACHECO TRUCKING INC. | 4/29/2019 | 4320 BROADWAY BLVD SE |
| P04-0014 | WATER QUEST INC. | 4/23/2019 | 5510 BROADWAY BLVD SE |

| P05-0002 | BRANNEX TRUCK PARTS & SALES | 8/5/2019 | 9964 PO BOX |
|------------|------------------------------------------|------------|------------------------------------|
| P04-0020 | ACE REBAR, INC. | 4/10/2019 | 6008 PO BOX |
| P04-0011 | ACME TOWING & RECOVERY, INC. | 4/15/2019 | 10599 PO BOX |
| P05-0016 | SOUTHWEST LANDFILL | 6/1/2020 | 91447 PO BOX |
| P05-0019 | BERNALILLO COUNTY ROAD MAINTENANCE | 6/4/2020 | 1479 PO BOX |
| P05-0020 | WAGNER EQUIPMENT CO. | 5/20/2020 | 4100 1/2 BROADWAY |
| | | | BLVD SE |
| P04-0002 | STAR PAVING CO. | 5/1/2019 | 1931 |
| P07-0041R1 | WELSH EARTHMOVING INC. | 12/27/2023 | 250 EL PUEBLO BLVD NE |
| P07-0038 | KELLY UTILITY | 6/2/2022 | 4124 |
| P07-0029R1 | SUMMIT CONSTRUCTION, INC. | 2/8/2023 | 119 ALAMEDA RD NE |
| P07-0063 | DUKE CITY DINER | 2/7/2023 | 5018 2ND ST NW |
| P07-0030 | BENJAMIN BENAVIDEZ | 3/31/2022 | 5811 BROADWAY BLVD SE |
| P05-0041 | EARTH PRODUCTS | 5/13/2020 | 3601 PAN AMERICAN FWY NE |
| P07-0003R1 | SENA'S PLACE | 5/3/2022 | 23397 PO BOX |
| P07-0004 | PENSKE TRUCK LEASING CO. L.P. | 2/13/2022 | 3176 PO BOX |
| P04-0003 | EAST NOB HILL LLC. | 6/25/2019 | 915 LOCUST ST SE RM 8 |
| P04-0004 | JAMES ROBERT TROMBLEY TRUST | 4/11/2019 | 5816 PAJARITO RD SW |
| P04-0006 | SHAVINGS UNLIMITED LLC | 5/28/2019 | 1624 1ST ST NW |
| P05-0017 | NEW MEXICO DEPT. OF - DISTRICT 3 | 6/29/2021 | 2400 BROADWAY SE |
| P05-0047 | VACANT LOT | 4/29/2020 | 2050 SE WYOMING |
| P05-0054 | CURTIS SLADE | 5/27/2020 | 7501 HOLLY AVE NW |
| P12-0008 | AMERICAN FENCE COMP. OF NM | 6/3/2021 | 5425 EDITH BLVD NE |
| 5297-P | JOURNEYMAN & APPRENTICE TRAINING PROGRAM | 12/16/2021 | WEST OLD ROUTE 66 |
| 5335-PR1 | CORONADO STORAGE PLUS | 2/1/2023 | 6300 RIVERSIDE PLZ NW SUIT 200 |
| 5384-P | J & E AUTO SALVAGE & SALES | 6/1/2020 | MSC07 4100 SAFETY & RISK SERVIC |
| 5453-P | ABC FOREIGN AUTO PARTS | 12/27/2022 | 311 OSAGE PL SW |
| 5457-PRV1 | ABQ FOREIGN AUTO PARTS, INC. | 2/5/2023 | PO BOX 21037 |
| 5490-P | RITEWAY PALLET MFG, INC | 1/29/2023 | 6001 PAN AMERICAN FWY NE |
| 5968-P | EARTH DAY RECYCLING | 5/31/2023 | 6400 COORS BLVD NW |
| 6076-PR1 | WOOD YOU RECYCLE | 11/30/2023 | 12717 LOMAS BLVD NE |
| 6115-PR1 | I-25 STUDIOS LLC | 11/30/2023 | 1900 EDITH BLVD NE |
| 6202-PR1 | REGENTS OF THE UNIVERSITY OF NEW MEXICO | 8/15/2023 | 3111 LOVE RD SW |
| 6957-P | SUNSET TRUCKING | 11/14/2019 | 2050 WYOMING BLVD SE |
| 6967-P | RIO GRANDE NURSERY | 11/17/2019 | 5565 EAKES RD NW |
| 7083-P | SANDIA FARMS | 2/2/2020 | 4310 MEADE AVE SW |
| 7591-P | EPISCOPAL DIOCESE OF RIO GRANDE | 10/23/2020 | 1293 PO BOX |
| 7651-P | PETE & ROGUE'S HAIR STYLING | 11/23/2020 | 3738 ARNO RD NE |
| 7957-P | MOUNT CALVARY CEMETERY | 10/21/2020 | 30670 PO BOX |
| | | | |

| 8091-P | WESTON SERVILLA HOLDINGS LLC | 6/28/2021 | 2050 WYOMING BLVD SE |
|------------------|---------------------------------------------|------------|-----------------------------|
| 8091-P | KIRTLAND AIR FORCE BASE BULK FUELS FACILITY | 6/28/2021 | 2050 WYOMING BLVD SE |
| 8196-P | WESTSIDE FARMS | 8/19/2021 | 5841 HAWKING DR SE |
| 8272-P | EMPTY LOT | 9/21/2021 | 6208 EVESHAM RD NW |
| 8393-P | RIVERSIDE WEST LLC | 12/5/2021 | 206 GRAPE ST SE |
| 3710-P | EMBASSY SUITES | 4/10/2022 | 400 PROSPERITY AVE SE |
| 3710-P | A&J REAL ESTATE INC. | 4/10/2022 | 400 PROSPERITY AVE SE |
| 8627-P | KIRTLAND AIR FORCE BASE | 4/11/2022 | 91193 PO BOX |
| 8683-P | PESCADOR TOWING LLC | 6/10/2022 | 5400 PO BOX SE |
| 8683-P | MESA DEL SOL LAND CORNER OF ABQ STUDIOS LOT | 6/10/2022 | 5400 PO BOX SE |
| 8780-P | DONNIE TERRY | 7/10/2022 | 314 MITCHELL AVE SE |
| 6581-P-RV1 | CHAMPION TRUSS INC. | 7/18/2022 | 1001 PROSPERITY AVE SE |
| P07-0061- RV1 | VICA HEATING & AIR CONDITIONING, LLC | 4/27/2022 | 4500 BROADWAY BLVD SE |
| P07-0061- RV1 | JOSE V GARCIA | 4/27/2022 | 4500 BROADWAY BLVD SE |
| 5394-P-RV1 | SNL TECHNICAL AREAS I, II, III, IV, V | 7/10/2022 | 1501 SAN PEDRO DR SE |
| P07-0068- RV1 | PETE'S TOP QUALITY LANDSCAPE LLC | 6/22/2022 | 4600 LINCOLN RD NE |
| 8910-P | VETERAN'S HEALTH ADMINISTRATION | 9/12/2022 | 118 LLANO DEL SUR RD SE |
| 8913-P | Z PROPERTIES | 9/13/2022 | 9227 PO BOX AVE NW |
| 5747-PR1 | BRASIER ASPHALT | 9/20/2022 | 4220 BROADWAY BLVD SE |
| 8965-P | H.O. CONSTRUCTION INC. | 9/13/2022 | 4624 GRANDE AVE NW |
| 8966-P | SW INVESTMENTS | 9/13/2022 | 4624 GRANDE AVE NW |
| P07-0022R1 | GANDYDANCER LLC | 2/22/2022 | 5404 BROADWAY BLVD SE |
| P07-0055R1 | RAY'S SAND AND GRAVEL | 9/21/2022 | 9003 BATES RD SE |
| P07-0062R1 | SAIZ TRUCKING & EARTHMOVING INC. | 8/30/2022 | 5801 BOBBY FOSTER RD SE |
| P07-0013R1 | JESUS SOLIS | 2/17/2022 | 3111 LOVE RD SW |
| P07-0073R1 | TOWN RECYCLING, LLC | 6/1/2022 | 13412 EXECUTIVE HLS SE |
| P06-0008R2 | HUMATECH | 11/8/2022 | 1530 |
| 5526-PR1 | FIVE J'S AUTO PARTS, INC. | 12/21/2022 | PO BOX 348 |
| P07-0011R1 | RAKS BUILDING SUPPLY | 2/22/2022 | 1512 COORS BLVD SW |
| P07-0035R1 | JOEL & PATRICIA PEROVICH | 1/17/2023 | 65945 PO BOX |
| P07-0064R1 | VIGIL CONTRACTING LLC | 1/22/2023 | 6101 PAN AMERICAN FWY NE |
| 7955-PR1 | SANDIA SPEEDWAY | 1/14/2024 | 2145 DON ANDRES RD SW |
| P09-0007- R1 | UNIVERSAL WASTE SYSTEMS OF NEW MEXICO | 2/21/2024 | 1011 BUENA VISTA DR SE |
| P09-0012- RV1 | ABF FREIGHT SYSTEM INC. | 4/17/2024 | 2401 AZTEC RD NE MS Z100 |
| P09-0012- RV1 | DUKE CITY BMX | 4/16/2024 | 2401 AZTEC RD NE MS Z100 |
| P09-0004R1 | ACE METAL RECYCLING/ACE METALS INC | 4/30/2024 | 10048 PO BOX NE |

| P09-0013- R1 | PUBLIC SERVICE COMPANY OF NM | 4/26/2024 | 7120 WYOMING BLVD NE STE 20 |
|------------------|------------------------------------------------------------------|-----------|--------------------------------|
| P04-0015- R1 | NMGC SERVICE CENTER | 5/15/2024 | 1 CIVIC PLZ NW |
| P05-0051- RV1 | ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY (AMAFCA) | 6/17/2024 | 2600 PROSPECT AVE NE |
| P05-0051- RV1 | FORMER LOS ANGELES LANDFILL | 6/17/2024 | 2600 PROSPECT AVE NE |
| P04-0010- RV1 | BARELA LANDSCAPING MATERIALS, INC. | 5/15/2024 | 7713 BATES RD SE |

