

BEFORE THE ADMINISTRATOR
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

IN THE MATTER OF)	
GCC Dacotah Cement Manufacturing Plant)	
Rapid City, South Dakota)	
)	ORDER RESPONDING TO
)	PETITIONERS' REQUEST THAT
Permit Number: 28.1121-02)	THE ADMINISTRATOR OBJECT
)	TO ISSUANCE OF A
)	STATE OPERATING PERMIT
Issued by the South Dakota Department of)	
Environment & Natural Resource,)	
Air Quality Program)	
)	Petition Number: VIII-2006-03
)	

ORDER PARTIALLY GRANTING AND PARTIALLY DENYING
PETITION FOR OBJECTION TO PERMIT

The United States Environmental Protection Agency ("EPA") received a petition on January 18, 2006, from 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, and Jeremy Nichols (hereafter "Petitioners"). Petitioners request that EPA object, pursuant to section 505(b)(2) of the Clean Air Act ("CAA" or "the Act"), 42 U.S.C. § 7661d(b)(2), to the issuance of a state operating permit to the GCC Dacotah Cement Manufacturing Plant ("GCC Dacotah") for operation of a Portland cement manufacturing facility located at 501 N. St. Onge Street, Rapid City, South Dakota. The primary function of the GCC Dacotah facility is to manufacture Portland cement. The facility operates two wet process kilns and one dry process kiln with a total clinker production capacity of one million tons per year. The various plant operations include: quarrying, crushing, raw material transfer and storage, calcining in rotary kilns, clinker transfer and storage, finish mills, cement transfer and storage and product shipping by rail or truck. The renewed permit was issued by the South Dakota Department of Environment & Natural Resources ("DENR"), Air Quality Program on December 19, 2005, pursuant to Title V of the Act, the federal implementing regulations at 40 C.F.R. Part 70, and chapter 34A-1-21 of the South Dakota Codified Laws and the Air Pollution Control Regulations of the State of South Dakota.

The petition alleges that the October 23, 2005 GCC Dacotah proposed Title V permit for renewal fails to: (I) ensure compliance with Best Available Control Technology ("BACT") requirements for Sulfur Dioxide (SO₂), Particulate Matter (PM),

Oxides of Nitrogen (NO_x) and Carbon Monoxide (CO); (II) require continuous Particulate Matter ("PM") monitoring or in the alternative, to require sufficient periodic monitoring of PM emissions; and (III) require prompt deviation reporting of permit deviations and violations. Petitioners have also alleged that several other permit conditions warrant objection. Petitioners have requested that EPA object to the issuance of the GCC Dacotah permit due to the foregoing reasons and pursuant to the requirements of section 505(b)(2) of the Act, 40 CFR § 70.8(d) and the applicable federal and state regulations.

EPA has reviewed these allegations in accordance with the standard set forth by Section 505(b)(2) of the Act, which places the burden on the Petitioner to "demonstrate to the EPA Administrator that the permit is not in compliance" with the applicable requirements of the Act or the requirements of Part 70. See also 40 C.F.R. § 70.8(c)(1); *New York Public Interest Research Group, Inc. v. Whitman*, 321 F.3d 316, 333 n.11 (2nd Cir. 2002).

In reviewing the merits of the various allegations made in the petition, EPA considered information in the permit record including: the petition; pertinent sections of the permit application; Mr. Nichols' September 21, 2005 comments to the State of South Dakota, Department of Environment and Natural Resources (DENR) in response to DENR's solicitation for public comment; EPA Region 8's December 16, 2005 letter to the State of South Dakota on the review of the proposed Title V operating permit for GCC Dacotah; and DENR's November 2, 2005 response to the comments submitted by Mr. Nichols on September 21, 2005; Final Operating Permit (Permit #28.1121-02) for GCC Dacotah issued by DENR (December 19, 2005); Statement of Basis Document for Renewal of the Operating Permit and the proposed Title V permit issued on October 23, 2005 and the Prevention of Significant Deterioration (PSD) Permit issued by DENR effective April 10, 2003. Based on the review of all the information before me, I deny in part and grant in part the Petitioners' request for objection to the issuance of a renewed Title V operating permit to GCC Dacotah to operate a Portland cement manufacturing plant in Rapid City, South Dakota for the reasons set forth in this Order.

STATUTORY AND REGULATORY FRAMEWORK

Section 502(d)(1) of the Act calls upon each State to develop and submit to EPA an operating permit program to meet the requirements of Title V. EPA granted final interim approval to the Title V operating permit program submitted by the State of South Dakota effective April 21, 1995. 60 Fed. Reg. 15066 (March 22, 1995). EPA also granted final full approval to South Dakota's Title V operating permit program effective February 28, 1996. 61 Fed. Reg. 2720 (January 29, 1996). See also 40 C.F.R. Part 70, Appendix A. Major stationary sources of air pollution and other sources covered by Title V are required to apply for an operating permit that includes emission limitations and such other conditions as are necessary to assure compliance with applicable requirements of the Act. See CAA §§ 502(a) and 504(a).

The Title V operating permit program does not generally impose new substantive air quality control requirements (which are referred to as “applicable requirements”) but does require permits to contain monitoring, record keeping, reporting, and other conditions to assure compliance by sources with existing applicable emission control requirements. *See* 57 Fed. Reg. at 32250, 32251 (July 21, 1992). One purpose of the Title V program is to enable the source, EPA, states, and the public to better understand the applicable requirements to which the source is subject and to readily discern whether the source is meeting those requirements. Thus, the Title V operating permits program is a vehicle for ensuring that existing air quality control requirements are appropriately applied to facility emission units and that compliance with these requirements is assured.

Under section 505(a) of the Act and 40 C.F.R. § 70.8(a), States are required to submit all proposed Title V operating permits to EPA for review. Section 505(b)(1) of the Act authorizes EPA to object if a Title V permit contains provisions that are not in compliance with applicable requirements, including the requirements of the applicable SIP. *See also* 40 C.F.R. § 70.8(c)(1).

Section 505(b)(2) of the Act states that if the EPA does not object to a permit, any member of the public may petition the EPA to take such action, and the petition shall be based on issues that were raised with *reasonable specificity* during the public comment period, unless the petitioner demonstrates that it was impracticable to do so or unless the grounds for objection arose after the close of the comment period. *See also* 40 CFR § 70.8(d). If EPA objects to a permit in response to a petition and the permit has been issued, EPA or the permitting authority will modify, terminate, or revoke and reissue such a permit.

In a letter dated September 21, 2005, Petitioners submitted comments to the DENR during the public comment period, raising concerns with the draft operating permit that provide a partial basis for this petition. DENR responded to the comments in a letter to the Petitioners dated October 23, 2005. As discussed below, the Petitioners failed to raise certain issues with the requisite “reasonable specificity” to allow the Agency to respond to their concerns, as required under the Act or did not raise them at all. These issues will, therefore, be denied in this Order.¹

¹ The Petitioners requested that to the extent their comments were not raised with reasonable specificity, the Agency consider their petition as a petition to reopen the GCC Dacotah permit in accordance with 40 C.F.R. § 70.7(f). This Order does not address Petitioners’ request to reopen.

ISSUES RAISED BY PETITIONERS

(I) The Permit Fails to Ensure Compliance with Best Available Control Technology ("BACT") Requirements.

Petitioners allege that the Title V permit fails to ensure compliance with BACT requirements.

I (A) BACT for SO₂

Petitioners allege that the "the Title V permit fails to ensure low sulfur coal is, in fact, utilized to ensure compliance with the practical enforceability of BACT limits for SO₂ set forth at Condition 6.8." Petitioners allege that, although the Statement of Basis for the Title V permit indicates that BACT includes the use of low sulfur coal, the permit does not actually require the use of low sulfur coal nor does it require chemical sampling of coal or other testing and/or other forms of monitoring to ensure the use of low sulfur coal to ensure compliance with BACT limits. Petitioners further allege that BACT is not achieved solely through establishment of a blanket emission limit, but through the application of production processes or other available methods, systems, and techniques. Finally, the Petitioners state that "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."

In reviewing the regulation cited by Petitioners [40 CFR § 51.166(b) (12)], EPA does not agree with the Petitioners' argument based on the definition of BACT. The full definition goes further than the excerpt quoted by the Petitioners and states as follows:

"Best available control technology means an emissions limitation (including a visible emissions standard) based on the maximum degree of reduction for each a regulated NSR pollutant which would be emitted from any proposed major stationary source or major modification which the reviewing authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other cost, determines is achievable for such source or modification through application of production processes or available methods, systems, and techniques, including fuel cleaning or treatment or innovative fuel combination techniques for control of such pollutant...."

As stated in the definition above, BACT is an *emission limit* that could be achieved through a variety of ways specified in the definition. BACT for this facility is not a requirement to use low sulfur coal, but rather a requirement to limit SO₂ emissions to a specified limit. The permitting authority considered the use of low sulfur coal in setting that emission limit. The Petitioners' argument that "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" misinterprets the regulation and the nature of the BACT limit. EPA agrees that the BACT limit needs to be practically

enforceable; however, that is generally accomplished by ensuring there are adequate monitoring requirements for the emission units.

In this particular case, the reviewing authority has determined the BACT emission limit after considering a host of factors including, but not limited to, the use of low sulfur coal. The reviewing authority established BACT for SO₂ by considering the absorption of SO₂ by lime in the cement kiln. Because of the inherent consumption of the SO₂ in the cement kiln, the monitoring of SO₂ emissions by the amount of sulfur content in the coal combusted would not accurately reflect the amount of SO₂ emitted. Thus, the reviewing authority mandated the use of Continuous Emissions Monitoring System (CEMS) to monitor the amount of SO₂ emitted instead of monitoring the sulfur content in the coal combusted. For the reasons discussed above, I agree that CEMS is adequate in this case to demonstrate compliance with the limit established in the permit. I, therefore, deny the Petitioners' objection with respect to this issue.

I (B) **BACT for Particulate Matter**

Petitioners allege that despite the fact that the Title V permit specifies baghouses and electrostatic precipitators (ESP) as control equipment for control of particulate matter (PM), nothing in the Title V permit requires that these controls be operated and maintained in any specific way to ensure they control PM emissions within acceptable limits as required by the permit condition. Petitioners also raised several issues alleging inadequacy of Conditions 5.4, 5.5 and 5.6 in ensuring compliance with BACT PM limits.

Conditions 5.4, 5.5 and 5.6 Fail to Assure Compliance with Requirements of Subpart LLL with regard to Operations and Maintenance and Startup, Shutdown, Malfunction Plans

Petitioners allege that permit Conditions 5.4, 5.5 and 5.6 fail to ensure proper operation and maintenance of the baghouses and electrostatic precipitators and imply that as a result BACT for PM is not achieved. Petitioners allege: 1) that it is unclear whether an operations and maintenance plan and a startup, shutdown, and malfunction plan has even been developed; 2) that even if such plans have been developed, that the permit still fails to ensure compliance with underlying applicable requirements (namely 40 C.F.R. § 1350(a) and 40 C.F.R. § 63.3(e)); 3) the permit lacks monitoring to assure compliance with the requirements of the plans; and 4) the terms of the permit are vague and unenforceable.

The facility has developed an operations and maintenance plan for the baghouse and electrostatic precipitator, and a startup, shutdown, malfunction plan. In a letter from the State of South Dakota to the EPA Administrator dated March 7, 2006, DENR states GCC Dacotah submitted an operations and maintenance plan to South Dakota on June 3, 2002. The operations and maintenance plan is available to the public by contacting DENR.²

² South Dakota Department of Environment and Natural Resources, Air Quality Program, 523 East Capitol, Joe Foss Building, Pierre, South Dakota, 57501.

In the same March 7, 2006 letter to the EPA Administrator, DENR also stated that GCC Dacotah had informed DENR that a startup, shutdown, and malfunction plan had been developed in accordance with the MACT standard. DENR stated it had confirmed the existence of a startup, shutdown, and malfunction plan during a State inspection conducted on March 18, 2004. The applicable requirement does not require the source to submit the startup, shutdown, and malfunction plan to the permitting authority for approval.

As to the Petitioners' allegation that the Title V permit fails to assure compliance with the underlying requirements of 40 CFR §§63.1350 and 63.6, I disagree. Permit Condition 5.4 states "[i]n accordance with ARSD 74:36:08:21 as referenced to 40 CFR §§ 63.1350(a) and 63.1350(b), the owner or operator shall maintain and implement the operations and maintenance plan." When the permit is read in its entirety, the applicable requirements of 40 CFR § 63.1350 are met, and therefore; the permit does not need revising. See, Conditions 1.1, 5.4 and 8.0.

With respect to Conditions 5.5 and 5.6, I agree in part. In Condition 5.5, Petitioners allege that 40 CFR § 63.6(e)(3)(A)-(C) and 40 CFR § 63.6(e)(1) are not fully incorporated into the permit. See, Petition at 18. Again, the Condition cites ARSD 74:36:08:03 as referenced to 40 CFR § 63.6(e)(3) as the basis for this condition; however, only a portion of the requirements set forth at 40 CFR § 63.6(e)(3) are outlined in the permit. The permit does not include all the provisions of 40 CFR § 63.6(e)(1) for dealing with startup, shutdown, and malfunction and for correcting malfunctions as soon as practical.

Petitioners allege that Condition 5.6 fails to ensure proper maintenance of the baghouses and electrostatic precipitators and that permit fails to contain any monitoring requirements that ensure the operations and maintenance plan is maintained and implemented. Permit Condition 5.6 – "Monitoring Log", established in accordance with ARSD 74:36:05:16.01(9), requires the source to maintain a log of the maintenance schedule for the air pollution control equipment specified for various Units. Condition 5.6 contains monitoring, in the form of recordkeeping, for the operations and maintenance plan and the startup, shutdown, malfunction plan. However, since Condition 5.6 cites ARSD 74:36:05:16.01(9)³ as the basis for this Condition, EPA notes

³ ARSD 74:36:05:16.01(9) states as follows:

Monitoring and related record keeping and reporting requirements, consisting of *at least* (emphasis added) the following:

- (a) All emissions monitoring and analysis procedures, alternatives approved methods or tests methods required under the applicable requirements, including procedures and methods in § 504(b) or 114(a)(3) of the Clean Air Act;
- (b) If the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring, periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit. Such monitoring requirements must assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with applicable requirement;
- (c) As necessary, documentation of the use, maintenance, and if appropriate, installation of monitoring equipment or methods;

that Condition 5.6 does not fully include all the provisions of the rule and is therefore less stringent than the cited applicable requirement. For example, the "documentation" requirements as stated in ARSD 74:36:05:16.01(9)(d) are not included in the permit. These are SIP requirements and therefore I am directing DENR to include section (d) and all pertinent requirements of the state's monitoring rule ARSD 74:36:05:16.01(9) into the permit (See footnote 4). Once this language is included in the permit, the monitoring provisions will be adequate.

In order to correct the permit deficiencies discussed above, I direct the State to revise Conditions 5.5 and 5.6 to include all applicable requirements of the State rules and Federal regulations or more clearly identify where in the permit these applicable requirements are contained.

With respect to the remaining objections by Petitioners for vagueness, lack of practical enforceability and the inadequacy of Permit Conditions 5.4, 5.5 and 5.6 to ensure compliance with PM limits, I disagree. Petitioners state that "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 how DENR could possibly conclude that Condition 5.4 ensures adequate operation and maintenance of the baghouses and electrostatic precipitators." Petition at 16. As discussed above, the permit requires an Operation and Maintenance plan and that plan will help assure adequate operations and maintenance of these control devices. Petitioners claim that because "proper" is vague and undefined, this Condition is unenforceable as a practical matter when it requires that the operations and maintenance plan include requirements for "proper operation" of the facility, and thus fails to ensure compliance with the BACT limit for PM. EPA disagrees that the use of "proper" in this condition is so vague as to render Condition 5.4 unenforceable as a practical matter. Furthermore, Condition 5.4 states that failure to comply with the provisions of the operations and maintenance plan shall be considered a

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- (d) Documentation of the following:**
- (i) The date, place as defined in the permit, and time of sampling or measurement;**
 - (ii) The dates or dates analyses were performed;**
 - (iii) The company or entity that performed the analyses;**
 - (iv) The analytical techniques or methods used;**
 - (v) The results of such analyses; and**
 - (vi) The operating conditions as existing at the time of sampling or measurement;**
- (e) Record keeping and reporting requirements that comply with the following:**
- (i) Submission of reports of any required monitoring must occur at least every six months. Reports must clearly identify all deviations from permit requirements and conditions. All required reports must be certified by a responsible official; and**
 - (ii) Deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations and any corrective actions or preventive measures taken must be promptly reported and certified by a responsible official; and**
- (f) Requirements for retention of monitoring records and all supporting documentation for at least five years from the date of the monitoring sample, measurement, report, or application (emphasis added).**

violation. Permit at 17. EPA considers these permit conditions to sufficiently account for proper operation and maintenance of the baghouses and electrostatic precipitators, and does not believe that further specificity is required. See also, Conditions 1.1 -1.14. Based on the foregoing discussion, I grant in part and deny in part, Petitioners' request to object to the permit on this issue

I (C) **BACT for NOx**

Petitioners claim "the Title V permit fails to require sufficient monitoring to ensure proper application and effectiveness of BACT for NOx emissions." Petition at 22. Petitioners state, "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." Petition at 22. Petitioners further argue that the Title V permit failed to ensure that GCC Dacotah utilizes these control devices and thus the permit fails to ensure compliance with BACT requirements and BACT limits for NOx emissions at Condition 8 of the permit.

Condition 6.8 establishes BACT emission limits for Kiln #6 system (which consists of Units #9, #11 and #41). The Title V permit at 1 (Permit Condition 1.1) identifies the units and their corresponding control devices in Table #1 in the permit under the heading "*Description of Permitted Units, Operations, and Processes.*" Permit condition 1.1 requires the source to "...construct and operate the units, controls and processes as described in Table #1 in accordance with the statements, representations, and supporting data contained in the complete permit application." Permit Conditions 1.0 and 6.8, footnote 2, reveal Kiln #6 is required to be operated with the following specified control devices: Preheater, Precalculator, and Baghouses. Condition 6.8 establishes a NOx long-term limit (See, Table #8) with a description of how to calculate data for compliance demonstration in the footnote. Permit Condition 6.8, footnote 2, also states that "compliance with the long-term limit will be based on a 12-month rolling average." These are all indicators of proper implementation and maintenance of the BACT determination to ensure that NOx emission limits are not exceeded.

Petitioners state that "...it would be difficult, if not impossible, to believe that CEMs could lead to effective control of NOx emissions as monitoring equipment...." Petition at 23. EPA agrees that it is the control device and not the monitoring system that achieves the BACT emission limits. CEMs are *not* control equipment or control devices and thus do not establish or achieve BACT limits. They are monitoring systems capable of monitoring compliance on a continuous basis with BACT emission limits. BACT determination in the permit includes specification of limits, control devices and the operating parameters of those devices to ensure compliance with limits. CEMS are capable of generating real-time continuous data that can be used to demonstrate compliance with the established limits. For the reasons discussed above, I find that the

permit contains sufficient monitoring to assure compliance with the BACT limit for NOx. I, therefore, deny Petitioners' request.

I (D) BACT for CO

Petitioners allege that "... 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." Petitioners also argue that even if the Title V permit contains monitoring to ensure operation and maintenance in accordance with manufacturer's specification, manufacturer's specifications are not explicitly defined and/or set forth in the permit, thus rendering any such monitoring requirement unenforceable as a practical matter. To bolster their argument on this issue, Petitioners claim that 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 and thus concluded that Condition 5.4 is also unenforceable as a practical matter. EPA notes that DENR confirmed that GCC Dacotah submitted an operations and maintenance plan to South Dakota DENR on June 3, 2002.

Further, EPA disagrees with Petitioners' claim that the Title V permit fails to ensure compliance with BACT CO limits because it does not require operations and maintenance of equipment according to manufacturer's specification. Condition 6.8 establishes both short-term and long-term BACT limits for CO (See, Table #8; BACT Emission limits for Kiln #6 System). Condition 6.8, footnotes 5 and 8, also detail the compliance demonstration steps required for effective demonstration including details of calculating 8-hour block averages and the use of recorded emissions data acquired from the continuous emission monitoring. As noted above, Condition 5.4 also requires the source to maintain and implement the operations and maintenance plan in accordance with underlying applicable requirements. The operations and maintenance plan itself is intended to be sufficient to ensure proper operations and maintenance of the equipment; it is unnecessary for the permit to also incorporate manufacturers specifications. The ultimate tests of the effectiveness of these provisions as outlined is the effective compliance demonstration with established limits in the permit that are monitored and recorded by CEMs and not the inclusion of the manufacturer's specifications into the permit. For these reasons, I deny Petitioners request to object to issuance of this permit.

II. Permit Fails to Require Continuous Emission Monitoring System or in the Alternative Fails to Require Sufficient Periodic Monitoring

II (A) PM CEMS

Petitioners allege that the Title V permit fails to require continuous emissions monitoring for particulate matter from Units 3, 4, 5, 9, 10 (kilns and coolers), as required by the federal regulations, thereby failing to ensure compliance with the applicable requirements. Petitioners cite applicable requirement 40 CFR § 1350(k), in part, and

argue that 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. The complete citation of 40 CFR § 1350(k) states as follows:

The owner or operator of an affected source subject to a particulate matter standard under §63.1346 shall install, calibrate, maintain, and operate a particulate matter continuous emission monitoring system (PM CEMS) to measure the particulate matter discharged to the atmosphere. All requirements relating to installation, calibration, maintenance, operation or performance of the PM CEMS and implementation of the PM CEMS requirement are deferred pending further rulemaking.

EPA disagrees with Petitioners' conclusion that "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" (Petition at 26) from reading the above citation. The first part of the citation specifically refers to installation, calibration, maintenance and operation of PM CEMS as does the second part with respect to deferment. The rule is explicit in the second part of the citation in stating that all requirements relating to the first part are deferred pending further rulemaking. Indeed, the very next paragraph, 40 CFR § 1350(I) (1)-(6) outline the requirements for alternative monitoring requirements.

II (B) **Failure to Provide Continuous Monitoring**

Petitioners also allege that Condition 6.5 of the permit fails to require sufficient monitoring, and that the permit should require continuous monitoring. Petition at 25. Although emission standards established under the Clean Air Act generally apply continuously, nothing in part 70 requires continuous monitoring for every emissions standard. Cf. 40 C.F.R. § 70.6(a)(3)(i)(B) (requiring "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit"). This permit contains, as required by ARSD 74:36:11:02 and 40 C.F.R. Part 63, Subpart LLL, performance testing for PM once every five years, which is a stack test that establishes the source's PM emissions under certain operational parameters. Thereafter, until the next stack test, the source must maintain operations at or below the levels in effect during the test. See, Conditions 1.0, 5.4-5.9, 6.2-6.7, 6.11, 7.7 for the controlled units, testing, monitoring and reporting requirements for PM. In addition, the permit requires parametric monitoring for control of PM in the form of continuous opacity monitoring for certain units (see Condition 8.5), daily monitoring for other units, and additional monthly opacity readings for the facility as a whole. See, Conditions 8.1, 8.2, 8.5-8.6. 8.11-8.12. These monitoring requirements are adequate, and therefore I deny Petitioners' request for objection to the Title V permit based on this issue.⁴

⁴ Even if these periodic monitoring requirements were not sufficient, which EPA considers them to be, the SIP and the Federal Regulations do not require anything further, and therefore a title V order would not be the appropriate means of requiring additional periodic monitoring. See, Final Rule Interpreting the Scope of Certain Monitoring Requirements for State and Federal Operating Permits Programs, 71 FR 75422 (Dec. 15, 2006).

III Permit fails to Require Prompt Reporting of Permit Deviation

Petitioners allege that the permit fails to require prompt reporting of deviations as required by 40 C.F.R. § 70.6(a)(3)(iii)(B). Petitioners appear to concede that Condition 5.11 requires prompt reporting of permit violations, but allege that there is no other deviation reporting, particularly of deviations from opacity limits during soot blowing, startup, shut-down, or malfunction (Condition 6.3), or to the extent there is additional deviation reporting, it is not in compliance with the requirements of 40 C.F.R. § 70.6(a)(3)(iii)(B).

First, Petitioners state that it appears that these conditions do not require deviation reporting for all emission limits. However, the permit does provide for prompt reporting of violations. See Condition 5.11 (“A permit violation should be reported as soon as possible, but no later than the first business day following the day the violation was discovered.”). It also provides for additional quarterly and semi-annual reporting of certain deviations in Conditions 5.8 and 5.9. See Response to Comment at 7.

Second, Petitioners claim that to the extent Conditions 5.8 and 5.9 require reporting of deviations, these conditions are insufficient to comply with the requirements of “prompt” reporting. Part 70 directs permitting authorities to “define ‘prompt’ in relation to the degree and type of deviation likely to occur and the applicable requirements.” 40 C.F.R. § 70.6(a)(3)(iii)(B); see also, NYPIRG v. EPA, 427 F.3d 172, 184-185 (2d Cir. 2005) (concluding that quarterly reporting may or may not be “prompt,” depending on the circumstances, but semi-annual reporting is a separate CAA requirement, and therefore prompt reporting must be more frequent than semiannual).⁵ DENR has provided an insufficient explanation as to its decisions on what constitutes “prompt” reporting of deviations in relation to the degree and type of deviation likely to occur and the applicable requirement. In addition, I note that ARSD 74:36:12:02(3) requires that operating times during the exceptions for soot blowing, start-up, shut down, and malfunction be limited to “brief periods”. Accordingly, I grant the petition on the issue of the permit’s failure to properly reflect the provisions of ARSD 74:36:12:02(3) for opacity exceptions and I direct DENR to (1) revise Condition 6.3 so that it applies only during “brief periods” during such operations as soot blowing, start-up, shut down, and malfunction,”⁶ and (2) consider whether the permit conditions for prompt reporting of deviations are consistent with the requirements of 40 C.F.R. § 70.6(a)(3)(iii)(B) and provide further explanation of its conclusions.

⁵ To the extent Petitioners believe that EPA’s position is currently that “prompt reporting” should generally be defined as within 2-10 days, I note that, as reflected in the NYPIRG case and other title V orders, EPA’s experience with the Title V program since 1996 has led EPA to the conclusion that such a limited time frame for reporting is not necessary for all deviations.

⁶ To ensure compliance with this provision, I direct DENR to require GCC Dacotah to keep appropriate records of the events with event duration and ensure records are available for DENR inspection upon request.

IV. Problems with Other Permit Conditions Warranting Objection by Administrator

IV (1) Condition 6.1 – Opacity limits

Petitioners claim that the opacity limits established by this condition are unenforceable as a practical matter because the limits do not require monitoring 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.” Petition at 32. This Condition is established under ARSD 74:36:12:01, which allows for this exemption for uncombined water. (See, Permit at 20-22). Furthermore, 40 CFR Part 60, Appendix A, Method 9 which is the specified compliance method for this condition, also provides for the “uncombined water exemption.”

Method 9 requires that a “certified observer” be able to distinguish between steam and opacity plumes and require such an observer to take a reading at a point not impacted by the steam plume. Reliance on the expertise of a certified reader to determine whether uncombined water is impacting an opacity reading is appropriate and adequately assures compliance with the underlying opacity limit. The recordkeeping requirements are designed to ensure accountability for the readings. Condition 5.6 requires the Facility to maintain a monitoring log that records information on each visible emission reading required by Conditions 8.1 and 8.2. Such entry must be signed by the person performing the reading or evaluation. For these reasons, I deny the Petitioners’ request for an objection on this issue.

IV (2) Condition 6.4 – BACT Limits and Test Method for Particulates

Petitioners allege Condition 6.4 fails to ensure compliance with particulate matter limits and is unclear on how Test Method 201 (Method 201) will assure compliance with the established limits. Petitioners also argue that Condition 6.4 violates 40 CFR § 70.6(a)(3)(i)(B) and 40 CFR § 70.6(c)(i). This condition incorporates into the current Title V permit emission limits for various process units that were established in accordance with ARSD 74:36:09:02, and 40 CFR § 52.21(j)(3) in a previously issued PSD permit and is incorporated into the current Title V permit. Condition 6.4 also requires a performance test method 40 CFR Part 51, Appendix M, Method 201, to demonstrate compliance with the hourly emission limit. Furthermore, Conditions 6.5, 6.6 and 6.7 establish particulate matter limits for various process units at the facility in accordance with different applicable requirements.

Petitioners’ claim that the permit lacks monitoring adequate to demonstrate compliance with the particulate matter limits. However, South Dakota’s DENR has specified an EPA approved test method (Method 201) to demonstrate compliance with PM limits. In addition to requiring the source to conduct a performance test in accordance with applicable requirements, DENR requires the source to install continuous opacity monitoring system (COMS) to collect opacity data to verify compliance. See,

Condition 8.5. As discussed in section II.B above, the monitoring provisions of this permit, including the performance test and the COMS, are sufficient to demonstrate compliance. For the reasons discussed above, I deny Petitioners' request to object to this provision of the Title V permit.

IV (3) Condition 6.8

Petitioners allege that Condition 6.8 fails to require sufficient periodic monitoring to ensure compliance with short-term BACT SO₂ and CO limits for kiln #6 system. See Petition at 34-35. Petitioners concern is that these standards are expressed as hourly limits but the permit allows compliance with the limits to be determined by an average emissions level over an 8-hour period for CO and a 24-hour period for SO₂.

The averaging times contained in Condition 6.8 were established as part of the BACT limit specific to kiln #6 at the source in accordance with ARSD 74:36:09:02 and 40 CFR § 52.21(j)(3), and were accurately incorporated into the Title V permit. The averaging periods specified in the BACT analysis were established in accordance with pollutant specific standards that are established to protect National Ambient Air Quality standards (NAAQS). It is EPA's policy and codified regulation (See, 40 CFR § 52.21(c)) to prescribe averaging periods for compliance with limits longer than one hour where appropriate. Such averaging periods are readily specified in EPA approved tests methods. The establishment of an hourly limit for SO₂ and CO does not preclude the use of an averaging period longer than one hour as argued by Petitioners, and the requirement of a continuous emission monitoring system to assure compliance with the limit assures adequate monitoring for the limit. For these reasons, I find that the permit contains sufficient monitoring for the SO₂ and CO limits and deny Petitioners' request to object on this issue.

IV (4) Condition 6.12

Petitioners claim that "condition 6.12 is flawed because it implies an affirmative defense to GCC Dacotah with respect to injunctive relief." Petition at 35. Petitioners also claim that this issue was raised with reasonable specificity in their comments to DENR on page 8. However, a review of Petitioners' comments submitted to DENR shows that Petitioners only raised concerns about the prompt reporting of air emission exceedances caused by emergency conditions as required by 40 CFR § 70.(a)(3)(iii)(B). EPA addressed the issued of prompt reporting of air emission exceedance previously in this Order (See, Section III above). Petitioners did not raise this issue with reasonable specificity during the public comment period nor did this issue arise after the public comment period. Therefore, I deny Petitioners' request to object to this permit based on this issue. See, 42 U.S.C. § 505(b)(2); 40 CFR § 70.8(d).

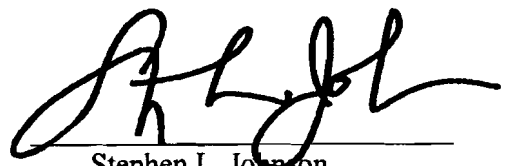
IV (5) Conditions 8.4 and 8.5

Petitioners argue that 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.” Petition at 37. Petitioners also argue that, although both conditions are established in accordance with applicable requirements ARSD 74:36:13:01, ARSD 74:36:08:21 and 40 CFR § 63.1350(c), the Title V permit does not define the key permit terms such as “system breakdowns,” “repairs,” “calibration checks,” “cylinder audits,” and “span adjustment.” EPA notes that referenced NSPS and MACT requirements found at 40 CFR § 60.13(e) and 40 CFR § 63.8(c) respectively, specify for adequate monitoring and do not define the key permit terms. EPA agrees with DENR that it is appropriate to assign “ordinary” meaning to these terms in the context of the particular industry under consideration. In addition, Conditions 8.6 and 8.7 reference specific provisions required to carry out step by step procedures to ensure adequate performance, quality assurance and re-certification of the continuous emission monitoring system. (See 40 CFR Part 60, Appendix B – Performance specification and tests procedures for continuous opacity and emissions monitoring systems in stationary sources. Appendix F- - Quality assurance requirements for Gas Continuous Emissions Monitoring System used for compliance determination). I, therefore, deny Petitioners’ request on this issue.

C. CONCLUSION

For the reasons set forth above and pursuant to section 505(b)(2) of the Clean Air Act, I grant in part and deny in part the Petitioners’ requests for an objection to the issuance of the GCC Dacotah Title V permit.

Dated: JUN 15 2007



Stephen L. Johnson
Administrator