

ROCKY MOUNTAIN CLEAN AIR ACTION

1536 Wynkoop, Suite B501 • Denver, CO 80202 • (303) 454-3370

June 13, 2006

BY E-MAIL ATTACHMENT

Cathy Rhodes
Air Pollution Control Division
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
APCD-SS-B1
Denver, CO 80246

**Re: Draft Title V Permit for Platte River Power Authority's Rawhide Energy Station,
Larimer County**

Dear Ms. Rhodes:

Rocky Mountain Clean Air Action, a newly founded citizens group dedicated to protecting clean air in Colorado and the surrounding region for the health of local communities and Jeremy Nichols submit the following comments in response to the Colorado Air Pollution Control Division's ("Division's") May 19, 2006 notice soliciting public comment on its proposal to issue a Clean Air Act ("CAA") Title V operating permit (hereafter "Title V permit") to Platte River Power Authority ("PRPA") for the Rawhide Energy Station, a coal-fired power plant with a 305 megawatt generating capacity located north of Ft. Collins in Larimer County.

The Rawhide Energy Station consists of several sources of air pollution. Of greatest concern is pollution from the power plant's coal-fired industrial boiler. However, sources of air pollution at the facility include several natural gas-fired turbines, coal handling activities, lime handling activities, and haul roads and soda ash silo.

According to the Technical Review Document ("TRD") for the Title V permit, the Rawhide Energy Station has the potential to emit into the air of Larimer County over 2 million pounds of particulate matter, including 898,000 pounds of pounds of particulate matter less than 10 microns in size ("PM₁₀"), or 1/7 the width of a human hair. Particulate matter less than 10 microns in size is small enough to get into human lungs and is closely linked to respiratory ailments and

incidences of asthma.¹ Particulate matter in general is linked to a series of health problems, including premature death, respiratory irritations, aggravated asthma, coughing and difficulty breathing, chronic bronchitis, and decreased lung function.²

According to the TRD, the Rawhide Energy Station has the potential to emit several million pounds of criteria air pollutants that are identified as threats to human health and welfare, including 12,686,000 pounds of nitrogen oxides (NO_x) per year, 3,664,000 pounds of sulfur dioxide (“SO₂”) per year, 3,942,000 pounds of carbon monoxide (“CO”) per year, and 108,000 pounds of volatile organic compounds (“VOCs”) per year.³ The amount of nitrogen oxides that can potentially be released by the Rawhide Energy Station is equivalent to the emissions of over 332,094 cars each driven 12,500 miles per year.⁴

The Rawhide Energy Station also releases numerous hazardous air pollutants (“HAPs”). According to the EPA’s 2004 Toxic Release Inventory (“TRI”) report, the Rawhide Energy Station released 978 pounds of barium compounds, 13,412 pounds of hydrochloric acid, 2,375 pounds of hydrogen fluoride, 43 pounds of lead, 156 pounds of magnesium, 107 pounds of mercury, 30 pounds of vanadium, and 32 pounds of zinc. Also according to the TRI report, the Rawhide Energy Station released 0.331 grams of dioxins and dioxin-like compounds. Dioxin and dioxin-like compounds are an exceptionally toxic group of chemicals that are known carcinogens, can cause birth defects, and cause brain damage. The EPA has determined that exposure to one part per million of dioxins over a 70 year lifetime—or 0.000001 grams over 70 years—is “safe” for people, although it has generally been found that dioxin exposure at any level can jeopardize human health.⁵

For the foregoing reasons, we hereby request that the application for a Title V permit be denied. Numerous flaws in the Title V permit, including the failure to ensure protection of National Ambient Air Quality Standards (“NAAQS”) and Prevention of Significant Deterioration (“PSD”) increments, render the permit wholly unable to ensure compliance with the applicable requirements. Thus, any approval of the Title V permit would be contrary to the CAA. These comments are hereby submitted timely in writing via e-mail as a .pdf attachment.

1. The Title V Permit Fails to Protect Clean Air From Particulate Pollution

We have several concerns over the ability of the Title V permit to ensure protection of clean air from particulate pollution from the coal-fired boiler.

a. Particulate or PM₁₀

To begin with, it is unclear whether the Title V permit, and in particular Section II, Condition 1.1, refers to particulate matter or PM₁₀ emissions. Condition 1.1 only states that “particulate emissions” shall be limited to 0.03lb/mmBtu, but not that emissions of PM₁₀ shall be

¹ See, www.epa.gov/airtrends/pm.html.

² See, www.epa.gov/ttn/oarpg/naaqsfin/pmhealth.html.

³ It is unclear, however, based on the TRD, how the facility’s potential to emit was actually calculated. We do have concerns that potential to emit may have been underestimated by PRPA given the lack of enforceability of several permit terms and conditions and given several loopholes that exist within the permit.

⁴ According to the U.S. EPA, an average vehicle emits 38.2 pounds of nitrogen oxide per year. See, www.epa.gov/otaq/consumer/f00013.htm

⁵ See, <http://www.gascape.org/index%20/Health%20effects%20of%20Dioxins.html>.

limited. Although it seems that the particulate limit should apply to PM₁₀ emissions, the Title V permit is unclear in this regard.

b. The Title V Permit Inappropriately Allows Particulate Emissions to be Exceeded

The Title V permit inappropriately allows particulate emissions to be exceeded during startup, shutdown, and malfunction. Although this loophole is derived from the new source performance standards (“NSPS”) for industrial boilers, the NSPS do not appear to have formed the basis of the EPA’s previous best available control technology (“BACT”) determination for particulate emissions from the boiler. Furthermore, it is unclear how, in light of this loophole, the Division can possibly ensure protection of PSD increments, visibility in Class I areas, and NAAQS. As a practical matter, if the particulate limit of 0.03 lb/mmBtu is allowed to be exceeded, so too are PSD increments, visibility goals, and NAAQS allowed to be exceeded. Also as a practical matter, if a limit of 0.03 lb/mmBtu was determined to be BACT, then it seems logical that any exceedance of this limit would not constitute BACT and therefore violate PSD.

Regardless, the Division itself stated in the 2001 TRD for the Rawhide Energy Station that, “the Division believes that the particulate limits set forth in the EPA-issued PSD permit for the Rawhide Energy Station Unit B101 apply at all times, including startup and shutdown.” 2001 TRD at 6. Section II, Condition 1.1 in the Title V permit seems to run directly counter to the Division’s previous rationale regarding the applicability of PSD particulate emission limits. We request the Title V permit be revised to eliminate the statement that particulate limits can be exceeded during startup, shutdown, or malfunction.

c. The Title V Permit Fails to Require Sufficient Periodic Monitoring of Particulate Emissions

The Title V permit relies on baghouse operation and maintenance requirements, stack testing, and compliance assurance monitoring (“CAM”) to ensure compliance with particulate limits. Unfortunately, these monitoring requirements fail to constitute sufficient periodic monitoring.

i. Baghouse Operation and Maintenance Requirements

In relation to baghouse operation and maintenance requirements, they are incredibly vague and unenforceable as a practical matter. To begin with, the requirement states that “The baghouse shall be equipped with an operable pressure drop measuring device.” Title V permit at 7. It is unclear what the word “operable” means in this case and how it relates to a pressure drop measuring device. The Title V permit also fails to explain how the pressure drop monitoring device shall be operated. The permit states that, “Documentation of the manufacturer’s recommended operating range shall be maintained and made available to the Division upon request,” but doesn’t actually set forth specific operation requirements, such as require operation of the device within the manufacturer’s recommended operating range, in relation to the pressure drop monitoring device. Additionally, it is unclear what the manufacturer’s recommended operating range is, whether it is subject to revision, and whether it is adequate to ensure proper control of particulate emission. Finally, while PRPA is required to document the manufacturer’s recommended operating range, nothing in the Title V permit requires PRPA to submit this monitoring data. The CAA provides, in relevant part:

Each permit issued under this subchapter shall include . . . a requirement that the permittee submit to the permitting authority, no less often than every 6 months, the results of any required monitoring[.]

42 U.S.C. § 7661c(a) (emphasis added). EPA’s regulation implementing 42 U.S.C. § 7661c(a) provides, in relevant part:

With respect to reporting, the permit shall incorporate all applicable reporting requirements and require the following:

(A) Submittal of reports of any required monitoring at least every 6 months. All instances of deviations from permit requirements must be clearly identified in such reports.

40 C.F.R. § 70.6(a)(3)(iii)(A)(emphasis added). These reporting requirements are what allows EPA and especially the public to determine whether a major stationary source of air pollution is complying with its Title V permit. The Title V permit must therefore make clear that records documenting the manufacturer’s recommended operating range of the pressure drop monitoring device be submitted to the Division at least every six months.

The baghouse operation and maintenance requirements also state that, “Routine maintenance of and operational procedures performed on the baghouse shall be conducted in accordance with manufacturer’s specifications and good engineering practices.” Title V permit at 7. This requirement is vague. First, it is unclear what “routine maintenance” constitutes. This wording seems to implicate PSD regulations at 40 CFR § 51.166, which exempt routine maintenance from PSD review requirements, but it is unclear. The Title V permit must be more specific in terms of what constitutes routine maintenance in relation to the baghouse. Second, it is unclear what “manufacturer’s specifications” and “good engineering practices” constitute. As these terms are vague, it is impossible to ensure that PRPA performs “routine maintenance and operational procedures” adequately and ensures compliance with particulate limits. Finally, although the Title V permit requires PRPA to document maintenance and operation procedures “in written format” and to document “any maintenance work performed,” nothing in the Title V permit requires submittal of such records. As already explained, a Title V permit must require submittal of reports of any required monitoring at least every six months.

The baghouse operation and maintenance requirements are further vague in several regards. The Title V permit states that, “The baghouse shall be periodically inspected for bag integrity and overall mechanical integrity. At a minimum, these checks will be performed whenever the unit is down for a Planned Maintenance Outage (PMO).” Title V permit at 7. Unfortunately, it is unclear how often Planned Maintenance Outages occur and whether they are of sufficient frequency to ensure periodic inspections ensure proper operation and maintenance of the baghouse and ensure compliance with particulate limits.

The Title V permit states further that, “In addition, an inspection and any necessary maintenance or repairs shall be made whenever an opacity spike is observed, or if there is reason to suspect a broken bag or other equipment malfunction.” *Id.* The Title V permit defines an

opacity spike as “a sudden or gradual increase in opacity that, based on the operator’s experience, may indicate a possible control equipment or process problem.” This term is incredibly vague and gives PRPA unlimited discretion in terms of when to conduct baghouse inspections based on opacity spikes. For instance, while an opacity spike is defined as a “sudden or gradual increase in opacity,” it is unclear at what magnitude of increase opacity readings become “spiked” and warrant inspections. Based on the wording, opacity could increase steadily or even quickly, yet because it did not increase suddenly or gradually, PRPA would be under no obligation to conduct an inspection. The wording “based on the operator’s experience” is also vague. Who is the operator? Do they have enough experience to know when an opacity increase may indicate a problem with a baghouse? This term gives PRPA unlimited discretion in terms of conducting baghouse inspections based on opacity spikes. Finally, the permit states that opacity spikes only trigger inspection requirements when they “may indicate a possible control equipment or process problem.” This wording is also vague and fails to specifically establish when an opacity spike is to trigger a baghouse inspection to ensure compliance with operation and maintenance requirements and particulate limits.

The Title V permit also fails to require sufficient recordkeeping and monitoring in relation to baghouse inspections. The permit states that records of repairs “other than minor adjustments” must be maintained. It is unclear what the term “minor adjustments” means and why PRPA should not be required to maintain records of minor adjustments. The term “minor adjustment” must be defined to ensure sufficient records and monitoring. And again, although the Title V permit requires PRPA to maintain records if “Repairs performed (other than minor adjustments) as a result of these inspections, as well as any repairs done as a result of those inspections, shall be documented and made available to the Division upon request,” the Title V permit does not require that these records be submitted to the state. As already explained, the CAA requires submittal of reports of all required monitoring every six months.

ii. Stack Testing

Stack testing requirements are infrequent and vague and fail to provide reliable data representative of the source’s compliance status from the relevant time period.

To begin with, the Title V permit only requires stack testing once a year. Unfortunately, this is too infrequent and fails to provide data representing the source’s actual operating conditions. For one thing, stack testing once a year fails to provide data regarding particulate emissions during startup, shutdown, malfunction, and upset conditions. Clearly the power plant has the potential to exceed particulate emissions during these events. The failure of stack testing to measure and/or consider particulate emissions during these events means that emission factors derived from any stack test will not provide data representative of actual operating conditions throughout the year. For another thing, stack testing only provides representative particulate emissions data for one day, raising concerns that the range of operating conditions at the Rawhide Energy Station will not be captured by the results of stack testing. As nothing in the Title V permit requires consistent operating conditions (e.g., consistent feed rates), the Division cannot possibly rely on once-per-year stack testing to provide reliable data representative of the source’s compliance with the particulate limit.

The stack testing requirements are also flawed in other ways. To begin with, the stack testing protocol has not yet been developed. The Title V permit states that, “A stack testing protocol shall be submitted for Division approval at least thirty (30) days prior to any performance of the test required under this condition.” Title V permit at 7. The Division cannot rely on a yet-to-be approved stack testing protocol to ensure compliance with the particulate limits set forth in the Title V permit. As a practical matter, there is no indication that the yet-to-be adopted protocol is adequate to ensure reliable particulate emissions data. Furthermore, as the stack testing protocol have not been subject to public comment and scrutiny, it cannot be relied upon as an applicable requirement. If stack testing is to be relied upon, a protocol must be developed and incorporated into the Title V permit.

iii. Compliance Assurance Monitoring

It is unclear how CAM requirements in the Title V permit will ensure compliance with particulate limits.

The Title V permit states that, “The permittee shall follow the CAM Plan provided in Appendix J of this permit.” Title V permit at 36. It is unclear though, how the CAM Plan will ensure compliance with particulate limits. To begin with, the CAM Plan relies on “visible emissions” and “pressure drop and bag leak detection” monitoring to ensure compliance. Unfortunately, there does not appear to be any information or analysis documenting any specific relationship between visible emissions and pressure drop and bag leak readings. It is unclear how these monitoring criteria specifically relate to particulate emissions.

The indicator ranges also appear unsupported. For visible emissions, the CAM Plan states that “An excursion is identified as an opacity reading of 5% or greater.” See also Title V permit at 36. For bag leak detection, the CAM Plan states “An excursion is defined as a sustained discharge greater than 80% of full scale readings.” For pressure drop, the CAM Plan states, “An excursion is defined as an overall baghouse delta pressure reading out of the acceptable range of less than 2.5” or greater than 4.5” of water, or a baghouse compartment delta pressure of less than 2.5 or greater than 3.3” of water.” The CAM Plan states the Division’s rationale for selecting these indicator ranges was that, “The pressure differential range was selected in accordance with manufacturer’s recommendations and operator experience,” yet it is unclear how manufacturer’s recommendations and operator experience provide adequate justification for the selected indicator ranges. For one thing, manufacturer’s recommendations are not reference or explained and it is unclear what “operator’s” experience the Division is drawing from. As it stands, there appears to be no specific, quantitative relationship between the selected indicator ranges and particulate emissions. Thus, it is unclear how the selected indicator ranges will provide reliable data regarding particulate emissions.

A number of CAM requirements at Section II, Condition 15 in the Title V permit are also vague, unenforceable as a practical matter, and flawed in other ways:

- Condition 15.1.2.1 states that, “At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment[.] It is unclear what this Condition actually requires in terms of maintenance as it lacks any specificity and detail. Furthermore, it

is unclear what “necessary parts” must be maintained for repairs. What parts are necessary and why?

- Condition 15.1.2.2 states that monitoring data gathered during malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of CAM requirements. As a practical matter, this means that particulate emissions during malfunctions, associated repairs, and required quality assurance or control activities will not be measured. It is unclear how CAM requirements will provide reliable data representative of the source’s compliance with particulate limits given that CAM requirements, by all measures, do not apply during malfunctions, associated repairs, and required quality assurance or control activities.
- Condition 15.1.2.3 states that, “Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.” It is unclear what “expeditiously as practicable” means? What defines expeditious and what defines “practicable”? It is further unclear what “good air pollution control practices for minimizing emissions” means? What are “good air pollution control practices” at the Rawhide Energy Station? What does “minimizing emissions” means? This Condition seems to allow unlimited leeway in terms of how soon PRPA is to respond to an excursion and fails to provide any specific requirement in terms of how PRPA is to fix excursions and prevent excessive air pollution. Additionally, because of the vagueness of Condition 15.1.2.3, the Title V permit fails to specifically explain when a Quality Improvement Plan is needed and thus, fail to ensure compliance with CAM requirements.

Finally, casting serious doubt as to the ability of CAM requirements to ensure compliance with particulate limits is that nothing in the Title V permit explains at what point a violation and/or exceedance of particulate emission limits occurs. Does a violation occur upon an excursion? Does a violation occur in the event the continuous opacity monitor (“COM”) experiences unauthorized downtime? Does a violation only occur in the event PRPA fails to submit the required reports? As it stands, CAM requirements seem to amount to nothing more than a paper exercise that ultimately fail to ensure compliance with the actual, numerical particulate limit.

2. The Title V Permit Fails to Protect Clean Air From Sulfur Dioxide

The Title V permit exempts compliance with sulfur dioxide emissions from the coal-fired boiler during startup, shutdown, and emergency conditions. Section II, Condition 1.3.1 states that, “This SO₂ emission limit applies at all times except during periods of start-up, shutdown, or when both emergency conditions (as defined in Subpart Da) exit.” As a practical matter, this loophole allows PRPA to exceed SO₂ BACT limits, which have been established to protect NAAQS, PSD increments, and visibility in Class I areas. Furthermore, it is unclear how a BACT-derived SO₂ limit can be exceeded. By all measures, if a BACT-derived emission limit were allowed to be exceeded, it would not constitute BACT. Although this loophole was

apparently derived from the NSPS, the limits established in the PSD permit take precedent over the NSPS.

It is also unclear how PRPA will measure reduction of potential combustion concentration. Condition 1.3.1 states that the 0.19 lb/mmBtu limit is based on “70% reduction of the potential combustion concentration.” Title V permit at 8. How is reduction of potential combustion concentration measured? It appears as if the Title V permit contains no monitoring requirements and/or procedures explaining how reduction of potential combustion concentration is to be measured.

It is also unclear how PRPA will comply with Condition 1.3.3. The Condition states that the 0.13 lb/mmBtu limit is averaged “over 30 successive boiler operating days.” What does “successive” means? What does “operating day” mean? Additionally, the Condition states that the limit is based on an 80% reduction of potential combustion concentration. Again, the Title V permit seems to fail to explain how reduction of potential combustion concentration is to be measured and/or monitored.

3. Coal Sampling Concerns

Section II, Condition 1.7 requires PRPA to sample coal quarterly for heat content, weight percent sulfur, weight percent ash, and moisture content. The Title V permit states that coal sampling shall be conducted in accordance with a coal sampling plan, which shall be submitted to the Division for approval.

The Title V permit cannot defer to a yet-to-be approved coal sampling plan to ensure sufficient periodic monitoring of coal heat content, weight percent sulfur, weight percent ash, and moisture content. The Title V permit must explicitly spell out what is required in relation to coal sampling to ensure that any monitoring provides reliable data that ensures compliance with any applicable limit or standard.

4. Lead Emissions

The Title V permit fails to require sufficient periodic monitoring of lead emissions. The permit states at Section II, Condition 1.9 that, “The permittee has submitted modeling results which indicate compliance with this applicable requirement.” Title V permit at 10. The Title V permit cannot defer to modeling to ensure compliance with emission limits. Regulations at 40 CFR § 70.6(a)(3)(i)(A) state that Title V permits shall include “Where the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring (which may consist of recordkeeping designed to serve as monitoring), periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source’s compliance with the permit.” Given that the applicable requirement does not require periodic testing or monitoring of lead emissions, the Title V permit must require sufficient periodic monitoring of lead.

5. Opacity Concerns

The Title V permit makes it seem that the 20% opacity limit at Section II, Condition 1.10 is measured using Method 9, rather than the COMs. The permit states that, “This [20%] standard is based on 24 consecutive opacity readings taken at 15-second intervals for six minutes. The

approved reference test method for visible emissions measurement on which the Regulation No. 1 standards are based is EPA Method 9.” Title V permit at 11. The Condition then says that, “Unless otherwise specified in this permit, the continuous opacity monitor (COM) shall be used to monitor compliance with the 20% opacity limit set forth above.” Given this wording, the Title V permit makes it seem that Method 9, rather than the COMs, are used to demonstrate compliance. We request the Division make clear that, first and foremost, the COMs are to be used to monitor compliance with the 20% opacity limit.

It is also unclear how PRPA is to demonstrate compliance with the 30% opacity limit at Section II, Condition 1.11. On the one hand, the permit states that PRPA must use the COM to demonstrate compliance. On the other hand, the Title V permit states, “Compliance with this standard shall be demonstrated using the attached Periodic Monitoring Plan (Appendix I).” While Appendix I is blank, the Title V permit implies that the Periodic Monitoring Plan, not the COM, is to be used to demonstrate compliance with the 30% opacity limit at Section II, Condition 1.11. The permit must ensure that the COM is used to ensure compliance with the 30% opacity limit.

Finally, Section II, Condition 1.12 states that compliance with the NSPS and PSD opacity limit shall be demonstrated using “EPA Reference Method 9, and data from the COM.” Title V permit at 11. This Condition implies that, to demonstrate compliance, both Method 9 and COM data is required to demonstrate compliance. It seems that the Title V permit should be revised to ensure that COM data is used to demonstrate compliance. This is also required by 40 CFR § 75.14.

6. The Permit Inappropriately Exempts Compliance with PSD Limits

Section II, Condition 1.14 states that, “The source will be considered to be in violation of the limit(s) if the Division determines that the information submitted does not evidence a malfunction or upset condition caused by events beyond the control of the permittee and the source exceeded the emission or operational limits described in the PSD permit..” Title V permit at 12-13. This exemption is not allowed.

To begin with, and as already partially explained, PSD limits cannot be exceeded, even during malfunctions. It is unclear from what applicable requirement the exemption at Condition 1.14 derives from. Additionally, and as will be explained in more detail, the Division cannot allow exceedances during upset conditions. Such an exception would, as a practical matter, allow the source to violate PSD limits, NAAQS, and jeopardize visibility and thus is illegal. The Title V permit must be revised to ensure that PSD limits for SO₂, NO_x, and PM₁₀ are not exceeded to ensure compliance with BACT limits and protection of PSD increments, NAAQS, and visibility.

7. Monitoring of Opacity from Coal Unloading/Handling/Crushing and Conveying is Inadequate

The Title V permit appears to fail to require any opacity monitoring whatsoever from Units subject to NSPS Subpart Y. It is thus, unclear how the Title V permit will ensure compliance with NSS Subpart Y. Although it appears as if Method 9 is to be used, it is unclear how frequent Method 9 observations are to be taken, the duration of Method 9 readings, and whether such

monitoring will yield reliable data representative of the source's compliance. The Title V permit fails to require sufficient periodic monitoring of opacity for units subject to NSPS Subpart Y. The Title V permit is also unclear as to what Units are subject to NSPS Subpart Y.

The Title V permit also appears to fail to require sufficient periodic monitoring of opacity from units not subject to NSPS Subpart Y. For instance, the Title V permit relies on a "malfunction alarm" that is to evaluate filter differential pressure, screw conveyor operation, rotary valve operation, filter hopper level, exhaust fan operation, air compressor operation, and cleaning drive operation from the dust collector and drive motor temperature, coal pile level, for slack cable and overtravel, and for chute pluggage for the telescopic discharge chute. See Title V permit at 16. Unfortunately, it is unclear whether the malfunction alarm sounds when opacity limits are violated and/or how a malfunction alarm ensures compliance with opacity limits in relation to the operation of these devices.

The Title V permit also relies on "Abnormal Condition Monitoring." As a practical matter, this monitoring is flawed because it only requires a Method 9 observation once visible emissions are observed from the dust collector. However, visible emissions may be in violation of the applicable opacity requirement. As a practical matter, this requirement allows opacity limits to be violated. Similarly, the Title V permit only requires Method 9 readings from the telescopic discharge chute when drop height exceeds five feet and when visible emissions are observed. Again, this allows PRPA to violate opacity limits as a practical matter as visible emissions could be in violation of opacity limits. The Title V permit even states that, "exceedance of the [opacity] limit shall be considered to exist from the time a Method 9 reading is taken that shows exceedance of the opacity limit until a Method 9 reading is taken that shows that the opacity is less than the opacity limit." Thus, as a practical matter, because Method 9 readings do not measure the opacity of initial visible emission observations and/or consider visible emissions to be in violation of the opacity limits, the Title V permit allows PRPA to violate opacity limits.

Finally, the Title V permit appears to fail to require sufficient periodic monitoring of opacity from Units S213 and S212. Section II, Conditions 3.2.1 and 3.2.2 explain that Units S213 and S212 are not subject to the monitoring requirements set forth at these Conditions. If this is the case, then what opacity monitoring requirements do apply to these Units? The Title V permit indicates that opacity limits apply to the operation of these Units, yet the Title V permit fails to explain how opacity is to be monitored.

8. Monitoring of Particulate Matter from Coal Unloading/Handling/Crushing and Conveying is Inadequate

Particulate matter monitoring requirements for Units S202, S202, S203, S204, S205, S207, S208, S209, S210, S206, S211, S213, and S212 fail to ensure compliance with the applicable particulate limits. The Title V permit seems to rely on AP-42 emission factors to calculate particulate emissions. The EPA itself has noted the significant downfalls in relying on AP-42 emission factors to calculate potential emissions from existing sources. As the agency stated:

An AP-42 emission factor is a value that roughly correlates the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant. The use of these emission factors may be appropriate in some permitting applications, such as

establishing operating permit fees. However, EPA has stated that AP-42 factors do not yield accurate emissions estimates for individual sources. See *In the Matter of Cargill, Inc.*, Petition IV-2003-7 (Amended Order) at 7, n.3 (Oct. 19, 2004). Because emission factors essentially represent an average of a range of facilities and of emission rates, they are not necessarily indicative of the emissions from a given source at all times; with a few exceptions, use of these factors to develop source-specific permit limits or to determine compliance with permit requirements is generally not recommended.

See, *In the Matter of Chevron Products Company, Richmond, California Facility*, Petition No. IX-2004-8 (March 15, 2005) at 23-24 (emphasis added). It is unclear how, in this case and the EPA's position, the Division feels AP-42 emission factors provide reliable data representative of the source's actual operating conditions. As it stands, the reliance upon AP-42 emission factors to ensure compliance with particulate limits appears unsupported and appears to fail to provide reliable data representative of the actual particulate matter emissions releases from Units S202, S202, S203, S204, S205, S207, S208, S209, S210, S206, S211, S213, and S212.

9. Periodic Monitoring Plan

Several conditions in the Title V permit refer to Appendix I, the Periodic Monitoring Plan. Unfortunately, in the permit downloaded from the Division's public notice webpage, Appendix I is blank. It is unclear what the Periodic Monitoring Plan states, requires, and/or specifies in terms of periodic monitoring. As this Plan has been excluded from public comment, we cannot submit comments regarding the adequacy of the plan. However, we will say that it is likely that the Periodic Monitoring Plan is inadequate and vague and many regards. We request the Division ensure that the Periodic Monitoring Plan specifies monitoring that ensures compliance with the relevant standards and limits and provides reliable data representative of the source's compliance from the relevant time period in accordance with Title V regulations.

10. Monitoring of Opacity Emissions from Coal Combustion Ash Handling, Hauling and Disposal are Inadequate

Opacity monitoring requirements set forth at Section II, Condition 4.2 fail to ensure sufficient periodic monitoring of opacity. Of particular concern is that the Condition seems to rely on malfunction alarms to ensure compliance with applicable opacity limits. It is unclear, however, whether the sounding of the malfunction alarms actually indicates compliance with opacity limits. Additionally, Method 9 observations are only required when visible emissions persist for more than six minutes. As already explained, as a practical matter, this allows PRPA to exceed opacity limits and fails to ensure compliance with the relevant opacity standard.

Opacity monitoring requirements are also flawed in other ways. For instance, the Title V permit states that compliance with opacity limits from Unit S303 is presumed whenever the water sprays are in operation. This is not supported, however. For one thing, the water sprays could be operated inappropriately and/or ineffectively, yet so long as they are in operation, compliance is presumed. There is no support for asserting a correlation between water spray operation and compliance with the opacity limit. Similarly, compliance with the opacity limit set for Unit S304 is "presumed whenever the driver properly operates the dry unloader." Title V permit at 22. However, there is no information in the TRD or the Title V permit that indicates "properly" operating the dry unloader will ensure compliance with opacity limits at all times.

Additionally, because the term “properly” is not defined, it is unclear how this monitoring ensures compliance.

11. Monitoring of Particulate Emissions from Coal Combustion Ash Handling, Hauling and Disposal are Inadequate

The Title V permit fails to require sufficient periodic monitoring of particulate emissions from Units S303, S304, S308, S305, S309, S307, S306, S301, and S302.

To begin with, the Title V permit does not seem to have any monitoring requirements for particulate emissions from Units S303 and S304. Although there are opacity monitoring requirements, nothing in the Title V permit indicates that any monitoring for particulate matter is required. This means the Title V permit fails to require sufficient periodic monitoring that ensures compliance with the

The Title V permit further states that, “The emissions for fugitive sources S305 through 309 shall be monitored by not exceeding the process limits set forth in Condition 4.1, and by application of the control measures, as set forth in Condition 4.4, below.” Title V permit at 22. However, there is no indication that compliance with the process limits indicates compliance with particulate limits. Especially given that particulate emissions from S303, S304, S308, S305, S309, S307, S306, S301, and S302 are related to fugitive emissions, it is unclear how particulate emissions are process related. Further, and as will be explained in more detail, the fugitive monitoring requirements at Condition 4.4 are vague and unenforceable as a practical matter.

12. The Title V Permit Fails to Require Sufficient Monitoring of Fugitive Emissions

The Title V permit fails to require sufficient periodic monitoring to ensure compliance with fugitive emission limits. In particular, we are concerned with vague language in Section II, Condition 4.4.

Condition 4.4.1 states that, “No off-property transport of visible emissions shall apply to on-site haul roads[.]” Title V permit at 23. Unfortunately, the Title V permit fails to require any monitoring for visible emissions from on-site haul roads to determine whether or not off-property transport occurs. Condition 4.4.2 suffers from the same problem.

Condition 4.4.3 states that, “Water shall be used to control fugitive emissions during earthmoving operations.” It is unclear how water shall be used. Will it be sprayed on by a water truck? If so, how often will water be used? The Condition is vague and, as a practical matter, it is unclear how water will be used to control fugitive emissions during earthmoving.

Condition 4.4.4 states that, “The waste storage silo shall be equipped with a rotary unloader which mixes water with the waste material as it is transferred from the silo to the haul trucks.” It is unclear how water will be mixed with waste material and whether a sufficient amount of water will be mixed to ensure compliance with particulate emissions. One big question is, how much water is required to ensure compliance with particulate emission limits?

Condition 4.4.5 states that, “Haul roads shall be graveled and calcium chloride, magnesium chloride, or magnesium acetate and water shall be applied as necessary to remain viable as a fugitive emission control measure.” It is unclear what the term “as necessary” means.

Condition 4.4.6 states that, “Waste material shall be unloaded while still wet to reduce fugitive emissions.” It is unclear what the term “still wet” means and whether this Condition ensures material will be wet enough to ensure compliance with particulate limits.

Finally, Condition 4.4 states that, “The Annual Compliance Certification shall include a statement that fugitive emission from waste handling are being controlled.” Title V permit at 23. This requirement implies that PRPA must include a compliance certification statement indicating that fugitive emissions are being controlled, regardless of whether emissions are, in fact, being controlled. This statement must be revised or eliminated to ensure that compliance certification is based on actual compliance status.

13. Section II, Condition 5.2 is Flawed

Section II, Condition 5.2 addresses opacity emissions from Units S401 and S402 and states that, “compliance with the opacity limits shall be assumed at all times when the discharge is exhausted inside the building.” Unfortunately, the Title V permit fails to require monitoring that ensures emissions are exhausted inside the spray dry absorber (“SDA”) building, or at least fails to require monitoring that ensures emissions are not exhausted outside the SDA building.

Additionally, although the Condition requires Method 9 readings, Method 9 readings are only required when visible emissions persist for more than 6 minutes. Unfortunately, visible emissions monitoring is not required by the Title V permit. Additionally, as a practical matter, this requirement fails to ensure compliance with the opacity limit. If initial visible emissions may be in violation of opacity limits, they will not be detected. As a practical matter, this allows opacity limits to be exceeded.

The flaws in the opacity monitoring also call into question the ability of the CAM Plan to ensure compliance with particulate limits from Unit S402. Given that the Title V permit fails to require sufficient periodic monitoring of opacity from Unit S402, the Title V permit cannot possibly ensure compliance with particulate limits through the CAM Plan, as well as ensure compliance with CAM requirements.

14. Section II, Condition 8 is Flawed

Section II, Condition 8 is flawed as it is vague and unenforceable as a practical matter. The term “good air pollution control practice” is not defined and/or explained and thus, it is impossible to assess compliance with Condition 8. Although the Condition states that determination of whether acceptable operating and maintenance procedures are being used will be based on several pieces of information, it is unclear what these pieces of information will show and how these pieces of information are to be assessed to determine compliance with Section II, Condition 8. Condition 8 must be more specific in order to ensure compliance.

15. Opacity Monitoring Concerns

Section II, Condition 10.2 requires Method 9 readings for Units S209, S210, S303, S304, and S401 only once-per-year. This is wholly infrequent opacity monitoring as it fails to provide reliable data representative of the source's compliance with opacity limits from the representative time period, in violation of 40 CFR § 70.6(a)(3)(i)(A). Especially given that the opacity limits apply at all times, it is difficult to understand how the Title V permit ensures reliable data from the relevant time period.

16. Prompt Reporting Concerns

Section IV, Condition 21 does not constitute "prompt" reporting as required by the applicable requirements. Prompt reporting is typically defined "in relation to the degree and type of deviation likely to occur and the applicable requirements." 40 CFR § 70.6(a)(3)(iii)(B). In explaining the meaning of "prompt," the House Report for the CAA Amendments of 1990 state that "the permittee would presumably be required to report that violation without delay." H.F. Rep. No. 101-490, pt. 1, at 348 (1990). In commenting on other proposed state operating permit programs, the U.S. EPA has explained:

In general, the EPA believes that 'prompt' should be defined as requiring reporting within two to ten days for deviations that may result in emissions increases. Two to ten day is sufficient time in most cases to protect public health and safety as well as to provide a forewarning of potential problems.

Clean Air Act Proposed Interim Approval of Operating Permits Program: State of New York, 61 Fed. Reg. 39617-39602 (July 30, 1996). Most recently, the second circuit court of appeals held that "prompt" for purposes of prompt reporting of permit deviations must at least be less than every six months depending upon the source's compliance history and public health risk. NYPIRG v. Johnson, 427 F.3d 172 (2nd Cir. 2005). Clearly, reporting permit deviations only once every six months does not constitute prompt reporting.

It is important to note that the Colorado SIP does not limit the Division's discretion to define prompt as only six months. The SIP requires reporting of permit deviations "at least" every six months, but states that the division may specify otherwise in the Title V permit. See, Regulation No. 3, 5 CCR 1001-5, Part C, § V.C.7.b.

With regards to the Rawhide Energy Station Title V permit, it would make sense for the Division to require written reporting of permit deviations related to emission limits at least within two to ten days, especially deviations from HAP emission limits, including lead, from the sources so that public health and safety can be protected and the applicable requirements can be met. In relation to other permit requirements, it would make sense for the Division to require at least quarterly reporting of deviations. Thus, in accordance with the Colorado SIP, U.S. EPA policy, and federal caselaw, we request the Title V permit for PRPA's Rawhide Energy Station require reporting of deviations from emission limits at least within two to ten days and deviations from other permit conditions, such as monitoring requirements, at least quarterly.

17. The Title V Permit Allows Ambient Air Quality Standards, PSD Increments to be Violated

The Title V permit incorporates Colorado Common Provisions Regulation Part II, Subpart E relating to upset conditions and breakdowns at Section IV, Condition 3(d). This regulation states that:

Upset conditions, as defined, shall not be deemed to be in violation of these regulations provided that the Air Pollution Control Division is notified as soon as possible, but no later than two (2) hours after the start of the next working day, followed by written notice to the Division explaining the cause of the occurrence and that proper action has been or is being taken to correct the conditions causing and said violation and to prevent such excess emission in the future.

As is clear, by incorporating this Regulation, the permit gives the polluter an exemption with regards to all emission limits, indicating that the Rawhide Energy Station is allowed to exceed the emission limits set forth in the permit. While this condition renders the emission limits set forth in Section II unenforceable as a practical matter, it also means that emission limits within the Title V permit are fluid at best and do not serve to justify the Division's finding that emissions from the cement plant will not exceed PSD increments and/or ambient air quality standards.

Although the upset conditions provision is found in the Colorado SIP, it is clearly contrary to the requirements of the CAA and has been determined to be illegal by the U.S. EPA. While the U.S. EPA has not required a SIP revision, Rocky Mountain Clean Air Action has petitioned the Administrator of the U.S. EPA to require such a revision and is currently awaiting a response. A copy of this petition is available upon request.

In the meantime, if the state of Colorado is going to administer its Title V program under its current SIP, then it must administer the program according to the requirements of the CAA, which requires, among other things, that Title V permits ensure compliance with the applicable requirements, including section 109 and section 110 of the CAA. If a Title V permit cannot ensure compliance with the applicable requirements, the state cannot issue such a permit. In the case of the cement plant, because the upset conditions provision allows an exemption to ambient air quality standards and PSD increments, the Title V permit fails to ensure compliance with these applicable requirements. The Division therefore cannot issue a final Title V permit for the cement plant until the SIP is revised.

18. Compliance Schedule

Applicable requirements at 42 USC § 7661b(b)(1) and 40 CFR § 70.5(c)(8)(iii)(C) require that if a facility is in violation of an applicable requirement at the time of permit issuance, the facility's permit must include a schedule containing a sequence of actions with milestones, leading to compliance with any applicable requirement.

According to excess emission reports filed by PRPA, the coal-fired boiler at the Rawhide Energy Station has violated opacity, NO_x, other emissions limits, as well as monitoring

operation requirements, on several occasions in the last three years. There are numerous hours of unexcused excess emissions and numerous hours of unexcused monitor downtime.

Date	Monitor Downtime	Reason	Excess Emissions	Reason
2 nd quarter, 2003	NOx CEM, 26 hours; COM, 1.2 hours	Monitor equipment failure, other	0.3 hours, opacity	Control equipment failure
4 th quarter, 2003	COM, 5.5 hours; SO2 CEM, 8 hours; NOx CEM, 12 hours	Other	0.1 hours, opacity	Other
1 st quarter, 2004	COM, 4.8 hours; SO2 CEM, 4 hours; NOx CEM, 4 hours	Other	0.1 hours, opacity	Other
2 nd quarter, 2004	COM, 1.2 hours; SO2 CEM, 7 hours; NOx CEM, 7 hours	Other	0.1 hours, opacity	Other
3 rd quarter, 2004	COM, 1 hour; SO2 CEM, 7 hours; NOx CEM, 7 hours	Other		
4 th quarter, 2004	SO2 CEM, 7 hours, NOx CEM, 7 hours	Other		
1 st quarter, 2005	COM, 0.2 hours; SO2 CEM, 3 hours; NOx CEM, 3 hours	Other		

These violations indicate the Rawhide Energy Station may be in noncompliance with regards to monitor operations and certain opacity limits. Unfortunately, the Division has not posted excess emission reports for the remainder of 2005 or for any part of 2006 and we have been unable to review records regarding the Rawhide Energy Station's compliance history to verify more recent compliance status. However, we request the Division carefully scrutinize excess emission reports submitted by PRPA to determine whether or not the source is actually in compliance. If the source is not in compliance, the Division must include a schedule of compliance in the Title V permit.

Thank you for the opportunity to comment on the draft permit. We look forward to a substantive response to our comments to ensure a strong Title V permit and hope the Division fully addresses our concerns in any future permit. If the state fails to adequately address our concerns and the EPA fails to object to the issuance of the permit, we may exercise our right to

petition the EPA Administrator to object pursuant to Section 505(b)(2) of the CAA and 40 CFR § 70.8(d).

Sincerely,

Jeremy Nichols
Rocky Mountain Clean Air Action
1536 Wynkoop, Suite B501
Denver, CO 80202
303-454-3370

cc: Environmental Protection Agency, Region 8