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MEMORANDUM

Date: March 7, 2014

To: Potential PSD Applicants in the State of New Mexico

From: Sufi Mustafa, AQB Modeling Section Manager
Cember Hardison, AQB Major Source Permit Section Manager

Subject: Summary of Potential Pre-Construction Monitoring Requirements for New PSD Major Sources or Major Modifications to Existing Sources 20.2.74.306 NMAC
Web Link to 20.2.74 NMAC: [PERMITS - PREVENTION OF SIGNIFICANT DETERIORATION \(PSD\)](#)

Pre-construction monitoring may be required for Prevention of Significant Deterioration (PSD) air permit applications. The applicant may be required to provide continuous air monitoring for 4 to 12 months before submitting the PSD permit application. Visibility monitoring may be required for up to 1 year before submitting an air permit application.

Additional requirements for PSD applications are contained in AQB's PSD regulation 20.2.74 NMAC.

Table A lists pollutants for which continuous pre-construction air monitoring may be required for 1 year (or a minimum of 4 months) before submitting a PSD permit application in accordance with 20.2.74.306 NMAC:

Table A

Regulated Pollutant	Significant Emission Rates Table 2 20.2.74.502 NMAC and 20.2.74.7.AZ(5)(a) or (b) (tpy)	Potentially Subject to Pre-Construction Monitoring 20.2.74.306 NMAC
CO	100	yes
Fluorides	3	no (does not have a NAAQS (20.2.74.306.C NMAC))
Lead	0.6	yes
NO _x	40	yes
O ₃	40 VOC (20.2.74.306.D)	If ≥ 100 tpy (20.2.74.306.I(1) NMAC)
PM ₁₀	15	yes
Direct PM _{2.5}	10	yes
Secondary PM _{2.5}	40 as NO _x or SO _x	yes
PM as TSP	25	no (pollutant not listed in Table 3, 20.2.74.306.I(4) NMAC)
H ₂ S	10	no (does not have a NAAQS (20.2.74.306.C NMAC))
Reduced Sulfur Compounds (incl. H ₂ S)	10	no (does not have a NAAQS (20.2.74.306.C NMAC))
Sulfuric Acid Mist	7	no (20.2.74.503, footnote a)
SO _x	40	yes
Total Reduced Sulfur (incl. H ₂ S)	10	no (does not have a NAAQS (20.2.74.306.C NMAC))
CO _{2e}	100,000	No (pollutant not listed in Table 3, 20.2.74.306.I(4) NMAC and does not have a NAAQS 20.2.74.306.C)

Pre-Construction Air Monitoring Requirements and Exemption Criteria from 20.2.74.306 NMAC:

20.2.74.306.C NMAC. Continuous air quality monitoring data shall be required for all pollutants for which a national ambient air quality standard exists. Such data shall be submitted to the department for at least the one (1) year period prior to receipt of the permit application. The department has the discretion to:

- (1) determine that a complete and adequate analysis can be accomplished with monitoring data gathered over a period shorter than one year but not less than four months; or
- (2) determine that existing air quality monitoring data is representative of air quality in the affected area and accept such data in lieu of additional monitoring by the applicant.

20.2.74.306.H. The department has the discretion to exempt a stationary source or modification from the requirements of this section with respect to monitoring for a particular pollutant if the emissions of the pollutant from the new source or the net emissions increase of the pollutant from the modification would cause, in any area, increases in ambient concentrations less than the levels listed in Table 3 of this part (20.2.74.503 NMAC)¹.

20.2.74.306.I. The department shall exempt a stationary source or modification from the requirements of this section with respect to preconstruction monitoring for a particular pollutant if:

- (1) for ozone, volatile organic compound emissions are less than one hundred (100) tons per year; or
- (2) the air pollutant is not a regulated pollutant; or
- (3) the existing ambient concentrations of the pollutant in the area that the source or modification would affect are less than the concentrations listed in Table 3 of this part (20.2.74.503 NMAC); or
- (4) the pollutant is not listed in Table 3 of this part (20.2.74.503 NMAC).

20.2.74.503 TABLE 3 - SIGNIFICANT MONITORING CONCENTRATIONS¹.

POLLUTANT	AIR QUALITY CONCENTRATION micrograms per cubic meter	AVERAGING TIME
Carbon monoxide	575	8 hours
Fluorides	0.25	24 hours
Lead	0.1	3 months
Nitrogen dioxide	14	Annual
Ozone	b	
PM ₁₀	10	24 hours
PM _{2.5}	4	24 hours
Sulfur compounds		
Hydrogen sulfide (H ₂ S)	0.20	1 hour
Reduced sulfur compounds (incl. H ₂ S)	10	1 hour
Sulfur dioxide	13	24 hours
Sulfuric acid mist	a	
Total reduced sulfur (incl. H ₂ S)	10	1 hour
a - No acceptable monitoring techniques available at this time. Therefore, monitoring is not required until acceptable techniques are available.		
b - No de minimis air quality level is provided for ozone. However, any net increase of 100 tons per year or more of volatile organic compounds or nitrogen oxides subject to PSD would be required to perform an ambient impact analysis, including the gathering of ambient air quality data.		

¹ **Note:** The significant monitoring concentration (SMC) for PM_{2.5} was vacated by the D.C. Circuit Court. Therefore, pre-construction air monitoring for PM_{2.5} cannot be exempted based on the significant monitoring concentration in Table 103 (20.2.74.306.H NMAC).

General Steps to Determine if Pre-Construction Air Pollutant Monitoring is Required

Step 1. The first step to determine which pollutants may require pre-construction air monitoring, is to complete air dispersion modeling for pollutants that are subject to PSD review. This will show if the concentrations from existing sources and/or additional emissions from the new source will exceed the significant concentrations in Table 3 of 20.2.74.503 NMAC. The significant monitoring concentrations (SMC) for PM_{2.5} in Table 3 cannot be used to exempt PM_{2.5} from pre-construction air monitoring. This is because the PM_{2.5} SMC was vacated by the D.C Circuit Court.

Step 2. For pollutants with concentrations exceeding those in Table 3, the next step is to determine if existing air monitoring data can be used.

Some of the current and past locations of air monitors, pollutants, and data around the State of New Mexico are available on the internet. The Air Quality Bureau air monitoring web address is at <http://drdasnm1.alink.com/>. The City of Albuquerque/Bernalillo County Air Monitoring web address is at <http://www.cabq.gov/airquality/>. If the data available does not meet your needs, contact Sufi Mustafa at 505 476 4318 or sufi.mustafa@state.nm.us at the Air Quality Bureau.

Air Monitoring Data Gathered for Less than One Year

If air monitoring is required, AQB may determine that continuous air quality data may be gathered over a period shorter than one year, but not less than four months. The applicant must provide justification if monitoring is to be conducted for an abbreviated time period, including wind rose information throughout an entire year and the time period(s) for which the data will be gathered. Also, any monitoring conducted for less than a year must include the period of time anticipated to cause the most significant ambient impacts.

Meteorological Monitoring Data

Meteorological monitoring data (met data) is necessary to complete an ambient impact analysis, including air dispersion modeling. The AQB has collected met data at various sites in the state. To determine if a representative met data is available AQB needs UTM coordinates of the facility. Representativeness of a met data is determined by the topographical features (terrain, lakes, streams, etc.) that affect plume behavior in the area of the meteorological monitoring station and the facility.

Visibility Impact Analysis

Visibility monitoring in any Class I federal area is not generally required, but it could be required if AQB determines that an adverse impact on visibility may occur due primarily to the operations of the proposed new source (20.2.74.306.E NMAC). If a proposed source is within 100 km of a Class I federal area, a visibility impact analysis is required to be included in the application. Consult the 2010 Federal Land Managers' Air Quality Related Values Work Group (FLAG) guidance before submittal of the application to determine what the visibility impact analysis should entail. This guidance includes visibility modeling and visibility monitoring. This will help avoid delays in processing the application if either the FLM and/or AQB determine that additional visibility impact analysis is necessary.

Weblink National Park Service Air Website and Location of 2010 FLAG Guidance (Report): <http://www.nature.nps.gov/air/index.cfm>

For additional questions regarding pre-construction air monitoring or ambient impact analysis for PSD permit applications, please contact Sufi Mustafa at 505 476 4318 or sufi.mustafa@state.nm.us.