BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

In the Matter of the Proposed Title V Operating Permit *Issued by the* South Dakota Department of Environment and Natural Resources *to* GCC Dacotah to operate a Portland cement manufacturing plant in Rapid City, South Dakota	)	Permit No. 28.1121-02

PETITION FOR OBJECTION TO ISSUANCE OF OPERATING PERMIT FOR GCC DACOTAH CEMENT PLANT

Pursuant to Section 505(b)(2) of the Clean Air Act ("CAA"), 40 CFR § 70.8(d), and the applicable federal and state regulations, Biodiversity Conservation Alliance, Rocky Mountain Clean Air Action, Defenders of the Black Hills, Native Ecosystems Council, Prairie Hills Audubon Society of Western South Dakota, Center for Native Ecosystems, Nancy Hilding, Brian Brademeyer, Jeremy Nichols (hereafter "Petitioners") hereby petition the Administrator of the U.S. Environmental Protection Agency ("EPA") to object to the Title V operating permit (hereafter "Title V permit") issued by the South Dakota Department of Environment and Natural Resources ("DENR") for GCC Dacotah to operate a Portland cement plant in Rapid City, South Dakota (hereafter "cement plant"), Permit Number 28.1121-02.[1] Petitioners request the EPA

[1] The Proposed Permit and the accompanying Statement of Basis are attached as Exhibits 1 and 2, respectively.

object to the issuance of Permit Number 28.1121-02 for the cement plant and/or find reopening for cause for the reasons set forth within this petition.

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INTRODUCTION

GCC Dacotah operates a Portland cement manufacturing facility that emits into the air of Rapid City numerous pollutants from numerous sources. The cement plant as a whole has the potential to emit 3,522,000 pounds per year of sulfur dioxide ("SO_2"), 8,528,000 pounds per year of nitrogen oxides ("NOx"), 160,000 tons per year of volatile organic compounds ("VOCs"), and 4,810,000 tons per year of carbon monoxide ("CO"), which at high levels can kill people.[2] The amount of NOx released by the plant is the equivalent to the emissions of 223,246 cars each driven 12,500 miles per year.[3] The plant has the potential to emit 55,167 tons per year—or over 110 million pounds per year—of particulate matter less than 10 microns in size ("PM_{10}"), 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.[4] 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.[5] The cement plant also emits into the air of Rapid City numerous hazardous air pollutants ("HAPs") and has a potential to emit over 60,000 pounds of toxic air pollutants per year.

Pollution from GCC Dacotah's cement plant also affects the Black Hills region of western South Dakota, including the scenic vistas of Wind Cave National Park and Badlands National Park, both of which are protected as Class I areas under the CAA. 42 USC §

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[2] See, www.epa.gov/iaq/pubs/coftsht.html.
[3] According to the EPA, an average vehicle emits 38.2 pounds of NOx per year. See, www.epa.gov/otaq/consumer/f00013.htm.
[4] See, www.epa.gov/airtrends/pm.html.
[5] See, www.epa.gov/ttn/oarpg/naaqsfin/pmhealth.html.

7472(a)(4). The Black Hills region of western South Dakota consists of over a million acres of public lands, including the Black Hills National Forest, and is vital to the health and sustainability of many communities. A forested island within the sea of the Great Plains, the Black Hills also support a unique, isolated ecosystem that hosts a diversity of plants and animals found nowhere else in the world. The Black Hills are also sacred to countless indigenous peoples who have lived around the Black Hills region for millennia, relying upon the health and sustainability of the surrounding land, air, and water for survival and cultural well-being. Air pollution from the cement plant threatens to degrade the irreplaceable scenic, natural, and cultural values of the region.

The DENR submitted the proposed Title V permit for GCC Dacotah's cement plant to the EPA for review on November 4, 2005. The EPA's 45 day review period thus ended on December 18, 2005. Although on December 16, 2005, the EPA submitted comments to the DENR with regards to the Title V permit and certain conditions within the permit, the EPA did not object to the issuance of the operating permit for the cement plant. See, **Ex. 3**. 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 the 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, Petitioners request the Administrator also consider this a petition to reopen the Title V permit for

GCC Dacotah's cement plant in accordance with 40 CFR § 70.7(f).[6] 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 cement plant suffers from material mistakes that render several terms and conditions meaningless, ambiguous, unenforceable as a practical matter, in violation of applicable requirements, etc.; and

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 cement plant fails to assure compliance with several applicable requirements.

PETITIONERS

Biodiversity Conservation Alliance is a Laramie, Wyoming based nonprofit organization dedicated to protecting and restoring ecological health and sustainability in the Black Hills region of western South Dakota. Members and supporters of Biodiversity Conservation Alliance depend upon clean air in the Black Hills region to ensure unimpaired visibility, healthy plant and animal communities, successful wildlife viewing, and enjoyable recreational experiences.

Rocky Mountain Clean Air Action is a newly founded, Denver, Colorado based citizens group dedicated to protecting clean air in Colorado and the surrounding Rocky Mountain region for the health and sustainability of local communities.

[6] 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).

Defenders of the Black Hills is a nonprofit organization, without racial or tribal boundaries, whose mission is to ensure that the provisions of the Fort Laramie Treaties of 1851 and 1868 are upheld by the federal government of the United States. Defenders' actions seek to restore and protect the environment of the Black Hills to the best of their ability.

Native Ecosystems Council is a Rapid City, South Dakota based, unincorporated, non-profit, science-based conservation organization dedicated to protecting and restoring the health of the Black Hills ecosystem. Members and supporters of Native Ecosystems Council use and enjoy the Black Hills for wildlife viewing, recreation, and scientific study.

Prairie Hills Audubon Society of Western South Dakota is a South Dakota-based, nonprofit organization with almost 200 members in the Black Hills region. Members of Prairie Hills Audubon Society use and enjoy the Black Hills for, among other things, bird-watching, and depend upon clean air for the health of their own communities, as well as those of the wildlife, fish, and plants of the Black Hills.

Center for Native Ecosystems is a Denver, Colorado based non-profit, science-based conservation organization dedicated to protecting and recovering native and naturally functioning ecosystems in the Greater Southern Rockies and Great Plains. Using the best available science, the Center for Native Ecosystems participates in policy and administrative processes, legal actions, and public outreach and education programs to protect and restore imperiled native plants and animals and the air, land, and water they depend upon.

Nancy Hilding is a Blackhawk, South Dakota resident who depends upon clean air for her health and happiness. Ms. Hilding suffers from asthma, which is exacerbated by air pollution, and is most happy when she can breathe clean, clear air. Ms. Hilding is also the President of Prairie Hills Audubon Society of Western South Dakota and in this capacity works

to protect and restore the health and sustainability of the Black Hills ecosystem. In her capacity as President of Prairie Hills Audubon Society of Western South Dakota, Ms. Hilding takes great pleasure in educating others about the natural values of the Black Hills and depends upon clean air to carry out the educational goals of the organization.

Brian Brademeyer is a Rapid City, South Dakota resident who depends upon clean air for his health and happiness. Mr. Brademeyer enjoys hiking in the Black Hills and working on his home, located in Palmer Gulch in the Black Hills near Mt. Rushmore. Several years ago, Mr. Brademeyer underwent open heart surgery. Mr. Brademeyer now depends upon clean air to ensure pure oxygen, free of poisonous compounds, reaches his heart to help this sensitive organ regain its strength and stamina. Mr. Brademeyer also has a home in the Black Hills and enjoys viewing the peaks within the Black Elk Wilderness and Norbeck Wildlife Preserve. Clean air is essential to ensuring unimpaired views of these peaks.

Jeremy Nichols is a resident of Denver, Colorado, an avid bicycle rider, outdoor enthusiast, and regular visitor to Rapid City and the Black Hills of South Dakota who is deeply concerned about air quality in the Black Hills region and its effects on the health and welfare of people, plants, and animals. Mr. Nichols is also the founder of Rocky Mountain Clean Air Action and in this capacity works carry out the mission of the group to ensure protection of clean air for communities throughout the Rocky Mountains, including the Black Hills.

On September 21, 2005, Petitioners submitted comments to the DENR by certified mail in regards to the proposal to renew the Title V permit for the cement plant. See, **Ex. 4**.

GROUNDS FOR OBJECTION

I. The Permit Fails to Ensure Compliance with Best Available Control Technology Requirements

Best available control technology ("BACT") is required to ensure prevention of significant deterioration of air quality. 42 USC § 7471; 42 USC § 7475(a)(4). BACT is achieved through the establishment of technologically-feasible emission limits and the "application of production processes or available methods, systems, and techniques." 40 CFR § 51.166(b)(12). To ensure compliance with BACT, as well as protection of air quality, Title V operating permits must include limitations and standards to assure compliance (see, 40 CFR § 70.6(a)(1)) and contain sufficient monitoring both to yield reliable data representative of the source's compliance with the applicable requirements and ensure compliance with the conditions of the permit itself (see, 40 CFR §§ 70.6(a)(3)(i)(B) and (c)(1)). In this case, the Title V permit for the cement plant not only fails to include any limits or standards explicitly requiring compliance with BACT, but also fails to require sufficient monitoring to ensure compliance with BACT, thus failing to ensure compliance with BACT emission limits and prevention of significant deterioration of air quality in the Black Hills region of western South Dakota. The Administrator thus has a nondiscretionary duty to object to the issuance of the Title V permit for the reasons set forth below.

A. BACT for SO_2

With regards to SO_2 emissions, the Statement of Basis for the Title V permit indicates BACT includes the use of low sulfur coal. Statement of Basis at 14. Unfortunately, nothing in the Title V permit actually requires that low sulfur coal be utilized, nor does it require chemical sampling of coal or other testing and/or other forms of monitoring to ensure low sulfur coal is, in fact, utilized to ensure compliance with BACT limits. In other words, the Title V permit fails to

ensure low sulfur coal is, in fact, utilized and to ensure compliance with and the practical enforceability of BACT limits for SO_2 set forth at Condition 6.8.

Petitioners raised concerns over this issue with reasonable specificity, stating in their comments, "With regards to SO_2 emissions, the Statement of Basis indicates BACT includes the use of low sulfur coal. Unfortunately, nothing in the Title V permit requires chemical sampling of coal to ensure low sulfur coal is, in fact, utilized." Petitioners' Comments on Title V Permit at 2. In response to these comments, the DENR simply asserted:

> The BACT limits for sulfur dioxide established in the PSD permit issued April 10, 2003, were based on using low sulfur coal. Therefore, compliance with the sulfur dioxide emission limit demonstrates that GCC Dacotah is using low sulfur coal.

Response to Comments at 3. See, **Ex. 5**. This response misses the mark by miles. Indeed, BACT is not simply an emission limit. As the regulation clearly states:

> Best available control technology means an emissions limitation based on the maximum degree of reduction for each a regulated NSR pollutant which…is achievable…through application of production processes or available methods, systems, and techniques[.]

40 CFR § 51.166(b)(12) (emphasis added). Thus, BACT is not achieved solely through the establishment of a blanket emission limit, but through the application of production processes or other available methods, systems, and techniques.

As a matter of logic, a source must be required to comply with the production processes or available methods, systems, or techniques determined by a permitting authority to constitute BACT to ensure the practical enforceability of any BACT emission limit. To that end, in order to ensure compliance with production processes or available methods, systems, or techniques determined by a permitting authority to constitute BACT, a Title V permit must first contain

standards and limits that require the use of the processes or methods, and second require sufficient monitoring to ensure compliance both with the standards and limits of the permit and the BACT determination that constitutes part of the underlying applicable requirements. See, 40 CFR § 70.6(a)(1); 40 CFR § 70.6(a)(3)(i)(B); and 40 CFR § 70.6(c)(1).

Therefore, contrary to the DENR's assertion, compliance with the BACT limits for SO_2 set forth at Condition 6.8 cannot be demonstrated solely by monitoring SO_2 emissions from the cement plant. As a practical matter, unless the Title V permit actually requires the use of low sulfur coal and ensures GCC Dacotah complies with this requirement through monitoring, there is nothing that ensures SO_2 emissions will not exceed the established limits and that significant deterioration of air quality will not occur.

B. BACT for Particulate Matter

With regards to particulate matter emissions, the Statement of Basis and Title V permit indicate baghouses and electrostatic precipitators are utilized. Statement of Basis at 12. Unfortunately, nothing in the Title V permit requires that these controls be operated and maintained in any specific way to ensure they control particulate emissions within acceptable limits as required by Condition 6.4. Indeed, no specific standards and/or limits are included in the Title V permit that require the baghouses and electrostatic precipitators be operated and maintained in any way whatsoever. It is unclear how these controls will ensure compliance with the applicable emission standards and limits when no requirements exist to ensure they do not fall into disrepair and/or are properly maintained in accordance with explicitly defined manufacturer's specifications and/or any other such requirements as are necessary to ensure proper and long-term function. Furthermore, particulate matter limits at Condition 6.4, as well as

opacity standards in the Title V permit, are unenforceable as a practical matter given the lack of specific operation and maintenance requirements.

Petitioners raised concerns over this issue with reasonable specificity, stating in their comments:

> With regards to particulate matter emissions, the Statement of Basis and Title V permit indicate baghouses and electrostatic precipitators are utilized. Unfortunately, nothing in the Title V permit requires that these controls be operated and/or maintained in any specific way to ensure they control emissions within acceptable limits. It is unclear how these controls will ensure compliance with the applicable emission standards when no requirements exist to ensure they do not fall into disrepair and/or are properly maintained in accordance with manufacturer's specifications and/or any other such requirements as are necessary to ensure proper and long-term function.

Petitioners' Comments on Title V Permit at 2-3. In response to these comments, the DENR asserted:

> The draft Title V permit requires that GCC Dacotah maintain and implement an operations and maintenance plan (permit condition 5.4), maintain and implement a startup, shutdown, and malfunction plan (permit condition 5.5), and develop a maintenance schedule for specific control equipment (permit condition 5.6). The draft Title V permit contains sufficient requirements for proper operations of the permitted equipment to control particulate emissions.

Response to Comments at 3. Once again, this response misses the mark by miles. Contrary to the DENR, Conditions 5.4, 5.5, and 5.6 in the Title V permit do not ensure the baghouses and electrostatic precipitators are operated and maintained properly and effectively. Petitioners explain the inadequacies of Conditions 5.4, 5.5, and 5.6 in relation to ensuring adequate operation and maintenance of the baghouses and electrostatic precipitators below.

1. Condition 5.4

Condition 5.4 requires that "the owner or operator shall maintain and implement the operations and maintenance plan." Title V permit at 17. This condition derives from 40 CFR §

63.1350(a), or Subpart LLL of the National Emission Standards for Hazardous Air Pollutants ("NESHAP").[7] Condition 5.4 further requires that the operations and maintenance include:

1. Procedures for operation and maintenance of the permitted sources[;]
2. Corrective actions for exceedances of emission and operation limits;
3. Procedures to be used during an inspection of the components of the combustion system of each kiln at least once per year; and
4. Procedures to periodically monitor opacity in accordance with permit conditions 8.1 and 8.2.

Title V Permit at 17. Unfortunately, this Condition fails to ensure proper operation and maintenance of the baghouses and electrostatic precipitators.

Of particular concern is that it is unclear whether an operations and maintenance plan has even been developed in accordance with 40 CFR § 63.1350(a). The compliance date for the applicable emissions units at the facility has already passed according to the Statement of Basis. Applicable requirements at 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 Title V permit must include a schedule containing a sequence of actions with milestones, leading to compliance with any applicable requirement. If GCC Dacotah does not have an operations and maintenance plan for its cement plant, then the operator is currently in violation of an applicable requirement and the DENR must include in any Title V permit a compliance schedule. If this is the case, the Administrator must object to the issuance of the Title V permit due to the failure of the permit to include a compliance schedule relating to the preparation and implementation of an operations and maintenance plan in accordance with 40 CFR § 63.1350(a).

If an operations and maintenance plan does exist for the cement plant, then the Title V permit still fails to ensure compliance with the requirements of 40 CFR § 63.1350(a) and fails to

[7] Regulations at Subpart LLL are incorporated into the South Dakota State Implementation Plan ("SIP") at Chapter 74:36:08:21.

ensure compliance with and/or the practical enforceability of Condition 5.4. For one thing, it is entirely unclear whether the operations and maintenance plan even meets the requirements set forth at 40 CFR § 63.1350(a)(1)-(4). Nothing in the Title V permit even requires that the operations and maintenance plan be submitted for review and approval to the DENR, the EPA, and/or the public. The Title V permit also does not explicitly incorporate the operations and maintenance plan, let alone explicitly ensure that the plan meets the standards set forth at both 40 CFR § 63.1350(a)(1)-(4) and Condition 5.4. While 40 CFR § 63.1350(b) states that the "Failure to comply with any provision of the operations and maintenance plan developed in accordance with paragraph (a) of this section shall be a violation of the standard," nothing in the Title V permit ensure development of the operations and maintenance plan in accordance with paragraph (a) and consequently, 40 CFR § 63.1350(b) is unenforceable as a practical matter.[8] The Title V permit must require the operations and maintenance plan be submitted for review and approval to the EPA, as required by 40 CFR § 63.1350(a) and incorporate the plan to ensure compliance with 40 CFR § 63.1350(a)(1)-(4), 40 CFR § 63.1350(b), and Condition 5.4.

Additionally, the Title V permit fails to contain any monitoring requirements that ensure the operations and maintenance plan is maintained and implemented. While Condition 5.4 generally requires the maintenance and implementation of the plan, no monitoring requirements exists to ensure the practical enforceability of this requirement and/or to ensure compliance with this requirement. Nothing in the Title V permit requires GCC Dacotah to demonstrate that it is, in fact, maintaining and implementing the operations and maintenance plan. The Title V permit thus fails to include sufficient monitoring to ensure compliance with and/or the practical

[8] Although the Title V permit requires GCC Dacotah to report failures to comply with the operations and maintenance plan at Condition 5.9(7), because nothing in the Title V permit requires the plan to be submitted for review and approval to ensure compliance with Condition 5.4 and 40 CFR § 63.1350(a)(1)-(4), this reporting requirement is unenforceable as a practical matter and fails to ensure compliance with any operations and maintenance plan that may exist for the cement plant.

enforceability of the maintenance and implementation requirements of Condition 5.4, 40 CFR § 63.1350(a), and 40 CFR § 63.1350(b), in violation of 40 CFR § 70.6(c)(1). Consequently, Condition 5.4 fails to ensure proper operation and maintenance of the baghouses and electrostatic precipitators and fails to ensure compliance with BACT and BACT limits for particulate matter.

Condition 5.4 is also vague and unenforceable as a practical matter in and of itself. The "procedures for proper operation and maintenance" required by Condition 5.4(1) are not defined, explained, or even remotely outlined in the Title V permit to ensure any level of operation and maintenance of the baghouses and electrostatic precipitators, let alone "proper" operation and maintenance. Even if "proper" operation and maintenance could possibly be assured, "proper" operation and maintenance is not explained and/or defined to give the public, the EPA, the DENR, or even GCC Dacotah any idea of what is actually required in relation to operation and maintenance of the baghouses and electrostatic precipitators. Because "proper" is vague and undefined, Condition 5.4(1) is further unenforceable as a practical matter, fails to ensure proper operation and maintenance of the baghouses and electrostatic precipitators, and fails to ensure compliance with BACT limits for particulate matter.

The "Corrective actions for exceedances of emission and operational limits" required by Condition 5.4(2) are also not defined, explained, or even remotely outlined in the Title V permit to ensure any exceedances of emission and operational limits will be corrected. Thus, if the baghouses and electrostatic precipitators breakdown for any reason, become inoperable, and/or otherwise fail to control particulate emissions, it is not clear how such events will be "corrected" to ensure compliance and to ensure adequate operations and maintenance. Compounding this serious lack of clarity and explanation is that nothing in the Title V permit requires the operations and maintenance plan to be submitted for review and approval to the DENR, EPA,

and/or the public to ensure any exceedances of emissions and operational limits will be "corrected" at all, let alone effectively corrected. Finally, the Title V permit fails to contain any monitoring requirements that ensure "corrective actions," whatever they may be, are undertaken and undertaken effectively. The Title V permit thus fails to include sufficient monitoring to ensure compliance with the requirements of Condition 5.4(2), in violation of 40 CFR § 70.6(c)(1).

Finally, it is unclear how Conditions 5.4(3) and 5.4(4) even relate to the operations and maintenance of the baghouses and electrostatic precipitators and thus how DENR could possibly conclude that Condition 5.4 ensures adequate operation and maintenance of the baghouses and electrostatic precipitators.

2. Condition 5.5

Condition 5.5 requires GCC Dacotah to:

> [D]evelop and implement a startup, shutdown, and malfunction plan that describes in detail the following:
>
> 1. Procedures for proper operation and maintenance of the permitted units[;] and
> 2. A program of corrective action for malfunctioning process and monitoring equipment used to comply with the relevant standard.

Title V Permit at 17. Unfortunately, this Condition also fails to ensure proper operation and maintenance of the baghouses and electrostatic precipitators.

The purpose of a startup, shutdown, and malfunction plan is to:

> Ensure that, at all times, the owner or operator operates and maintains each affected source, including associated air pollution control equipment, in a manner which satisfies the general duty to minimize emissions established by paragraph (e)(1)(i) of this section;
>
> Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants;

> Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

40 CFR § 63.6(e)(3)(i)(A)-(C). Unfortunately, while the Title V permit broadly requires compliance with 40 CFR § 63.6(e)(3) through Condition 5.5, nothing in the permit actually ensures compliance with this section through reporting and/or monitoring requirements and nothing in the permit indicates that GCC Dacotah will fully comply with 40 CFR 63.6(e)(3) during the operation of the cement plant.

Of particular concern is that it is unclear whether a startup, shutdown, and malfunction plan has even been developed. The compliance date for the applicable emissions units at the facility has already passed according to the Statement of Basis. Applicable requirements at 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 Title V permit must include a schedule containing a sequence of actions with milestones, leading to compliance with any applicable requirement. If GCC Dacotah does not have a startup, shutdown, and malfunction plan for its cement plant, then the operator is currently in violation of an applicable requirement and the DENR must include in any Title V permit a compliance schedule. If this is the case, the Administrator must object to the issuance of the Title V permit due to the failure of the permit to include a compliance schedule relating to the development and implementation of a startup, shutdown, and malfunction plan in accordance with 40 CFR § 63.6(e)(3).

If a startup, shutdown, and malfunction plan does exist for the cement plant, then the Title V permit still fails to ensure compliance with the requirements of 40 CFR § 63.6(e)(3). For one thing, it is entirely unclear whether the startup, shutdown, and malfunction plan is adequate

to meet the purposes set forth at 40 CFR § 63.6(e)(3)(A)-(C) as well as the applicable requirements set forth at 40 CFR § 63.6(e)(1)(i). Indeed, a startup, shutdown, and malfunction plan found to be inadequate must be revised if it does not address a startup, shutdown, or malfunction event that has occurred, fails to provide for the operation of the source during a startup, shutdown, or malfunction event in a manner consistent with the general duty to minimize emissions established by 40 CFR § 63.6(e)(1)(i), does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable, and/or includes an event that does not meet the definition of startup, shutdown, or malfunction listed at 40 CFR § 63.2. Of particular concern is that the Title V permit does not explicitly incorporate the startup, shutdown, and malfunction plan, let alone explicitly ensure that the plan meets the standards set forth at 40 CFR § 63.6(e)(3)(A)-(C) and 40 CFR § 63.6(e)(1)(i). This appears contradictory to 40 CFR § 63.6(e)(3)(ix), which specifically states that "The title V permit for an affected source must require that the owner or operator adopt a startup, shutdown, and malfunction plan which conforms to the provisions of this part[.]"

Compounding the situation is that the Title V permit does not even require GCC Dacotah to submit and/or report its startup, shutdown, and malfunction plan to the DENR and/or the EPA. At a basic level, such a monitoring and/or reporting requirement is necessary to ensure the applicable requirements are met, as well as to ensure proper operation and maintenance of the baghouses and the electrostatic precipitators. Although the DENR may believe there exists no specific regulatory requirement for GCC Dacotah to submit and/or report its startup, shutdown, and malfunction plan to the DENR, the EPA, and/or the public, this position is plainly erroneous. Permits are required to contain "compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the

permit." 40 CFR § 70.6(c)(1). If GCC Dacotah is not required to submit and/or report its startup, shutdown, and malfunction plan, then the Division cannot possibly ensure it meets the requirements and/or purposes set forth at 40 CFR 63.6(e)(1) and (3) and Condition 5.5 in accordance with the applicable requirements at 40 CFR § 70.6.

Also, as a practical matter, the failure of the Title V permit to ensure the adoption of an adequate startup, shutdown, and malfunction plan, whether through incorporation of an adequate startup, shutdown, and malfunction plan and/or monitoring and/or reporting requirements, renders Condition 5.5 and the underlying applicable requirements unenforceable as a practical matter. If nothing in the Title V permit explicitly ensures the development and implementation of an adequate startup, shutdown, and malfunction plan, whether through monitoring and/or incorporation, then there is no way for the DENR, EPA, or citizens to enforce Condition 5.5 and/or their underlying applicable requirements.

In relation to Condition 5.5(1), the "procedures for proper operation and maintenance" required by this condition are not defined, explained, or even remotely outlined in the Title V permit to ensure any level of operation and maintenance of the baghouses and electrostatic precipitators, let alone "proper" operation and maintenance. Even if "proper" operation and maintenance could possibly be assured, "proper" operation and maintenance is not explained and/or defined to give the public, the EPA, the DENR, or even GCC Dacotah any idea of what is actually required in relation to operation and maintenance of the baghouses and electrostatic precipitators. Because "proper" is vague and undefined, Condition 5.5(1) is further unenforceable as a practical matter, fails to ensure proper operation and maintenance of the baghouses and electrostatic precipitators, and fails to ensure compliance with BACT limits for particulate matter.

Finally, the "program of corrective action for malfunctioning process and monitoring equipment used to comply with the relevant standard" required by Condition 5.5(2) is also not defined, explained, or even remotely outlined in the Title V permit to ensure any malfunctioning process and monitoring equipment used to comply with relevant standards will be corrected. Thus, if the baghouses and electrostatic precipitators experienced malfunctions, it is not clear how such events will be "corrected" to ensure compliance and to ensure adequate operations and maintenance. It is not clear what "program of corrective action" is even to be followed to ensure adequate operations and maintenance of the baghouses and electrostatic precipitators. Compounding this serious lack of clarity and explanation is that nothing in the Title V permit requires the startup, shutdown, and malfunction plan to be submitted for review to the DENR, EPA, and/or the public to ensure any malfunctions will be "corrected" at all, let alone effectively corrected. Finally, the Title V permit fails to contain any monitoring requirements that ensure the "program of corrective action," whatever it may be, is undertaken and undertaken effectively.[9] The Title V permit thus fails to include sufficient monitoring to ensure compliance with the requirements of Condition 5.5(2), in violation of 40 CFR § 70.6(c)(1).

3. Condition 5.6

Condition 5.4 requires that "the owner or operator must maintain a monitoring log." Title V Permit at 17. Condition 5.6 further requires that the monitoring log contain the following information:

1. Maintenance schedules for the air pollution control equipment[.] At a minimum, the maintenance schedule shall meet the manufacturer's recommended schedule for maintenance. The following information shall be recorded for maintenance:
a. Identify the unit;
b. The date and time maintenance was performed;

[9] In fact, the Title V permit does not even require the reporting of malfunctions, an apparent violation of 40 CFR § 70.6(a)(3)(iii)(B), which requires prompt reporting of deviations from Title V permit requirements.

c. Description of the type of maintenance;
d. Reason for performing maintenance;
e. Signature of person performing maintenance[.]

Title V Permit at 17. Unfortunately, this Condition also fails to ensure proper maintenance of the baghouses and electrostatic precipitators.

To begin with, it is difficult, if not impossible, to understand how a "maintenance log" or "schedule of maintenance" ensures adequate maintenance of the baghouses and electrostatic precipitators. The Title V permit seems to rely upon a "schedule," rather than actual maintenance requirements and specifications to ensure the baghouses and electrostatic precipitators effectively control particulate emissions. Condition 5.6(1) requires nothing in terms of specific maintenance activities and therefore does not ensure proper operation and maintenance of the baghouses and electrostatic precipitators.

Even assuming that a "log" or "schedule" could ensure some level of adequate maintenance for the baghouses and electrostatic precipitators, the Title V permit fails to explain and/or define this schedule in sufficient detail to ensure the practical enforceability of the Condition and to ensure proper maintenance. Indeed, the Condition states only that the "schedule" shall, at a minimum, "meet the manufacturer's recommended schedule for maintenance." Unfortunately, the manufacturer's recommended schedule is not listed, explained, referenced, or else otherwise defined in the Title V permit. The Condition is thus vague and unenforceable as a practical matter. As a practical matter, the Title V permit fails to ensure that manufacturer's recommended schedule is: (1) Adequately explained and/or set forth in sufficient detail to ensure proper maintenance of the baghouses and electrostatic precipitators and to ensure the implementation of an adequate maintenance schedule based on the unique operations and compliance history of GCC Dacotah's cement plant; and (2) Fully complied with

so that no ambiguity exists in relation to what GCC Dacotah is required to accomplish in relation to ensuring adequate control of particulate emissions through the maintenance of the baghouses and electrostatic precipitators.

C. BACT for NOx

The Title V permit also fails to ensure compliance with and require sufficient monitoring to ensure proper application and effectiveness of BACT for NOx emissions. Although BACT has been determined to be "a staged combustion system with a thermal-efficient in-line low-NOx calciner complimented by a low NOx burner with indirect firing in the rotary kiln" (Statement of Basis at 14), no standards or conditions in the Title V permit explicitly requires compliance with this BACT and nothing in the permit assures compliance with, proper implementation of, and maintenance of this BACT determination to ensure that NOx emission limits set at Condition 6.8 are not exceeded and/or that significant deterioration of air quality does not occur.

Petitioners raised concerns over this issue with reasonable specificity, stating in their comments:

> [T]he Title V permit fails to require sufficient monitoring to ensure proper application and effectiveness of BACT for NOx emissions. Although BACT has been determined to be "a staged combustion system with a thermal-efficient in-line low-NOx calciner complimented by a low NOx burner with indirect firing in the rotary kiln" (Statement of Basis at 14), nothing in the Title V permit assures compliance with, proper implementation of, and maintenance of this BACT determination to ensure that NOx emission limits are not exceeded and/or that significant deterioration of air quality does not occur.

Petitioners' Comments on Title V Permit at 3. In response to these comments, the DENR stated:

> Compliance with the BACT limits for…nitrogen oxide…in the draft Title V permit are incorporated from the PSD permit and are based on continuous emission monitoring equipment. Continuous emission monitoring equipment provides the most accurate method of determining compliance.

Response to Comments at 3. Once again, the DENR misses the point entirely. Indeed, according to the Statement of Basis for the Title V permit, BACT for NOx emissions has been determined to be staged combustion system with a thermal-efficient in-line low-NOx calciner complimented by a low NOx burner with indirect firing. Nothing in the Statement of Basis indicates that BACT for NOx emissions has been determined to be continuous emission monitoring ("CEM") equipment. In fact, it would be difficult, if not impossible, to believe that CEMs could lead to effective control of NOx emissions as monitoring equipment, continuous or not, does not actually provide any level of actual emissions control. It is facetious at best for DENR to assert that CEMs will control NOx emissions and ensure BACT compliance and prevention of significant deterioration of air quality.

The failure of the Title V permit to ensure GCC Dacotah utilizes a staged combustion system with a thermal-efficient in-line low-NOx calciner complimented by a low NOx burner with indirect firing means the permit fails to ensure compliance with BACT requirements and BACT limits for NOx emissions at Condition 6.8. While CEMs may be utilized to assess compliance with NOx emission limits, they cannot ensure compliance. Without standards and limits that ensure the required controls will actually be utilized and monitoring to ensure proper and consistent use of the required controls, the Title V permit fails to ensure compliance with NOx BACT limits and fails to ensure prevention of significant deterioration of air quality.

D. BACT for CO

The Statement of Basis continues that "good combustion practices" has been determined to be BACT for CO emissions. The Statement continues, "Good combustion practices will be achieved by operating and maintaining the equipment according to the manufacturer's

specifications." Statement of Basis at 15. Unfortunately, no standards or limits in the Title V permit actually require operation and maintenance of equipment according to manufacturer's specifications, thereby failing to ensure compliance with BACT CO limits at Condition 6.8. As Petitioners stated in their comments, "[N]othing in the Title V permit actually requires operation and maintenance of equipment according to manufacturer's specifications, thereby failing to require sufficient monitoring to ensure compliance with BACT [CO] limits." Petitioners' Comments on Title V Permit at 3. Indeed, Condition 5.4, which presumably relates most directly to the operations and maintenance of the equipment subject to BACT, does not specifically require operation and maintenance in accordance with manufacturer's specifications. Condition 5.4 is also unenforceable as a practical matter, as explained already in this petition. Furthermore, even if the permit did require operation and maintenance of equipment according to the "manufacturer's specifications," manufacturer's specifications are not explicitly defined and/or set forth in the permit, rendering any such requirement unenforceable as a practical matter.

Additionally, no monitoring exist in the Title V permit to ensure that equipment subject to BACT limits for CO will be operated and maintained in accordance with manufacturer's specifications. Furthermore, even if the permit did contain monitoring to ensure operation and maintenance in accordance with manufacturer's specifications, manufacturer's specifications are not explicitly defined and/or set forth in the permit, rendering any such monitoring requirement unenforceable as a practical matter. Indeed, the EPA has dealt with similar instances where permits inappropriately defer to "manufacturer's recommendations" or specifications in relation to monitoring. In a 2003 order, the agency stated:

> EPA agrees that manufacturer's recommendations alone are not sufficient periodic monitoring to assure that the opacity monitors are properly operated and maintained.

In the Matter of the Lovett Generating Station, Petition II-2001-07 (February 19, 2003), at 26 (emphasis added). This 2003 order is clear that, in the absence of other operation and maintenance methods, especially those derived from federal regulation, manufacturer's recommendations do not constitute sufficient periodic monitoring. Similar to this case, the Title V permit at hand inappropriately defers only to vague manufacturer's recommendations to ensure compliance with BACT CO limits at Condition 6.8, thereby warranting objection from the Administrator.

II. The Permit Fails to Require Continuous Particulate Matter Monitoring or in the Alternative Fails to Require Sufficient Periodic Monitoring of Particulate Emissions

The Title V permit fails to require continuous monitoring of particulate matter emissions from Units 3, 4, 5, 9, 10, and 11 (kilns and clinker coolers), as required by federal regulations, thereby failing to ensure compliance with the applicable requirements. In the alternative, the Title V permit fails to require sufficient periodic monitoring of particulate emissions from the kilns and clinker coolers to ensure compliance with both the terms and conditions of the permit and the underlying applicable requirements. In either regard, the Administrator must object to the issuance of the Title V permit. Petitioners commented on this issue, or the issue of the adequacy of particulate matter emission monitors, with reasonable specificity on page 6 of their comments.

In relation to continuous particulate matter monitoring, the National Emission Standards for Hazardous Air Pollutant ("NESHAP") regulations related to Portland cement manufacturing, also known as Subpart LLL, are clear that continuous monitoring of particulate matter emissions is required. The regulations state:

> The owner or operator of an affected source subject to a particulate matter standard under § 63.1343 shall install, calibrate, maintain, and operate a particulate matter continuous emissions monitoring system (PM CEMS) to measure the particulate matter discharged to the atmosphere.

40 CFR § 1350(k). Although this section defers implementation requirements related to installation, calibration, maintenance, operation, or performance of the particulate matter CEMs "pending further rulemaking," when read together with the whole of the NESHAP regulations, it is clear that the regulations do not defer continuous particulate matter monitoring, but rather only defer the installation, calibration, maintenance, operation, or performance of a "particulate matter continuous emissions monitoring system."

Indeed, Subpart LLL of the NESHAP regulations require sources, like GCC Dacotah to limit particulate matter emissions from kilns to 0.15 kg/Mg of feed (dry basis) at all times (i.e., on a continuous basis). See, 40 CFR § 63.1342. Subpart LLL also require sources, like GCC Dacotah, to limit particulate emissions from clinker coolers to 0.050 kg/Mg of feed (dry basis) at all times. Id. Furthermore, the Title V permit for the cement plant clearly establishes particulate emission limits for the kilns and clinker coolers that are applied at all times. Condition 6.5 specifically states, for example, that particulate emissions are limited from Unit 3, or rotary kiln #4, to 0.3 pounds per ton feed. There is nothing in the Title V permit that indicates particulate limits at Condition 6.5 apply only on an hourly basis, a monthly basis, or even a yearly basis. All indications are that these limits apply at all times, thereby necessitation continuous monitoring to provide reliable data that is representative of the source's compliance with the applicable requirements. See, 40 CFR § 70.6(a)(3)(i)(B); and 40 CFR § 70.6(c)(1).

Despite the fact that particulate limits derived from the NESHAP regulations apply at all times, the Title V permit fails to require continuous monitoring of particulate matter emissions

from Units 3, 4, 5, 9, 10, and 11. To begin with, nothing in the Title V permit explains how particulate limits at Condition 6.5 are even to be monitored. While Condition 6.4 explicitly requires the use of 40 CFR Part 51, Appendix M, Method 201, to measure compliance with the particulates limits set forth in the Condition (see, Table 4, Footnote 1, Title V permit at 24; Table 5, Footnote 1, Title V permit at 25), there is no explanation as to what monitoring methods are to be utilized to ensure compliance with the NESHAP-derived particulate limits set forth in Condition 6.5. On its face, the Title V permit fails to require sufficient periodic monitoring to ensure compliance with the applicable requirements at Subpart LLL, in violation of 40 CFR § 70.6(a)(3)(i)(B) and 40 CFR § 70.6(c)(1).

Finally, although the Title V permit requires GCC Dacotah to conduct a performance test on Units 3, 4, 5, 9, 10, and 11 at Condition 7.7, this Condition also fails to meet sufficient periodic monitoring requirements to ensure compliance with particulate limits at Condition 6.5. For one thing, performance testing once every five years does not constitute continuous monitoring of particulate emissions, which is required by Subpart LLL. Testing once every five years also fails to constitute sufficient periodic monitoring. Condition 7.7 only provides data representative of the source's compliance with particulate standards once every five years. It is impossible to see how monitoring once every five years provides sufficient periodic monitoring data, especially since particulate limits set at Condition 6.5 and derived from Subpart LLL of the NESHAP regulations apply at all times and require continuous monitoring.

Conducting a performance test only once every five years also fails to ensure that particulate emissions resulting from emergency conditions, startups, shutdowns, and malfunctions are accounted for. Indeed, Condition 6.12 of the Title V permit explicitly allows GCC Dacotah to exceed emission limits in the event of an emergency condition. Condition 6.3

also allows opacity limits to be exceeded during startups, shutdowns, and malfunctions. As opacity is closely related to particulate emissions, this strongly indicates that exceedances of particulate matter limits are likely to occur in the event that opacity is exceeded during startups, shutdowns, and malfunctions.[10] Testing once every five years fails to ensure that particulate emissions limits set forth at Condition 6.5, which according to Subpart LLL and the Title V permit apply at all times, are met during emergency conditions, startups, shutdowns, and malfunctions. Performance testing required by Condition 7.7 therefore fails to provide reliable data representative of the source's compliance with the particulate limits requires by Condition 6.5.

III. The Permit Fails to Require Prompt Reporting of Permit Deviations

The Title V permit fails to require prompt reporting of permit deviations, in violation of 40 CFR § 70.6(a)(3)(iii)(B). The Administrator must therefore object to the issuance of the Title V permit.

A. The Permit Only Requires Reporting of Violations and Even Fails to Require Prompt Reporting of Violations

To begin with, the Title V permit requires GCC Dacotah to report only permit violations, not deviations. See, Condition 5.11. Thus, on its face, the permit fails to ensure compliance with 40 CFR § 70.6(a)(3)(iii)(B). Deviations are not necessarily Title V permit violations and thus, would not be reported under Condition 5.11.

Petitioners raised concerns over this issue with reasonable specificity in their comments on pages 5-6. In response to Petitioners' concerns, DENR asserted that other permit conditions, namely Conditions 5.8 and 5.9 fulfill the requirements of 40 CFR § 70.6(a)(3)(iii)(B). However, to the extent the Title V permit may require reporting of permit deviations through other

[10] The website http://www.epa.gov/region5/air/naaqs/opacity.htm explains the relationship between opacity and particulate matter emissions.

reporting conditions, such as quarterly or semiannual reporting Conditions at 5.8 and 5.9, these conditions unfortunately fail to require sufficient reporting of permit deviations. Indeed, Conditions 5.8 and 5.9 fail to require prompt reporting of all permit deviations, as Petitioners' noted in their comments on page 6. For instance, Condition 5.8 only requires reporting of "Any period in which the sulfur dioxide, nitrogen oxide, or carbon monoxide emission limits for the kiln #6 system in permit condition 6.7 are exceeded based on the compliance period." Title V permit at 18. As is clear, this condition only applies to the kiln #6 system and only to the sulfur dioxide, nitrogen oxide, and carbon monoxide limits set at Condition 6.8 (not 6.7 as Condition 5.8 states), not to all emission units and all emission standards and/or limits. Similarly, Condition 5.9 only requires reporting of exceedances of maximum control device inlet gas temperature limits, failures to calibrate temperature monitors, failures to comply with the operations and maintenance plan, opacity exceedances, and opacity monitor downtime. It does not, for example, require reporting of deviations of particulate standards and limits, dioxin and furan standards and limits, etc. Again, Condition 5.9 does not require reporting of all permit deviations and cannot be relied upon to fulfill the requirements of 40 CFR § 70.6(a)(3)(iii)(B).

Additionally, Conditions 5.8 and 5.9 do not constitute "prompt" reporting. 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). More specifically, 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 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). Clearly, reporting only quarterly—or once every three months—and/or semiannually—or once every six months—does not constitute prompt reporting.

Compounding the problem is that DENR seems wholly confused as to what 40 CFR § 70.6(a)(3)(iii)(B) actually requires in relation to prompt reporting. In response to Petitioners' concerns that the Title V permit fails to require prompt reporting of opacity violations resulting from startup, shutdown, and malfunction, the DENR stated, "GCC Dacotah's draft Title V permit requires deviations to be reported in a timely manner (i.e. prompt)." Response to Comments at 7. This response indicates that DENR believes "prompt" means "timely," an interpretation that is without basis and contrary to law. Indeed, "timely" simply means to be on time. Prompt, on the other hand, means "without delay." See, H.R. Rep. No. 101-490, pt. 1, at 348 (1990). Thus, DENR's characterization of the required reporting as "timely" and thus "prompt" is not sufficient to demonstrate that the Title V permit requires prompt reporting of permit deviations.

B. Opacity Deviations During Startup, Shutdown, and Malfunction

Condition 6.3 of the Title V permit exempts compliance with opacity limits "during start-up, shutdown, or malfunctions." Title V permit at 23. Unfortunately, the Title V permit fails to require prompt reporting of opacity deviations in the event of startups, shutdowns, and malfunctions. Petitioners raised concerns over this issue with reasonable specificity on pages 5-6 of their comments on the Title V Permit.

As already discussed, the Title V permit first of all only requires prompt reporting of permit "violations." See, Condition 5.11. According to Condition 6.3, opacity exceedances during startups, shutdowns, and malfunctions are not violations and thus, would not be required to be reported under Condition 5.11 despite the fact that they are deviations from opacity limits. Second, although DENR seems to believe that Conditions 5.8 and 5.9 require prompt reporting of opacity deviations resulting from startups, shutdowns, and malfunctions, this is not the case. To begin with, Condition 5.8, which requires quarterly reporting of excess emissions from kiln #6 and "any period in which the continuous emission monitoring system was inoperable," the Condition does not require any reporting of opacity deviations. And finally, while Condition 5.9 requires reporting of the magnitude of opacity for all six minute block averages where the average opacity was greater than or equal to opacity limits in Condition 6.1, as already discussed, Condition 5.9 does not require "prompt" reporting. Condition 5.9 only requires reporting every six months. This hardly suffices to meet the "prompt" reporting standard of 40 CFR § 70.6(a)(3)(iii)(B) in relation to opacity exceedances resulting from startups, shutdowns, and malfunctions.

IV. Problems with Other Permit Conditions Warranting Objection by the Administrator

A. Condition 6.1

Petitioners raised with reasonable specificity concerns over the adequacy of Condition 6.1 in their comments on page 5. Condition 6.1 states that, "This provision does not apply when the presence of uncombined water is the only reason for failure to meet the requirement." Title V Permit at 23. Unfortunately, this statement renders Section 6.1 unenforceable as a practical matter. Indeed, no monitoring requirements within the Title V Permit actually require monitoring the presence of uncombined water and/or its effects on opacity to ensure that this

exemption (hereafter "uncombined water exemption") is properly utilized and not abused by GCC Dacotah. The Title V permit therefore fails to require sufficient periodic monitoring to ensure compliance with the limits and conditions of the permit, as well as the applicable opacity requirements, in violation of 40 CFR § 70.6(a)(3)(i)(B) and 40 CFR § 70.6(c)(1). As written, GCC Dacotah could claim that uncombined water is the cause for opacity violations and since no monitoring requirements exist in the Title V permit to verify this claim and/or ensure compliance with the exemption, it would be impossible to refute this claim and enforce opacity standards. The Administrator must object to the Title V permit because Condition 6.1 is unenforceable as a practical matter as no monitoring requirements exist to ensure compliance with the uncombined water exemption.

B. Condition 6.4

Petitioners raised concerns with reasonable specificity over the adequacy of Condition 6.4 in their comments on page 6. Particulate limits set forth at Condition 6.4 are unenforceable as a practical matter and/or the Title V permit fails to ensure compliance with particulate limits at Condition 6.4. Condition 6.4 requires GCC Dacotah to utilize 40 CFR Part 51, Appendix M, Method 201 (hereafter "Method 201") to ensure compliance with particulate limits. Unfortunately, it is unclear how Method 201 assures compliance with particulate limits.

For one thing, nothing in the Title V permit explains how often Method 201 is to be utilized to measure particulate emissions. The failure to prescribe any frequency of monitoring using Method 201 means the Title V permit fails to require sufficient periodic monitoring, in violation of 40 CFR § 70.6(a)(3)(i)(B) and 40 CFR § 70.6(c)(1).

Second, the use of Method 201 is wholly inadequate. While the particulate limits, which apply at all times, necessitate continuous monitoring of particulate emissions, Method 201 only

provides data that may be representative of the source's compliance only at the time of the Method 201 test. It does not provide data that accurately reflects the mass of particulate matter truly discharged into the atmosphere per ton of feed. To that end, the use of Method 201 fails to ensure that particulate emissions resulting from emergency conditions, startups, shutdowns, and malfunctions are accounted for. Indeed, Condition 6.12 of the Title V permit explicitly (and admittedly inappropriately) allows GCC Dacotah to exceed emission limits in the event of an emergency condition. Condition 6.3 also allows opacity limits to be exceeded during startups, shutdowns, and malfunctions. As opacity is closely related to particulate emissions, this strongly indicates that exceedances of particulate matter limits are likely to occur in the event that opacity is exceeded during startups, shutdowns, and malfunctions.[11] The reliance upon only Method 201 to demonstrate compliance with particulate limits fails to ensure that particulate emissions limits set forth at Condition 6.4, which according to the Title V permit apply at all times, are met during emergency conditions, startups, shutdowns, and malfunctions. The use of only Method 201 fails to provide reliable data representative of the source's compliance with the particulate limits requires by Condition 6.5.

Finally, there are no requirements in the Title V permit that explain how the testing equipment required to be used under Method 201 is to be operated and maintained. This is problematic as Method 201 requires the use of specialized equipment that, without proper operation and maintenance, may not yield accurate results. For example, Method 201 requires the use of an in-stack cyclone. See, Method 201 Parts 1.2, 2.1.2. However, nothing in Method 201 explains how the in-stack cyclone is to be maintained to ensure proper operation. Thus, because the Title V permit fails to ensure proper operation and maintenance of testing

[11] The website http://www.epa.gov/region5/air/naaqs/opacity.htm explains the relationship between opacity and particulate matter emissions.

equipment, Method 201 cannot be relied upon to provide reliable data representative of the source's compliance with particulate limits at Condition 6.4, in violation of 40 CFR § 70.6(a)(3)(i)(B) and 40 CFR § 70.6(c)(1). The failure of the Title V permit to explain how testing equipment is to be operated and maintained also renders Condition 6.4 unenforceable as a practical matter.

C. Condition 6.8

Petitioners raised concerns with reasonable specificity over the adequacy of Condition 6.8 in their comments on page 7. Condition 6.8 fails to require sufficient periodic monitoring to ensure compliance with short-term BACT SO_2 and CO limits for the kiln #6 system, in violation of 40 CFR § 70.6(a)(3)(i)(B) and 40 CFR § 70.6(c)(1). The Administrator must therefore object to the issuance of the Title V permit for the failure of the Title V permit to ensure compliance with the applicable requirements and the limits and conditions of the permit.

Indeed, footnote 4 of Section 6.8 states that, "Compliance with the short term sulfur dioxide emission limit shall be based on a 24 hour block average." Title V Permit at 26. This Condition is problematic in that the permit establishes <u>hourly SO_2 limits</u>. If compliance with hourly limits is based on an average of 24 hours, and a block average at that, then the kiln #6 system is permitted, as a practical matter, to exceed hourly limits, so long as the 24 hour average is not exceeded. This seems contradictory, but at least fails to ensure compliance with applicable BACT emission limitations. Compliance with hourly SO_2 limits must be based on hourly readings from the continuous emission monitors. In fact, this seems consistent with Section 8.8 of the Title V Permit, which requires that "the continuous emission monitoring system shall monitor the sulfur dioxide…emission rates in pounds per hour." Title V Permit at 36.

Similarly, footnote 5 of Section 6.8 also fails to ensure compliance with the applicable short-term CO limits. Footnote 5 states that, "Compliance with the carbon monoxide short term emission limit shall be based on an 8 hour block average." Title V Permit at 26. Again, if compliance with hourly limits is based on an 8 hour average, then, as a practical matter, the operator could exceed hourly limits. This is contradictory and fails to ensure compliance with applicable emission limitations, namely the requirement that no more than 3,250 pounds per hour of CO be released from the cement plant.

D. Condition 6.12

Petitioners raised concerns with reasonable specificity over the adequacy of Condition 6.12 in their comments on page 8. Condition 6.12 is flawed because it implies an affirmative defense to GCC Dacotah with respect to injunctive relief. An affirmative defense to excess emissions may be permitted only with respect to civil penalties, not to injunctive relief, and only when no single source or small group of sources has the potential to cause exceedance of National Ambient Air Quality Standards ("NAAQS") or PSD requirements and when there is no violation of federally promulgated performance standard or emission limitation. Indeed, if an affirmative defense was provided with respect to injunctive relief, GCC Dacotah would be allowed to exceed the NAAQS and/or violate PSD requirements with respect to its cement plant, in clear contravention to the CAA.

EPA has also stated on numerous occasions that all excess emissions are considered violations of the CAA. For example, in 1978 EPA adopted a policy which considers all periods of excess emissions to be violations of the CAA. In subsequent EPA policy statements, CAA interpretations, guidance documents, and administrative rules and orders, EPA has consistently and clearly reaffirmed that position. See, Mich. Dep't of Envtl. Quality v. Browner, 230 F.3d

181, 183 (6th Cir. 2000) (citing, 42 Fed Reg 21472 (Apr. 27, 1977)); see also, Memorandum from Eric Shaeffer, Dir., Office of Regulatory Enforcement, and John S. Seitz, Dir., Office of Air Quality Planning and Standards, to Reg'l Adm'rs, Regions I-X (Dec. 5, 2001); Memorandum from Steven A. Herman, Assistant Adm'r for Enforcement and Compliance Assurance, to Reg'l Adm'rs, Regions I-X (Sept. 20, 1999); Memorandum from Kathleen M. Bennett, Assistant Adm'r for Air Noise, and Radiation, to Reg'l Adm'rs, Regions I-X (Sept. 29, 1982). EPA has also stated that automatic exemptions will not be allowed. Memorandum from Kathleen M. Bennett, Assistant Adm'r for Air Noise, and Radiation, to Reg'l Adm'rs, Regions I-X, 1 (Sept. 28, 1982). EPA has specifically stated that it "has a fundamental responsibility under the Clean Air Act to ensure that SIPs provide for attainment and maintenance of the national ambient air quality standards (NAAQS) and protection of prevention of significant deterioration (PSD) increments. Thus, an affirmative defense provision that would undermine the fundamental requirement of attainment and maintenance of the NAAQS, or any other requirement of the Clean Air Act," is illegal. Memorandum from Steven A. Herman, Assistant Adm'r for Enforcement and Compliance Assurance, to Reg'l Adm'rs, Regions I-X, 3 (Sept. 20, 1999) (citing, 42 USC § 7410(a) and (1)).

Petitioners do not object to the inclusion of an affirmative defense with respect to emergency conditions in the Title V permit. Indeed, the South Dakota SIP explicitly provides for such an affirmative defense. However, neither the South Dakota SIP at 74:35:05:16:01(18) nor 40 CFR § 70.6(g) explicitly state when the emergency condition exemption is applicable as an affirmative defense. Thus, the applicable requirements related to Title V operating permits demand that Condition 6.12 in the Title V permit explicitly state that the emergency conditions affirmative defense applies only with respect to civil penalties and not with injunctive relief.

Because the Title V permit fails to explain that Condition 6.12 applies only as an affirmative defense with respect to civil penalties and not injunctive relief, the Administrator must object to the issuance of the Title V permit for GCC Dacotah's cement plant.

E. Conditions 8.4 and 8.5

Petitioners raised concerns with reasonable specificity over the adequacy of Conditions 8.4 and 8.5 in their comments on pages 9-10. Conditions 8.4 and 8.5 provide an inappropriately broad exception for the maintenance of CEMs and continuous opacity monitors ("COMs"), which render the Condition unenforceable as a practical matter. The Conditions state, "Monitor downtime is allowed for system breakdowns, repairs, calibration checks, cylinder gas audits and span adjustments, and at other time periods at the discretion of the Secretary." Title V Permit at 35 and .[12] To begin with, "system breakdowns," "repairs," "calibration checks," "cylinder gas audits," and "span adjustments" are not defined anywhere in the Title V permit, nor are definitions explicitly referenced. The word "system breakdown" in particular appears to be exceptionally vague and unspecific with regards to the maintenance of CEMs and COMs and it is unclear under what circumstances, system breakdowns occur and legitimately allow monitor downtime according to Conditions 8.4 and 8.5. Without specific definitions of these terms and/or an explanation of when these circumstances actually apply with regards to the CEMs and COMs, these Conditions provide the operator an almost unlimited exception to proper maintenance of monitors.

In response to Petitioners' comments, DENR asserted:

> The main purpose of a definition in an air quality permit is to achieve clarity without needless repetition. Words and phrases that are not defined are to be understood in their

[12] Although the final Title V permit may contain language at Condition 8.4 and 8.5 that varies somewhat from the proposed permit, Petitioners' concerns with regards to 8.4 and 8.5 remain salient.

> ordinary sense. For this reason, DENR did not define "system breakdowns," "repairs," "calibration checks," "cylinder gas audit," "span adjustments."

Response to Comments at 12. Contrary to DENR's cavalier assertion, the words "system breakdown," "repair," "calibration check," "cylinder gas audit," and "span adjustment" are not understood in their ordinary sense because they are not ordinary and/or general activities. Rather, they are specifically defined activities that, when applied specifically to GCC Dacotah's cement plant, have explicit meanings that are in no way "ordinary."

It cannot be denied that "system breakdown" is incredibly vague and does not give the reader of the Title V permit, whether it be the EPA, the DENR, and/or the public, any idea of what it means. It is unclear whether monitor downtime is allowed during "system breakdowns" that result from poor maintenance and/or irresponsible operation of the CEMs. Additionally, it is unclear to what situations "repairs" apply to. As written, monitor downtime could be allowed when "repairs" are conducted to fix irresponsible mistakes and/or improper maintenance of the CEMs. It is difficult to believe that DENR intends to allow monitor downtime in the event of improper operation maintenance of the CEMs and COMs, but that is exactly what could result if the "ordinary" meaning of "system breakdowns" and "repairs" are applied. Similarly, we are left guessing as to what "calibration check," "cylinder gas audit," and "span adjustment" actually constitute and/or what characterizes these activities in order to ensure monitor downtime only occurs during permitted situations. Contrary to the DENR, more explicit explanations are needed to ensure that monitor downtime for the CEMs and COMs is allowed only when permitted, to ensure the practical enforceability of Conditions 8.4 and 8.5, and to ensure compliance with SO_2, NOx, CO, and opacity limits. The Administrator must therefore object to the issuance of the Title V permit.

CONCLUSION

For the reasons aforementioned, Petitioners request the Administrator object to the Title V operating permit proposed for issuance by DENR for GCC Dacotah's cement plant. As thoroughly explained, the proposed permit fails to comply with the requirements of the CAA, as well as other applicable requirements. The Administrator thus has a nondiscretionary duty to issue an objection to the proposed permit within 60 days in accordance with Section 505(b)(2) of the CAA.

Dated this _____ day of January, 2006.

Respectfully Submitted,

_____

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EXHIBITS TO PETITION

1. Proposed Title V Operating Permit for GCC Dacotah's Portland cement manufacturing plant, Issued October 23, 2005
2. Statement of Basis for Title V Operating Permit for GCC Dacotah's Portland Cement Manufacturing Plant
3. September 21, 2005 Comments on Draft Title V Operating Permit for GCC Dacotah's Portland Cement Manufacturing Plant
4. December 16, 2005 EPA Region VIII Comments on GCC Dacotah Proposed Title V Operating Permit
5. October 23, 2005 South Dakota Department of Environment and Natural Resources Response to Comments