

**BEFORE THE ADMINISTRATOR  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

IN THE MATTER OF	)	
Public Service Company of Colorado,	)	
dba Xcel Energy,	)	
Cherokee Station	)	
	)	PETITION TO OBJECT TO
	)	ISSUANCE OF A STATE
Permit Number: 96OPAD130	)	TITLE V OPERATING
	)	PERMIT
	)	
Issued by the Colorado Department of	)	
Public Health and Environment, Air	)	
Pollution Control Division	)	
	)	Petition Number: VIII-2010-
	)	
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Pursuant to Section 505(b)(2) of the Clean Air Act and 40 CFR § 70.8(d), WildEarth Guardians (hereafter “Petitioner”) hereby petitions the Administrator of the U.S. Environmental Protection Agency (“EPA”) to object to the Colorado Department of Public Health and Environment, Air Pollution Control Division’s (“Division’s”) proposed issuance of the Title V operating permit (hereafter “Title V Permit”) for Public Service Company of Colorado doing business as Xcel Energy (hereafter “Xcel Energy”) to operate the Cherokee coal-fired power plant located in North Denver in Adams County, Colorado. *See* Exhibit 1, Public Service Company of Colorado, Cherokee Station Proposed Title V Permit, Permit Number 96OPAD130.

Petitioner hereby petitions the Administrator to object to the issuance of the Title V permit due to its failure to include a compliance schedule to address violations of applicable requirements under the Clean Air Act, to ensure compliance with periodic monitoring requirements under Title V regulations, to require sufficient periodic monitoring to ensure harmful levels of particulate matter are not released from the smokestacks of the power plant, to limit particulate emissions in accordance with New Source Performance Standards under Section 111 of the Clean Air Act, to limit toxic air emissions in accordance with Section 112(j) of the Clean Air Act, and to ensure that carbon dioxide emissions are appropriately limited in accordance with the Clean Air Act.

**INTRODUCTION**

The Cherokee coal-fired power plant is a major stationary source of air pollution located in Denver, Colorado. The 785 megawatt power plant consists of four coal-fired boilers that generate steam to produce electricity: Unit 1, a 115 megawatt boiler; Unit 2, a 114 megawatt

boiler; Unit 3, a 168 megawatt boiler; and Unit 4, a 388 megawatt boiler. The plant also consists of other pollutant emitting activities, including coal handling and processing. The plant primarily burns coal and in the process, the releases massive amounts of air pollution known to be harmful to public health and the environment. According to the Technical Review Document (“TRD”) for the Title V Permit and data from the EPA’s Acid Rain Program Database, the Cherokee coal-fired power plant annually releases:

- 10,295.60 tons of nitrogen oxides (“NO<sub>x</sub>”);
- 7,082.20 tons of sulfur dioxide (“SO<sub>2</sub>”);
- 624.70 tons of carbon monoxide (“CO”);
- 77.20 tons of volatile organic compounds (“VOCs”);
- 222.29 tons of particulate matter less than 10 microns in diameter (“PM<sub>10</sub>”);
- 12.31 tons of hydrochloric acid;
- 53.8 pounds of mercury, a potent neurotoxin; and

*See* Exhibit 2, Technical Review Document for Renewal of Operating Permit 96OPAD130 (January 2010) at 25-26 and Exhibit 3, 2008 Emissions Data for Cherokee Station from EPA Acid Rain Program Emissions Database (Last Accessed March 24, 2010). Furthermore, according to data submitted to the EPA’s Acid Rain Program, in 2008 the Cherokee plant released 5,614,719.7 tons of carbon dioxide, a greenhouse gas that is fueling global warming and that the EPA has determined is an endangerment to public health and welfare. *See* 74 Fed. Reg. 66596-66546 (December 15, 2009).

The Division submitted the proposed Title V Permit for EPA review on February 11, 2010. The EPA’s 45 day review period ended on March 29, 2010. Based on Petitioner’s conversations with Region 8 EPA staff, the EPA did not object to the issuance of the Title V Permit for the Cherokee coal-fired power plant. This petition is thus timely filed within 60 days following the conclusion of EPA’s review period and failure to raise objections.

This petition is based on objections to the permit raised with reasonable specificity during the public comment period. To the extent the EPA may somehow believe this petition is not based on comments raised with reasonable specificity during the public comment period, Petitioner requests the Administrator also consider this a petition to reopen the Title V Permit for the Cherokee coal-fired power plant in accordance with 40 CFR § 70.7(f).<sup>1</sup> A permit reopening and revision is mandated in this case because of one or both of the following reasons:

1. Material mistakes or inaccurate statements were made in establishing the terms and conditions in the permit. *See* 40 CFR § 70.7(f)(1)(iii). As will be discussed in more detail, the Title V Permit for the Cherokee coal-fired plant suffers from material mistakes in violation of applicable requirements, etc.; and

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<sup>1</sup> To the extent the Administrator may not believe citizens can petition for reopening for cause under 40 CFR § 70.7(f), Petitioner also hereby petitions to reopen for cause in accordance with 40 CFR § 70.7(f) pursuant to 5 USC § 555(b).

2. The permit fails to assure compliance with the applicable requirements. *See*, 40 CFR § 70.7(f)(1)(iv). As will be discussed in more detail, the Title V Permit for the Cherokee coal-fired power plant fails to assure compliance with several applicable requirements.

## PETITIONER

Petitioner WildEarth Guardians is a Santa Fe, New Mexico-based nonprofit membership group dedicating to protecting and restoring the American West. WildEarth Guardians has an office in Denver and members throughout Colorado. On July 11, 2009, Petitioner submitted detailed comments regarding the Division’s proposal to renew the Title V Permit for the Cherokee Station. *See* Exhibit 4, WildEarth Guardians Comments on Proposed Title V Permit (July 11, 2009). WildEarth Guardians subsequently provided testimony at a November 19, 2009 public hearing. The Division responded to these comments on February 11, 2010. *See* Exhibit 5, Colorado Air Pollution Control Division Response to Comments from WildEarth Guardians on Draft Cherokee Title V Permit (February 11, 2010). The objections raised in this petition were raised with reasonable specificity in comments on the draft Title V Permit.

Petitioner requests the EPA object to the issuance of Permit Number 96OPAD130 for the Cherokee coal-fired power plant and/or find reopening for cause for the reasons set forth below.

## GROUND FOR OBJECTION

### **I. THE TITLE V PERMIT FAILS TO INCLUDE A COMPLIANCE PLAN TO BRING THE CHEROKEE COAL-FIRED POWER PLANT INTO COMPLIANCE WITH APPLICABLE OPACITY MONITORING REQUIREMENTS**

Title V requirements at 42 USC § 7661b(b)(1), 40 CFR § 70.5(c)(8)(iii)(C), and 40 CFR § 70.6(c)(3) 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. In this case, the Title V Permit fails to include a compliance schedule to address ongoing violations of continuous opacity monitoring requirements at the Cherokee coal-fired power plant.

Specifically, Xcel Energy has failed and continues to fail to continuously monitor opacity from all four coal-fired boiler units (identified as Units B001-B004 in the Title V Permit), in accordance with applicable requirements set forth under Title IV, the Acid Rain Program, of the Clean Air Act and regulations at 40 CFR § 75.<sup>2</sup> As WildEarth Guardians explained on pages 2-4 of its July 11, 2009 comments, 40 CFR § 75.10 requires that opacity from the Cherokee coal-fired power plant must be monitored by installing, certifying, operating, and maintaining “a

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<sup>2</sup> Requirements under Title IV and 40 CFR § 75 are explicitly identified as applicable requirements under Title V of the Clean Air Act. 40 CFR § 70.2 defines an applicable requirement as including “[a]ny standard or other requirement of the acid rain program under title IV of the Act or the regulations promulgated thereunder.”

continuous emission opacity monitoring system.” 40 CFR § 75.10(a)(4); *see also* 42 USC § 7651k(a) (a source subject to Title IV “shall be required to install and operate CEMS [continuous emission monitoring systems] on each affected unit at the source, and to quality assure the data for...opacity”). Further, “the owner or operator ***must ensure that all continuous emission and opacity monitoring systems required by this part are in operation and monitoring unit emissions or opacity at all times that the unit combusts any fuel.***” 40 CFR § 75.10(d) (emphasis added). The only allowable exceptions to these continuous opacity monitoring requirements are during “periods of calibration, quality assurance, or preventative maintenance, performed pursuant to [40 CFR] Sec. 75.21 and appendix B of this part [75], periods of repair, periods of backups of data from the data acquisition and handling system, or recertification performed pursuant to [40 CFR] Sec. 75.20.” *Id.* These requirements are also set forth or referenced in the Title V Permit at Section II, Conditions 1.10, 10.2, and 10.4.

In the case of the Cherokee coal-fired power plant, Xcel Energy has failed to continuously monitor opacity. As the Division itself pointed out in response to WildEarth Guardians’ comments, since at least 2004, there have been numerous instances of “unacceptable” opacity monitor downtime, or periods during which the opacity monitors were down for reasons not allowed by 40 CFR § 75.10(d). *See* Table below.

**Table 1. Opacity monitor downtime at Cherokee, 2004-2009 (in hours).  
See Exhibit 5 at 6.**

<b>Year/Quarter</b>	<b>Unit 1</b>	<b>Unit 2</b>	<b>Unit 3</b>	<b>Unit 4</b>
2004/Q1	9.6	5.4	8.8	6.3
2004/Q2	12.1	50.1	24.3	18.1
2004/Q3	6.1	27.7	9.7	2.7
2004/Q4	1.00	51.5	9.3	59.6
2005/Q1	3.2	1.0	6.2	4.8
2005/Q2	2.1	5.4	13.3	1.7
2005/Q3	0.4	56.4	9.3	5.6
2005/Q4	18.7	6.6	12.1	2.1
2006/Q1	5.4	9.5	12.3	6.7
2006/Q2	2.0	0.6	25.8	1.8
2006/Q3	0.0	1.5	16.0	10.4
2006/Q4	5.4	0.6	7.9	61.80
2007/Q1	36.7	0.5	18.9	23.4
2007/Q2	33.7	40.8	28.5	18.10
2007/Q3	1.4	104.5	0.4	3.4
2007/Q4	0.3	8.3	1.8	9.4
2008/Q1	50.5	0.4	24.7	52.4
2008/Q2	2.1	27.1	12.0	1.6
2008/Q3	58.9	4.8	5.8	0.3
2008/Q4	0	2.3	0.4	0.9
2009/Q1	0.3	2.7	0.3	19.9

In response to WildEarth Guardians' comments, the Division did not deny that opacity must be continuously monitored in accordance with 40 CFR § 75. The agency forthrightly states, "WEG [WildEarth Guardians] is correct in noting that all four coal-fired units at Cherokee Unit 5 are required to continuously monitor opacity emissions using a continuous opacity monitoring system (COMS), with certain exceptions[.]" Exhibit 5 at 4. The Division further acknowledges that "Part 75 requires that opacity be monitored continuously from all four units[.]" *Id.* at 5.

Despite clearly recognizing that applicable requirements demand that opacity must be monitored at all times at Cherokee, with limited exceptions, the Division refused to require a compliance schedule to address ongoing "unacceptable" failures to continuously monitor opacity. Quite plainly, the Title V Permit is not in compliance with the Clean Air Act because of its failure to include a compliance schedule in accordance with 42 USC § 7661b(b)(1), 40 CFR § 70.5(c)(8)(iii)(C), and 40 CFR § 70.6(c)(3).

The Division did not deny that the monitor downtime identified in Table 1 is "unacceptable," indicating that the Cherokee coal-fired power plant was not in compliance with applicable requirements at the time of the issuance of the Title V Permit. Instead, the Division rejected the notion that a compliance schedule is required based on the assertion that the monitor downtime does not "reflect an enforceable failure to continuously monitor opacity." Exhibit 5 at 7. This assertion is plainly inconsistent with the Clean Air Act. A compliance schedule is required whenever a source is "not in compliance with all applicable requirements" (*see* 40 CFR § 70.5(c)(8)(iii)(C)), not when there is an "enforceable failure" to comply under the Clean Air Act. The term "enforceable failure" does not actually appear in either Title V or regulations at 40 CFR § 70. In this case, the Division seems to have confused its enforcement discretion with the plain language of Title V regulations, which explicitly state that a Title V Permit "***shall contain...a schedule of compliance consistent with § 70.5(c)(8) of this part [70].***" 40 CFR § 70.6(c)(3) (emphasis added).

The Division seems to make some attempt to address the issue of opacity monitor downtime. Unfortunately, this attempt falls short of meeting the compliance schedule requirements of 42 USC § 7661b(b)(1), 40 CFR § 70.5(c)(8)(iii)(C), and 40 CFR § 70.6(c)(3) and ensuring the Title V Permit meets all requirements of the Clean Air Act. In its response to comments, the Division asserted that Section II, Condition 10.4.3 of the Title V Permit would "fill the monitoring gap and provide credible evidence that the opacity limits are met when the COMS are down." Exhibit 5 at 8. However, Section II, Condition 10.4.3 does not contain all the elements required to be included in a compliance schedule by 40 CFR § 70.5(c)(8)(iii)(C). In fact, the Division does not appear to assert in its response to comments that Section II, Condition 10.4.3 is functionally equivalent to a compliance schedule. Furthermore, Section II, Condition 10.4.3 is contrary to applicable requirements, as will be explained further in this petition. Put simply, Section II, Condition 10.4.3 does not remedy the fact that there are ongoing violations of continuous opacity monitoring requirements at the Cherokee coal-fired power plant.

Simply because the Division has chosen not to enforce a violation of an applicable requirement does not absolve the agency of its duty to ensure the Title V Permit for the Cherokee coal-fired power plant complies with the Clean Air Act. Furthermore, the alternative monitoring

requirements under Section II, Condition 10.4.3 not only fail to meet the requirements of a compliance schedule, but as will be explained further in this petition, violate other applicable requirements. As demonstrated, the Title V Permit fails to ensure compliance with applicable compliance schedule requirements under 42 USC § 7661b(b)(1), 40 CFR § 70.5(c)(8)(iii)(C), and 40 CFR § 70.6(c)(3). The Administrator therefore must object to the issuance of the Title V Permit.

## **II. SECTION II, CONDITION 10.4.3 VIOLATES APPLICABLE REQUIREMENTS**

After first proposing to remove Section II, Condition 10.4.3 from the Cherokee Title V Permit, the Division subsequently decided to include Section II, Condition 10.4.3 to “fill the monitoring gap and provide credible evidence that the opacity limits are met when the COMS are down.” Exhibit 5 at 8. The Condition applies to Units B001-B004 at the Cherokee coal-fired power plant. Unfortunately, Section II, Condition 10.4.3 violates applicable requirements, meaning the Title V Permit fails to ensure compliance with the Clean Air Act.

WildEarth Guardians was unable to specifically object to Section II, Condition 10.4.3 during the public comment period because it was not included in the draft Title V Permit. At the time, WildEarth Guardians supported the Division’s decision to remove Section II, Condition 10.4.3 and thus had no basis to object. However, after the public comment period, the Division subsequently reinstated Section II, Condition 10.4.3 in the final Title V Permit. Thus, WildEarth Guardians’ grounds for objection with regards to the Condition arose after the public comment period. Section II, Condition 10.4.3 violates applicable requirements as follows:

### **A. The Condition Expressly Allows Xcel to Violate Continuous Opacity Monitoring Requirements**

To begin with, Section II, Condition 10.4.3 expressly allows Xcel Energy to violate continuous opacity monitoring requirements under 40 CFR § 75. As discussed, 40 CFR § 75.10(a)(4) requires that the owner or operator of a coal-fired power plant “shall install, certify, operate, and maintain...a continuous opacity monitoring system[.]” 40 CFR § 75.10(d) further requires that “the owner or operator must ensure that all continuous emission and opacity monitoring systems...are in operation and monitoring unit emissions or opacity at all times.” In other words, not only is Xcel Energy required to utilize COMS to monitor opacity, the company must ensure that these COMS are operating and monitoring opacity “at all times.”<sup>3</sup>

Condition 10.4.3 expressly allows Xcel Energy to not utilize COMS to monitor opacity at all times, contrary to 40 CFR § 75.10. Although the Division stated in its response to comments that, “WEG [WildEarth Guardians] is correct in noting that all four coal-fired units at Cherokee are required to continuously monitor opacity emissions using a continuous opacity monitoring system (COMS), with certain exceptions” (Exhibit 5 at 4) and that “Part 75 requires that opacity

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<sup>3</sup> 40 CFR § 75.14(a) further states that COMs must be operated in accordance with Performance Specification 1 in appendix B to 40 CFR § 60. Thus, not only must COMs be operating and monitoring opacity at all times, they must all times be operating in accordance with Performance Specification 1.

be monitored continuously from all four units” (*Id.* at 5), Condition 10.4.3 explicitly allows Xcel Energy to forego those requirements.

The only allowable exceptions to using COMS to continuously monitor opacity under 40 CFR § 75 are during “periods of calibration, quality assurance, or preventative maintenance, performed pursuant to [40 CFR] Sec. 75.21 and appendix B of this part [75], periods of repair, periods of backups of data from the data acquisition and handling system, or recertification performed pursuant to [40 CFR] Sec. 75.20.” 40 CFR § 75.10(d). Condition 10.4.3 however, sets forth an exception to continuous opacity monitoring whenever “the opacity monitoring system is unable to provide quality assured data in accordance with 40 CFR Part 75 for more than eight (8) consecutive hours[.]” On its face, Condition 10.4.3 provides a virtually limitless exception to monitoring requirements under 40 CFR § 75.

Worse, Condition 10.4.3 provides that Xcel Energy is not even required to monitor opacity if the opacity monitoring system is unable to provide quality assured data in accordance with 40 CFR § 75 for less than eight consecutive hours. This is plainly contrary to the applicable requirements of 40 CFR §§ 75.10(a)(4) and (d). Although the Division may assert that Section II, Condition 10.4.3 is meant to “fill the monitoring gap and provide credible evidence that the opacity limits are met when the COMS are down,” such gap filling or credible evidence providing cannot come at the expense of the requirements of 40 CFR § 75.

The Division itself points out that, while 40 CFR § 75 allows for backup monitors to be used or data to be replaced when SO<sub>2</sub> and NO<sub>x</sub> continuous emission monitors are unable to provide quality assured data, “it does not set such requirements for COMS.” Exhibit 5 at 8. Section II, Condition 10.4.3 expressly allows Xcel Energy to forego meeting continuous opacity monitoring requirements set forth under 40 CFR § 75, in violation of the Clean Air Act. The Administrator must therefore object to the issuance of the Title V Permit.

### **B. Periodic Monitoring Under Part 70 Does not Apply in this Instance**

Even if it could be claimed that Section II, Condition 10.4.3 does not contravene the continuous opacity monitoring requirements under 40 CFR § 75.10, the Condition is further contrary to periodic monitoring requirements under 40 CFR § 70.

In accordance with 40 CFR § 70, periodic monitoring is only required where the underlying applicable requirements do not require sufficient monitoring to assure compliance. As a threshold matter, 40 CFR § 70.6(a)(3)(i)(B) specifically states that periodic monitoring is required “[w]here the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring[.]” Furthermore, 40 CFR § 70.6(c) requires that, above all, Title V Permits include monitoring sufficient to assure compliance with applicable requirements.

In this case, there is no indication that the applicable requirements—namely the continuous opacity monitoring requirements under 40 CFR § 75—fail to require periodic testing or instrumental or noninstrumental monitoring, or that the applicable requirements fail to require monitoring sufficient to assure compliance with the applicable opacity limits. Indeed, by all measures, 40 CFR § 75 not only requires instrumental monitoring, it also requires monitoring

that indisputably assures compliance with the applicable opacity limits. Indeed, there is probably no better way to assure compliance with opacity limits than continuous operation of COMS. And in response to comments, the Division does not seem to assert that 40 CFR § 75 requirements fail to require monitoring sufficient to assure compliance.

The Title V Permit is clear that Section II, Condition 10.4.3 is meant to “satisfy the requirements for periodic monitoring under 40 CFR 70 and Colorado Regulation No. 3.” Exhibit 1 at 34. However, because the underlying monitoring requirements in 40 CFR § 75 require monitoring that assures compliance with the applicable opacity limits, there is no need to satisfy the periodic monitoring requirements of 40 CFR § 70 or Colorado Regulation No. 3. In fact, in this case Title V regulations do not even allow the Division to include periodic monitoring requirements given the sufficiency of the underlying monitoring requirements of 40 CFR § 75. The Administrator must therefore object.

The need for the Administrator to object to the issuance of the Title V Permit on this issue is especially critical given that the monitoring requirements of Condition 10.4.3 are weaker than the requirements of 40 CFR § 75. Indeed, not only does Condition 10.4.3 allow Xcel Energy to avoid monitoring opacity altogether, it allows the company to utilize methods that simply do not constitute continuous opacity monitoring. For instance, Condition 10.4.3 allows Xcel Energy to utilize an “Operating Report During Monitor Unavailability,” which actually does not require any opacity monitoring when the COMS are down. In this case, the Division appears to be asserting its authority under Title V regulations to weaken opacity monitoring requirements, an outcome that is clearly contrary to the Clean Air Act and warrants an objection by the Administrator.

### **C. The Administrator has not Approved Alternative Monitoring of Opacity at Cherokee**

Section II, Condition 10.4.3 is further contrary to the Clean Air Act because the Administrator has not approved the alternative monitoring methods in accordance with Section 412(a) of the Clean Air Act. *See* 42 USC § 7651k(a).

Section 412(a) provides that the Administrator may authorize alternative monitoring systems and ensure that such alternative systems provide for the same precision, reliability, accessibility, and timelessness as that provided by COMS. As the EPA has stated, “Part 75 requires that owners or operators obtain exemptions from Part 75 monitoring requirements from the Administrator.” *In re: Pacificorp’s Jim Bridger and Naughton Electric Utility Steam Generating Plants*, Petition No. VIII-00-1 (November 16, 2000) (Order on Petition) at 10. Regulations at 40 CFR § 75.66 further provide that for an alternative monitoring system to be authorized, a designated representative of an affected unit must first petition the Administrator to approve any alternative monitoring systems. *See Id.* at 10-11 and 40 CFR § 75.66(d).

In this case, the Administrator has not approved any alternative opacity monitoring systems at the Cherokee coal-fired power plant. Thus, the Title V Permit cannot allow any alternative opacity monitoring systems in accordance with the Clean Air Act. Because the Title

V Permit allows the use of unapproved alternative opacity monitoring systems, the Administrator must object to its issuance.

#### **D. The Condition Fails to Ensure Compliance with Applicable Opacity Limits**

Finally, although Section II, Condition 10.4.3 is first and foremost flawed in a number of other regards, it is further flawed because it fails to assure compliance with the applicable opacity limits in the Title V Permit in accordance with 40 CFR § 70.6(c)(1). The Condition explicitly allows Xcel Energy to forego monitoring of opacity entirely if the COMS fail to provide quality assured data in accordance with 40 CFR § 75 for less than eight hours. This fails to ensure compliance with the opacity limits set forth at Section II, Condition 1 and Condition 11. To the extent Condition 10.4.3 requires alternative monitoring after eight hours, the Condition allows Xcel Energy to utilize an “Operating Report During Monitor Unavailability,” which does not actually require opacity monitoring and therefore fails to assure compliance with the applicable opacity limits in accordance with 40 CFR § 70.6(c)(1). At the least, the Administrator must object to the issuance of the Title V Permit over the failure of Section II, Condition 10.4.3 to provide monitoring sufficient to assure compliance with the applicable opacity limits.

### **III. THE TITLE V PERMIT FAILS TO REQUIRE ASSURE COMPLIANCE WITH PARTICULATE MATTER LIMITS APPLICABLE TO THE COAL-FIRED BOILER**

Permitting authorities must ensure that a Title V Permit contain monitoring that ensures compliance with the terms and conditions of the permit. *See* 42 USC § 7661c(c) and 70.6(c)(1). Although as a basic matter, Title V Permits must require sufficient periodic monitoring when the underlying applicable requirements do not require monitoring (*see* 40 CFR § 70.6(a)(3)(i)(B)), the D.C. Circuit Court of Appeals has firmly held that even when the underlying applicable requirements require monitoring, permitting authorities must supplement this monitoring if it is inadequate to ensure compliance with the terms and conditions of the permit. As the D.C. Circuit recently explained:

[40 CFR § 70.6(c)(1)] serves as a gap-filler....In other words, § 70.6(c)(1) ensures that all Title V permits include monitoring requirements “sufficient to assure compliance with the terms and conditions of the permit,” even when § 70.6(a)(3)(i)(A) and § 70.6(a)(3)(i)(B) are not applicable. This reading provides precisely what we have concluded the Act requires: a permitting authority may supplement an inadequate monitoring requirement so that the requirement will “assure compliance with the permit terms and conditions.”

*See Sierra Club v. EPA*, 536 F.3d 673, 680 (D.C. Cir. 2008). In other words, “a monitoring requirement insufficient ‘to assure compliance’ with emission limits has no place in a permit[.]” *Id.* at 677.

In this case, the Title V Permit fails to contain monitoring requirements that ensure compliance with underlying particulate matter emission rate for the coal-fired boilers established

by the Colorado SIP. That emission rate, which is set forth in Section II, Condition 1.1 of the Title V Permit, limits emissions of particulate matter to no more than 0.1 lb/mmBtu from each boiler. *See* Exhibit 1 at 6. The underlying requirements establishing this particulate matter emission limit, in this case the Colorado SIP at AQCC Regulation No. 1, Section III.A.1.c. (5 CCR 1001-3, Section III.A.1.c), do not require monitoring. Therefore, the Division was required to ensure the Title V Permit contained sufficient periodic monitoring to assure compliance with the particulate emission rate. The Division failed to do so, thus issuance of the Title V Permit is contrary to Title V requirements and the Administrator must object. Petitioner raised with reasonable specificity concerns over the failure of the Title V Permit to assure compliance with particulate limits. *See* Exhibits 4 at 5-6.

#### **A. The Title V Permit Does not Require Actual Monitoring of Particulate Emissions**

On its face, the Title V Permit is inadequate because it does not require actual monitoring of particulate matter emissions. Section II, Condition 1.1 of the Title V Permit states that compliance with particulate limits is demonstrated by “[m]aintaining and operating the baghouse in accordance with the requirements identified in [Section II] Condition 9.1” and “conducting performance tests annually in accordance with [Section II] Condition 9.3.” Exhibit 1 at 7. None of these conditions explicitly require monitoring of actual particulate matter emissions to ensure compliance with the rate set forth in Section II, Condition 1.1 of the Title V Permit.

Indeed, Section II, Condition 9.1 relates only to the operation and maintenance of the baghouse and states only that “The boiler baghouses shall be maintained and operated in accordance with good engineering practices.” Exhibit 1 at 32. Compliance with this Condition does not yield particulate matter data necessary to demonstrate compliance with the 0.1 lbs/mmBtu emission rate set forth in Section II, Condition 1.1 of the Title V Permit.

Although the Division may have believed that baghouse operation and maintenance could substitute for actual particulate matter monitoring, this belief is unsupported. While compliance with Condition 9.1 may help to keep particulate matter emissions in check, neither the Division, the TRD, nor the Title V Permit cite or otherwise disclose information showing that compliance with Section II, Condition 9.1 will, with any level of certainty, ensure continuous compliance with the quantitative 0.1 lb/mmBtu particulate matter emission rate. Adding to this, Section II, Condition 9.1 is vague and unenforceable. Because good engineering practices are not defined in any specific way in the Title V Permit, it is impossible to understand what such practices are and whether they will, in fact, be sufficient to assure compliance with the particulate matter emission rate at Section II, Condition 1.1.

Furthermore, Section II, Condition 9.3 relates only to stack testing. *See* Exhibit 1 at 32. Although the Condition requires stack testing for particulate matter emissions, it does not actually require monitoring of particulate matter emissions to ensure compliance with the emission rate set forth in Section II, Condition 1.1. Because the Title V Permit fails to require actual monitoring of particulate matter emissions, it does not assure compliance with particulate emission rates and therefore, the Administrator must object to its issuance.

**B. Stack Testing is too Infrequent, Even if it Could Demonstrate Compliance**

Although the Division may have believed that stack testing under Section II, Condition 13.2 could substitute for particulate matter monitoring, this, too, is unfounded. For one thing, Section II, Condition 9.3 only requires that stack testing occur annually, at most, but even allows less frequent monitoring to occur. Thus, while the 0.1 lbs/mmBtu emission rate applies continuously, the stack testing requirement limits monitoring to only once per year and possibly even less frequently. This is problematic. In essence, even if the Division could reasonably rely on Section II, Condition 9.3 to assure compliance with particulate matter rate, this Condition would assure compliance with the limits only once per year, at best. This necessarily means the Title V Permit fails to assure compliance with the 0.1 lbs/mmBtu emission rate the remainder of the year, or years. If the Title V Permit limited emissions of particulate matter to no more than 0.1 lbs/mmBtu only once per year, then such monitoring may be appropriate. The Title V Permit has no such limit, however, and therefore the monitoring fails to assure compliance.

The failure to ensure more frequent monitoring of particulate matter is further problematic because heat input at the Cherokee coal-fired power plant has varied over the years for all four boilers. For instance, between 1995 and 2008, heat input was as high as 28,072,934 mmBtu at Unit 4 and as low as 18,748,984, a difference of more than 9 million mmBtu. See Table below. Because the particulate emission rate set forth at Section II, Condition 1.1 is dependent on heat input, such variability calls into question the ability of the Division to have reasonably relied on annual stack testing to assure continuous compliance with the particulate emission rate. Clearly a one-time test will not provide data representative of all operations at the Cherokee coal-fired power plant.

**Table 2. Heat Input at the Cherokee Coal-fired Power Plant.**  
*See Emissions Data Attached as Exhibit 6 (last accessed March 31, 2010).*

Year	Heat Input (mmBtu)			
	Unit 1	Unit 2	Unit 3	Unit 4
1995	7,404,140	8,895,175	22,099,774	18,748,984
1996	8,088,468	15,317,778	20,058,545	23,189,640
1997	8,049,589	7,625,777	12,685,456	22,749,687
1998	6,845,429	8,663,307	11,029,233	28,072,934
1999	8,772,266	8,545,294	11,634,028	20,887,955
2000	8,984,969	11,608,612	11,824,011	20,736,114
2001	7,810,265	9,122,842	11,622,986	23,056,201
2002	8,970,802	6,203,590	9,797,919	21,731,932
2003	10,293,712	8,484,949	12,748,751	22,286,191
2004	7,696,548	7,443,031	11,823,815	25,643,530
2005	8,154,782	9,681,982	10,756,231	27,246,266
2006	8,369,825	8,012,872	11,794,683	25,232,866
2007	7,770,057	8,036,162	11,593,479	26,470,773
2008	8,794,175	7,900,437	11,677,769	26,439,306

The need for continuous monitoring, or at least more frequent than once every year, is further bolstered by Section 302(k) of the Clean Air Act, which defines “emission limitation” as “a requirement established by the State or the Administrator which limits the quantity, rate, or concentration of emissions of air pollutants on a continuous basis[.]” 42 USC § 7602(k). Because the particulate emission rate set forth in Section II, Condition 1.1 of the Title V Permit is an “emission limitation,” it necessarily applies “on a continuous basis.” Logically, for the Title V Permit to assure compliance with particulate emission rate, it must require continuous monitoring, meaning annual stack testing is wholly inadequate. The Administrator must therefore object to the issuance of the Title V Permit.

### **C. The Division Cannot Rely on Compliance Assurance Monitoring to Meet Title V Monitoring Requirements**

In response to Petitioners’ comments over the lack of adequate particulate monitoring, the Division re-asserted its belief that that compliance assurance monitoring (“CAM”) requirements set forth in Section II, Condition 1.15 and Appendix H constitute sufficient periodic monitoring that ensures compliance with 40 CFR § 70.6(a)(3)(i)(B) and assures compliance with the particulate emission rate in Section II, Condition 1.1 in accordance with 40 CFR § 70.6(c)(1). *See* Exhibits 5 at 13-16. This assertion is invalid and unsupported in several key regards.

To begin with, the Title V Permit does not explicitly state that compliance with the particulate emission rate set forth at Section II, Condition 1.1 can be demonstrated by complying with CAM requirements at Section II, Condition 1.15, or the underlying CAM Plan in Appendix H to the Title V Permit. As already explained, Section II, Condition 1.1 simply states that compliance with the particulate emission rate shall be demonstrated through compliance with Section II, Condition 9.1 and Section II, Condition 9.3. Thus, as written, the Title V Permit does not support a relationship between compliance with CAM requirements and compliance with the particulate emission rate.

Furthermore, it is inappropriate for the Division to rely solely on the CAM requirements set forth in the Title V Permit to demonstrate compliance with the particulate emission rate at Section II, Condition 1.1. For one thing, it does not appear that the Division has established an accurate, quantitative correlation between compliance with CAM requirements and compliance with the numerical emission rate set forth at Section II, Condition 1.1. Further, although the CAM requirements at Section II, Condition 1.15 and the CAM Plan in Appendix H require monitoring of certain parameters, such as the condition of the baghouses, there are no quantitative requirements set forth that ensure any level of performance for these control devices.<sup>4</sup> And although opacity limits apply, there is no information or analysis cited or incorporated into the permit that demonstrates compliance with these limits automatically means

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<sup>4</sup> For example, although the CAM Plan requires that internal baghouse inspections occur semi-annually (*see* Exhibit 1 at Appendix H, Page 2), neither the CAM Plan nor Section II, Condition 1.15 require any standard of performance for the baghouse.

compliance with the particulate rate at Section II, Condition 1.<sup>5</sup> Put simply, the Division seems to be attempting to put a square peg in a round hole, conveniently relying on CAM requirements as a misshapen substitute for compliance with a quantitative emission rate.

Additionally, the CAM requirements set forth in Appendix H actually allow Xcel to exclude opacity data during periods of startup, shutdown, and malfunction. *See* Exhibit 1 at Appendix H at 3. This is wholly inappropriate as there is no provision in the Title V Permit that allows Xcel to exceed the particulate matter limits set forth at Section II, Condition 1 during periods of startup, shutdown, and malfunction. The CAM plan therefore not only fails to establish an accurate, quantitative correlation between compliance with CAM requirements and compliance with the numerical emission rate set forth at Section II, Condition 1.1, but also allows Xcel to ignore data relevant to determining compliance with the relevant emission rate.

Although the Division claims that the preamble to the 1997 final CAM rule “indicates that CAM is consistent with the Title V periodic monitoring requirements,” (*see* Exhibit 5 at 13), this is not supported by the preamble. While the EPA originally thought that 40 CFR § 64 CAM requirements would supersede periodic monitoring requirements under 40 CFR § 70, the EPA ultimately rejected this approach, stating “the existing part 70 monitoring, including periodic monitoring, requirements will continue to apply.” 62 Fed. Reg. 54900, 54905 (October 22, 1997). Furthermore, although EPA indicated that it may be appropriate, in some instances, to rely on 40 CFR § 64 monitoring requirements to satisfy 40 CFR § 70 requirements, the EPA made clear in the preamble to CAM that, “Part 64 is intended to provide a reasonable means of supplementing existing regulatory provisions that are not consistent with the statutory requirements of titles V and VII of the 1990 Amendments to the [Clean Air] Act.” 62 Fed. Reg. 54900, 54904 (October 22, 1997). In other words, the CAM rule does not supplant existing monitoring requirements, such as those under 40 CFR § 70, but rather aids in filling gaps where existing requirements may fall short of ensuring adequate monitoring. The Division’s claim that CAM is “consistent” with Title V periodic monitoring requirements is not only presumptuous, but elevates form over substance. Ultimately, the Division is required to ensure sufficient periodic monitoring that provides reliable and representative data from the relevant time period in accordance with 40 CFR § 70.6(c)(1).

To this end, the Division has failed to show that the specific CAM requirements set forth at Section II, Condition 1.15 and the CAM Plan in Appendix H assure compliance with the particulate emission rate at Section II, Condition 1.1. Simply because the Division asserts that CAM requirements assure compliance with the particulate emission rate in accordance with 40 CFR § 70.6(c)(1) does not make it so. The Administrator must therefore object to the issuance of the Title V Permit on the basis that the Division inappropriately relied on CAM requirements in the Title V Permit to assure compliance with particulate limits.

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<sup>5</sup> Although the Division states that a “site-specific opacity trigger level” must be set by the CAM Plan (*see* Exhibit 5 at 16), the CAM Plan actually sets no site-specific opacity trigger that would assure compliance with the particulate emission rate. For instance, although an “excursion” is defined as an opacity value greater than 15% (*see* Exhibit 1 at Appendix H, Page 2), neither the CAM Plan nor the Title V Permit state that such an “excursion” equates to a violation of the particulate matter emission rate. There is simply no support for any assertion that meeting a 15% opacity limit automatically equates to compliance with the particulate matter limit.

#### **D. The Division Inappropriately Rejected Particulate Matter Continuous Emission Monitors as a Means of Ensuring Compliance with Particulate Limits**

Compounding the failure to assure compliance with the particulate emission rate at Section II, Condition 1.1, the Division also arbitrarily rejected a means to ensure continuous compliance with the particulate emission rate. In comments, WildEarth Guardians requested that the Division require the use of particulate matter continuous emission monitoring systems (“PM CEMS”) to assure compliance with the particulate emission rate in the Title V Permit. The EPA promulgated performance specifications for PM CEMS at 40 CFR § 60, Appendix B, Specification 11, on January 12, 2004. *See In the Matter of Onyx Environmental Services*, Petition No. V-2005-1 at 13. This promulgation indicates that the use of PM CEMS is an accepted means of assessing compliance with particulate emission rates and limits.

Furthermore, the EPA has required other coal-fired power plants to install, operate, calibrate, and maintain a PM CEMS. In a 2000 consent decree, Tampa Electric Company agreed to install a PM CEMS on one of its coal-fired power plants in Florida to ensure compliance with PM limits. *See United States v. Tampa Electric Company*, Consent Decree (February 29, 2000) at 20, available at [www.epa.gov/compliance/resources/decrees/civil/caa/tecocd.pdf](http://www.epa.gov/compliance/resources/decrees/civil/caa/tecocd.pdf). More recently, through a 2006 consent decree, two North Dakota utilities agreed to install PM CEMS at a coal-fired power plant in North Dakota. *See Exhibit 7, United States v. Minnkota Power Cooperative*, Consent Decree (April 24, 2006) at 26-28. Similarly, the EPA reached agreements with other utilities in Wisconsin and a number of other eastern states that have led to the installation, calibration, operation, and certification of PM CEMS. *See United States v. Wisconsin Electric Power Company*, Consent Decree (April 27, 2003) at 29-31, available online at [www.epa.gov/compliance/resources/decrees/civil/caa/wepco\\_cd.pdf](http://www.epa.gov/compliance/resources/decrees/civil/caa/wepco_cd.pdf); *United States v. American Electric Power Service*, Consent Decree (October 9, 2007) at 38-40, available online at <http://www.epa.gov/compliance/resources/decrees/civil/caa/americanelectricpower-cd.pdf>. These consent decrees are implicit that PM CEMS are to be used to demonstrate compliance with PM limits.

Most recently, in proposed amendments to new source performance standards (“NSPS”) for electric utility steam generating units, the EPA stated, “Based on our analysis of available data, there is no technical reason that PM CEMS cannot be installed and operate reliably on electric utility steam generating units.” 70 Fed. Reg. 9865, 9872 (February 27, 2006). Although the final amendments to the NSPS for electric utility steam generating units did not require the utilization of PM CEMS, the EPA stated that PM CEMS may be used to demonstrate continuous compliance with particulate emission limits.

In comments, WildEarth Guardians stated that, “The use of PM CEMS would constitute sufficient periodic monitoring that will assure compliance with the particulate limits set forth in the Title V Permit. We request the APCD [Air Pollution Control Division] take advantage of its authority under 40 CFR § 70 to require the installation and operation of PM CEMS at the Cherokee coal-fired power plant through the Title V Permit.” Exhibit 4 at 6. **In response, the Division did not deny that PM CEMS would ensure compliance with the requirements of 40 CFR §§ 70.6(a)(3)(i)(B) and 70.6(c)(1).** Indeed, the Division stated that it “agrees that a PM

CEMS represents the most direct method to assure continuous compliance with emission limits.” Exhibit 5 at 16.

Instead, the Division arbitrarily rejected requiring PM CEMS and restated its belief that the CAM requirements in the Title V Permit assure compliance with the particulate emission rate. However, as already explained, the CAM requirements do not assure compliance. The Division also pointed to EPA’s NSPS for electric utility steam generating units, in which the EPA stated that when PM CEMS are not utilized, it may be appropriate to use “site-specific opacity triggers” to ensure continuous compliance. Yet as already explained, the Title V Permit does not actually state that an exceedance of any site-specific opacity trigger represents a violation of the particulate standards at Section II, Condition 1.1. Furthermore, the NSPS require that when a site-specific opacity trigger is utilized in conjunction with the use of a fabric filter baghouse, a bag leak detection system be utilized to ensure compliance with particulate limits in accordance with 40 CFR § 60.48Da(o)(4). As the EPA stated, “[S]ources shall use bag leak detectors...in addition to developing a site-specific opacity trigger level[.]” 70 Fed. Reg. 9865, 9872 (February 27, 2006). The Title V Permit does not require that a bag leak detection system be utilized. Thus, the Division’s reliance on the EPA’s NSPS to justify its rejection of PM CEMS in this case is misplaced. If anything, the NSPS merely underscore the fact that the Division has failed to require sufficient periodic monitoring for particulate matter to ensure compliance with the limits at Section II, Condition 1.1.

The Division’s response to Petitioner’s comments do not provide a rational basis for rejecting the use of PM CEMS as a means of assuring compliance with the particulate emission rate in the Title V Permit and meeting the requirements of 40 CFR §§ 70.6(a)(3)(i)(B) and 70.6(c)(1). The Administrator must object to the issuance of the Title V Permit based on the Division’s arbitrary rejection of PM CEMS as a means to assure compliance with the particulate rate at Section II, Condition 1.1.

#### **IV. THE TITLE V PERMIT FAILS TO ENSURE COMPLIANCE WITH AIR TOXIC LIMITS UNDER SECTION 112(J) OF THE CLEAN AIR ACT**

The Title V Permit fails to assure compliance with section 112(j), 42 USC § 7412(j), of the Clean Air Act. In particular, the Title V Permit fails to assure compliance with case-by-case maximum achievable control technology (“MACT”) requirements for the electric utility steam generating unit (“EGU”) in operation at the Cherokee coal-fired power plant.

Indeed, the Title V Permit fails to assure compliance with Section 112(j) in the context of mercury and other hazardous air pollutant (“HAP”) emissions from the EGU in operation at the Cherokee coal-fired power plant. As the TRD notes, “on February 8, 2008 a DC Circuit Court vacated the CAMR regulations for both new and existing units.” Exhibit 2 at 8. In particular, the D.C. Circuit held in early 2008 that the EPA had inappropriately delisted EGUs from the list of sources whose emissions are regulated under Section 112 of the Clean Air Act. In light of this ruling, as well as the EPA’s failure to promulgate a MACT standard for EGUs, the Division was required to develop a case-by-case MACT for the EGU in operation at the Cherokee coal-fired power plant and to include such case-by-case MACT in the Title V Permit. Such a case-by-case

MACT was required to include mercury emission limits, as well as limits for other HAPs regulated under Section 112 of the Clean Air Act, such as lead compounds, hydrofluoric acid, and hydrochloric acid. It was especially critical for the Division to assure compliance with Section 112 given that the TRD discloses that the Cherokee coal-fired power plant is indeed a major source of HAPs. *See* Exhibit 2 at 6.

In response to WildEarth Guardians' comments, the Division asserted, "Although electric utility steam generating units (EUSGUs) were added to the list of source categories in Section 112(c) in December 2000, a deadline for promulgation of those standards was never set. Therefore, the case-by-case MACT requirements of 112(j) do not apply to EUSGUs." Exhibit 5 at 25. This response is misplaced. For one thing, there was a deadline for promulgation of MACT standards for EGUs. This deadline was "within 2 years after the date" on which EGUs were added to the list of source categories under Section 112, in accordance with Section 112(c)(5), 42 USC § 7412(c)(5), therefore putting the deadline at December 2002. Pursuant to Section 112(j), a case-by-case MACT standard was required 18 months after the deadline for promulgation of a MACT standard, and thus Section 112(j) requirements have applied since May 2004. The Division's rationale for determining Section 112(j) is not an applicable requirement with regards to the EGU is therefore unsupported.

Although it may be argued that Section 112(j) simply does not apply to EGUs on the basis that they may not be subject to the schedule for MACT promulgation set forth under Section 112(e)(1) or (3) due to the fact that they were added as a source category under Section 112 subsequent to the Clean Air Act Amendments of 1990, this argument makes little sense. For one thing, Section 112(e)(1) and (3) specifically reference Section 112(c)(1), which explicitly provides that the list of source categories promulgated under Section 112 may be periodically revised. Section 112(c)(5) of the Clean Air Act sets forth the standards for listing new source categories, as provided for under Section 112(c)(1), and sets forth deadlines for MACT promulgation for new sources. Taken together, Section 112(j)'s reference to Section 112(e)(1) and (3), which in turn references Section 112(c)(1), appears to strongly indicate that Section 112(j) requirements were meant to apply to new source categories listed under Section 112(c)(1) in accordance with Section 112(c)(5). To that end, it would make little sense in light of the purpose of Section 112(j), which is to ensure that all major sources of toxic pollutants meet strict regulatory standards, even when issuance of national MACT standards are delayed, to allow newly added source categories to somehow escape the application of Section 112(j).

The Administrator must therefore object to the issuance of the Title V Permit. Not only is the Division's rationale for not assuring compliance with Section 112(j) baseless, but clearly the Cherokee coal-fired power plant is subject to case-by-case MACT requirements under Section 112(j).

**V. THE TITLE V PERMIT FAILS TO ENSURE COMPLIANCE WITH PREVENTION OF SIGNIFICANT DETERIORATION REQUIREMENTS IN REGARDS TO CARBON DIOXIDE EMISSIONS**

In issuing the Title V Permit, the Division failed to appropriately assess whether CO<sub>2</sub> is subject to regulation in accordance with PSD requirements and therefore failed to ensure compliance with PSD under the Clean Air Act, PSD regulations, and the Colorado SIP. Of particular concern is that the Division failed to assess the source's PSD compliance status in the context of CO<sub>2</sub> and therefore failed to ensure that the Title V Permit assures compliance with all applicable requirements.

Under Colorado regulations incorporated into the SIP, any source that emits more than 250 tons per year “of any air pollutant subject to regulation under the Federal Act” is subject to PSD permitting requirements, including the requirement that BACT be utilized to keep air emissions in check. *See* Air Quality Control Commission (“AQCC”) Regulation Number 3, Part D § VI.A.1.a; *see also* 42 U.S.C. § 7475(a) and 40 C.F.R. § 51.166(j)(2). Similarly, the SIP requires that any major source that undergoes a modification leading to a significant emissions increase is also required to utilize BACT. AQCC Regulation No. 3, Part D § VI.A.1.b. The Clean Air Act makes clear that the BACT requirements extend to “each pollutant subject to regulation” under the Act. 42 U.S.C. § 7479(3) and 40 C.F.R. § 52.21(b)(12); *see also* AQCC Regulation No. 3, Part D § II.A.8. In this case, the Division failed to assess whether CO<sub>2</sub> is subject to regulation in accordance with PSD and whether the Title V Permit ensures compliance with PSD requirements under the Colorado SIP, the Clean Air Act, and PSD regulations in relation to CO<sub>2</sub> emissions from the Cherokee coal-fired power plant.

**A. The Division did not Assess Whether Carbon Dioxide is Subject to Regulation under the Clean Air Act, in accordance with the Recent Environmental Appeals Board Ruling**

At issue is the fact that the Division has inappropriately relied on EPA's interpretation of the phrase “subject to regulation” when issuing the Title V Permit and completely ignored whether CO<sub>2</sub> emissions should be limited by the application of BACT as required by PSD provisions in the Colorado SIP, the Clean Air Act, and PSD regulations. The EAB determined this interpretation fails to set forth “sufficiently clear and consistent articulations of an Agency interpretation to constrain” authority the EPA would otherwise have under the Clean Air Act. *Deseret Power*, slip op. at 37. In light of the EAB's ruling, it was therefore inappropriate for the Division to ignore CO<sub>2</sub> emissions by relying on EPA's prior interpretation of the phrase “subject to regulation” when issuing the Title V Permit.

Although EPA may claim that a December 18, 2008 interpretive memo issued by former EPA Administrator Stephen Johnson (hereafter “Johnson memo”) “clarifies” EPA's position that CO<sub>2</sub> is not subject to regulation under PSD requirements (*see* Memorandum from Stephen L. Johnson, Administrator, to all Regional Administrators, “EPA's Interpretation of Regulations that Determine Pollutants Covered by Federal Prevention of Significant Deterioration (PSD) Permit Program” (December 18, 2008)) and therefore addresses the EAB's ruling, this is simply not true in this case. For one thing, the Johnson memo is clear that it does not bind states, such as Colorado, that administer the PSD program under their own SIP. Thus, the Johnson memo does not absolve the Division from rendering its own, independent interpretation of the meaning of the phrase “subject to regulation” as set forth in the Colorado SIP.

This is a major oversight on the Division's part. Indeed, the Colorado SIP appears to support a finding that CO<sub>2</sub> emissions are subject to regulation, and therefore subject to PSD requirements. Although the phrase "subject to regulation" is not explicitly defined in the Colorado SIP, there are three reasons to interpret the Colorado SIP to allow the State of Colorado to find that CO<sub>2</sub> emissions are subject to regulation under the Clean Air Act.

First, the U.S. Supreme Court recently held in *Massachusetts v. EPA*, 127 S. Ct. 1438 (2007), that CO<sub>2</sub> is a "pollutant" under the Clean Air Act. Although the EAB noted that the *Massachusetts* decision "did not address whether CO<sub>2</sub> is a pollutant 'subject to regulation' under the Clean Air Act" (*Deseret Power*, slip op. at 8) the EAB did not reject the interpretation that the decision supports a finding that CO<sub>2</sub> emissions are subject to regulation under the Clean Air Act. In fact, the EAB noted that the *Massachusetts* decision rejected key EPA memos that were relied upon when interpreting the phrase "subject to regulation" (*see e.g., Id.* at 52, "The reasoning of the Fabricant Memo was subsequently rejected and overruled by the Supreme Court in *Massachusetts v. EPA*, 549 U.S. 497, slip op. at 29-30 (2007)").

Second, CO<sub>2</sub> is explicitly regulated by the Colorado SIP. In fact, AQCC Regulation No. 1 § VII. contains specific provisions requiring Public Service Company of Colorado monitor CO<sub>2</sub> at its coal-fired power plants, including the Cherokee coal-fired power plant. The Title V Permit also explicitly requires Xcel Energy to "install, certify and operate" CO<sub>2</sub> CEMs at the Cherokee coal-fired power plant. *See* Exhibit 1 at 10, Section II, Condition 1.10.

Finally, CO<sub>2</sub> is "subject to regulation" because it falls under the definition of "air pollutant" set forth in the Colorado SIP. Indeed, the AQCC Common Provisions Regulation, which is incorporated into the Colorado SIP, defines air pollutant as:

Any fume, smoke, particulate matter, vapor, gas or any combination thereof that is emitted into or otherwise enters the atmosphere, including, but not limited to, any physical, chemical, biological, radioactive (including source material, special nuclear material, and by-product materials) substance or matter, but not including water vapor or steam condensate or any other emission exempted by the commission consistent with the Federal Act.

CO<sub>2</sub> is a gas that is emitted into the atmosphere, and therefore clearly regulated as a pollutant under the Colorado SIP. Furthermore, this definition derives directly from the Colorado Air Pollution and Prevention Control Act (*see* CRS § 25-7-103(1.5)), a fact that seems to compel a finding that CO<sub>2</sub> is "subject to regulation" under PSD. Indeed, the SIP explicitly states that PSD provisions apply "to any major stationary source and major modification ***with respect to each pollutant regulated under the [Colorado Air Pollution and Prevention Control] Act*** and the Federal Act that it would emit, except as this Regulation No. 3 would otherwise allow." AQCC Regulation No.3, Part D § VI.A. (emphasis added). The Colorado Air Pollution and Prevention Control Act clearly regulates CO<sub>2</sub>, therefore the Colorado SIP seems to make clear that PSD provisions apply to any major sources and modifications with respect to CO<sub>2</sub> emissions.

Thus, not only has the recent EAB decision called into question the validity of the Division's failure to address CO<sub>2</sub> emissions in order to ensure the Title V Permit assures

compliance with PSD requirements under the Clean Air Act, PSD regulations, and the Colorado SIP, but it appears as if the Division's failure to address CO<sub>2</sub> emissions in the context of PSD is contrary to the Colorado SIP. The Administrator must therefore object to the issuance of the Title V Permit to ensure a consistent and reasonable interpretation of PSD in the context of CO<sub>2</sub> emissions from the Cherokee coal-fired power plant.

**B. Significant Increases in CO<sub>2</sub> Emissions Have Occurred at the Cherokee Coal-fired Power Plant**

The need for Administrator to object and the Division to appropriately assess whether CO<sub>2</sub> emissions should be limited by the application of BACT as required by the Clean Air Act, PSD regulations, and the Colorado SIP, is especially evident in light of the fact that significant increases in CO<sub>2</sub> emissions have occurred at all four units at the Cherokee coal-fired power plant over the years. Based on data from the EPA's Clean Air Market's website, between the years 1995 and 2008, net CO<sub>2</sub> emissions increases occurred at all four coal-fired units on numerous occasions.<sup>6</sup> See Tables 3-6 below.

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<sup>6</sup> Net emission increases and decreases were calculated by averaging actual CO<sub>2</sub> emissions from a consecutive 24-month period (i.e., the baseline) and comparing that average with actual emissions reported for the following year, a method similar to the "actual-to-projected-actual" PSD applicability test set forth in PSD regulations at 40 CFR § 51.166(a)(7)(iv)(c).

**Table 3. Cherokee Unit 1 CO<sub>2</sub> Emissions, 1995-2008.**  
*See Emissions Data Attached as Exhibit 6.*

<b>Two-year Baseline</b>	<b>Average Baseline CO<sub>2</sub> Emissions (tons/year)</b>	<b>Year</b>	<b>Total CO<sub>2</sub> Emissions(tons/year)</b>	<b>Increase/ Decrease (tons/year)</b>
2006/2007	825,976.95	2008	900,715.50	<b>74,738.55</b>
2005/2006	845,885.35	2007	795,127.30	-50,758.05
2004/2005	811,485.75	2006	856,826.60	<b>45,340.85</b>
2003/2004	920,126.90	2005	834,944.10	-85,182.80
2002/2003	985,365.55	2004	788,027.40	-197,338.15
2001/2002	857,631.45	2003	1,052,226.40	<b>194,594.95</b>
2000/2001	856,348.25	2002	918,504.70	<b>62,156.45</b>
1999/2000	905,411.40	2001	796,758.20	-108,653.20
1998/1999	797,634.20	2000	915,938.30	<b>118,304.10</b>
1997/1998	762,132.30	1999	894,884.50	<b>132,752.20</b>
1996/1997	813,803.35	1998	700,383.90	-113,419.45
1995/1996	694,430.00	1997	823,880.70	<b>129,450.70</b>

**Table 4. Cherokee Unit 2 CO<sub>2</sub> Emissions, 1995-2008.**  
*See Emissions Data Attached as Exhibit 6.*

<b>Two-year Baseline</b>	<b>Average Baseline CO<sub>2</sub> Emissions (tons/year)</b>	<b>Year</b>	<b>Total CO<sub>2</sub> Emissions(tons/year)</b>	<b>Increase/ Decrease (tons/year)</b>
2006/2007	810,554.90	2008	808,496.10	-2,058.8
2005/2006	906,884.65	2007	799,645.40	-107,239.3
2004/2005	876,978.10	2006	821,464.40	-55,513.7
2003/2004	813,352.55	2005	992,304.90	<b>178,952.4</b>
2002/2003	747,506.00	2004	761,651.30	<b>14,145.3</b>
2001/2002	781,616.25	2003	865,053.80	<b>83,437.6</b>
2000/2001	1,059,387.85	2002	629,958.20	-429,429.7
1999/2000	1,012,789.90	2001	933,274.30	-79,515.6
1998/1999	863,039.15	2000	1,185,501.40	<b>322,462.3</b>
1997/1998	833,783.20	1999	840,078.40	<b>6,295.2</b>
1996/1997	810,603.25	1998	885,999.90	<b>75,396.7</b>
1995/1996	878,489.00	1997	781,566.50	-96,922.5

**Table 5. Cherokee Unit 3 CO<sub>2</sub> Emissions, 1995-2008.**  
*See Emissions Data Attached as Exhibit 6.*

<b>Two-year Baseline</b>	<b>Average Baseline CO<sub>2</sub> Emissions (tons/year)</b>	<b>Year</b>	<b>Total CO<sub>2</sub> Emissions(tons/year)</b>	<b>Increase/ Decrease (tons/year)</b>
2006/2007	1,182,008.85	2008	1,197,236.60	<b>15,227.8</b>
2005/2006	1,154,452.75	2007	1,155,598.80	<b>1,146.1</b>
2004/2005	1,154,979.30	2006	1,208,418.90	<b>53,439.6</b>
2003/2004	1,249,841.35	2005	1,100,486.60	-149,354.8
2002/2003	1,143,068.65	2004	1,209,472.00	<b>66,403.4</b>
2001/2002	1,086,764.00	2003	1,290,210.70	<b>203,446.7</b>
2000/2001	1,191,645.55	2002	995,926.60	-195,719.0
1999/2000	1,197,220.25	2001	1,177,601.40	-19,618.9
1998/1999	1,158,908.80	2000	1,205,689.70	<b>46,780.9</b>
1997/1998	1,213,777.60	1999	1,188,750.80	-25,026.8
1996/1997	1,106,529.70	1998	1,129,066.80	<b>22,537.1</b>
1995/1996	948,704.00	1997	1,298,488.40	<b>349,784.4</b>

**Table 6. Cherokee Unit 1 CO<sub>2</sub> Emissions, 1995-2008.**  
*See Emissions Data Attached as Exhibit 6.*

<b>Two-year Baseline</b>	<b>Average Baseline CO<sub>2</sub> Emissions (tons/year)</b>	<b>Year</b>	<b>Total CO<sub>2</sub> Emissions(tons/year)</b>	<b>Increase/ Decrease (tons/year)</b>
2006/2007	2,646,115.70	2008	2,708,271.50	<b>62,155.8</b>
2005/2006	2,685,243.30	2007	2,710,249.20	<b>25,005.9</b>
2004/2005	2,706,016.70	2006	2,581,982.20	-124,034.5
2003/2004	2,442,224.45	2005	2,788,504.40	<b>346,280.0</b>
2002/2003	2,238,626.75	2004	2,623,529.00	<b>384,902.3</b>
2001/2002	2,282,411.70	2003	2,260,919.90	-21,491.8
2000/2001	2,233,019.20	2002	2,216,333.60	-16,685.6
1999/2000	2,126,614.55	2001	2,348,489.80	<b>221,875.3</b>
1998/1999	2,406,769.20	2000	2,117,548.60	-289,220.6
1997/1998	2,504,825.15	1999	2,135,680.50	-369,144.7
1996/1997	2,295,376.70	1998	2,677,857.90	<b>382,481.2</b>
1995/1996	1,843,744.00	1997	2,331,792.40	<b>488,048.4</b>

Under the Colorado SIP, a net increase in any pollutant “subject to regulation” under either the Colorado Air Pollution and Prevention Control Act or the Clean Air Act, but not specifically listed in the Colorado SIP, is “significant” at “any emissions rate.” AQCC

Regulation No. 3, Part D § II.A.44.b. If CO<sub>2</sub> is subject to regulation under the Colorado SIP, then any increase in emissions at a major stationary source is significant and triggers BACT requirements.

Because the Cherokee coal-fired power plant is a major stationary source under PSD, the reported increases in CO<sub>2</sub> emissions would be significant and would therefore trigger BACT requirements if it is determined that CO<sub>2</sub> emissions are subject to regulation under the Colorado SIP. Coupled with the EAB's recent ruling and the Division's failure to adequately address whether CO<sub>2</sub> is subject to regulation under the Colorado SIP, these emission increases underscore the need for the Administrator to object to the issuance of the Title V Permit.

### **CONCLUSION**

For the reasons stated above, Petitioner requests the Administrator object to the Title V Permit issued by the Division for the Cherokee coal-fired power plant. The Administrator has a nondiscretionary duty to issue an objection to the Title V Permit within 60 days in accordance with Section 505(b)(2) of the Clean Air Act.

Respectfully submitted this 1<sup>st</sup> day of April 2010

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## TABLE OF EXHIBITS

1. Public Service Company of Colorado, Cherokee Station Proposed Title V Permit, Permit Number 96OPAD130.
2. Technical Review Document for Renewal of Operating Permit 96OPAD130 (January 2010).
3. 2008 Emissions Data for Cherokee Station from EPA Acid Rain Program Emissions Database.
4. WildEarth Guardians Comments on Proposed Title V Permit (July 11, 2009).
5. Colorado Air Pollution Control Division Response to Comments from WildEarth Guardians on Draft Cherokee Title V Permit (February 11, 2010).
6. 1995-2008 Emissions Data for Cherokee Coal-fired Power Plant.
7. *United States v. Minnkota Power Cooperative*, Consent Decree (April 24, 2006).