Message Information

Date 01/13/2010 03:01 PM
From "David Bender" <bender@mwbattorneys.com>
To LisaP Jackson/DC/USEPA/US@EPA
cc <james.gignac@sierraclub.org>
Subject Sierra Club's Clean Air Act Title V Petition for Carmeuse Lime

Message Body

Administrator Jackson,

Attached is Sierra Club's Clean Air Act Title V petition for the Carmeuse Lime facility in Manitowoc County, Wisconsin. A hard copy will follow by mail.

Regards,

David C. Bender
McGillivray Westerberg & Bender LLC
305 S. Paterson St.
Madison, WI 53703
608.310.3566 direct
608.310.3561 fax

Carmeuse Petition 1.13.10.pdf Ex A-- 436034390-P10_Final_Permit.pdf Ex B-- Carmeuse Lime Final Comments 8.1.09.pdf
Ex C-- 436034390-P10_Response_to_Comments_Memo[1].pdf Ex D-- EPA Issued PSD Permit.pdf
Ex E-- Air Impact Analysis Dec 1994.pdf Ex F-- Analysis and Prelim Determination Permit 03-RV-108.pdf
Ex G-- Ky Permit Statement of Basis.pdf

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BEFORE THE ADMINISTRATOR

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

An Operating Permit for Carmeuse Lime and Stone, Manitowoc, Wisconsin.

Source I.D. 436034390

Permit No. 436034390-P10

Proposed by the Wisconsin Department of Natural Resources on October 28, 2009.

Petition No. V-2010-_____

PETITION REQUESTING THAT THE ADMINISTRATOR OBJECT TO ISSUANCE OF THE PROPOSED TITLE V OPERATING PERMIT FOR THE EDGEWATER POWER PLANT

McGillivray Westerberg & Bender LLC
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Date: January 13, 2010

Pursuant to Clean Air Act § 505(b)(2) and 40 CFR § 70.8(d), the Sierra Club hereby petitions the Administrator ("the Administrator") of the United States Environmental Protection Agency ("U.S. EPA" or "EPA") to object to a proposed Title V Operating Permit for the Carmeuse Stone and Lime plant ("Carmeuse"), Permit Number 436034390-P10 ("Permit"). The Permit was proposed to U.S. EPA by the Wisconsin Department of Natural Resources ("DNR") more than 45 days ago. DNR issued a final permit on December 15, 2009. A copy of the Permit is attached as Exhibit A.

Sierra Club provided comments to the DNR on the draft permit and the revised draft permit. A true and accurate copy of Sierra Club's comments is attached at Exhibit B. DNR's response to comments is attached as Exhibit C.

This petition is filed within sixty days following the end of U.S. EPA's 45-day review period, as required by Clean Air Act ("CAA") § 505(b)(2).[1] The Administrator must grant or deny this petition within sixty days after it is filed. If the Administrator determines that the Permit does not comply with the requirements of the CAA, or fails to include any "applicable requirement," she must object to issuance of the permit. 42 U.S.C. § 7661b(b); 40 C.F.R. § 70.8(c)(1) ("The [U.S. EPA] Administrator will object to the issuance of any permit determined by the Administrator not to be in compliance with applicable requirements or requirements of this part."). "Applicable requirements" include, *inter alia*, any provision of the Wisconsin State Implementation Plan ("SIP"), any term or condition of any preconstruction permit, any standard or requirement under Clean Air Act sections 111, 112, 114(a)(3), or acid rain program requirements. 40 C.F.R. § 70.2.

This petition seeks an objection by the Administrator because the permit fails to include fuel restrictions from a Prevention of Significant Deterioration (PSD) permit issued by U.S. EPA and which were never modified through a lawful permit modification. The PSD permit limited the plant to burning only coal in Kiln #2, but DNR's Title V permit for the plant omits that requirement and, instead, provides that petroleum coke ("pet coke") can be burned. Pet coke is a much dirtier fuel than coal, which is, itself, an extremely dirty fuel itself.

The Fuel Use Restrictions in EPA's Approval to Construct EPA-5-A-79 Must Be Included As Applicable Requirements

U.S. EPA issued a permit for Kiln 2 at this facility (when it was called Rockwell Lime) in 1979. *See*, September 27, 1979 (attached as Exhibit D). The PSD permit set best available control technology (BACT) limits, including a sulfur dioxide limit that specified: "The sulfur content of the coal used to fire the kiln shall not exceed 2.1 percent on a 24-hour basis." *Id.* at 2 ¶ 10. EPA clearly considered and approved only coal combustion in the kiln—pet coke was not considered and was not approved. *Id.* ¶ 6 ("... a low sulfur coal with a maximum sulfur content of 1 percent will be used. If a low sulfur coal is not available a medium sulfur coal with a sulfur

[1] DNR proposed the permit to EPA on March 25, 2009. EPA's forty-five (45) comment period expired no early than May 9, 2009. However, despite being prohibited from issuing the final permit before the expiration of EPA's review period, DNR issued a final permit for the JP Pulliam plant on April 30, 2009. Regardless, the public's time for petitioning the Administrator extends through, at least, July 8, 2009.

content not greater than 2.1 percent will be used."); *see also* Analysis and Preliminary Determination for Permit 03-RV-108 at p. 2 ("Rockwell Lime Company received federal and state construction permits for kiln No. 2 in 1978 and 1979... The federal permit however, specified that this limit applied only to coal.") In fact, there is no evidence anywhere in the permit record of pet coke being considered or approved and, therefore, Kiln #2 is prohibited from burning pet coke. *See* 40 C.F.R. 52.21(s)(1) (1979) ("Any owner or operator who constructs or operates a source or modification not in accordance with the application submitted pursuant to this section... shall be subject to appropriate enforcement action."). However, in the Title V permit at issue, DNR allows combustion of a mixture of pet coke and coal. *See* Permit p. 9 § I.A.2.a.(1) (exhibit A).

EPA has never modified its PSD permit for Kiln #2 to allow for pet coke combustion. However, in its response to comments, DNR states that the DNR modified EPA's PSD permit through a state pre-construction permit to allow for pet coke combustion:

> DNR sought and received approval from EPA for the changes in the sulfur dioxide BACT limitation in Permit #93-RV-108. Permit #93-RV-108 allows the facility to burn petroleum coke. The proposed permit will allow burning of petroleum coke, according to the formula established in Permit #93-RV-108.

Response to Comments (Exhibit C) at 6. DNR's analysis is incorrect for several reasons.

First, DNR could not have lawfully modified the 1979 EPA-issued PSD permit to allow for pet coke combustion through the DNR's 1995 state construction permit, 93-RV-108, because DNR was not authorized to revise EPA-issued PSD permits in 1995.[2] That authorization was only given in 2007, effective June 11, 2007, and was not retroactive. 72 Fed. Reg. 18391 (April 12, 2007). This was more than twelve years after the 1995 Permit 03-RV-108. Moreover, while EPA delegated its PSD permitting authority to Wisconsin DNR, including the ability to modify EPA-issued PSD permits, *id.*, DNR was never authorized to do so through a state construction permit. PSD permits, including the 1979 PSD permit for Kiln #2, can only be "modified" by rescinding (in whole or in part) the existing permit and issuing a new permit issued in its place. 40 C.F.R. §§ 52.21(q), (u), (w),124.5(g)(2) (providing that PSD permits are not subject to modification under § 124.5). If DNR wanted to change the coal restriction to allow pet coke combustion, Wisconsin DNR was required to do so as EPA's delegate by complying with 40 C.F.R. Part 124. That was never done.[3]

Moreover, an increment analysis would have been required in such a reissuance. 40 C.F.R. § 52.21(d), (k). The plant would not have passed such an analysis. *See* Air Dispersion

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[2] Permit 03-RV-108 was issued on February 7, 1995.

[3] Sierra Club can find no evidence that the 1979 EPA-issued PSD permit was rescinded in any part, nor that any notice of right to appeal to the Administrator or Environmental Appeals Board was given, that notice was published in the Federal Register, or that notice was provided to the people specified in 40 C.F.R. § 124.10(c). Moreover, a reissued permit would have been required to comply with the substantive standards in 40 C.F.R. § 52.21, including a new BACT analysis and increment analysis. This was never done.

Modeling Memo for Permit 93-RV-108, December 16, 1994 (attached as Exhibit E). In the 1995 state preconstruction permit purporting to allow for pet coke combustion, DNR analyzed impacts on National Ambient Air Quality Standards (NAAQS) for SO_2, but not increment. *Id.* The SO_2 impacts from the source, alone[4], would have violated the SO_2 increments:

	SO_2 Increments		
	Annual (Wis. Admin. Code § NR 404.05(3)(b)1.; 40 C.F.R. 52.21(c))	24-hour (Wis. Admin. Code § NR 404.05(3)(b)2.; 40 C.F.R. 52.21(c))	3-hour (Wis. Admin. Code § NR 404.05(3)(b)3.; 40 C.F.R. 52.21(c))
Modeled source impact (from December 14, 1994 analysis, Exhibit E)	14.2 ug/m3	300 ug/m3	844 ug/m3
Increment	20 ug/m3	91 ug/m3	512 ug/m3
% of Standard	71%	330%	165%
Increment Violation?	NO	YES	YES

The fact that the reissued (modified) permit would not have been granted under 40 C.F.R. § 52.21 because of SO2 increment violations merely reinforces the fact that DNR never complied with 40 C.F.R. § 52.21 or part 124 to allow for pet coke combustion. Therefore, as a matter of law, the 1995 DNR-issued state construction permit, 93-RV-108, did not and could not have revised 1979 EPA-issued PSD permit, including the fuel limit prohibiting use of fuels other than coal.

Second, even if DNR could have revised the 1979 PSD permit without complying with 40 C.F.R. section 52.21 and part 124, it was still required to require compliance with the PSD program for that change because a change in fuel from coal to a coal and pet coke mix is a "change in method of operation" that would have subjected the lime kiln to PSD permitting. 40 C.F.R. § 52.21(b)(2); see also Commonwealth of Kentucky Statement of Basis, Title V Proposed Permit No. V-05-003 at 3-4 (October 2005) (noting for a lime kiln owned by the same company in Kentucky that a switch to burning pet coke would be a change in method of operation subject to PSD review) (attached as Exhibit G).

Pursuant to the regulations in effect in Wisconsin at that time, a "change in method of operation" subject to PSD permitting included a change in method of operation by substituting a fuel that was not previously permitted. *See* 40 C.F.R. § 52.21(b)(2)(i). Notably, fuel changes can be exempt from the definition of a major modification, <u>but only</u> in situations not present here (*i.e.*, ordered under the Energy Supply and Environmental Coordination Act of 1974 or because

[4] A full analysis would also include impacts from other increment consuming sources. 40 C.F.R. § 52.21(b)(13)(ii)(a). These additional sources would only increase the violations of the applicable SO2 increments.

of a natural gas curtailment under the Federal Power Act), or where a facility: (a) was capable of accommodating the fuel prior to January 6, 1975, and (b) no permit prohibits the use of the fuel. 40 C.F.R. § 52.21(b)(2)(iii)(e)(1). The pet coke switch in 1995 cannot meet these criteria. Kiln 2 did not exist before January 6, 1975 so it fails the first criteria. Moreover, the use of pet coke was prohibited by the 1979 PSD permit. *See* U.S. EPA Objection to D.B. Wilson Station, Kentucky (August 20, 1999) (objecting based on a pet coke switch where the boiler was constructed after January 6, 1975) (hereafter "Wilson Objection"), *available at* http://www.epa.gov/region4/air/permits/TitleVObjectionLetters/KY_ObjectionLetters/WKEC-DBWilson.pdf. Therefore, it fails the second criteria. Moreover, even if the kiln had been capable of firing pet coke before 1975 and was not prohibited from doing so under a permit, the switch to blending pet coke in Kiln 2 (rather than a switch to pet coke as a primary fuel) would still not qualify under the exclusion in 40 C.F.R. § 52.21(b)(2)(iii)(e). As EPA has explained in numerous Title V objections, 40 C.F.R. § 52.21(b)(2)(iii)(e)(1) does not apply to use of pet coke as a supplemental fuel. *See* Objection by U.S. EPA to Title V Permit No. 0170004-004-AV, Florida Power Corporation Crystal River Plant (November 1, 1999) (hereafter "Crystal River Objection"), available at http://www.epa.gov/region4/air/permits/TitleVObjectionLetters/FL_ObjectionLetters/FPC-CrystalRiver.pdf.

> As discussed in Alabama Power Co. v. Costle, the PSD exemption at 40 C.F.R. § 52.21(b)(2)(iii)(e)... [was] intended to grandfather "voluntary fuel switches by emission sources which were designed to accommodate the alternative fuels prior to January 6, 1975." The provision was not intended to provide a loop-hole by which facilities may add various substances, such as waste products or waste fuels, to their primary fuels without being subject to PSD review. The Federal Register notices and background information documents that speak to this particular exemption only reference primary fuels, such as coal, oil and gas. At the time the alternative fuels exemption was promulgated, EPA contemplated "switches" between primary fuels. Therefore, it is a reasonable interpretation of the regulations to limit this exemption to primary fuels and not to apply the exemption to fuel additives that the facility was neither designed nor built to use as a primary fuel. FPC is currently burning coal as their primary fuel. It is EPA's determination that burning a 95% coal, 5% pet coke blend does not constitute a "switch" to an "alternative" fuel as intended by the exemption. Rather, the blending in of 5% pet coke is a change in the current method of operation that is subject to PSD review.
>
> The above interpretations are consistent with... EPA's longstanding interpretations of the "capable of accommodating" exemption.

Id. at 8 of 12; *see also* Wilson Objection, supra, at 2-3; U.S. EPA Objection to Title V Permit for Reid/Henderson Station, Kentucky at 2 (August 30, 1999) ("We first note that a fuel like petcoke that is used as a supplemental fuel blended with a primary fuel does not qualify as an "alternative" fuel in the sense originally envisioned when the alternative fuel exclusion was added to federal PSD rules."), available at http://www.epa.gov/region4/air/permits/TitleVObjectionLetters/KY_ObjectionLetters/KYobjections.htm

Third, DNR appears to have been under the mistaken assumption that the fuel switch to a pet coke mix did not trigger PSD requirements because the facility "netted out." *See* Preliminary Determination for 93-RV-108 at pp. 4-5 (Exhibit F). DNR makes the convoluted and legally unsupportable statement that "If a source has a PSD permit then, EPA has allowed the source to use the allowable emissions in the original permit to net out of any net emission increase if the allowable emissions in the modified/revised permit are the same as in the original permit." *Id.* This statement evidences a fundamental misunderstanding about what "netting" is. "Netting" allows a reduction that is contemporaneous and enforceable to off-set increases due to a modification. 40 C.F.R. § 52.21(b)(3)(i)(b), (ii), (vi); *see also* U.S. EPA, *New Source Review Workshop Manual* at A.34-55 (Draft October 1990). There were no emission decreases at the plant that were contemporaneous or creditable to the fuel change in 1995. Therefore, there was no "netting."

To the extent that DNR intended to mean that the switch to pet-coke did not result in a significant increase in actual emissions, 40 C.F.R. § 52.21(b)(3)(i)(a) (1994), DNR's own analysis contradicts this assertion. As EPA is aware, the test for emission increases for sources other than electric utility steam generating units[5] in Wisconsin in 1994 and 1995 was the actual-to-potential test. *See* 63 Fed. Reg. 39,857, 39,858 (July 14, 1998); 57 Fed. Reg. at 32,316-17; 45 Fed. Reg. 52,676, 52,677 (August 7, 1980) (explaining that determination of PSD applicability requires the source to "quantify the amount of the proposed emissions increase. This amount will generally be the *potential to emit* of the new *or modified unit.*" (emphasis added)); *Puerto Rican Cement Co., Inc. v. EPA*, 889 F.2d 292, 296-97 (1st Cir. 1989) (holding that the calculation of a "net emissions increase" is based on the different definition of "actual" emissions for pre-change and post-change emissions and applying the source's post-change potential to emit as its post-change "actual" emissions); *United States v. Murphy Oil USA, Inc.*, 143 F.Supp.2d 1054, 1105 (W.D.Wis. 2001); *Murphy Oil*, 155 F.Supp.2d at 1137, 1140-43; *see also New York v. U.S. E.P.A.*, 413 F.3d 3, 15 (D.C.Cir. 2005) (holding that under EPA's rules, as they existed, measured an increase "if... a source's past annual emissions (typically measured by averaging out the two 'baseline' years prior to the change) are less than future annual emissions (*measured by calculating the source's potential to emit after the change*)." (emphasis added)); Letter from Sam Portanova, U.S. EPA Region 5, to Steven Dunn, Wisconsin DNR at 4 (Feb. 24, 2005), available at http://www.epa.gov/region7/programs/artd/air/nsr/nsrmemos/murphy.pdf; NSR

[5] In the so-called "WEPCO Rule," electric utility steam generating units were allowed to use an actual-to-representative actual test, provided they kept sufficient records and submitted them annual for no fewer than five years following the modification to prove to EPA that no emission increases occurred. 57 Fed. Reg. 32,314, 32,324-26 (July 21, 1992); 40 C.F.R. § 52.21(b)(21)(v) (1993).

Manual at A.33. In 1995, DNR identified the pre-change SO_2 emissions as 413.81 tons/year[6] and the potential to emit as 584.38 tons for the coal/pet coke blend. Preliminary Determination at 5-6 (Exhibit F). The difference would be 170.54, which exceeds the 40 tons/year increase for SO_2 threshold for a major modification.[7] Therefore, it is unclear how DNR determined that there would be no emission increase, to the extent that it ever tried to do so. What is clear, however, is that the change resulted in a significant net emissions increase based on the applicable actual-to-potential test. Thus, if DNR is to allow the kiln to burn pet coke, it must ensure compliance with PSD requirements first.

For these reasons, the 1979 PSD permit's provision limiting Kiln 2 to burning only coal is still in effect and must be included in the Title V permit. Title V permits must include all applicable requirements for each emission source at a facility. 40 C.F.R. § 70.2 (applicable requirements include "[a]ny standard or other requirement provided for in [the SIP] or promulgated by EPA... [and] [a]ny term or condition of any preconstruction permits issued pursuant to [the PSD program]..."). This includes all requirements of preconstruction permits. *Id.* Moreover, as EPA noted in its objection to the Crystal River Plant, once a non-exempt switch in fuels has occurred, "the title V permit must include a compliance schedule, consistent with 40 C.F.R. § 70.5(c)(8)(iii), that requires [the facility] to obtain a PSD permit fulfilling State and federal PSD requirements and 40 C.F.R. § 70.6(c)(3)." Crystal River Objection, supra, at 9 of 12.

Conclusion

For the foregoing reasons, the permit fails to meet Title V requirements.[8] These deficiencies require that the Administrator object to issuance of the permit pursuant to 40 C.F.R. § 70.8(c)(1). DNR's errors set forth above resulted in a deficient permit, which subjects Sierra Club's members to unlawful emissions that negatively affect their health and welfare.

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[6] DNR used a single year, 1992, rather than a two-year average. 40 C.F.R. § 52.21(b)(21)(ii). However, there is no indication that 1993 emissions were significantly higher than 1992. Apparently DNR used 1992 emissions as representative of annual emissions.

[7] DNR did not analyze any other pollutants. It is likely, however, that the fuel switch resulted in a significant increases of other pollutants.

[8] Sierra Club notes that DNR's Response to Comments acknowledges other deficiencies in the permit, but states that DNR is working on those problems through a programmatic solution and will correct previously issued permits. *See* Response to Comments at 8-10. Sierra Club does not waive any of its objections or rights as to these issues but does not include them in this petition based on DNR's commitment to reopen permits as necessary once its programmatic review is complete. Sierra Club reserves the right to petition on these issues, notwithstanding the DNR's programmatic review, for other permits and other facilities.

Dated this 13th day of January, 2010.

Attorneys for Sierra Club
McGILLIVAY WESTERBERG & BENDER LLC

David C. Bender

CERTIFICATE OF SERVICE

STATE OF WISCONSIN)
) ss
COUNTY OF DANE)

I make this statement under oath and based on personal knowledge. On this day I caused to be served upon the following persons a copy of Sierra Club's Petition to the United States Environmental Protection Agency regarding the Carmeuse Stone and Lime plant, Permit Number 436034390-P10.

To Administrator Jackson via electronic mail to: jackson.lisa@epa.gov

And via Certified Mail, Return Receipt Requested to:

Lisa Jackson
US EPA Administrator
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20460

Matthew Frank
Wisconsin Dept. of Natural Resources Secretary
101 S Webster St
PO Box 7921
Madison, WI 53707-7921

Carmeuse Lime and Stone (Rockwell Operation)
4110 Rockwood Road
Manitowoc, WI 54220-9620

Dated : January 13, 2010.

David C. Bender

Signed and sworn to before me
This 13th day of January, 2010.

Notary Public, State of Wisconsin
My commission is permanent.

Exhibit A

AIR POLLUTION CONTROL OPERATION PERMIT RENEWAL

EI FACILITY NO: 436034390

PERMIT NO.: 436034390-P10
99-JCH-139-OP-R1

TYPE: Part 70 Source

In compliance with the provisions of Chapter 285, Wis. Stats., and Chapters NR 400 to NR 499, Wis. Adm. Code,

Name of Source: Carmeuse Lime and Stone - Rockwell Operation

Street Address: 4110 Rockwood Road,
Manitowoc, Manitowoc County, Wisconsin

Responsible Official, & Title: Ms. Brenda Doucette-Carter, Plant Manager

is authorized to operate a lime kiln facility producing quick lime, hydrated lime, and other related limestone-based products, in conformity with the conditions herein.

This renewed operation permit expires on December 15, 2014. [ss. 285.66(3)(a), Wis. Stats. and NR 407.04(2), Wis. Adm. Code].

A renewal application must be submitted at least 6 months, but not more than 18 months, prior to this expiration date [ss. 285.66(3)(a), Wis. Stats. and NR 407.04(2), Wis. Adm. Code].

No permittee may continue operation of a source after the operation permit expires, unless the permittee submits a timely and complete application for renewal of the permit. If you submit a timely and complete application for renewal, the existing operation permit will not expire until the renewal application has been finally acted upon by DNR. [ss. 227.51(2), Wis. Stats. and NR 407.04(2), Wis. Adm. Code].

This authorization requires compliance by the permit holder with the emission limitations, monitoring requirements and other terms and conditions set forth in Parts I and II hereof.

Dated at Green Bay, Wisconsin 12-15-2009

STATE OF WISCONSIN
DEPARTMENT OF NATURAL RESOURCES
For the Secretary

By */s/ Richard Wulk*
Richard Wulk
Environmental Engineer Supervisor

PREAMBLE

An Asterisk (*) throughout this document denotes legal authority, limitations and conditions which are not federally enforceable.

Historical Summary of Permits, Orders and Exemptions Issued to the Facility.

The following permits, orders, etc., are adopted, under ss. 285.65(3), Wis. Stats., NR 406.11(1)(c) and (d), NR 407.09(2)(d) and NR 407.15(3) and (4), Wis. Adm. Code, by Permit 436034390-P10 which then becomes the primary enforceable document.

Permit Number	Date Issued	Description
NS-78-36-61	September 21, 1978	State approval to construct Lime Kiln #2 (P36). Superseded by Permit #93-RV-108.
EPA-5-A-79	September 27, 1979	Federal PSD construction permit for Lime Kiln #2 (P36). Superseded by Permit #93-RV-108.
88-RV-067	April 18, 1989	Construction permit. Construction of a coal, coke and limestone storage facility in the Manitowoc harbor area.
88-RV-067A	December 29, 1989	Revision of Permit #88-RV-067.
93-RV-108	February 7, 1995	Revised and superseded Permits NS-78-36-61 and EPA-5-A-79. Revised the fuels allowed to be used in Lime Kiln #2 (P36).
99-JCH-139	December 14, 1999	Construction permit. Modification to increase the capacity of the Pre-Hydrate Milling Operation (P11), Pressure Hydrator (P38) and Post-Hydrate Milling Operations (P20).
99-JCH-139-OP	June 30, 2003	ConOp for Permit #99-JCH-139. Issued concurrently with original Title V operation permit.
436034390-P01	June 30, 2003	Original Title V operation permit
93-RV-108-R1	June 30, 2003	Revision of Permit #93-RV-108. Issued concurrently with original Title V operation permit.
07-RAF-100	June 18, 2007	Research and Testing Exemption. Allowed testing of Red Arrow wood tar as a fuel in Kiln #2. Permission to test expired December 18, 2007.
08-JJW-093	April 28, 2008	Permit Exemption under s. NR 406.04(2), Wis. Adm. Code. Construction of a facility to load quicklime fines into pneumatic trucks and rail cars.
08-CVC-275	November 11, 2008	Permit exemption under s. NR 406.04(1q), Wis. Adm. Code. Installation of a portable rail car quicklime unloader.
99-JCH-139-OP-R1	December 15, 2009	Revision of Permit #99-JCH-139-OP. Facility replaced wet scrubber C03 with baghouse C04 to control Process P38.

Stack and Process Index.

Stack	Process	Control Device	Description	Capacity	Installation/Modification Date	Construction Permit?
S11	P33	C01 (*D16*)[1]	Rotary Lime Kiln No. 1	12.5 tons per hour (TPH) stone feed and 44 million Btu per hour (MMBtu/hr) heat input	1952	None; exempt[2]
S11	P36	C01 (*D16*)	Rotary Lime Kiln No. 2	25.0 TPH stone feed and 87.5 MMBtu/hr heat input	1980	93-RV-108-R1
SD21	P33, P36		Ash Removal, controlled by baghouse *D21*	3 TPH ash	1980	93-RV-108-R1
SD25	P33, P36	*D27*	Truck Loading with Ash	3 TPH ash	1980	None; exempt
S19t, *S033*	P04		Filling Stone Feed Silos 19 and 20	250 TPH stone	1989	93-RV-108-R1
S22t, *S007*	P05		Filling Stone Feed Silo 22	250 TPH stone	1989	93-RV-108-R1
S09, S33	P06		Coal/coke fuel unloading; coal/coke crushing and conveyance.	123 tons per day	1980	93-RV-108-R1
S24	P10	*QL024*	Quicklime Screening rated to screen *QL023* or crush *QL028*	20 TPH quicklime	1979	93-RV-108-R1
S65	P10		Screened Quicklime transfer to one of 7 storage tanks QL70, QL71, QL72, QL74, QL75 and QL76, equipped with an enclosed conveyor	20 TPH quicklime	1979	93-RV-108-R1
S30	P10	*QL030*	Quicklime Load Out from tank QL73 to rail car or open truck	20 TPH quicklime	1979	93-RV-108-R1
S10	P10	*QL080*	Quicklime fines loadout to pneumatic truck or railcar	150 TPD quicklime fines	2008	Exemption # 08-JJW-093
S17	P11	C13 (*QL046*)	Pre-Hydrate Milling Operation	16 TPH quicklime	2001	99-JCH-139-OP-R1

[1] Italicized numbers are the facility's internal reference numbers.

[2] Processes installed before April 30, 1980 were not subject to construction permitting requirements unless they had to go through PSD review. The PSD program began in 1974.

Stack	Process	Control Device	Description	Capacity	Installation/Modification Date	Construction Permit?
S13A	P38	C04 (*HL075*)	Corson Pressure Hydrator	16 TPH hydrated lime	2001	99-JCH-139-OP-R1
S21A S21B	P20	C21A (*HL060*) C21B (*HL052*)	Post-Hydrate Milling Operation	20 TPH hydrated lime	2001	99-JCH-139-OP-R1
S22	P21	*BL017*	Hydrate Bagging Operation	55 TPH hydrated lime	1954	None; exempt
S73F	P21		Hydrate Transfer to Bulk Tank BL73	20 TPH hydrated lime	1979	None; exempt
S23	P21	*BL068*	Hydrate Loadout from Bulk Tank BL73 into rail car or truck, equipped with a telescoping load out spout	20 TPH hydrated lime	1979	None; exempt
S79F	P21		Hydrate Loadout from Storage Tank BL79	12 TPH hydrated lime	1979	None; exempt
S12	P37		Kennedy Atmospheric Hydrator *HL004* equipped with wet cyclone C02	12 TPH hydrated lime	1954	None; exempt
S41	P39	CB1	Portable Belt Conveyor equipped with baghouse CB1 for rail car unloading	100 TPH quick lime	2008	Exemption # 08-CVC-275

Insignificant Emission Units:

Maintenance of Grounds, Equipment, and Buildings
Boiler, Turbine, and HVAC System Maintenance
Pollution Control Equipment Maintenance
Internal Combustion Engines Used for Warehouse and Material Transfer
Fire Control Equipment
Janitorial Services
Office Activities
Convenience Water Heating
Convenience Space Heating (< 5 million BTU/hr)
Fuel oil storage tanks (<10,000 gallons)
Sanitary Sewer and Plumbing Venting
Parts Washer
Emergency gasoline motors to turn kiln drums
Dust Handling

Permit Shield. Unless precluded by the Administrator of the US EPA, compliance with all emission limitations in this operation permit is considered to be compliance with all emission limitations

established under ss. 285.01 to 285.87, Wis. Stats., and emission limitations under the Federal Clean Air Act, that are applicable to the source if the permit includes the applicable limitation or if the Department determines that the emission limitations do not apply. The following emission limitations were reviewed in the analysis and preliminary determination and were determined not to apply to this stationary source: None.

Part I — The headings for the areas in the permit are defined below. The legal authority for these limitations or methods follows them in [brackets].

Pollutant – This area will note which pollutant is being regulated by the permit.

Limitations – This area will list all applicable emission limitations that apply to the source, including case-by-case limitations such as Latest Available Control Techniques (LACT), Best Available Control Technology (BACT), or Lowest Achievable Emission Rate (LAER). It will also list any voluntary restrictions on hours of operation, raw material use, or production rate requested by the permittee to limit potential to emit.

Compliance Demonstration – The compliance demonstration methods outlined in this area may be used to demonstrate compliance with the associated emission limit or work practice standard listed under the corresponding **Limitations** column. The compliance demonstration area contains limits on parameters or other mechanisms that will be monitored periodically to ensure compliance with the limitations. The requirement to test as well as initial and periodic test schedules, if testing is required, will be stated here. Notwithstanding the compliance determination methods which the owner or operator of a sources is authorized to use under ch. NR 439, Wis. Adm. Code, the Department may use any relevant information or appropriate method to determine a source's compliance with applicable emission limitations.

Reference Test Methods, Recordkeeping, and Monitoring Requirements – Specific US EPA Reference test methods or other approved test methods will be contained in this area and are the methods that must be used whenever testing is required. A reference test method will be listed even if no testing is immediately required. Also included in this area are any recordkeeping requirements and their frequency and reporting requirements. Accuracy of monitoring equipment shall meet, at a minimum, the requirements of s. NR 439.055(3) and (4), Wis. Adm. Code, as specified in Part II of this permit.

Condition Type – This area will specify other conditions that are applicable to the entire facility that may not be tied to one specific pollutant.

Conditions – Specific conditions usually applicable to the entire facility or compliance requirements.

PART II — This section contains the general limitations that the permittee must abide by. These requirements are standard for most sources of air pollutants so they are included in this section with every permit.

Part I

APPLICABLE LIMITATIONS AND SPECIFIC CONDITIONS

A. STACK S11, *D16*, PROCESS P36: 25.0 TPH STONE FEED ROTARY LIME KILN NO. 2, 87.5 MMBTU PER HOUR HEAT INPUT, CONTROLLED BY BAGHOUSE C01, *D16*, LAST MODIFIED IN 1980.			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
1. Particulate Matter Emissions	The permittee shall comply with all of the following: **(1)** Emissions may not exceed Best Available Control Technology (BACT) of 0.30 pounds per ton stone feed. [s. NR 405.08, Wis. Adm. Code; Permit #93-RV-108-R1] **(2)** Emissions from process P36 may not exceed 7.50 pounds per hour. [s. NR 415.05(2), Wis. Adm. Code and s. 285.65(3), Wis. Stats] **(3)** Emissions from process P36 and P33 combined may not exceed 11.25 pounds per hour when process P36 operates in combination with process P33. [s. NR 415.05(2), Wis. Adm. Code and ss. 285.65(3) and 285.65(7), Wis. Stats] [Continued on Next Page]	**(1)** The facility shall install, calibrate, maintain and operate a device for measuring the mass rate of limestone feed to the kiln. The measuring device shall be accurate within plus or minus 5% of the mass rate over its operating range. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code and ss. 285.65(3) and 285.65(7), Wis. Stat.] **(2)** The facility shall operate process P36 as follows: (a) burn only coal, coke and/or natural gas as fuel; (b) operate C01 at all times P36 is in operation; and (c) capture all particulate matter from the lime kiln and direct it to C01, and direct larger drop-out to a hopper placed at the base of the kiln. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code and ss. 285.65(3) and 285.65(7), Wis. Stats.] **(3)** The facility shall install, calibrate, operate and maintain the instrumentation necessary to monitor and record the inlet pressure at the inlet of C01. [s. NR 439.055(1)(b) and (e), Wis. Adm. Code ; Permit #93-RV-108-R1]	**(1)** Whenever particulate matter emissions testing is required: (a) The permittee shall use USEPA Method 5, and Method 202 or Method OTM-28, or other methods approved by the Department, to determine compliance with the emission limits in Conditions A.1.a.(1), A.1.a.(2) and A.1.a.(3). (b) The permittee shall use USEPA Method 1 or 1A; Method 2, 2A, 2C, 2D, 2F or 2G; Method 3, 3A or 3B; Method 4; and Method 5 to determine compliance with the emission limit in Condition A.1.a.(4). [s. NR 439.06(1), Wis. Adm. Code; Permit #93-RV-108-R1; 40 CFR § 63.7112; Table 4 to 40 CFR Part 63, Subpart AAAAA] **(2)** On a daily basis measure and record data that can be used to calculate the average stone feed rate in tons of stone per hour and the hours of operation. [s. NR 407.09(1)(c)1., Wis. Adm. Code] **(3)** The facility shall monitor the baghouse inlet pressure specified under A.1.b.(4), on a continuous basis, and record the baghouse inlet pressure once every eight hours of source operation, or once per day, whichever yields the greater number of measurements. [ss. NR 439.055(2)(b) and NR 407.09(1)(c)1.,Wis. Adm. Code] **(4)** The facility shall keep copies of all stack test reports for five years. [s. NR 407.09(1)(c)1., Wis. Adm. Code]

A. STACK S11, *D16*, PROCESS P36: 25.0 TPH STONE FEED ROTARY LIME KILN NO. 2, 87.5 MMBTU PER HOUR HEAT INPUT, CONTROLLED BY BAGHOUSE C01, *D16*, LAST MODIFIED IN 1980.			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
1. Particulate Matter Emissions (Continued)	(4) Particulate matter emissions must not exceed 0.12 pounds per ton of stone feed. [s. 285.65(13), Wis. Stats.; 40 CFR §63.7090(a) and Table 1 to 40 CFR Part 63, Subpart AAAAA] (5) At times when stone is not being processed in the lime kiln, particulate matter emissions may not exceed 0.15 pound per million BTU heat input. [s. NR 415.06(2)(a), Wis. Adm. Code]	**(4)(a)** When baghouse C01 is operated with both processes P36 and P33 in operation, or with Process P36 alone in operation, the inlet pressure of C01 shall be maintained between 2 and 10 inches water column. (b) The permittee shall establish a maximum baghouse inlet temperature when membrane bags are used in baghouse C01. An audible alarm shall be installed and set to sound when the maximum baghouse inlet temperature is reached. The permittee may install an alternate means to protect the membrane bags if approved by the Department. [s. NR 407.09(1)(c)1.b., Wis. Adm. Code; Permit #93-RV-108-R1] **(5)** By August 1, 2004, and every 2 years thereafter, conduct a stack test to measure particulate emissions with P36 and P33 in operation. Each test shall be conducted with all baghouse modules on-line. One module may be off-line, if it develops a mechanical problem, not related to opacity, immediately prior to the test date. Each test shall be conducted with the time-between-cleaning for each baghouse module at a setting that is typical for two kilns in operation and the stone throughput of the test. Each subsequent biennial test shall be conducted within 90 days of the anniversary date, except when the Department grants a written waiver under s. NR 439.075(4)(a), Wis. Adm. Code. [ss. NR 439.075(1)(b), (2)(a)2., (3)(b), NR 407.09(1)(c)1.b., Wis. Adm. Code; Permit #93-RV-108-R1] **(6)** Each baghouse module shall be isolated and checked for leaks, when the stack opacity exceeds 8 percent. Any bags or clamps found to have leaks shall be replaced or repaired, as appropriate. [s. NR 407.09(4)(a)1., Wis. Adm. Code]	**(5)** The facility shall keep a log and document all opacity greater than 8 percent, the identity of all baghouse modules taken off-line when the baghouse stack opacity exceeds 8 percent, and maintenance and repairs done to the baghouse and fan. [s. NR 407.09(1)(c)1., Wis. Adm. Code]

A. STACK S11, *D16*, PROCESS P36: 25.0 TPH STONE FEED ROTARY LIME KILN NO. 2, 87.5 MMBTU PER HOUR HEAT INPUT, CONTROLLED BY BAGHOUSE C01, *D16*, LAST MODIFIED IN 1980.			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
1. Particulate Matter Emissions (Continued)		(7) Compliance Assurance Monitoring (CAM): Process P36 is a pollutant-specific emissions unit subject to the CAM requirements of 40 CFR Part 64 as follows: (a) Whenever Process P36 is operating, the permittee shall monitor opacity as an indicator of performance for Control Device C01, using a continuous opacity monitoring system (COMS) that meets the requirements of Conditions A.4.b.(1), A.4.b.(2), A.4.b.(3), A.4.b.(4) and A.4.b.(5). (b) The appropriate indicator range for opacity of the exhaust gases is 10% or less, based on a 6-minute average. (c) An excursion is any instance where the opacity exceeds 10% based on a 6-minute average. (d) The permittee shall conduct this required monitoring upon issuance of the permit renewal #436034390-P10. (e) The permittee shall operate the COMS in accordance with 40 CFR §§64.7 and 64.8. [s. 285.65(13), Wis. Stats., and 40 CFR §§ 64.3(a) and (d), 64.6(c)(2) and (3), 64.7(a) and (c), 64.8(a) and 70.6(a)(3)(i)(A)]	(6) Compliance Assurance Monitoring: The permittee shall satisfy the reporting requirements of 40 CFR §64.9(a) by submitting the reports required by Condition A.4.c.(2). [s. 285.65(13), Wis. Stats., and 40 CFR §§ 64.9(a) and 70.6(a)(3)(i)(A)] (7) Compliance Assurance Monitoring: The permittee shall satisfy the recordkeeping requirements of 40 CFR §64.9(b) by keeping the records required by Condition A.4.c.(3). [s. 285.65(13), Wis. Stats., and 40 CFR §§ 64.9(b) and 70.6(a)(3)(i)(A)] (8) The permittee shall keep records of dates and times when the kiln is firing fuel but not processing stone. [s. NR 439.04(1)(d), Wis. Adm. Code]

A. STACK S11, *D16*, PROCESS P36: 25.0 TPH STONE FEED ROTARY LIME KILN NO. 2, 87.5 MMBTU PER HOUR HEAT INPUT, CONTROLLED BY BAGHOUSE C01, *D16*, LAST MODIFIED IN 1980.			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
2. Sulfur Dioxide (SO_2) emissions	**(1)** Process P36 shall operate with Best Available Control Technology (BACT). BACT is defined as combustion of a fuel blend with a sulfur content that may not exceed 2.1 percent sulfur on a 24-hour basis. [s. NR 405.08, Wis. Adm. Code; Permit #93-RV-108-R1] **(2)** Emissions may not exceed 5.5 pounds of SO_2 per million Btu heat input, averaged over 3 consecutive hours. [s. NR 417.07(2)(b), Wis. Adm. Code and s. 285.63(3), Wis. Stats.; Permit #93-RV-108-R1]	**(1)** The permittee shall: (a) burn a fuel blend which consists of no fuels other than natural gas and/or a coal blend. A coal blend is defined as a mixture of coal and coke in any proportion, ranging from 0 to 100 percent of either component. (b). Limit the sulfur input in the fuel to less than 147 pounds sulfur per hour, averaged over a 24-hour period, using the following equation: $S = (F_{NG} \times S_{NG}) + (F_C \times S_C) + (F_{PC} \times S_{PC}) + (F_B \times S_B)$ where: F_{NG} = amount of natural gas used (cubic feet) S_{NG} = pounds of sulfur per cubic foot F_C = amount of coal used (pounds) S_C = sulfur content of coal, percent by weight F_{PC} = amount of petroleum coke burned (pounds) S_{PC} = sulfur content of petroleum coke, percent by weight F_B = amount of coal/petroleum coke blend burned, pounds S_B = sulfur content of coal/coke blend, percent by weight S = sulfur input, pounds per hour, based on a 24-hour average. [s. NR 407.09(1)(c)1., Wis. Adm. Code; Permit #93-RV-108-R1] **(2)** By August 1, 2004, and every 2 years thereafter, conduct a stack test to measure sulfur dioxide emissions with P36 and P33 in operation. Each subsequent biennial test shall be conducted within 90 days of the anniversary date, except when the Department grants a written waiver under s. NR 439.075(4)(a), Wis. Adm. Code. [ss. NR 439.075(1)(b), (2)(a)2., (3)(b), Wis. Adm. Code; Permit #93-RV-108-R1]	**(1)** When required, compliance with sulfur dioxide emission limits shall be determined by U.S. EPA Method 6C, or other methods approved by the Department. [s. NR 439.06(2)(a), Wis. Adm. Code; Permit #93-RV-108-R1] **(2)** The permittee shall maintain and keep daily records for process P36 of the following: (a) the amount of coal blend, coal, coke, natural gas and any other fuel burned, in pounds or cubic feet, as appropriate. (b) the sulfur content of each fuel burned, in percent by weight. (c) the hours of operation of the kiln. (d) the average hourly sulfur input to the kiln. (e) the weighted average sulfur content of all fuels burned, in percent by weight. [ss. NR 407.09(1)(c)2. and NR 439.04(1)(d), Wis. Adm. Code ; Permit #93-RV-108-R1] **(3)** The facility shall keep copies of all stack test reports for five years. [s. NR 407.09(1)(c)1., Wis. Adm. Code] **(4)** Solid fuel shall be sampled, analyzed and the results reported as specified under Condition ZZZ.5. [s. NR 407.09(1)(c)3., Wis. Adm. Code; Permit #93-RV-108-R1]

A. STACK S11, *D16*, PROCESS P36: 25.0 TPH STONE FEED ROTARY LIME KILN NO. 2, 87.5 MMBTU PER HOUR HEAT INPUT, CONTROLLED BY BAGHOUSE C01, *D16*, LAST MODIFIED IN 1980.			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
3. Nitrogen Oxides (NOx)	**(1)** Combustion in the lime kiln shall be optimized to maximize combustion efficiency and minimize NOx emissions.[3] [s. NR 428.05(2)(b), Wis. Adm. Code] **(2)** If the kiln is modified with respect to NOx, the permittee shall perform a new combustion optimization. [s. NR 439.096(10)(b), Wis. Adm. Code] **(3)** The kiln shall be operated in a manner consistent with the results of the latest combustion optimization approved by the Department. [ss. NR 428.05(2)(d) and NR 439.10(a), Wis. Adm. Code]	**(1)** The permittee shall install, calibrate, operate and maintain instrumentation to monitor the concentration of the combustion parameters oxygen (O_2) and carbon monoxide (CO) at the kiln exit in units of percent by volume. The instrumentation shall be available and in use a minimum of 85% of the time Process P36 is operated. In the event of an O_2 or CO monitor malfunction, a portable monitoring device may be used until the installed instrumentation is properly functioning. [ss. NR 439.055(5) and 407.09(1)(c)1.b., Wis. Adm. Code] **(2)** The Department shall be notified in writing at least 45 days in advance of a combustion optimization to provide the Department an opportunity to evaluate the plan and to have a representative present to witness the combustion optimization procedures. The notice shall provide a combustion optimization plan which includes, but need not be limited to, the following information: (a) The results of an engineering study of the process to be optimized. The engineering report shall identify and evaluate the options available for modifications to the process that would optimize combustion while minimizing NO_x emissions. (b) A description of the process or operation variables which affect the air contaminant source's emissions. (c) A description of the process to be optimized. (d) A description of the sampling equipment and the combustion optimization methods and procedures to be used. (e) The date and starting time of the combustion optimization. (f) A description of the number and location of any sampling ports and sampling points and an identification of the combustion gases to be sampled. (g) A statement indicating the production rate and the operating conditions at which the combustion optimization will be conducted. [s. NR 439.096(2), Wis. Adm. Code]	**(1)** Whenever nitrogen oxide emissions testing is required, the permittee shall use USEPA Method 7, 7A, 7B, 7C, 7D or 7E, or other methods approved by the Department. [s. NR 439.06(6), Wis. Adm. Code] **(2)** COMBUSTION OPTIMIZATION REPORTING REQUIREMENTS. The owner or operator of a source that conducts a combustion optimization shall submit a copy of the report of the combustion optimization to the Department within 60 days after its completion. If requested, the Department may grant an extension of up to 30 days for combustion optimization report submittal. The failure to include the following information in a combustion optimization report may result in rejection of the combustion optimization. The combustion optimization report shall include, but need not be limited to, the following information: (a) A detailed description of the process optimized and the procedures employed. (b) A log of the operating conditions of the process optimized and of any associated air pollution control device. (c) A summary of results, expressed in terms of the concentrations of NO_x, O_2 and CO, prior to and following the combustion optimization. (d) Sample calculations employing all the formulas used to calculate the results. (e) The field and laboratory data for the optimization. (f) The engineering study and combustion efficiency and low NO_x operating curve required under sub. (8)(a) and (b). [Continued on Next Page]

[3] Combustion optimization is required because the kiln capacity factor exceeded 20 percent in the 2001 ozone season (s. NR 428.05(2)(b)4, Wis. Adm. Code). The facility has performed combustion optimization. A new combustion optimization would be required if this source is modified with respect to NO_x due to a change in the method of operation (s. NR 439.096(10)(b), Wis. Adm. Code]

A. STACK S11, *D16*, PROCESS P36: 25.0 TPH STONE FEED ROTARY LIME KILN NO. 2, 87.5 MMBTU PER HOUR HEAT INPUT, CONTROLLED BY BAGHOUSE C01, *D16*, LAST MODIFIED IN 1980.			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
3. Nitrogen Oxides (Continued)	(4) Except for periods of startup, shutdown or malfunction, the oxygen concentration at the exit of the kiln may not exceed 2.5 percent, by volume, on an 8-hour average of hourly readings, unless an alternate oxygen concentration is approved in writing by the Department. [ss. NR 428.03 and 407.09(4)(a)1., Wis. Adm. Code]	**(3)** In evaluating the combustion optimization plan, the Department shall respond to the source owner or operator within 15 business days of receipt of the plan and may require one or more of the following activities: (a) A pre-combustion optimization conference which includes the owner or operator of the source, the person conducting the combustion optimization and the Department to discuss any deficiencies in the plan or settle any combustion optimization procedure questions the Department, the person conducting the combustion optimization or the source owner or operator might have. (b) Any change to the sampling method that is deemed necessary by the Department to conduct a proper combustion optimization. (c) A rescheduling of the combustion optimization to accommodate witnessing or source production schedules. [s. NR 439.096(3), Wis. Adm. Code] **(4)** The source owner or operator shall notify the Department of any modifications to a combustion optimization plan at least 5 business days prior to the combustion optimization. In the event the owner or operator is unable to conduct the combustion optimization on the date specified in the plan, the owner or operator shall notify the Department at least 5 business days prior to the scheduled combustion optimization date and specify the date when the combustion optimization is to be rescheduled. [s. NR 439.096(4), Wis. Adm. Code] **(5)** The Department may require the owner or operator of a source to provide proper facilities for conducting combustion optimization tests which may include the testing facilities listed in s. NR 439.07(5)(a) to (e). [s. NR 439.096(5), Wis. Adm. Code]	(2) (g) The report of any visible emission evaluations performed during the combustion optimization. (h) A copy of any steam, opacity or airflow charts made during the optimization. (i) The report of any fuel analysis performed on the fuel burned during the optimization. (j) Documentation of any process upset occurring during the optimization. (k) If the combustion optimization being conducted is one required under sub. (10), the changes made to the process or control device since the last test. [s. NR 439.096(9), Wis. Adm. Code] **(3)** The facility shall monitor the combustion parameter specified in the latest approved combustion optimization, on a continuous basis, and record the parameter every eight hours of source operation, or once per day, whichever yields the greater number of measurements. [ss. 439.055(5) and NR 407.09(1)(c)1., Wis. Adm. Code] **(4)** The facility shall keep copies of all records for five years, which show that the kiln is operated in accordance with the findings of the latest approved combustion optimization. [s. NR 407.09(1)(c)1., Wis. Adm. Code]

A. STACK S11, *D16*, PROCESS P36: 25.0 TPH STONE FEED ROTARY LIME KILN NO. 2, 87.5 MMBTU PER HOUR HEAT INPUT, CONTROLLED BY BAGHOUSE C01, *D16*, LAST MODIFIED IN 1980.			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
3. Nitrogen Oxides (Continued)		**(6)** The Department may require that a Department representative be present at any combustion optimization. The Department may require the following activities: (a) The Department may require the person conducting the combustion optimization to provide the Department a copy of all test data and equipment calibration data prepared or collected for the combustion optimization. (b) The Department may require the source owner or operator and person conducting the combustion optimization to correct any deficiency in the performance of the combustion optimization provided that the Department notifies the source owner or operator and person conducting the combustion optimization of the deficiency as soon as it is discovered. The failure of a source owner or operator and person conducting the combustion optimization to correct any deficiency may result in the Department refusing to accept the results of the combustion optimization. [s. NR 439.096(6), Wis. Adm. Code] **(7)** The components of any emission sampling train or associated sampling equipment used in a combustion optimization shall be calibrated not more than 60 days before the test. This includes the following: (a) Any equipment used to measure gas velocity. (b) Any equipment used to meter sample gas volume. (c) Any equipment used to regulate sample gas flow. (d) Any equipment used to measure temperature. (e) Any gas sampling nozzle used during the emission test. (f) Any equipment used to determine gas molecular weight. (g) Any other sampling equipment that requires periodic calibration. [s. NR 439.096(7), Wis. Adm. Code]	

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POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
3. Nitrogen Oxides (Continued)		**(8)** Any emissions testing conducted in conjunction with combustion optimization shall be conducted in accordance with s. NR 439.07, Wis. Adm. Code. The combustion optimization shall include the following procedures: (a) An engineering study to identify the optimized combustion profile or equipment modifications needed to optimize combustion. The study shall address, but is not limited to, the modification of the following systems: fuel delivery, burner, primary and secondary combustion monitoring, combustion air delivery and burner management. (b) The combustion optimization shall be based on burner tune-up procedures which result in maximum combustion efficiency and a low NO_x operating curve. (c) A continuous combustion analyzer shall be used to monitor the operation of the combustion unit in accordance with the combustion efficiency and low NO_x operating curve required under this section. The analyzer shall monitor the combustion parameters CO and O_2 or monitor NO_x directly. The fuel flow rate shall be monitored. [s. NR 439.096(8), Wis. Adm. Code]	

A. STACK S11, *D16*, PROCESS P36: 25.0 TPH STONE FEED ROTARY LIME KILN NO. 2, 87.5 MMBTU PER HOUR HEAT INPUT, CONTROLLED BY BAGHOUSE C01, *D16*, LAST MODIFIED IN 1980.			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
4. Visible Emissions	**(1)** Best Available Control Technology (BACT) of 10% opacity from the baghouse stack. [s. NR 405.08, Wis. Adm. Code; Permit #93-RV-108-R1]	**(1)** The permittee shall install, calibrate, maintain, and operate a continuous emission monitoring system, to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere. [ss. NR 440.51(4)(a) and NR 407.09(1)(c)1.b., Wis. Adm. Code; Permit #93-RV-108-R1] **(2)** The span of the continuous opacity monitor shall be set at 20 percent opacity. [ss. NR 405.08 and NR 440.51(4)(a), Wis. Adm. Code] **(3)** Whenever a continuous opacity monitor is used to monitor opacity, the permittee shall comply with the quality control and quality assurance plan submitted by the permittee and approved by the Department. [ss. NR 407.09(1)(c)1.c. and 439.09(8), Wis. Adm. Code] **(4)** Whenever a continuous opacity monitor is used to monitor opacity, the continuous opacity monitor shall complete one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period. [s. NR 440.13(5)(a), Wis. Adm. Code] **(5)** Periods of excess emissions that shall be reported are defined as all 6-minutes periods during which the average opacity of the plume from the lime kiln is greater than 10% opacity. The permittee is required to submit excess emission reports for any calendar quarter during which there are excess emissions from the affected facility. If there are no excess emissions during the calendar quarter, the permittee shall submit a report semiannually stating that no excess emissions occurred during the semiannual reporting period. [ss. NR 440.51(4)(e) and NR 405.08, Wis. Adm. Code]	(1) Whenever visible emissions testing is required, the permittee shall use one of the following methods: (a) A continuous opacity monitor that meets the applicable performance specifications in 40 CFR Part 60, Appendix B, and follows a quality control and quality assurance plan for the monitor which has been approved by the Department, or (b) when the continuous opacity monitor is malfunctioning, U. S. EPA Method 9. [ss. NR 407.09(1)(c)1.a., NR 440.51(5)(a)4. and NR 439.06(9)(a)2., Wis. Adm. Code; Permit #93-RV-108-R1] (2) An excess emissions and monitoring systems performance report shall be submitted to the Department within 30 days of the end of each quarter, where the quarters end on March 31, June 30, September 30, and December 31, during each year of operation. [s NR 440.07(3), Wis. Adm. Code] (3) The permittee shall maintain and keep daily records of the hours of operation of each kiln and the continuous opacity monitoring system. [s. NR 407.09(1)(c)1., Wis. Adm. Code]
5. Hazardous Air Pollutants regulated under the Clean Air Act	See Table ZZ. for applicable operating limits, compliance demonstration methods, monitoring, recordkeeping and emissions testing requirements.		

B. STACK S11, *D16*, PROCESS P33: 12.5 TPH STONE FEED ROTARY LIME KILN NO. 1, 44 MMBTU PER HOUR HEAT INPUT, CONTROLLED BY BAGHOUSE C01, *D16*, LAST MODIFIED IN 1952.			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
1. Particulate Matter Emissions	The permittee shall comply with all of the following: **(1)** Emissions from process P33 may not exceed 7.50 pounds per hour. [s. NR 415.05(1)(k), Wis. Adm. Code and s. 285.65(3), Wis. Stats] **(2)** Emissions from process P33 and P36 combined may not exceed 11.25 pounds per hour when process P33 operates in combination with process P36. [s. NR 415.05(2), Wis. Adm. Code and ss. 285.65(3) and 285.65(7), Wis. Stats] (3) Particulate matter emissions must not exceed 0.12 pounds per ton of stone feed. [s. 285.65(13), Wis. Stats.; 40 CFR §63.7090(a) and Table 1 to 40 CFR Part 63, Subpart AAAAA]	**(1)** The facility shall install, calibrate, maintain and operate a device for measuring the mass rate of limestone feed to the kiln. The measuring device shall be accurate within plus or minus 5% of the mass rate over its operating range. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code] **(2)** The facility shall operate process P33 as follows: (a) burn only coal, coke and/or natural gas as fuel; (b) operate C01 at all times P33 is in operation; and (c) capture all particulate matter from the lime kiln and direct it to C01, and direct larger drop-out to a hopper placed at the base of the kiln. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code and ss. 285.65(3) and 285.65(7), Wis. Stats.] **(3)** The facility shall install, calibrate, operate and maintain the instrumentation necessary to monitor and record the inlet pressure at the inlet of C01. [s. NR 439.055(1)(b) and (e), Wis. Adm. Code] **(4)** When baghouse C01 is operated with both processes P36 and P33 in operation, the inlet pressure of C01 shall be maintained between 2 and 10 inches water column. [s. NR 407.09(1)(c)1.b., Wis. Adm. Code]	**(1)** Whenever Particulate matter emissions testing is required: (a) The permittee shall use USEPA Method 5, and Method 202 or Method OTM-28, or other methods approved by the Department, to determine compliance with the emission limits in Conditions B.1.a.(1) and B.1.a.(2). (b) The permittee shall use USEPA Method 1 or 1A; Method 2, 2A, 2C, 2D, 2F or 2G; Method 3, 3A or 3B; Method 4; and Method 5 to determine compliance with the emission limit in Condition B.1.a.(3). [s. NR 439.06(1), Wis. Adm. Code; Permit #93-RV-108-R1; 40 CFR § 63.7112; Table 4 to 40 CFR Part 63, Subpart AAAAA] **(2)** On a daily basis measure and record data that can be used to calculate the average stone feed rate in tons of stone per hour and the hours of operation. [s. NR 407.09(1)(c)1., Wis. Adm. Code] **(3)** The facility shall monitor the inlet pressure specified under B.1.b.(4), on a continuous basis, and record the inlet pressure once every eight hours of source operation, or once per day, whichever yields the greater number of measurements. [ss. NR 439.055(2)(b) and NR 407.09(1)(c)1.,Wis. Adm. Code]

B. STACK S11, *D16*, PROCESS P33: 12.5 TPH STONE FEED ROTARY LIME KILN NO. 1, 44 MMBTU PER HOUR HEAT INPUT, CONTROLLED BY BAGHOUSE C01, *D16*, LAST MODIFIED IN 1952.			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
1. Particulate Matter Emissions	(4) At times when stone is not being processed in the lime kiln, particulate matter emissions may not exceed 0.6 pound per million BTU heat input. [s. NR 415.06(1)(a), Wis. Adm. Code]	(5)(a) When baghouse C01 is operated with only Process P33 in operation, the inlet pressure of C01 shall be maintained between 0.5 and 10 inches water column, with all modules in operation, until a stack test is conducted to confirm that compliance with the particulate matter emission limits is achieved at the low end of the pressure range. This stack test shall be conducted with P33 operating alone and all baghouse modules in use, before the C01 baghouse bags are changed out or by August 10, 2010, whichever comes sooner. The inlet pressure during the test, or subsequent tests, less 10 percent, shall become the low end of the pressure range. (b) The permittee shall establish a maximum baghouse inlet temperature when membrane bags are used in baghouse C01. An audible alarm shall be installed and set to sound when the maximum baghouse inlet temperature is reached. The permittee may install an alternate means to protect the membrane bags if approved by the Department. [s. NR 407.09(4)(a)1., Wis. Adm. Code] (6) Compliance Assurance Monitoring (CAM): Process P33 is a pollutant-specific emissions unit subject to the CAM requirements of 40 CFR Part 64 as follows: (a) Whenever Process P33 is operating, the permittee shall monitor opacity as an indicator of performance for Control Device C01, using a continuous opacity monitoring system (COMS) that meets the requirements of Conditions A.4.b.(1), A.4.b.(2), A.4.b.(3), A.4.b.(4) and A.4.b.(5). (b) The appropriate indicator range for opacity of the exhaust gases is 15% or less, based on a 6-minute average. (c) An excursion is any instance where the opacity exceeds 15% based on a 6-minute average. (d) The permittee shall conduct this required monitoring upon issuance of the permit renewal #436034390-P10. (e) The permittee shall operate the COMS in accordance with 40 CFR §§64.7 and 64.8. [s. 285.65(13), Wis. Stats., and 40 CFR §§ 64.3(a) and (d), 64.6(c)(2) and (3), 64.7(a) and (c), 64.8(a) and 70.6(a)(3)(i)(A)]	(4) Compliance Assurance Monitoring: The permittee shall satisfy the reporting requirements of 40 CFR §64.9(a) by submitting the reports required by Condition A.4.c.(2). [s. 285.65(13), Wis. Stats., and 40 CFR §§ 64.9(a) and 70.6(a)(3)(i)(A)] (5) Compliance Assurance Monitoring: The permittee shall satisfy the recordkeeping requirements of 40 CFR §64.9(b) by keeping the records required by Condition A.4.c.(3). [s. 285.65(13), Wis. Stats., and 40 CFR §§ 64.9(b) and 70.6(a)(3)(i)(A)] (6) The permittee shall keep records of dates and times when the kiln is firing fuel but not processing stone. [s. NR 439.04(1)(d), Wis. Adm. Code]

B. STACK S11, *D16*, PROCESS P33: 12.5 TPH STONE FEED ROTARY LIME KILN NO. 1, 44 MMBTU PER HOUR HEAT INPUT, CONTROLLED BY BAGHOUSE C01, *D16*, LAST MODIFIED IN 1952.			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
2. Sulfur Dioxide (SO_2) emissions	**(1)** Emissions from P33 may not exceed 5.5 pounds of SO_2 per million Btu heat input, averaged over 3 consecutive hours. [s. NR 417.07(2)(b), Wis. Adm. Code and s. 285.63(3), Wis. Stats]	**(1)** In process P33 the permittee shall burn a fuel blend which consists of no fuels other than natural gas and/or a coal blend. A coal blend is defined as a mixture of coal and coke in any proportion, ranging from 0 to 100 percent of either component. [s. NR 407.09(1)(c)1., Wis. Adm. Code] **(2)** The sulfur content of all fuel burned may not exceed 4.9% by weight. [s. NR 417.07(a)4., Wis. Adm. Code] **(3)** A sulfur dioxide emission test shall be performed in accordance with condition A.2.b.(2). [s. NR 439.075(1)(b), (2)(a)2., and (3)(b), Wis. Adm. Code] **(4)** Solid fuel shall be sampled, analyzed and the results reported as specified under Section ZZZ.5. [s. NR 407.09(1)(c)3., Wis. Adm. Code]	(1) When required, compliance with sulfur dioxide emission limits shall be determined by U.S. EPA Method 6C, or other methods approved by the Department. [§ NR 439.06(2)(a), Wis. Adm. Code] (2) The permittee shall maintain and keep daily records for process P33 of the following: (a) the amount of coal blend, coal, coke, natural gas and any other fuel burned, in tons. (b) the sulfur content of each fuel burned, in percent by weight. (c) the hours of operation of the kiln. (d) the weighted average sulfur content of all fuels burned, in percent by weight. [ss. NR 407.09(1)(c)2. and NR 439.04(1)(d), Wis. Adm. Code]
3. Visible Emissions	**(1)** Emissions may not exceed 15% opacity. [40 CFR §63.7090(b) and Table 2, item 1. to 40 CFR Part 60 Subpart AAAAA; s. NR 431.04(1), Wis. Adm. Code]	**(1)** The permittee shall install, calibrate, maintain, and operate a continuous emission monitoring system, to monitor and record the opacity of a representative portion of the gases discharged into the atmosphere. [s. NR 407.09(1)(c)1.b., Wis. Adm. Code; 40 CFR §§63.7113(a) and (g)]	(1) An excess emissions and monitoring systems performance report shall be submitted to the Department within 30 days of the end of each quarter, where the quarters end on March 31, June 30, September 30, and December 31, during each year of operation. [s. NR 440.07(3), Wis. Adm. Code] (2) The permittee shall maintain and keep daily records of the hours of operation of each kiln and the continuous emission monitoring system. [s. NR 407.09(1)(c)1., Wis. Adm. Code]
4. Hazardous Air Pollutants regulated under the Clean Air Act	See Table ZZ. for applicable operating limits, compliance demonstration methods, monitoring, recordkeeping and emissions testing requirements.		

C. Stack S19t, *S033*, (top of silos), Process P04 Filling Stone Silos 19 and 20 transfer up to 250 ton per hour of stone, constructed or last modified in 1989.
Stack S19b (bottom of silos), Process P04 emptying stone feed silos S19 and S20
Stack S22t, *S007*, Process P05 Filling Stone Silo 22 transfer up to 250 ton per hour of stone, constructed or last modified in 1989.
Stack S22b, Process P05 feeding stone feed silo S22 to kiln no. 2.
Stack S09, Process P06 coal/coke fuel unloading; **Stack S33, Process P06** coal/coke crushing and conveyance.
Stack S24, *QL024*, Process P10, Quicklime Screening rated to screen or crush up to 20 tons per hour of quicklime, controlled with filter QL24, construct/last modified 1979.
Stack 65, Process P10, Screened Quicklime transfer up to 20 tons per hour to storage tank QL70, QL71, QL72, QL74, QL75 or QL76; and/or one of 3 bulk loadout tanks QL073, QL078 and QL079, each tank enclosed and equipped with an enclosed delivery conveyor, constructed or last modified in 1979.
Stack S30, *QL030*, Process P10, Quicklime Load out up to 20 tons per hour from tank QL73 to rail car/open truck, controlled with filter QL30, construct/last modified 1979.
Stack S10, Process P10, Quicklime fines loadout to pneumatic truck or rail car, controlled with baghouse QL080, constructed in 2008.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
1. Particulate Matter Emissions	**(1)** The permittee may not emit more than the following amounts from the sources indicated: (a) 0.4 pounds per hour from Stack S19t, Process P04. (b) 0.4 pounds per hour from Stack S22t, Process P05. (c) 0.87 pounds per hour from Stack S24, Process P10. (d) 0.87 pounds per hour from Stack S65, Process P10. (e) 0.66 pounds per hour from Stack S30, Process P10. [ss. NR 415.05(1)(m) and (2), NR 404.04(3) & (8), Wis. Adm. Code and s. 285.65(3), Wis. Stats.]	**(1)** The permittee shall control emissions with filters from the following sources of process P10: **(a)** exhaust from screening or crushing of quicklime, stack S24. **(b)** exhaust from load out to rail car or truck, stack S30. **(c)** exhaust from quicklime fines load out to pneumatic truck or rail car, Stack S10. [ss. 285.65(3), Wis. Stats. and NR 407.09(4)(a)1., Wis. Adm. Code]	**(1)** Whenever particulate matter emissions testing is required, the permittee shall use USEPA Method 5, and Method 202 or Method OTM-28, or other methods approved by the Department. [s. NR 439.06(1), Wis. Adm. Code] **(2)** The permittee shall perform weekly inspections of each filter to ensure it is not clogged and is operating properly. [s. NR 407.09(4)(a), Wis. Adm. Code]

C. Stack S19t, *S033,* (top of silos), Process P04 Filling Stone Silos 19 and 20 transfer up to 250 ton per hour of stone, constructed or last modified in 1989.
Stack S19b (bottom of silos), Process P04 emptying stone feed silos S19 and S20
Stack S22t, *S007,* Process P05 Filling Stone Silo 22 transfer up to 250 ton per hour of stone, constructed or last modified in 1989.
Stack S22b, Process P05 feeding stone feed silo S22 to kiln no. 2.
Stack S09, Process P06 coal/coke fuel unloading; **Stack S33, Process P06** coal/coke crushing and conveyance.
Stack S24, *QL024,* Process P10, Quicklime Screening rated to screen or crush up to 20 tons per hour of quicklime, controlled with filter QL24, construct/last modified 1979.
Stack 65, Process P10, Screened Quicklime transfer up to 20 tons per hour to storage tank QL70, QL71, QL72, QL74, QL75 or QL76; and/or one of 3 bulk loadout tanks QL073, QL078 and QL079, each tank enclosed and equipped with an enclosed delivery conveyor, constructed or last modified in 1979.
Stack S30, *QL030,* Process P10, Quicklime Load out up to 20 tons per hour from tank QL73 to rail car/open truck, controlled with filter QL30, construct/last modified 1979.
Stack S10, Process P10, Quicklime fines loadout to pneumatic truck or rail car, controlled with baghouse QL080, constructed in 2008.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
1. Particulate Matter Emissions (Continued)			**(3)** The permittee shall keep records of any maintenance or repairs performed as a result of the inspections, including the date and initials of the person performing the maintenance or repairs. [s. NR 439.04(1)(d), Wis. Adm. Code]

C. Stack S19t, *S033*, (top of silos), Process P04 Filling Stone Silos 19 and 20 transfer up to 250 ton per hour of stone, constructed or last modified in 1989.
Stack S19b (bottom of silos), Process P04 emptying stone feed silos S19 and S20
Stack S22t, *S007*, Process P05 Filling Stone Silo 22 transfer up to 250 ton per hour of stone, constructed or last modified in 1989.
Stack S22b, Process P05 feeding stone feed silo S22 to kiln no. 2.
Stack S09, Process P06 coal/coke fuel unloading; **Stack S33, Process P06** coal/coke crushing and conveyance.
Stack S24, *QL024*, Process P10, Quicklime Screening rated to screen or crush up to 20 tons per hour of quicklime, controlled with filter QL24, construct/last modified 1979.
Stack 65, Process P10, Screened Quicklime transfer up to 20 tons per hour to storage tank QL70, QL71, QL72, QL74, QL75 or QL76; and/or one of 3 bulk loadout tanks QL073, QL078 and QL079, each tank enclosed and equipped with an enclosed delivery conveyor, constructed or last modified in 1979.
Stack S30, *QL030*, Process P10, Quicklime Load out up to 20 tons per hour from tank QL73 to rail car/open truck, controlled with filter QL30, construct/last modified 1979.
Stack S10, Process P10, Quicklime fines loadout to pneumatic truck or rail car, controlled with baghouse QL080, constructed in 2008.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
2. Visible Emissions	(1) 5 percent opacity from the following sources: (a) Stack S19t, Process P04.[4] (b) Stack S22t, Process P05. (c) Stack S24, Process P10. (d) Stack S65, Process P10. (e) Stack S30, Process P10. (f) Stack S09, Process P06. (g) Stack S33, Process P06. [s. NR 405.08, Wis. Adm. Code; Permit #93-RV-108-R1; 40 CFR §63.7090 and Table 1 to Subpart AAAAA of Part 63 for Processes P04 and P05] (2) 20% opacity from P10, S10. [s. NR 431.05, Wis. Adm. Code]	(1) The permittee shall visually check for visible emissions from each source once on a daily basis when the plant is operating. If the permittee notices any visible emissions from these sources appropriate action shall be taken to correct the problem. [NR 407.09(1)(c)1.b., Wis. Adm. Code; Permit #93-RV-108-R1] (2) The permittee shall monitor visible emissions from the coal stock pile, a lime conveying point and a lime transfer point at least once every two months by using a certified visible emissions observer who will perform 3 Reference U. S. EPA Method 9 tests (total of 18 minutes) or a WI DNR approved variation of Method 9 and record the results. Visible emissions observations shall occur during the normal operation of Process P36. Records shall be maintained of any 6-minute average that is in excess of 5% opacity. Reports of excess emissions shall be submitted semiannually to the Department. [s. NR 407.09(1)(c)1.b., Wis. Adm. Code; Permit #93-RV-108-R1]	(1) Whenever compliance emission testing is required, USEPA Method 9 shall be used. [s. NR 439.06(9)(a)1., Wis. Adm. Code] (2) The permittee shall keep a daily log that summarizes what sources were observed, whether any visual emissions were noticed and what action was taken to correct the problem. The log shall be kept for 5 years and be made available for inspection by the department anytime during normal business hours. [s. NR 439.04(1)(d), Wis. Adm. Code; Permit #93-RV-108-R1] (3) Records shall be maintained of any 6-minutes average that is in excess of 5 percent opacity. Records of excess emissions shall be submitted in the semi-annual report required by Condition ZZZ.4.b.(1). [ss. NR 407.09(1)(c)1.b. and NR 439.04(1)(d), Wis. Adm. Code; Permit #93-RV-108-R1]

[4] Processes P04 and P05 are also subject to a 10% opacity limit under the lime manufacturing NESHAP, 40 CFR Part 63 Subpart AAAAA. The BACT limit of 5% opacity is more stringent.

C. Stack S19t, *S033*, (top of silos), Process P04 Filling Stone Silos 19 and 20 transfer up to 250 ton per hour of stone, constructed or last modified in 1989.
Stack S19b (bottom of silos), Process P04 emptying stone feed silos S19 and S20
Stack S22t, *S007*, Process P05 Filling Stone Silo 22 transfer up to 250 ton per hour of stone, constructed or last modified in 1989.
Stack S22b, Process P05 feeding stone feed silo S22 to kiln no. 2.
Stack S09, Process P06 coal/coke fuel unloading; **Stack S33, Process P06** coal/coke crushing and conveyance.
Stack S24, *QL024*, Process P10, Quicklime Screening rated to screen or crush up to 20 tons per hour of quicklime, controlled with filter QL24, construct/last modified 1979.
Stack 65, Process P10, Screened Quicklime transfer up to 20 tons per hour to storage tank QL70, QL71, QL72, QL74, QL75 or QL76; and/or one of 3 bulk loadout tanks QL073, QL078 and QL079, each tank enclosed and equipped with an enclosed delivery conveyor, constructed or last modified in 1979.
Stack S30, *QL030*, Process P10, Quicklime Load out up to 20 tons per hour from tank QL73 to rail car/open truck, controlled with filter QL30, construct/last modified 1979.
Stack S10, Process P10, Quicklime fines loadout to pneumatic truck or rail car, controlled with baghouse QL080, constructed in 2008.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
3. Processes P04 and P05: Hazardous Air Pollutants regulated under the Clean Air Act	See Table ZZ. for operating limits, compliance demonstration methods, monitoring, recordkeeping and emissions testing requirements applicable to Processes P04 and P05.		

C. Stack S19t, *S033*, (top of silos), Process P04 Filling Stone Silos 19 and 20 transfer up to 250 ton per hour of stone, constructed or last modified in 1989.
Stack S19b (bottom of silos), Process P04 emptying stone feed silos S19 and S20
Stack S22t, *S007*, Process P05 Filling Stone Silo 22 transfer up to 250 ton per hour of stone, constructed or last modified in 1989.
Stack S22b, Process P05 feeding stone feed silo S22 to kiln no. 2.
Stack S09, Process P06 coal/coke fuel unloading; **Stack S33, Process P06** coal/coke crushing and conveyance.
Stack S24, *QL024*, Process P10, Quicklime Screening rated to screen or crush up to 20 tons per hour of quicklime, controlled with filter QL24, construct/last modified 1979.
Stack 65, Process P10, Screened Quicklime transfer up to 20 tons per hour to storage tank QL70, QL71, QL72, QL74, QL75 or QL76; and/or one of 3 bulk loadout tanks QL073, QL078 and QL079, each tank enclosed and equipped with an enclosed delivery conveyor, constructed or last modified in 1979.
Stack S30, *QL030*, Process P10, Quicklime Load out up to 20 tons per hour from tank QL73 to rail car/open truck, controlled with filter QL30, construct/last modified 1979.
Stack S10, Process P10, Quicklime fines loadout to pneumatic truck or rail car, controlled with baghouse QL080, constructed in 2008.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
4. Calcium oxide emissions from Process P10	(1) *The permittee may not emit more than the following amounts from the sources indicated: (a) *0.52 pound per hour from Stack S24. (b) *0.48 pound per hour from Stack S65. (c) *0.4 pound per hour from Stack S30. [ss. NR *445.07(1)(a) and NR *445.08(2)(b), Wis. Adm. Code]	(1) *See Condition C.1.b.(1). [s. NR 407.09(4)(a)1., Wis. Adm. Code]	(1) *Whenever calcium oxide emissions testing is required, the permittee shall use methods approved in advance by the Department. [s. NR 439.06(8), Wis. Adm. Code] (2) *The permittee shall keep the records required in Conditions C.1.c.(2) and (3). [s. NR 439.04(1)(d), Wis. Adm. Code]

C. Stack S19t, *S033*, (top of silos), Process P04 Filling Stone Silos 19 and 20 transfer up to 250 ton per hour of stone, constructed or last modified in 1989.
Stack S19b (bottom of silos), Process P04 emptying stone feed silos S19 and S20
Stack S22t, *S007*, Process P05 Filling Stone Silo 22 transfer up to 250 ton per hour of stone, constructed or last modified in 1989.
Stack S22b, Process P05 feeding stone feed silo S22 to kiln no. 2.
Stack S09, Process P06 coal/coke fuel unloading; **Stack S33, Process P06** coal/coke crushing and conveyance.
Stack S24, *QL024*, Process P10, Quicklime Screening rated to screen or crush up to 20 tons per hour of quicklime, controlled with filter QL24, construct/last modified 1979.
Stack 65, Process P10, Screened Quicklime transfer up to 20 tons per hour to storage tank QL70, QL71, QL72, QL74, QL75 or QL76; and/or one of 3 bulk loadout tanks QL073, QL078 and QL079, each tank enclosed and equipped with an enclosed delivery conveyor, constructed or last modified in 1979.
Stack S30, *QL030*, Process P10, Quicklime Load out up to 20 tons per hour from tank QL73 to rail car/open truck, controlled with filter QL30, construct/last modified 1979.
Stack S10, Process P10, Quicklime fines loadout to pneumatic truck or rail car, controlled with baghouse QL080, constructed in 2008.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
5. *Coal dust emissions from Process P06	(1) *The permittee shall have the ability to control, in a timely manner, outdoor fugitive coal dust emissions in an effort to prevent emissions off the source property. [s. NR *445.10(2)(a), Wis. Adm. Code] (2) *For any non-fugitive source of coal dust emissions exhausted through a fabric filter to the ambient air, the permittee shall limit visible emissions from each source to 10% opacity.[5] [s. NR *445.10(3)(a), Wis. Adm. Code]	(1) *The permittee shall develop and implement a plan to control outdoor fugitive coal dust emissions. The plan shall include all of the following: (a) *Identification of all sources of outdoor fugitive coal dust emissions from coal handling and coal storage piles on the source property. (b) *A description of the measures that can be taken to control, in a timely manner, outdoor fugitive coal dust emissions from all sources identified under Condition C.5.b.(1)(a) under the following conditions: (i) Routine operations. (ii) Periods of high activity. (iii) Periods of increased probability of outdoor fugitive dust emissions. (iv) When equipment used to control outdoor fugitive coal dust emissions malfunctions. [s. NR *445.10(2)(b), Wis. Adm. Code] (2) *See Conditions C.2.b.(1) and (2). [s. NR 407.09(4)(a)1., Wis. Adm. Code]	(1) *The permittee shall keep records of actions taken to control outdoor fugitive coal dust emissions in accordance with s. NR 439.04(2), Wis. Adm. Code. [s. NR *445.10(2)(c), Wis. Adm. Code] (2) *The permittee shall keep a copy of the plan required in Condition C.5.b.(1), and records of all actions taken pursuant to the plan, at the facility for inspection upon request. [s. NR *445.10(2)(d), Wis. Adm. Code] (3) *See Conditions C.2.c.(2) and (3). [s. NR 439.04(1)(d), Wis. Adm. Code]

[5] The BACT emission limit of 5% opacity is more restrictive, and takes precedence.

D. Stack SD21, *D21*, Process P33 AND P36 Kiln Ash Removal up to 120 tons per hour of ash to dust tank *D25*, controlled by baghouse *D21*, construct/last modified 1980. **Stack SD25, *D27*, Process P33 AND P36 Kiln Ash Truck Load out** up to 120 tons per hour from dust tank *D25* to an open truck, ash is wetted and truck is enclosed with a dust shroud, constructed or last modified in 2002.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
1. Particulate Matter	(1) The permittee may not emit more than the following amounts from the sources indicated: (a) 0.16 pounds per hour from Stack SD21. (b) 0.24 pounds per hour from Stack SD25. [ss. NR 404.04(3) & (8), Wis. Adm. Code and s. 285.65(3), Wis. Stats.]	(1) At all times that ash is removed from the kiln baghouse to dust tank *D25*, emissions shall be controlled with baghouse *D21*. [ss. 285.65(3), Wis. Stats. and NR 407.09(4)(a)1., Wis. Adm. Code] (2) At all times that ash is transferred from dust tank *D25* to an open truck, ash shall be wetted, and the truck shall be located under a shroud which controls emissions. [ss. 285.65(3), Wis. Stats. and NR 407.09(4)(a)1., Wis. Adm. Code]	(1) Whenever particulate matter emissions testing is required, the permittee shall use USEPA Method 5, and Method 202 or Method OTM-28, or other methods approved by the Department. [s. NR 439.06(1), Wis. Adm. Code] (2) The permittee shall perform weekly inspections of the baghouse, ash wetting system, and truck shroud to ensure each is operating properly. [s. NR 407.09(4)(a), Wis. Adm. Code] (3) The permittee shall keep records of any maintenance or repairs performed as a result of the inspections, including the date and initials of the person performing the maintenance or repairs. [s. NR 439.04(1)(d), Wis. Adm. Code]
2. Visible Emissions	(1) 20 percent opacity. [s. NR 431.05, Wis. Adm. Code]	(1) The compliance demonstration methods in D.1.b.(1) and (2) for particulate matter emissions shall be used to demonstrate compliance with the visible emissions limitations in D.2.a.(1). [s. NR 407.09(1)(c)1.b., Wis. Adm. Code]	(1) Whenever compliance emission testing is required, USEPA Method 9 shall be used. [s. NR 439.06(9)(a)1., Wis. Adm. Code] (2) The record keeping and monitoring requirements in D.1.c.(2) shall be used to demonstrate compliance with the visible emissions limitations in D.2.a.(1). [s. NR 439.04(1)(d), Wis. Adm. Code]
3. *Nickel	(1) *Best Available Control Technology (BACT). BACT is defined as the following: (a) *For SD21, BACT is the control measures in Condition D.1.b.(1). (b) *For SD25, BACT is the control measures in Condition D.1.b.(2). [ss. NR *445.07(1)(c) and NR *445.08(2)(f), Wis. Adm. Code]	(1) *See Conditions D.1.c.(2) and (3). [s. NR 407.09(4)(a)1., Wis. Adm. Code]	(1) *Whenever nickel emissions testing is required, the permittee shall use methods approved in advance by the Department. [s. NR 439.06(8), Wis. Adm. Code] (2) *The permittee shall keep the records required in Conditions D.1.c.(2) and (3). [s. NR 439.04(1)(d), Wis. Adm. Code]

D. Stack SD21, *D21*, Process P33 AND P36 Kiln Ash Removal up to 120 tons per hour of ash to dust tank *D25*, controlled by baghouse *D21*, construct/last modified 1980. **Stack SD25, *D27*, Process P33 AND P36 Kiln Ash Truck Load out** up to 120 tons per hour from dust tank *D25* to an open truck, ash is wetted and truck is enclosed with a dust shroud, constructed or last modified in 2002.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
4. *Calcium Oxide	(1) *The permittee may not emit more than the following amounts from the sources indicated: (a) *0.014 pound per hour from Stack SD21. (b) *0.02 pound per hour from Stack SD25. [ss. NR *445.07(1)(a) and NR *445.08(2)(b), Wis. Adm. Code]	(1) *See Conditions D.1.b.(1) and (2). [s. NR 407.09(4)(a)1., Wis. Adm. Code]	(1) *Whenever calcium oxide emissions testing is required, the permittee shall use methods approved in advance by the Department. [s. NR 439.06(8), Wis. Adm. Code] (2) *The permittee shall keep the records required in Conditions D.1.c.(2) and (3). [s. NR 439.04(1)(d), Wis. Adm. Code]

E. Stack S17, *QL046*, Process P11 Pre-Hydrate Milling rated to mill up to 16 ton per hour of quicklime, equipped with baghouse C13, *QL046*, last modified in 2001.
Stack S13A, *HL075*, Process P38 Corson Pressure Hydrator rated to produce up to 20 ton/hour type-S hydrate lime, equipped with baghouse C04, *HL075*, last modified 2001
Stack S21A, *HL060*, Process P20 Post-Hydrate Milling rated to mill up to 20 ton/hour hydrated lime, equipped with baghouse C21A, *QL046*, construct/last modified 2001

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
1. Particulate Matter Emissions	**(1)** Emissions may not exceed 0.5 pound of particulate matter per hour, and 0.05 pound of PM10 per hour from Process P11. [s. NR 415.05(2), Wis. Adm. Code; s. 285.65(3), Wis. Stats; Permit #99-JCH-139-OP-R1] **(2)** Emissions may not exceed 4.0 pounds of particulate matter per hour, and 2.8 pounds of PM10 per hour from Process P38. [s. NR 415.05(2), Wis. Adm. Code; s. 285.65(3), Wis. Stats.; Permit #99-JCH-139-OP-R1] **(3)** Emissions may not exceed 0.52 pound per hour, and 0.03 pound PM10 per hour from process P20. [s. NR 415.05(2), Wis. Adm. Code and s. 285.65(3), Wis. Stats; Permit #99-JCH-139-OP-R1]	**(1)** Baghouse C13 shall be operated and control particulate matter at all times process P11 is in operation. [s. NR 406.10 and s. NR 407.09(4)(a)1, Wis. Stats.; Permit #99-JCH-139-OP-R1] **(2)** The pressure drop across baghouse C13 shall be maintained between 1 and 5 inches water column. [s. NR 407.09(1)(c)1.b., Wis. Adm. Code; Permit #99-JCH-139-OP-R1] **(3)** Baghouse C04 shall be operated and control particulate matter at all times process P38 is in operation. [s. NR 406.10 and s. NR 407.09(4)(a)1, Wis. Stats.; Permit #99-JCH-139-OP-R1] **(4)** Whenever baghouse C04 is operated, the pressure drop across C04 shall be maintained between 0.5 and 5 inches water column. [s. NR 407.09(1)(a)1, Wis. Adm. Code; Permit #99-JCH-139-OP-R1] **(5)** Baghouse C21A shall be operated and control particulate matter at all times process P20 is in operation. [s. NR 406.10 and s. NR 407.09(4)(a)1, Wis. Stats.; Permit #99-JCH-139-OP-R1] **(6)** The pressure drop across baghouse C21A shall be maintained between 1and 5 inches water column. [s. NR 407.09(1)(c)1.b., Wis. Adm. Code; Permit #99-JCH-139-OP-R1] **(7)** Within 3 years of the date this operation permit is issued or before the next scheduled bag change, whichever comes sooner, the permittee shall conduct a stack test to measure particulate emissions from Process P38, Stack S13A. [s. NR 407.09(1)(c)1.b., Wis. Adm. Code] **(8)** The permittee shall conduct weekly inspections of each control device. [s. NR 407.09(1)(c)1.b., Wis. Adm. Code]	**(1)** Whenever Particulate matter emissions testing is required, the permittee shall use USEPA Method 5, and Method 202 or Method OTM-28, or other methods approved by the Department. [s. NR 439.06(1), Wis. Adm. Code; Permit #99-JCH-139-OP-R1] **(2)** Whenever PM10 emissions testing is required, the permittee shall use USEPA Method 201, 201A or 0TM-27, and Method OTM-28, or other methods approved by the Department. [s. NR 439.06(1) and (1m), Wis. Adm. Code; Permit #99-JCH-139-OP-R1] **(3)** The permittee shall record the pressure drop across baghouses C04, C13 and C21A at the beginning of each operating shift. [s. NR 439.055(2)(b)1, Wis. Adm. Code; Permit #99-JCH-139-OP-R1] **(4)** The permittee shall keep records of all inspections, checks and any maintenance or repairs performed on the baghouses, and on the wet scrubber and demister. The records shall contain the date of the inspection, initials of the inspector and the results. [s. NR 439.04(1)(d), Wis. Adm. Code; Permit #99-JCH-139-OP-R1]

E. Stack S17, *QL046*, Process P11 Pre-Hydrate Milling rated to mill up to 16 ton per hour of quicklime, equipped with baghouse C13, *QL046*, last modified in 2001.
Stack S13A, *HL075*, Process P38 Corson Pressure Hydrator rated to produce up to 20 ton/hour type-S hydrate lime, equipped with baghouse C04, *HL075*, last modified 2001
Stack S21A, *HL060*, Process P20 Post-Hydrate Milling rated to mill up to 20 ton/hour hydrated lime, equipped with baghouse C21A, *QL046*, construct/last modified 2001

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
2. Visible Emissions	**(1)** 20 percent opacity. [s. NR 431.05, Wis. Adm. Code; Permit #99-JCH-139-OP-R1]	**(1)** The requirements in E.1.b.(1)-(6) and (8) shall be used to demonstrate compliance with the visible emissions limit, unless directed otherwise by the department. [s. NR 407.09(1)(c)1.b., Wis. Adm. Code]	**(1)** Whenever compliance emission testing is required, USEPA Method 9 shall be used. [s. NR 439.06(9)(a)1., Wis. Adm. Code; Permit #99-JCH-139-OP-R1] **(2)** The records required in E.1.c.(2)-(4) shall be used as recordkeeping and monitoring requirements for the visible emissions limit. [s. NR 439.04(1)(d), Wis. Adm. Code]
3. *Calcium Oxide emissions from Process P11	(1) *Emissions from Stack S17 may not exceed 0.4 pound per hour. [ss. NR *445.07(1)(a) and NR *445.08(2)(b), Wis. Adm. Code]	(1) *See Conditions E.1.b.(1), (2) and (8). [s. NR 407.09(4)(a)1., Wis. Adm. Code]	(1) *Whenever calcium oxide emissions testing is required, the permittee shall use methods approved in advance by the Department. [s. NR 439.06(8), Wis. Adm. Code] (2) *The permittee shall keep the records required in Conditions E.1.c.(3) and (4). [s. NR 439.04(1)(d), Wis. Adm. Code]
4. *Calcium Hydroxide emissions from Processes P38 and P20	(1) *The permittee may not emit more than the following amounts from the sources indicated: (a) *1.4 pounds per hour from Stack S13A. (b) *0.5 pound per hour from Stack S21A. [ss. NR *445.07(1)(a) and NR *445.08(2)(b), Wis. Adm. Code]	(1) *See Conditions E.1.b.(3), (4), (5), (6) and (8). [s. NR 407.09(4)(a)1., Wis. Adm. Code]	(1) *Whenever calcium hydroxide emissions testing is required, the permittee shall use methods approved in advance by the Department. [s. NR 439.06(8), Wis. Adm. Code] (2) *The permittee shall keep the records required in Conditions E.1.c.(3) and (4). [s. NR 439.04(1)(d), Wis. Adm. Code]

F. Stacks S22, *BL017*, Process P21 Hydrate Bagging rated to bag up to 55 tons per hour of hydrate, equipped with baghouse *BL17*, constructed or last modified in 1954.
Stack S73F, Process P21 Hydrate Transfer up to 20 tons per hour of hydrate to storage tank *BL73*, equipped with an enclosed screw conveyor, constructed or last modified in 1979.
Stack S23, *BL068*, Process P21 Hydrate Load out from Bulk Tank *BL73* rated to load out up to 20 tons per hour of pressure hydrate rail car or truck, equipped with a telescoping valve, constructed or last modified in 1979.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
1. Particulate Matter	**(1)** Emissions may not exceed 0.59 pound per hour from stack S22, process P21. [s. NR 415.05(2), Wis. Adm. Code and s. 285.65(3), Wis. Stats] **(2)** Emissions may not exceed 0.87 pound per hour from stack S73F, process P21. [s. NR 415.05(2), Wis. Adm. Code and s. 285.65(3), Wis. Stats] **(3)** Emissions may not exceed 0.24 pound per hour from stack S23, process P21. [s. NR 415.05(2), Wis. Adm. Code and s. 285.65(3), Wis. Stats]	**(1)** Baghouse BL17 shall be operated and control particulate matter at all times hydrate bagging is in operation. [s. 285.65(3), Wis. Stats. and s. NR 407.09(4)(a)1, Wis. Stat.] **(2)** The pressure drop across baghouse BL17 shall be maintained between 0.5 and 8 inches water column. [s. NR 407.09(1)(c)1.b., Wis. Adm. Code] **(3)** Storage tank BL73 shall be equipped and operated with the following particulate matter controls: (a) an enclosed screw conveyor to control dust generated by transfer to the tank. (b) a telescoping load out spout which extends into the railcar or truck during load out and minimizes dust escape. [s. NR 406.10 and s. NR 407.09(4)(a)1, Wis. Stat.]	**(1)** Whenever Particulate matter emissions testing is required, the permittee shall use USEPA Method 5, and Method 202 or Method OTM-28, or other methods approved by the Department. [s. NR 439.06(1), Wis. Adm. Code] **(2)** The permittee shall record the pressure drop across the baghouse BL17 at the beginning of each operating shift. [s. NR 439.055(2)(b)1, Wis. Adm. Code] **(3)** The permittee shall perform weekly inspections of each baghouse and filter to ensure the control equipment is operating properly. [s. NR 407.09(4)(a), Wis. Adm. Code] **(4)** The permittee shall keep records of all inspections, checks and any maintenance or repairs performed on the baghouse or filters. The records shall contain the date of the inspection, initials of the inspector and the results. [s. NR 439.04(1)(d), Wis. Adm. Code]
2. Visible Emissions	**(1)** 20 percent opacity. [s. NR 431.05, Wis. Adm. Code]	**(1)** The requirements in F.1.b.(1)-(3) shall be used to demonstrate compliance with the visible emissions limit, unless directed otherwise by the department. [s. NR 407.09(1)(c)1.b., Wis. Adm. Code]	**(1)** Whenever compliance emission testing is required, USEPA Method 9 shall be used. [s. NR 439.06(9)(a)1., Wis. Adm. Code] **(2)** The records required in F.1.c.(2)-(4) shall be used as recordkeeping and monitoring requirements for the visible emissions limit. [s. NR 439.04(1)(d), Wis. Adm. Code]

F. Stacks S22, *BL017*, Process P21 Hydrate Bagging rated to bag up to 55 tons per hour of hydrate, equipped with baghouse *BL17*, constructed or last modified in 1954.
Stack S73F, Process P21 Hydrate Transfer up to 20 tons per hour of hydrate to storage tank *BL73*, equipped with an enclosed screw conveyor, constructed or last modified in 1979.
Stack S23, *BL068*, Process P21 Hydrate Load out from Bulk Tank *BL73* rated to load out up to 20 tons per hour of pressure hydrate rail car or truck, equipped with a telescoping valve, constructed or last modified in 1979.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
3. *Calcium Hydroxide Emissions	(1) *Calcium hydroxide emissions may not exceed: (a) *0.35 pound per hour from Stack S22. (b) *0.52 pound per hour from Stack S73F. (b) *0.15 pound per hour from Stack S23. [ss. NR *445.07(1)(a) and NR *445.08(2)(b), Wis. Adm. Code]	(1) *See Conditions F.1.b.(1), (2) and (3). [s. NR 407.09(4)(a)1., Wis. Adm. Code]	(1) *Whenever calcium hydroxide emissions testing is required, the permittee shall use methods approved in advance by the Department. [s. NR 439.06(8), Wis. Adm. Code] (2) *The permittee shall keep the records required in Conditions F.1.c.(2), (3) and (4). [s. NR 439.04(1)(d), Wis. Adm. Code]

G. Stack S12, Process P37 Kennedy Atmospheric Hydrator rated to produce up to 12 ton per hour of Type "N" hydrated lime, equipped with wet cyclone C02, last modified in 1954.
Stack S79F, Process P21 Hydrate Load out from Storage Tank BL79 atmospheric hydrate convey to and load out from the butler bin, to be equipped with new vent filter and telescoping load out spout when operated, constructed or last modified in 1979.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
1. Particulate Matter	**(1)** Emissions may not exceed 0.80 pound per hour from stack S12, Process P37. [s. NR 415.05(2), Wis. Adm. Code and s. 285.65(3), Wis. Stats] **(2)** Emissions may not exceed 0.16 pound per hour from stack S79F, process P21. [s. NR 415.05(2), Wis. Adm. Code and s. 285.65(3), Wis. Stats]	**(1)** Wet cyclone C02 shall be operated and control particulate matter at all times process P37 is in operation. [s. NR 407.09(4)(a)3.b., Wis. Adm. Code and ss. 285.65(3) and 285.65(7), Wis. Stat.] **(2)** Within 60 days of resumption of operation of process P37, a compliance test shall be conducted to demonstrate compliance with the particulate matter emission limit. [s. NR 407.09(1)(c)1., Wis. Adm. Code] **(3)** Within 30 days of resumption of operation of storage tank BL79, the butler bin, the tank shall be equipped and operated with the following particulate matter controls: (a) a bin vent filter to control dust generated by transfer to the tank. (b) a telescoping load out spout which extends into the railcar or truck during load out, and minimizes dust escape. [s. NR 406.10 and s. NR 407.09(4)(a)1, Wis. Stat.]	**(1)** Whenever Particulate matter emissions testing is required, the permittee shall use USEPA Method 5, and Method 202 or Method OTM-28, or other methods approved by the Department. [s. NR 439.06(1), Wis. Adm. Code] **(2)** The permittee shall maintain a record of the dates of operation and daily hours of operation of process P37 and control device C02. [s. NR 439.055(2)(b)1, Wis. Adm. Code] **(3)** The permittee shall notify the department within 3 days of resuming operation of process P37. [s. NR 407.09(4)(a), Wis. Adm. Code] **(4)** When process P21 is used, the permittee shall perform weekly inspections of the bin vent filter to ensure the control equipment is operating properly. [s. NR 407.09(4)(a), Wis. Adm. Code] **(5)** The permittee shall keep records of all inspections, checks and any maintenance or repairs performed. The records shall contain the date of the inspection, initials of the inspector and the results. [s. NR 439.04(1)(d), Wis. Adm. Code]
2. Visible Emissions	**(1)** 40 percent opacity. [s. NR 431.04(1), Wis. Adm. Code]	**(1)** The requirements in G.1.b.(1)-(3) shall be used to demonstrate compliance with the visible emissions limit, unless directed otherwise by the department. [s. NR 407.09(1)(c)1.b., Wis. Adm. Code]	**(1)** Whenever compliance emission testing is required, USEPA Method 9 shall be used. [s. NR 439.06(9)(a)1., Wis. Adm. Code] **(2)** The records required in G.1.c.(2)-(4) shall be used as recordkeeping and monitoring requirements for the visible emissions limit. [s. NR 439.04(1)(d), Wis. Adm. Code]

G. Stack S12, Process P37 Kennedy Atmospheric Hydrator rated to produce up to 12 ton per hour of Type "N" hydrated lime, equipped with wet cyclone C02, last modified in 1954.

Stack S79F, Process P21 Hydrate Load out from Storage Tank BL79 atmospheric hydrate convey to and load out from the butler bin, to be equipped with new vent filter and telescoping load out spout when operated, constructed or last modified in 1979.

POLLUTANT	a. LIMITATIONS	b. COMPLIANCE DEMONSTRATION	c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
3. *Calcium Hydroxide Emissions	(1) *The permittee may not emit more than the following amounts from the sources indicated: (a) *0.48 pounds per hour from Stack S12. (b) *4.2 pounds per hour from Stack S79F. [ss. NR *445.07(1)(a) and NR *445.08(2)(b), Wis. Adm. Code]	(1) *See Conditions G.1.b.(1), (2), and (3). [s. NR 407.09(4)(a)1., Wis. Adm. Code]	(1) *Whenever calcium hydroxide emissions testing is required, the permittee shall use methods approved in advance by the Department. [s. NR 439.06(8), Wis. Adm. Code] (2) *See Conditions G.1.c.(2), (3), (4) and (5). [s. NR 439.04(1)(d), Wis. Adm. Code]

H. FUGITIVE EMISSION SOURCES (UNPAVED HAUL ROADS; PAVED HAUL ROADS; LOAD IN/LOAD OUT/DUMPING; SCREENING, CONVEYING, BAGGING; STORAGE PILES) **Unpaved Roads** dust generated from truck traffic at plant site.			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
1. Particulate Matter	**(1)** No person may cause, allow or permit any materials to be handled, transported or stored without taking precautions to prevent particulate matter from becoming airborne. [s. NR 415.04, Wis. Adm. Code]	**(1)** Precautions shall include: (a) Application of asphalt, oil, water, snow, or plastic covering on dirt roads, material stockpiles and other surfaces which can create airborne dust, provided such application does not create a hydrocarbon, odor or water pollution problem. (b) Covering, wetting or securing materials likely to become airborne while being moved on public roads, railroads or navigable waters. (c) Paving or maintenance of roadway areas so as not to create air pollution. [s. NR 415.04(1)(b)-(d) and (f), Wis. Adm. Code] **(2)** Once a month, a management representative shall inspect active fugitive sources for compliance with the Fugitive Dust Plan. [s. NR 407.09(1)(c)1.b., Wis. Adm. Code] **(3)** All plant employees at the facility shall be trained to implement the Fugitive Dust Plan. [s. NR 407.09(1)(c)1.b., Wis. Adm. Code] **(4)** Watering is not required at temperatures below 40°F due to damage from freezing. [s. NR 407.09(1)(c)1.b., Wis. Adm. Code]	**(1)** A Fugitive Dust Plan shall be developed and submitted to the Department for approval within 90 days of issuance of the permit. It shall identify the specific measures to be taken to prevent fugitive dust and the frequency of these measures. The site manager's name and phone number shall be provided with the plan. [s. 285.65(3), Wis. Stats.] **(2)** Whenever an employee training session is held, records shall be kept. The record shall include, at the minimum, the names of all persons attending, instructor or session leader, an outline of the material or an agenda. [s. NR 439.03(1)(a), Wis. Adm. Code] **(3)** Records shall be kept of the specific measures taken according to the Fugitive Dust Plan. [s. NR 439.03(1)(a), Wis. Adm. Code]

I. Stack S41, Process P39: **Portable Belt Conveyor equipped with baghouse CB1 for rail car unloading,** constructed or last modified in 2008.			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
1. Particulate Matter Emissions	**(1)** Particulate matter emissions may not exceed 2.2 pounds per hour. [s. 285.65(3), Wis. Stats.; ss. NR 415.03 and 415.05(2), Wis. Adm. Code] **(2)** The permittee may not cause, allow or permit emissions from Process P39 in excess of 1,666 pounds per month averaged over any 12 consecutive months. [s. 285.65(7), Wis. Stats.; s. NR 406.04(1q), Wis. Adm. Code]	**(1)** Whenever Process P39 is in operation, Baghouse CB1 shall be used to control particulate matter emissions. [s. NR 407.09(4)(a)1., Wis. Adm. Code] **(2)** The permittee shall keep the records required in Condition I.1.c.(2). [s. NR 407.09(4)(a)1., Wis. Adm. Code]	**(1)** Whenever particulate matter emissions testing is required, the permittee shall use USEPA Method 5, and Method 202 or Method OTM-28, or other methods approved by the Department. [s. NR 439.06(1), Wis. Adm. Code] **(2)** The permittee shall keep the following records: (a) The dates that Process P39 operates. (b) Records of the particulate matter emissions from Process P39 for each month of operation, in pounds. (c) For each month, records of the average monthly particulate matter emissions, averaged over the previous 12 consecutive months, in pounds per month. [s. NR 439.04(1)(d), Wis. Adm. Code]
2. Visible Emissions	(1) 20% opacity. [s. NR 431.05, Wis. Adm. Code]	**(1)**(a) The permittee shall visually check for visible emissions from Process P39 on a daily basis when the process is operating. If the permittee observes any visible emissions from this source, appropriate action shall be taken to correct the problem. (b) If visible emissions are observed during any of the daily visible emissions observations, the permittee shall monitor visible emissions with a compliance test once every two months during normal operation of Process P36. [s. NR 407.09(4)(a)1., Wis. Adm. Code]	(1) Whenever visible emissions testing is required, the permittee shall use US EPA Method 9. [s. NR 439.06(9)(a)1., Wis. Adm. Code] (2) (a) For each day that Process P39 operates, the permittee shall keep records of the results of the visible emissions observations. (b) If visible emissions compliance testing is required under Condition I.2.b.(1)(b), the permittee shall keep records of the results of this testing. [s. NR 439.04(1)(d), Wis. Adm. Code] **(3)** Records shall be maintained of any 6-minutes average that is in excess of 20 percent opacity. Records of excess emissions shall be submitted in the semi-annual report required by Condition ZZZ.4.b.(1). [ss. NR 407.09(1)(c)1.b. and NR 439.04(1)(d), Wis. Adm. Code]

ZZ. 40 CFR Part 63, Subpart AAAAA: National Emission Standards for Hazardous Air Pollutants (NESHAP) for Lime Manufacturing Plants (LMP)			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
1. Hazardous Air Pollutants regulated under 40 CFR Part 63, Subpart AAAAA: Requirements for Processes P33 and P36	**(1)** See particulate matter emission limitations in Conditions A.1.a.(4) and B.1.a.(3). [40 CFR §63.7090; Table 1 to 40 CFR Part 63, Subpart AAAAA]	**(1)** The permittee shall vent emissions captured from Processes P33 and P36 through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to the control devices. [40 CFR § 63.7090(b); Table 2 to 40 CFR Part 63, Subpart AAAAA] **(2)** The permittee shall operate each capture/collection system according to the procedures and requirements in the OM&M plan. [40 CFR § 63.7090(b); Table 2 to 40 CFR Part 63, Subpart AAAAA] **(3)** With respect to compliance with Subpart AAAAA, the permittee shall be in compliance with the particulate matter emission limit at all times, except during periods of startup, shutdown, and malfunction. [40 CFR § 63.7100(a)]	**(1)** See emissions test methods in Conditions A.1.c.(1)(b) and B.1.c.(1)(b). [40 CFR § 63.7112; Table 4 to 40 CFR Part 63, Subpart AAAAA] **(2)** During performance testing of Processes P33 and P36 the permittee shall determine the mass of stone feed to these emission units using the devices referred to in Conditions A.1.b(1) and B.2.b(1). [40 CFR § 63.7112; Table 4 to 40 CFR Part 63, Subpart AAAAA] **(3)** The permittee shall inspect each capture/collection and closed vent system associated Process P33 and P36 at least once each calendar year to ensure that each system is vented through a closed system, except that dilution air may be added to emission streams for the purpose of controlling temperature at the inlet to the control device and that each capture/collection system is operated according to the procedures and requirements in the OM&M plan. [40 CFR § 63.7113(f)] **(4)** The permittee must keep the following records: (a) The records in §63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction. (b) Records of performance tests as required in §63.10(b)(2)(viii). [40 CFR § 63.7132 (a)]

ZZ. 40 CFR Part 63, Subpart AAAAA: National Emission Standards for Hazardous Air Pollutants (NESHAP) for Lime Manufacturing Plants (LMP)			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
1. Hazardous Air Pollutants regulated under 40 CFR Part 63, Subpart AAAAA: Requirements for Processes P33 and P36 (Continued)		**(5)** The permittee shall prepare a written Operations, Maintenance and Monitoring (OM&M) plan. The plan must include the items listed in §63.7100(d) and the corrective actions to be taken when required. Any changes to the plan must be submitted to WDNR for review and approval. Pending approval of an initial or amended plan, the permittee must comply with the provisions of the submitted plan. [40 CFR § 63.7100(d)] **(6)** The permittee must develop a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in 40 CFR §63.6(e)(3). [40 CFR § 63.7100(e)] **(7)** By October 27, 2011, and every 5 years thereafter, conduct a stack test to measure particulate emissions with P36 and P33 in operation. [40 CFR § 63.7111]	

ZZ. 40 CFR Part 63, Subpart AAAAA: National Emission Standards for Hazardous Air Pollutants (NESHAP) for Lime Manufacturing Plants (LMP)			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
2. Hazardous Air Pollutants regulated under 40 CFR Part 63, Subpart AAAAA: Requirements for Processes P33, P36, P04 and P05	(1) Visible emissions from Processes P33 and P36 (control device number CO1) must not exceed 15 percent opacity.[6] [s. 285.65(13), Wis. Stats.; 40 CFR §63.7090 and Table 1 to Subpart AAAAA of Part 63] (2) Visible emissions from Processes P04 and P05 must not exceed 10 percent opacity.[7] [s. 285.65(13), Wis. Stats.; 40 CFR §63.7090 and Table 1 to Subpart AAAAA of Part 63]	**(1)** The permittee shall be in compliance with the visible emission limits at all times, except during periods of startup, shutdown, and malfunction. [40 CFR § 63.7100(b)] **(2)** The permittee shall install, calibrate, maintain, and operate a continuous opacity monitoring system, to monitor and record the opacity of a representative portion of the gases from Processes P33 and P36 that are discharged into the atmosphere. Compliance with Condition A.4.b.(1)-(5) shall demonstrate compliance with this requirement. [40 CFR § 63.7113(a)] **(3)** The permittee shall perform a monthly visible emission check of each building enclosing the processed stone handling operations (Processes P04 and P05). (a) If no visible emissions are observed in 6 consecutive monthly checks of the building, the frequency of checking may be decreased from monthly to semiannually. (b) If no VE are observed during the semiannual check, the frequency of checking may be decreased from semi-annually to annually. (c) If VE are observed during any semi-annual or annual check, monthly checking of Processes P04 and P05 must be resumed on until no VE are observed in 6 consecutive monthly checks. (d) The VE check must be conducted while all enclosed processed stone handling operations are operating. (e) The VE check for each affected building must be at least 5 minutes with each side of the building and roof and roof being observed for at least 1 minute. [40 CFR § 63.7121(a); Table 6 to Subpart AAAAA of Part 63] **(4)** By November 28, 2011, and every 5 years thereafter, the permittee shall conduct a performance test on the buildings enclosing the processed stone handling operations (Processes P04 and P05). The performance test shall consist of thirty 6-minute opacity averages. [40 CFR § 63.7111]	**(1)** Whenever visible emissions testing is required, the permittee shall use USEPA Method 9. [40 CFR § 63.7112(b); Table 4 to Subpart AAAAA of Part 63] **(2)** Except for monitor malfunctions, associated repairs, required quality assurance or control activities (including, as applicable, calibration checks and required zero adjustments), the permittee must monitor continuously (or collect data at all required intervals) at all times Processes P33 and P36 are operating. [40 CFR § 63.7120(b)] **(3)** Data recorded during the conditions described in paragraphs (a) through (c) below may not be used either in data averages or calculations of emission or operating limits; or in fulfilling a minimum data availability requirement. The permittee must use all the data collected during all other periods in assessing the operation of the control device and associated control system. (a) Monitoring system breakdowns, repairs, preventive maintenance, calibration checks, and zero (low-level) and high-level adjustments; (b) Periods of non-operation of the process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies; and (c) Start-ups, shutdowns, and malfunctions. [40 CFR § 63.7120(c)]

[6] For process P36, the BACT emission limit of 10% opacity is more restrictive.

[7] The BACT emission limit of 5% opacity is more restrictive.

ZZ. 40 CFR Part 63, Subpart AAAAA: National Emission Standards for Hazardous Air Pollutants (NESHAP) for Lime Manufacturing Plants (LMP)			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
2. Hazardous Air Pollutants regulated under 40 CFR Part 63, Subpart AAAAA: Requirements for Processes P33, P36, P04 and P05 (Continued)			**(4)** The VE check (Processes P04 and P05) must be conducted as follows: (a) Conduct visual inspections that consist of a visual survey of the building over the test period to identify if there are VE, other than condensed water vapor. (b) Select a position at least 15 but not more 1,320 feet from each side of the building with the sun or other light source generally at the observer's back. (c) The observer conducting the VE checks need not be certified to conduct EPA Method 9 (appendix A to 40 CFR part 60 of this chapter), but must meet the training requirements as described in EPA Method 22 (appendix A to 40 CFR part 60). [40 CFR § 63.7112(k)]

ZZ. 40 CFR Part 63, Subpart AAAAA: National Emission Standards for Hazardous Air Pollutants (NESHAP) for Lime Manufacturing Plants (LMP)			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
3. Required Reports	**(1)** The permittee must submit a semi-annual compliance report. [40 CFR § 63.7131; Table 7 to Subpart AAAAA of Part 63] **(2)** The source must submit an immediate report for any startup, shut down or malfunction that was not consistent with the facility's SSMP. [40 CFR § 63.7131; Table 7 to Subpart AAAAA of Part 63]	**(1)** Each compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31. **(2)** Each compliance report must be postmarked or delivered to the Northeast Region Air Program, 2984 Shawano Ave., Green Bay, WI 54313-6727, by March 1 for the period from July 1 to December 31 of the preceding year, and September 1 for the period from January 1 to June 30 of the current year, each year that this permit is in effect. (a) If there were no deviations from an emission limit, operating limit, opacity limit, or VE limit, the compliance report must contain all information specified in 40 CFR § 63.7131(c). (b) If a continuous monitoring system was not used to monitor compliance and there was a deviation from an emission limit, operating limit, opacity limit, or VE limit, the compliance report must contain the information specified in 40 CFR § 63.7131(c) and (d). (c) If a continuous monitoring system was used to monitor compliance and there was a deviation from an emission limit, operating limit, opacity limit, or VE limit, the compliance report must contain the information specified in 40 CFR § 63.7131(c) and (e). [40 CFR § 63.7131(b), (c), (d) and (e)] **(3)** Each immediate startup, shutdown or malfunction report must be submitted by fax (920-662-5159) or telephone (920-662-5100) within 2 working days after the startup, shutdown or malfunction. [40 CFR § 63.7131; Table 7 to Subpart AAAAA of Part 63] **(4)** A report containing the information in 40 CFR §63.10(d)(5)(ii)shall be submitted by letter within 7 working days after the startup, shutdown or malfunction event to the Northeast Region Air Program, 2984 Shawano Ave., Green Bay, WI 54313-6727. [40 CFR § 63.7131; Table 7 to Subpart AAAAA of Part 63]	**(1)** The permittee must keep a copy of the report submitted according to the requirements of 40 CFR § 63.10(b)(2)(xiv). [40 CFR § 63.7132(a)(1)]

ZZ. 40 CFR Part 63, Subpart AAAAA: National Emission Standards for Hazardous Air Pollutants (NESHAP) for Lime Manufacturing Plants (LMP)			
POLLUTANT	**a. LIMITATIONS**	**b. COMPLIANCE DEMONSTRATION**	**c. REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
4. Recordkeeping	**(1)** The permittee must keep records. [40 CFR § 63.7132]	**(1)** The permittee must keep records in 40 CFR § 63,6(e)(3)(iii) related to startups, shutdowns and malfunctions. [40 CFR § 63.7132(a)(2)] **(2)** The permittee must keep records of performance tests, performance evaluations, and opacity and visible emission observations as required in §63.10(b)(2)(viii). [40 CFR § 63.7132(a)(3)]. **(3)** The permittee must keep the records in §63.6(h)(6) for visible emission observations. [40 CFR § 63.7132(b)] **(4)** The permittee must keep the records required by Tables 5 and 6 to Subpart AAAAA of Part 63 to show continuous compliance with each emission applicable emission limit. [40 CFR § 63.7132(c)] **(5)** The permittee must keep the records which document the basis for the initial applicability determination as required under §63.7081. [40 CFR § 63.7132(d)]	**(1)** Records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). [40 CFR § 63.7133(a)] **(b)** As specified in §63.10(b)(1), the permittee must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR § 63.7133(b)] (c) The permittee must keep each record onsite for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1). You may keep the records offsite for the remaining 3 years. [40 CFR § 63.7133(c)]
5. Other Requirements and Information	**(1)** The permittee must comply with the applicable parts of the General Provisions of 40 CFR part 63. [40 CFR § 63.7131; Table 8 to Subpart AAAAA of Part 63]		

ZZZ. Other Conditions Applicable to the Entire Facility

CONDITION TYPE	a. CONDITIONS	b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS
1. Malfunction Prevention and Abatement Plan	(1) A malfunction prevention and abatement plan shall be prepared and made available to department personnel to prevent, detect and correct malfunctions or equipment failures which may cause any applicable emission limit to be violated. [s. NR 439.11, Wis. Adm. Code; Permits #93-RV-108-R1 and #99-JCH-139-OP-R1]	(1) This plan shall include the following: (a) maintenance and routine calibration procedures for the instrumentation of control equipment; (b) a requirement that instrumentation calibration shall take place at the frequency specified by the manufacturer but not less than once per year plus an inspection and/or calibration whenever instrumentation anomalies are noted; (c) a requirement that a copy of the operation and maintenance manual for the control equipment be maintained on site; (d) a maintenance schedule for the equipment based on the manufacture's recommendations, but at intervals no less frequent than once per year; and (e) a requirement that a copy of the plan shall be kept at the plant and shall be updated once every other year. [s. NR 439.11, Wis. Adm. Code; Permits #93-RV-108-R1 and #99-JCH-139-OP-R1]
2. Stack Parameters	(1)(a) Stacks shall have the minimum heights and maximum diameters or dimensions listed below. (b) Stacks SD21 may discharge in a horizontal direction. All other stacks shall discharge upward, and may not be equipped with any device which impedes the upward flow of exhaust. [s. 285.65(3), Wis. Stats.; Permit #99-JCH-139-OP-R1]	(1) The permittee shall keep on site technical drawings, blueprints or equivalent records of as-built physical stack parameters. [s. NR 439.04(1)(d), Wis. Adm. Code; Permit #99-JCH-139-OP-R1]

Stack No.	Height, ft.	Diameter (ft.)or dimensions (ft. x ft.)
S11, *D16*	84	6.0
S12	75	2.0
S13A, *HL080*	86	2.3
S17, *QL046*	40	0.458 x 0.67
S19t, *S033*	57	0.98
SD21	70	N/A
S21A, *HL060*	10	1 x 1
S22, *BL017*	27	1.3
S22t, *S007*	77	1.0
S23, *BL068*	36	0.6
S24, *QL024*	50	0.792 x 1.21

ZZZ. Other Conditions Applicable to the Entire Facility		
CONDITION TYPE	**a. CONDITIONS**	**b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
3. Emissions Testing	(1) At times specified in this permit, or when requested by the Department, the permittee shall perform emissions testing. [s. NR 439.075(1)(b), Wis. Adm. Code]	(1) Whenever emissions testing is required: (a) Unless the Department requires or approves the performance of a test at less than capacity, all compliance emission tests shall be performed with the equipment operating at capacity or as close to capacity as practicable. [s. NR 439.07(1), Wis. Adm. Code] (b) The Department shall be informed at least 20 working days prior to any stack testing so a Department representative can witness the testing. At the time of notification an emissions test plan shall also be submitted to the Department for approval. When approved in writing, an equivalent test method may be substituted for the reference test method specified in this permit. [s. NR 439.07(2), Wis. Adm. Code] (c) Two copies of the report on the tests shall be submitted to the Department for evaluation within 60 days following the tests. [s. NR 439.07(9), Wis. Adm. Code]
4. Compliance Reports	(1) The permittee shall submit periodic reports. [s. NR 407.09(1)(c)3., Wis. Adm. Code; Permits #93-RV-108-R1 and #99-JCH-139-OP-R1]	(1) Submit to the Northeast Region Air Program, 2984 Shawano Ave., Green Bay, WI 54313-6727, a semiannual summary of the monitoring required by this permit, due March 1 for the period from July 1 to December 31 of the preceding year, and due September 1 for the period from January 1 to June 30 of the current year, each year that this permit is in effect. The content of the submittal is described in item D of Part II of this permit. [s. NR 439.03(1)(b), Wis. Adm. Code; Permits #93-RV-108-R1 and #99-JCH-139-OP-R1] (2) Submit certification of compliance with the requirements of this permit to the Northeast Region Air Program, 2984 Shawano Ave., Green Bay, WI 54313-6727, and to U.S. EPA at Compliance Data – Wisconsin, Air and Radiation Division, U. S. EPA, 77 W. Jackson, Chicago, IL 60604, due March 1 for the period from January 1 to December 31 of the preceding year, each year that this permit is in effect. The content of the submittal is described in item N of Part II of this permit. [s. NR 439.03(1)(c), Wis. Adm. Code; Permits #93-RV-108-R1 and #99-JCH-139-OP-R1]

ZZZ. Other Conditions Applicable to the Entire Facility		
CONDITION TYPE	**a. CONDITIONS**	**b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
5. Solid Fuel Sampling and Analysis	(1) In any year during which the permittee has a coal blend burning rate equal to or greater than 10,000 tons per year but less than 100,000 tons per year, the permittee shall sample coal blend and submit reports on coal blend quality in the following manner: (a) Perform coal blend sampling using the procedures in ASTM D2234-02, which result in data at least as reliable as classification II-D-2 (Type II, Condition D), defined in ASTM D2234-02 as manual sampling – stationary coal blend sampling – random spacing, and analyze these samples for ash content, sulfur content and heat content according to the applicable methods and procedures in Condition ZZZ.5.b.(1). (b) When sampling is performed per any ASTM Type II, Condition C or Condition D classification, the permittee shall collect one gross sample for every 1000 tons of each blend burned. A gross sample shall consist of a minimum of 15 increments. Unless otherwise approved by the Department, each increment shall be 2 pounds in weight, collected at random spacing, and taken from pulverized fuel, with no selective rejection of material by size and with no contamination by nonsample material. (c) Submit quarterly fuel sampling reports within 30 days following the end of each calendar quarter which include the following information for each kiln, for each month during the calendar quarter: (i) The total quantity of coal blend burned expressed in tons. (ii) Weighted average percent of the ash content of the coal blend burned. (iii) Weighted average percent of the sulfur content of the coal blend burned. (iv) Weighted average heat content expressed in BTU per pound of the coal blend burned. (v) Weighted average sulfur dioxide emission rate in terms of pounds of sulfur dioxide per million BTU heat input from the coal blend burned. [ss. NR 407.09(4)(a)1., 407.09(1)(c)3., 439.085(2)(c)1. and 2., and 439.085(4) Wis. Adm. Code; Permit #93-RV-108-R1]	(1) Coal blend samples shall be analyzed for ash content, sulfur content , heat content and moisture content using the following methods: (a) The sulfur content of a coal blend sample shall be determined according to ASTM D3177-02, Standard Test Methods for Total Sulfur in the Analysis Sample of Coal and Coke, or ASTM D4239-04a, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods. (b) The heat content of a coal blend sample shall be determined according to ASTM D5865-04, Standard Test Method for Gross Calorific Value of Coal and Coke. (c) The ash content of a coal blend sample shall be determined according to ASTM D3174-04, Standard Test Method for Ash in the Analysis Sample of Coal and Coke from Coal. (d) The moisture content of a coal blend sample shall be determined according to ASTM D3173-02, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke from Coal. (e) Alternative methods may be used if approved, in writing, by the department. [ss. NR 407.09(1)(c)1.a. and NR 439.08(1), (c), (d), (e) and (f) Wis. Adm. Code; Permit #93-RV-108-R1]

ZZZ. Other Conditions Applicable to the Entire Facility		
CONDITION TYPE	**a. CONDITIONS**	**b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
5. Solid Fuel Sampling and Analysis (Continued)	**(2)** In any year during which the permittee has a coal blend burning rate equal to or greater than 1,000 tons per year but less than 10,000 tons per year, the permittee shall submit, on a quarterly basis, information on coal blend quality which is calculated from the supplier's analyses for each shipment of coal blend received. Each quarterly report is due within 30 days following the end of the calendar quarter. The owner or operator shall obtain certification from the supplier that the applicable methods and procedures in Condition ZZZ.5.b.(1) were followed by the supplier. The report shall include the following information for each calendar quarter: (a) The total quantity of coal blend burned expressed in tons. (b) Weighted average percent of the ash content of the coal blend burned. (c) Weighted average percent of the sulfur content of the coal blend burned. (d) Weighted average heat content expressed in BTU per pound of the coal blend burned. (e) Weighted average sulfur dioxide emission rate in terms of pounds of sulfur dioxide per million BTU heat input from the coal blend burned. [ss. NR 407.09(4)(a)1., 407.09(1)(c)3., 439.085(2)(d), and 439.085(4) Wis. Adm. Code; Permit #93-RV-108-R1] **(3)** In any year during which the permittee has a coal blend burning rate less than 1,000 tons per year, the permittee shall retain copies of the supplier's analyses for each shipment of coal blend received. The permittee shall obtain certification from the supplier that the applicable methods and procedures in Condition ZZZ.5.b.(1) were followed. The supplier's analyses shall include, at a minimum, each shipment's coal blend quantity, sulfur content, ash content and heat content. [ss. NR 407.09(4)(a)1., 439.085(2)(e), and 439.085(4) Wis. Adm. Code; Permit #93-RV-108-R1]	(2) The permittee shall retain copies of the analyses required in Condition ZZZ.5.b.(1) for 5 years. [ss. NR 407.09(1)(c)2. and 439.04(1)(a), Wis. Adm. Code; Permit #93-RV-108-R1] (3) The permittee shall retain copies of the reports required in Condition ZZZ.5.a.(1), (2) or (3) for 5 years. [ss. NR 407.09(1)(c)2. and NR 439.04(1)(d), Wis. Adm. Code; Permit #93-RV-108-R1]

ZZZ. Other Conditions Applicable to the Entire Facility		
CONDITION TYPE	**a. CONDITIONS**	**b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
6. Alternate Operating Scenario: Use of raw materials not included in the permit application	(1) If the permittee has the capability to burn or use a raw material not included in the application reviewed for this permit, the permittee may use this material without first obtaining a construction permit provided the following conditions are met: (a) The source has continuously had such design capability to burn or use the raw material. (b) The use will not cause or exacerbate the violation of an ambient air quality standard or an ambient air increment. (c) The use is not prohibited by any permit, plan approval or special order applicable to the source. (d) The use will not result in a violation of any emission limit in chs. NR 405, 408, 409, 415 to 436, and 445, Wis. Adm. Code. (e) The use will not subject the source to any standard or regulation under s. 112 of the Clean Air Act (42 USC 7412). [s. NR 406.04(4)(a), Wis. Adm. Code]	(1) Any calculations and supporting material required to demonstrate compliance with Condition ZZZ.6.a.(1) shall be kept on file by the permittee. [ss. NR 407.09(1)(c)2. and NR 439.04(1)(d), Wis. Adm. Code]

ZZZ. Other Conditions Applicable to the Entire Facility		
CONDITION TYPE	**a. CONDITIONS**	**b. COMPLIANCE DEMONSTRATION, REFERENCE TEST METHODS, RECORDKEEPING AND MONITORING REQUIREMENTS**
7. *NR 445 Reporting, Recordkeeping and Compliance Requirements	(1) *If the permittee has non-exempt, potential to emit emissions of any hazardous air contaminant less than or equal to the applicable threshold in column (c), (d), (e) or (f) of Table A, B or C of s. NR 445.07, Wis. Adm. Code, then the permittee shall maintain records in accordance with s. NR 439.04(1) and (2), Wis. Adm. Code starting no later than June 30, 2007. [s. NR *445.08(6)(b), Wis. Adm. Code] (2) *If the permittee has non-exempt, potential to emit emissions of any hazardous air contaminant greater than the applicable threshold in column (c), (d), (e) or (f) of Table A, B or C of s. NR 445.07, Wis. Adm. Code, then the permittee shall do all of the following: (a) *Submit information no later than December 31, 2005, in accordance with the procedure in s. NR 445.08(7)(a), Wis. Adm. Code, adequate to describe how applicable control requirements in ss. NR *445.07(1)(c) or *445.09(3), Wis. Adm. Code, will be met. (b) *Achieve compliance with applicable emission limitations and control requirements in accordance with s. NR *445.08(1) and (2) no later than June 30, 2007. (c) *Submit the required information in accordance with s. NR *445.08(7), Wis. Adm. Code. [s. NR *445.08(6)(c), Wis. Adm. Code]	(1) *To meet the requirements of Condition ZZZ.7.a.(1), the permittee shall, at a minimum, keep records of the calculations of non-exempt, potential to emit emissions of each hazardous air contaminant emitted by the facility in amounts less than or equal to the applicable threshold value in Tables A, B or C of s. NR 445.07, Wis. Adm. Code. Calculations shall include the emission factors used to calculate emissions, and the source of the emission factors. [s. NR 439.04(1)(d), Wis. Adm. Code] (2) *If the permittee is required to achieve compliance in accordance with Condition ZZZ.7.a.(2), then the permittee shall demonstrate compliance by doing the following as applicable: (a) Submit the information required under s. NR 445.08(6)(c)1., Wis. Adm. Code, on the application form required for an operation permit, an amendment to an application, renewal of the operation permit, or for a significant revision under s. NR 407.13, Wis. Adm. Code, as applicable. (b) Submit all of the following information to the Department: (i) The hazardous air contaminants in Table A, B and C of s. NR 445.07, Wis. Adm. Code, the facility is capable of emitting in an amount greater than the threshold value listed for the contaminant in the applicable table. (ii) The emission limitation applicable to each hazardous air contaminant identified under Condition ZZZ.7.b.(2)(a)(i). (iii) The method or combination of methods used for achieving compliance under ss. NR 445.08(2) or (3), Wis. Adm. Code with the applicable standard for each hazardous air contaminant. (iv) A description of the records that will be kept on site to verify continuous compliance for each hazardous air contaminant and its applicable standard. (v) A signed and dated statement by the responsible official stating that the information is accurate to the best of his or her knowledge and belief, and that all of the requirements of ch. NR 445, Subchapter III have been met. (vi) The address for submittal of this information is Wisconsin Department of Natural Resources, Bureau of Air Management, PO Box 7921, Madison WI 53707-7921, Attention: NR 445 Compliance Notifications. [s. NR 445.08(7), Wis. Adm. Code]

APPENDIX A

Tables 1 to 8 to 40 CFR Part 63, Subpart AAAAA

National Emission Standards for Hazardous Air Pollutants for Lime Manufacturing Plants

The following website contains the complete text of 40 CFR Part 63, Subpart AAAAA as published in the Federal Register on January 5, 2004. Tables 1 to 8 begin on Page 424. Hard copies of this permit contain a printout of the tables from this website.

http://www.epa.gov/ttn/atw/lime/fr05ja04.pdf

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Exhibit B

August 1, 2009

Wisconsin Department of Natural Resources,
Northeast Region Headquarters
2984 Shawano Avenue
Green Bay, WI 54313-6727
Attn.: Carol Crawford, P.E.
Carol.Crawford@wisconsin.gov

Re: Public Comments on Draft Permit 436034390-P10, Carmeuse Lime

Ms. Crawford,

These comments are submitted on behalf of the Sierra Club and its over 1 million members, including its 13,000 members in Wisconsin.

I. DNR Must Clarify That The Limits Are Instantaneous

Some of the permit limits lack averaging periods. Therefore, the averaging period is instantaneous (i.e., emissions can never exceed at any time). DNR should note that these limits are instantaneous- which provides no averaging of emissions over time.

II. DNR Must Remove the Startup and Shutdown Exemptions That The D.C. Circuit Found To Be Unlawful from the HAP Limits (Including the PM Surrogate Limits).

The lime kilns are subject to a number of emission limits, including hazardous air pollutant emission limits:

- 0.12 lb of filterable particulate matter per ton of lime stone feed, see Draft Permit §§ I.A.1.a.(4), I.B.1.a.(3), I.ZZ.1.a; and
- 10% opacity, Draft Permit §§ I.ZZ.2.a.

The Draft Permit purports to exempt periods of startup, shutdown and malfunction from some of these HAP limits. *See* Draft Permit §§ I.ZZ.1.b., I.ZZ.2.b. However, the startup,

shutdown and malfunction exemptions DNR relied upon have been deemed unlawful and, therefore, must be taken out of the permit.

On December 19, 2008, the D.C. Circuit Court of Appeals held that startup, shutdown, and malfunction exemptions to national emission standards for hazardous air pollutants (NESHAPs) are unlawful. See *Sierra Club v. EPA*, Case No. 02-1135, Slip Op. (D.C. Cir. Dec. 19, 2008). The *Sierra Club* court then vacated the regulations providing for the exemptions. On July 30, 2009, the D.C. Circuit denied a petition for rehearing en banc. DNR cannot rely on vacated regulations. *Envtl. Defense v. Leavitt*, 329 F. Supp. 2d 55, 64 (D.D.C. 2004) (D.C. Circuit's decision to vacate a rule renders it a nullity). DNR must remove the exemptions from the permit. The particulate matter and opacity limits in the hazardous air pollutant regulations therefore apply at all times.

II. The Title V Permit Cannot Change Permit Limits Applicable Through Title I Programs, Including PSD BACT Limits Previously Established Through Construction Permits.

U.S. EPA issued a permit for this facility (when it was called Rockwell Lime) in 1979. That permit included the following requirements that have not been carried over into the Title V permit:[1]

1. A BACT limit of 0.30 lb of PM per ton of limestone feed. The Draft Permit expresses this limit as 0.3 lb/ton, which causes potential confusion regarding rounding. EPA's limit would mean that an emission rate of 0.31 was be a violation, whereas the facility could argue that DNR's limit requires rounding down and that 0.31 is in compliance.

2. The EPA permit requires use of "a low sulfur coal with a maximum sulfur content of 1 percent," unless such coal is not available, in which case the permit provides that "a medium sulfur coal with a sulfur content not greater than 2.1 percent will be used." The permit further provides that "[t]he sulfur content of the coal used to fire the kiln shall not exceed 2.1 percent on a 24-hour basis." Therefore, the Title V permit must include a requirement that 1% sulfur coal be used unless it is unavailable, in which case coal can be used up to a sulfur content of 2.1% on a 24-hour basis.

   It also appears that DNR attempted to change the sulfur limits in EPA's PSD permit, allowing higher sulfur coal and pet coke to be used if averaged with other lower-sulfur fuel (i.e., gas). This cannot replace the requirements in EPA's permit. DNR was not authorized to modify EPA's PSD permit at the time 93-

[1] Note that DNR could not have changed any of these requirements because DNR was not authorized to modify EPA-issued PSD permits until very recently. 72 Fed. Reg. 18391 (April 12, 2007). The Draft Permit's "Preamble" states that two EPA-issued PSD permits for kilns 1 and 2 were "superseded by Permit #93-RV-108." This is incorrect. DNR was not authorized to change or "supersede" EPA-issued PSD permits when 93-RV-108 was issued. Additionally, modifications would need to occur through a Title I permit and cannot occur through only a Title V permit.

RV-108 was issued. Therefore, if EPA's permit were to be modified, EPA was required to reopen the permit following the procedures in 40 C.F.R. § 52.21 and part 124. This was never done. Therefore, the final permit must contain: (a) a requirement to use 1% sulfur coal unless unavailable; (b) a requirement that coal sulfur content can never exceed 2.1% on a 24-hour average.

3. The sulfur content limit for the fuel coal is on a dry basis ("used to fire the kiln"). The permit should make clear that monitoring of coal sulfur content is done on a dry percentage basis.

4. There is no provision in the EPA-issued PSD permit allowing the facility to burn petroleum coke, a dirtier fuel than coal. It appears that EPA never reviewed that fuel as part of the PSD permitting. According to EPA's permit, the kiln is only authorized to operate in accordance with the permit application submitted to and reviewed by EPA. Again, if EPA were to grant authorization to burn petroleum coke, it was required to go through PSD permitting following the procedures in 40 C.F.R. § 52.21 and part 124. Because that was never done, the original PSD permit's requirements remain in place and DNR cannot allow pet coke fuel to be used unless DNR reopens the PSD permit.

III. The Permit Must Ensure That The Kilns Comply with NR 415.05 For All Heat Input Levels.

The Draft Permit purports to contain PM limits from NR 415.05(2) for both kilns. However, the kilns are also fuel burning installations subject to NR 415.06. Therefore, DNR must ensure that the kilns are also subject to the more stringent limit in NR 415.06.

IV. The Permit Must Establish Compliance Demonstration Requirements that Ensure Continuous Compliance With Emission Limits.

The draft permit fails to include sufficient monitoring. *See* Wis. Admin. Code §§ NR 407.09(1)(c)(1)b. (monitoring must ensure compliance with reliable data for the relevant time period), NR 407.09(4)(a)1. (all operating permits shall contain compliance requirements "sufficient to assure compliance with the terms and conditions of the permit"); 40 C.F.R. §§ 70.6(a)(3)(i)(B), 70.6(c); Wis. Admin. Code § NR 407.09(1)(c)1.b.

U.S. EPA has recently described the monitoring requirements under Title V of the Clean Air Act, and the current state of the law, as follows:

> In August 2008, the United States Court of Appeals for the District of Columbia Circuit emphasized that section 504(c) of the Act requires all title V permits to contain monitoring requirements to assure compliance with permit terms and conditions. Sierra Club v. EPA, 536 F.3d 673 (D.C. Cir. 2008); see also 40 C.F.R. §§ 70.6(a)(3)(i)(B) and

70.6(c)(1). This decision overturned EPA's interpretative rule, signed December 15, 2006, which had taken the position that permitting authorities were prohibited from adding monitoring requirements to title V permits where the applicable requirements contained some periodic monitoring, even if that periodic monitoring was not sufficient to assure compliance with permit terms and conditions. 71 Fed. Reg. 75422 (Dec. 15, 2006). The Court held that EPA's interpretative rule violated the statutory directive in section 504(c) of the Act that each permit must include monitoring requirements to assure compliance with the permit terms and conditions. Sierra Club, 536 F.3d at 678. If an applicable requirement contains a periodic monitoring requirement that is inadequate to assure compliance with a term or condition of the title V permit, the Court concluded, title V of the Act requires that "somebody must fix these inadequate monitoring requirements." Id. at 678 . The Court overturned EPA's interpretative rule, but found that EPA's current regulation at 40 C.F.R. § 70.6(c)(1)-requiring that each permit contain monitoring requirements sufficient to assure compliance with permit terms and conditions - may, and must, be interpreted consistent with the Act. Id. at 680.

To summarize, EPA's part 70 monitoring rules (40 C.F.R. §§ 70 .6(a)(3)(i)(A) and (B) and 70.6(c)(1)) are designed to satisfy the statutory requirement that "[e]ach permit issued under [title V] shall set forth . . . monitoring . . . requirements to assure compliance with the permit terms and conditions ." CAA § 504(c). As a general matter, permitting authorities must take three steps to satisfy the monitoring requirements in EPA's part 70 regulations. First, under 40 C.F.R. § 70.6(a)(3)(i)(A), permitting authorities must ensure that monitoring requirements contained in applicable requirements are properly incorporated into the title V permit. Second, if the applicable requirement contains no periodic monitoring, permitting authorities must add "periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit ." 40 C.F.R. § 70.6(a)(3)(i)(B) . Third, if there is some periodic monitoring in the applicable requirement, but that monitoring is not sufficient to assure compliance with permit terms and conditions, permitting authorities must supplement monitoring to assure such compliance. 40

> C.F.R. § 70.6(c)(1) . EPA notes that periodic monitoring that meets the requirements of 40 C.F .R. § 70 .6(a)(3)(i)(B) will be sufficient to satisfy the requirements of 40 C.F.R. § 70 .6(c)(1) (i.e., will be sufficient to assure compliance with permit terms and conditions). In addition, in many cases, monitoring from applicable requirements will be sufficient to assure compliance with permit terms and conditions. For example, monitoring established consistent with EPA's Compliance Assurance Monitoring ("CAM") rule (40 C.F.R. Part 64) will be sufficient to assure compliance with permit terms and conditions, thus meeting the requirements of 40 C.F .R. § 70.6(c)(1).
>
> In all cases, the rationale for the selected monitoring requirements must be clear and documented in the permit record . 40 C.F.R. § 70.7(a)(5) .

In re Premcor Refining Group, Inc., Title V Petition No. VI-2007-02, Order at 6-7 (EPA Adm'r May 28, 2009).

The monitoring in the permit, generally, is insufficient. At a minimum, the permit must establish a method to ensure continuous compliance with all permit limits. 42 U.S.C. § 7661c(c); 40 C.F.R. § 70.6(c)(1); *Sierra Club v. EPA*, 536 F.3d 673, 675 (D.C.Cir. 2008) ("'[w]here the applicable requirement does not require periodic testing,' subsection 70.6(a)(3)(B) obliges the permitting authority to add to the permit 'periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit.'"); Order Denying in Part and Granting in Part Petition for Objection to Permit, *In re Fort James Camas Mill*, Petition No. X-1999-1 (Dec. 22, 2000); Order Partially Granting and Partially Denying Petition for Objection to Permits, *In re PacifiCorp's Jim Bridger and Naughton Electric Utility Steam Generating Plants*, Petition No. VIII-00-1 (Nov. 16, 2000).

> The "periodic monitoring rule," 40 C.F.R. § 70.6(a)(3)(i)(B), requires that "[w]here the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring (which may consist of record keeping designed to serve as monitoring), [each title V permit must contain] 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 shall assure use of terms, test methods, units, averaging periods, and other statistical conventions consistent with the applicable requirement.

In the Matter of Midwest Generation, LLC, Waukegan Generation Station, Order at 19 (September 22, 2005) (hereinafter "*Waukegan*") (*citing* 69 Fed. Reg. at 3202, 3204 (Jan. 22, 2004)); *see also, Appalachian Power Co. v. EPA*, 208 F.3d 1015 (D.C. Cir. 2000); Carraway, Candace, U.S. EPA Office of Air Quality Planning and Standards, How Do I Review Each Applicable Requirement for Adequate Periodic Monitoring? at p. 2 (June 2000).

Furthermore, where an underlying limit requires some monitoring—such as the NESHAP for lime kilns— which does not serve to assure that the facility is in compliance with the underlying limit at all times, the Clean Air Act requires that the permit include additional monitoring. See *Sierra Club v. EPA*, Case No. 04-1243, Slip. Op. (D.C. Cir. August 19, 2008).

> Title V is a complex statute with a clear objective: it enlists EPA and state and local environmental authorities in a common effort to create a permit program for most stationary sources of air pollution. Fundamental to this scheme is the mandate that "[e]ach permit . . . shall set forth . . . monitoring . . . requirements to assure compliance with the permit terms and conditions." 42 U.S.C. § 7661c(c). By its terms, this mandate means that a monitoring requirement insufficient "to assure compliance" with emission limits has no place in a permit unless and until it is supplemented by more rigorous standards. *Cf.* EPA Br. at 29 ("EPA recognizes that the monitoring required by some rules . . . — particularly, those that pre-date the 1990 . . . Amendments — may not be adequate to assure compliance and should be improved.").

Id. In addition, the Court acknowledged that the mere existence of periodic monitoring requirements may not be sufficient. *Id.* at 676–77. The Court further noted that annual testing is unlikely to assure compliance with a daily emission limit—confirming that the frequency of monitoring must bear a direct relationship to the averaging time used to determine compliance. *Id.* at 675.

DNR must ensure that there is sufficient continuous monitoring to ensure continuous compliance. At a minimum, this includes either PM continuous emission monitors or a parametric monitoring scheme that is sufficiently explained and based on a direct connection with the emission rate. The Draft Permit only requires monitoring of pressure drop at the inlet to the baghouse, a monitor for lime feed, and fuel type requirements to determine continuous compliance with the PM limits for the kilns. Nowhere in the permit record, however, does DNR explain how these parameters ensure compliance with each of the PM limits. Moreover, presumably, the baghouse must be operated correctly to meet the emission limits and the baghouse is only effective when pressure drop is within a specific range. For example, if the pressure drop is too low it may indicate that the baghouse bags are torn, damaged, or bypassed. Merely monitoring

the pressure drop, alone, is insufficient to ensure compliance unless the facility establishes the baghouse pressure drop range that ensures that the baghouse is operated correctly and achieving sufficient control at all times.

For example, EPA objected to a proposed Title V permit for Tampa Electric's F.J. Gannon Station for failing to include a parameter range that correlates to an emission rate:

> While the permit does include parametric monitoring of emission unit and control equipment operations in the O & M plans for these units... the parametric monitoring scheme that has been specified is not adequate. The parameters to be monitored and the frequency of monitoring have been specified in the permit, but the parameters have not been set as enforceable limits. In order to make the parametric monitoring conditions enforceable, a correlation needs to be developed between the control equipment parameter(s) to be monitored and the pollutant emission levels. The source needs to provide an adequate demonstration (historical data, performance test, etc.) to support the approach used. In addition, an acceptable performance range for each parameter that is to be monitored should be established.

In the Matter of Tampa Electric Co., F.J. Gannon Station, Objection to Proposed Part 70 Operating Permit No. 0570040-002-AV (Sept. 8, 2000) (emphasis added); *see also In the Matter of the Huntley Generating Station*, Order Objecting to Operating Permit No. II-2002-01 at 21-22 (Adm'r July 31, 2003) (same). In fact, regarding Wisconsin's Title V program, EPA Region 5 has specifically noted that:

> Control device and process parameter monitoring can be used to demonstrate continuous compliance *when the parameters being measured have a correlation established with actual emissions*. The best way to establish this correlation is through simultaneous stack testing and parameter measurements.

Ltr. from Bharat Mathur, USEPA, to Eric Uram, Sierra Club, at 5 (Oct. 26, 2007) (emphasis added).

In short, monitoring must be at least as frequent as the averaging time and, if parametric monitoring is used, there must be an explicit determination of the ranges representing compliance and noncompliance and an adequate explanation for deriving those ranges.

For particulate matter (PM) emission limits and HAP emissions (regulated

through PM) for the lime kilns, the permit relies on a stack test every two years and pressure drop across the baghouse, measured once every 8 hours. The permit also provides that when pressure drop is outside of the two (2) to eleven (10) inches of water. This monitoring is deficient.

First, a stack test every two years does not and cannot determine whether the source is in compliance during the 17,520 hours between stack tests. Second, even the pressure drop reading is deficient because it is not sufficiently frequent and, while the 2-10 inches pressure drop range is presumably intended to be correlated to emission rates that are in compliance with each of the limits in the permit, this is not explained. Moreover, the pressure drop is only recorded every eight hours: this monitoring and recordkeeping one to three times per day does not ensure that the pressure drop is sufficient to ensure compliance during the other 21 to 23 hours per day. Nor does a once-to-three-times per day reading of pressure drop and "daily basis" monitoring and recording of limestone feed correlate to the averaging times for the PM/PM10 limits in the permit (which are instantaneous limits and based on feed rates).

It is also not clear how the DNR established the opacity indicator ranges for CAM. It does not appear, based on the permit record, that DNR used emission test data or any similar data to establish a correlation between opacity and compliance with each of the PM limits applicable to the kilns. Moreover, even though both kilns are subject to similar emission rates (e.g., 0.12 lb/ton), DNR established an indicator rage of 10% opacity for kiln 1 and 40% for kiln 2. This further confuses the basis for the indicator range and whether DNR based those ranges on actual emission rates.

To summarize, the Draft Permit's monitoring of PM/PM10 from the lime kilns is deficient for at least the following reasons:

1) DNR must explain in the statement of basis (Preliminary Determination) how the monitoring satisfies the requirement of continuous monitoring sufficient to assure that the source is in continuous compliance with all emission limits. 40 C.F.R. § 70.7(a)(5). In fact, this explanation is missing from the Preliminary Determination for <u>each</u> emission limit/monitoring combination, including but not limited to the kilns, screening, loadout, ash handling and storage, milling, hydraing, and truck and rail car loading/unloading.

2) If DNR relies on parametric monitoring (i.e., pressure drop), rather than direct continuous monitoring of emissions, then DNR must, at a minimum: (a) make sure the parametric monitoring matches the averaging time of the underlying limits; and (b) identify and make explicit in the permit the parametric ranges that ensure compliance with an underlying limit.

3) Baghouse pressure drop is not sufficient to assure compliance. There has been no connection between maintenance of baghouse pressure drop between 2 and 10 inches of water and compliance with each of the particulate matter limits.

4) Once baghouse pressure drop ranges are correlated to the PM limits (if DNR chooses to satisfy the continuous monitoring requirement this way), DNR must make compliance with those pressure drop ranges into permit requirements.

We note that particulate matter continuous emission monitors (PM CEMS) have been certified and approved by the U.S. EPA. PM CEMS should be required monitoring to assure continuous compliance with PM and PM10 limits.[2] A District Court recently held that PM CEMS were necessary to ensure continuous compliance with particulate matter limits. *See U.S. v. Cinergy Corp.*, Case No. 1:99-cv-1693-LJM-JMS, Slip Op. at 53-54 (S.D.Ind. May 29, 2009). DNR should require PM CEMS on the limit kilns here.

V. All Plans Referenced in the Draft Permit Should Have Been Contained in the Permit Application.

As U.S. EPA determined in the *Oak Creek* order, plans referenced in the permit or relied on by DNR in any way in determining that the plant will comply with any applicable limit or monitoring requirement must be: (1) reviewed and approved by DNR as part of the permit; (2) subject to public notice and comment; and (3) made part of the permit. *In re We Energies Oak Creek Power Plant*, Order at 24 (EPA Adm'r June 13, 2009). These plans include (but may not be limited to) the following in the Draft Permit:

---

[2] Continuous emissions monitoring systems (CEMS) are the preferred method for determining compliance with PM limits. *See e.g.*, 40 CFR §§ 60.42, *et seq.* Coal fired electric generating units are installing PM CEMS, which could be used on lime kilns as well. American Electric Power agreed to install PM CEMS on some of its existing coal plants and EPA has secured commitments from up to 30 existing coal-fired utility installations to install PM CEMS over the next couple of years. There are many other facilities that operate PM CEMS and have demonstrated that the systems are reliable and accurate. These include Tampa Electric power plant (Florida), Eli Lilly Corporation (Indiana), and the U.S. Department of Energy (Tennessee). US EPA has strongly urged PM CEMs, and determined that PM CEMS are reliable and accurate.

There are several different types of PM CEMS technologies that are designed to sample continuously or by batch using in-situ or extractive sampling systems. Each type has site specific advantages and therefore the type selected should be appropriate for the flue gas conditions at the Turk plant. Common types of PM CEMS were described by EPA several years ago (which only bolsters the contention that PM CEMS technology is widely available) in "Current Knowledge of Particulate Matter (PM) Continuous Emission Monitoring," EPA-454/R-00-039, September 2000. Although somewhat dated, that document describes at least two technologies that should be considered for continuous PM monitoring at this plant: Light Scattering (An emitted light beam passes through a defined sample volume); and Acoustic Energy (Shock waves caused by the impact of particles with a probe inserted into the flow are used to measure the particulate concentration).

- Malfunction Prevention & Abatement Plan,
- Compliance & Assurance Monitoring Plan,
- Quality control and quality assurance plan for the emission monitors,
- Combustion optimization plans required for NOx emissions from the kilns,
- Alternative sampling plan for fuel sampling.

The permit sections referenced for each of these plans are only examples. The plans are referenced throughout the permit. DNR is directed to reference to each type of plan throughout the Draft Permit. DNR must, at a minimum, require these plans, review them for adequacy, explain its basis for proposing to approve the plant in the statement of basis (Preliminary Determination), provide a public notice and comment period, and then adopt the plans into the permit.

Thank you again for the opportunity to provide these comments. If you have any questions, or if you would like any additional information that we can provide, please do not hesitate to contact us.

Sincerely,

McGillivray Westerberg & Bender LLC

David C. Bender

Attorneys for Sierra Club

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

SEP 27 1979

Mr. Joseph G. Brisch
Executive Vice President
Rockwell Lime Company
Route 2, Box 124
Manitowoc, Wisconsin 54220

Re: Rockwell Lime Company
Rotary Lime Kiln No. 2
Kossuth Township, Wisconsin

Dear Mr. Brisch:

We have completed our final review of Rockwell Lime Company's application for approval to construct a new rotary lime kiln No. 2 in Kossuth Township, Wisconsin.

A determination to approve with conditions, the construction of a new rotary lime kiln No. 2, has been made. There were no public comments and no request for a public hearing submitted concerning the preliminary approval of the lime kiln by the U.S. Environmental Protection Agency (U.S. EPA). The approval to construct which delineates the required conditions of construction and operation is enclosed. Please be advised that this approval is based upon your written application; any departure from the terms in the application must receive the prior written authorization from U.S. EPA.

I would like to stress that this approval only applies to the regulations contained in 40 CFR 52.21 concerning the Prevention of Significant Deterioration of Air Quality and the applicable sections of the Clean Air Act, as amended. This approval in no way relieves Rockwell Lime Company of the responsibility to comply fully with all the other requirements of the Clean Air Act, Clean Water Act or any other Federal, State and local environmental legislation.

In addition, the United States Court of Appeals for the D.C. Circuit has issued a ruling in the case of the Alabama Power Co. vs. Douglas M. Costle (78-1006 and consolidated cases) which has significant impact on the EPA Prevention of Significant Deterioration (PSD) program and approvals issued thereunder. Although the court has stayed its decision pending resolution of petitions for reconsideration, it is possible that the final decision will require modification of the PSD regulations and could affect approvals

issued under the existing program. Examples of potential impact areas include the scope of best available control technology (BACT), source applicability, the amount of increment available (baseline definition), and the extent of preconstruction monitoring that a source may be required to perform. The applicant is hereby advised that this approval may be subject to reevaluation as a result of the final court decision and its ultimate effect.

I appreciate your cooperation and that of your firm in this matter.

Sincerely yours,

John McGuire
Regional Administrator

Enclosures

cc: Robert Arnott, Ph.D., Director
Bureau of Air Pollution Control
Wisconsin Department of Natural Resources

Rosemary Singh
Manitowoc Public Library
Reference Section

In the Matter of	)	Approval to Construct
	)	
Rockwell Lime Company Kossuth Township, Wisconsin	)	EPA-5-A-79
	)	
Proceeding Pursuant to the Clean Air Act, as amended	)	

Authority

The approval to construct is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et seq., (the Act), and the Federal regulations promulgated thereunder 40 CFR 52.21 for the Prevention of Significant Deterioration of Air Quality (PSD).

Findings

1. The Rockwell Lime Company (Rockwell) proposes to construct a new rotary lime kiln (kiln No. 2) in Kossuth Township, Wisconsin.

2. The proposed construction of the new rotary lime kiln is subject to the requirements of 40 CFR 52.21 and the applicable sections of the Act.

3. On December 12, 1978, Rockwell submitted a PSD application. The application was determined to be deficient on January 18, 1979. On February 19,1979, additional information was submitted. The application was determined to be complete and preliminary approval was granted on April 5, 1979. On May 4, 1979, notice was published in the Herald-Times Reporter seeking comments from the public and giving an opportunity to request a public hearing on the application and U.S. EPA's review and preliminary determination to approve construction of the above-cited source. No comments or requests for a public hearing were received.

4. After a thorough review of all materials submitted by Rockwell, U.S. EPA has determined that emissions from the new rotary kiln will not violate the National Ambient Air Quality Standards nor will it violate the PSD air quality increments. The operation of the proposed lime kiln will be controlled by the application of the best available control technology (BACT).

5. A baghouse will be utilized to control particulate emissions from the kiln's exhaust gases. Fugitive particulate emissions from the kiln will be minimal. The coal will be unloaded into hoppers and conveyed underground to the main building. The lime will be transported by sealed screw conveyors to a sealed storage area.

6. The lime in the kiln and baghouse will absorb sulfur dioxide. In addition, a low sulfur coal with a maximum sulfur content of 1 percent will be used. If a low sulfur coal is not available a medium sulfur coal with a sulfur content not greater than 2.1 percent will be used.

7. The lime kiln is subject to the requirements of 40 CFR Part 60, Subpart HH, New Source Performance Standards for Lime Manufacturing Plants.

Conditions

8. Emissions of particulate matter from the baghouse shall not exceed 0.30 pounds per ton of limestone feed.

9. Fugitive particulate matter emissions shall not exceed 5% opacity from any of the following sources:

a. Limestone conveying and storage
b. Coal unloading and conveying
c. Lime conveying and storage

10. The sulfur content of the coal used to fire the kiln shall not exceed 2.1 percent on a 24-hour basis.

11. The exhaust gases from the baghouse shall not exceed 10% opacity.

Conditions 8 through 11 represent the application of BACT as required by Section 165 of the Act.

12. In accordance with 40 CFR Section 60.7 (c) and 60.343 (e), quarterly reports of all six-minute periods during which the average opacity of the plume is 10 percent or greater shall be submitted to U.S. EPA within 5 days of each occurrence.

Approval

13. This approval to construct does not relieve Rockwell of the responsibility to comply with the control strategy and all local, State and Federal regulations which are part of the applicable Implementation Plan, as well as all other applicable local, State and Federal requirements.

14. This approval is effective immediately. This approval to construct shall become invalid, if construction or expansion is not commenced within 18 months after receipt of this approval or if construction is discontinued for a period of 18 months or more. The Administrator may

extend such time period upon a satisfactory showing that an extension is justified. Written notification shall be made to U.S. EPA 5 days after construction is commenced.

15. A copy of this approval has been forwarded for public inspection to the Manitowoc Public Library, 808 Hamilton, Manitowoc, Wisconsin.

16. In addition, the United States Court of Appeals for the D.C. Circuit has issued a ruling in the case of Alabama Power Co. vs. Douglas M. Costle (78-1006 and consolidated cases) which has significant impact on the EPA Prevention of Significant Deterioration (PSD) program and approvals issued thereunder. Although the court has stayed its decision pending resolution of petitions for reconsideration, it is possible that the final decision will require modification of the PSD regulations and could affect approval issued under the existing program. Examples of potential impact areas include the scope of best available control technology (BACT), source applicability, the amount of increment available (baseline definition), and the extent of preconstruction monitoring that a source may be required to perform. The applicant is hereby advised that this approval may be subject to reevaluation as a result of the final court decision and its ultimate effect.

9-27-79
Date

Regional Administrator

CORRESPONDENCE/MEMORANDUM

State of Wisconsin

Exhibit C

DATE: October 22, 2009

FID #: 436034390

TO: John Melby (AM/7)

FROM: Carol V. Crawford, P. E. (NER)

SUBJECT: Response to Comments on Carmeuse Lime and Stone, Rockwell Operation, Permit Renewal # 436034390-P10

The public comment period for this operation permit renewal ended on August 3, 2009. Comments were received from Carmeuse Lime and Stone and from the Sierra Club.

Comments from Carmeuse Lime and Stone

1. Carmeuse offered corrections to the Stack and Process Index.

DNR Response: The suggested changes were made in the proposed permit.

2. Carmeuse commented that Conditions A.1.a.(4), A.1.c.(1)(b), B.1.a.(4) [actually B.1.a.(3)] and B.1.c.(1)(b) were redundant and should be removed, because they are the same as Conditions ZZ.1.a.(1) and ZZ.1.c.(1).

DNR Response: Conditions ZZ.1.a.(1) and ZZ.1.c.(1) were changed to reference conditions A.1.a.(4), A.1.c.(1)(b), B.1.a.(3) and B.1.c.(1)(b), rather than repeating these requirements. It is preferable to include the applicable emission limits and stack test methods from Subpart AAAAA in the sections of the permit that contain the other particulate matter emission limits.

3. Carmeuse commented that compliance with the Lime Manufacturing NESHAP and the NSPS for Lime Manufacturing Plants is sufficient to satisfy the conditions of the CAM rule; and that therefore conditions A.1.b.(6) [actually A.1.b.(7)], A.1.c.(6) and (7), B.1.b.(6), and B.1.c.(4) and (5) are not necessary.

DNR Response: Table 2 of the Lime Manufacturing NESHAP allows use of a bag leak detection system (BLDS), a PM detector, or opacity monitoring with a COM. In contrast, the CAM rule requires that the lime kilns use a COM for compliance with the CAM rule [40 CFR §64.3(d)]. Since the NESHAP allows options that would not be allowed under the CAM rule, it is not sufficient to say that the lime kilns comply with CAM by complying with the NESHAP. Instead, the permit must specify that opacity is the indicator of performance; must specify an indicator range; and must define an excursion. The monitoring, recordkeeping and reporting requirements for the existing COM are used to satisfy the requirements of the CAM rule, and the CAM-related permit conditions reference these requirements.

It is also not appropriate to say that compliance with the NSPS for Lime Manufacturing Plants is sufficient to satisfy the conditions of the CAM rule. Process P36 is subject to BACT limits, which are more stringent than the NSPS limits. The permit must specify an indicator range that corresponds with the BACT limits. Process P33 is not subject to the NSPS for Lime Manufacturing Plants, and to reference the NSPS would be to reference regulations that do not apply. CAM-related conditions will be retained in the proposed permit.

4. Carmeuse commented that the permit should specify the parameters to be monitored to show compliance with combustion optimization requirements for control of nitrogen oxide emissions. Carmeuse suggested adding Condition A.3.a.(4) and revising Conditions A.3.b.(1) and A.3.c.(3).

DNR Response: Condition A.3.a.(4) was added, with a maximum O_2 concentration of 2.5% since this was the value recorded during the combustion optimization. Conditions A.3.b.(1) and A.3.c.(3) were revised as suggested.

5. Carmeuse commented that the opacity limit in Condition ZZ.2.a.(1) should be 15%, not 10%.

DNR Response: The suggested change was made in the proposed permit, and a footnote was added noting that the BACT opacity limit for Process P36 is more restrictive.

6. Carmeuse commented that they did not elect to apply the 10% opacity limit (for P36) to P33.

DNR Response: Inclusion of the 10% limit for P33 was an error. The opacity limit for P33 will be changed to 15% in the proposed permit. This limit comes from the Lime Manufacturing MACT standard.

7. Condition C.1.b.(2) [actually Condition C.2.b.(2)]: Carmeuse commented that the requirement to perform Method 9 visible emissions compliance testing once every two months is unnecessary and burdensome if no visible emissions have been recorded during the daily observations.

DNR Response: The visible emission limit in Condition C.1.a.(1) is a BACT emission limit. Condition C.2.b.(2) provides for a more rigorous and extended observation of these sources than is provided by the daily checks for visible emissions. It is appropriate to perform periodic formal Method 9 testing on the sources that are subject to a BACT limit.

The language in the draft permit renewal was taken from the original operation permit #436034390-P01. This reviewer compared the language in Permit #436034390-P01, Condition C.2.b.(2) with the language in Construction Permit 93-RV-108, Condition 2.g. The language in #436034390-P01 differs from the language in the original construction permit, and the original language is clearer and more specific. It calls for three Method 9 tests (i.e. 18 minutes of operation) for each of three locations. This level of monitoring once every two months is reasonable for sources subject to BACT limits. The original Condition 2.g. will be included in the proposed permit as Condition C.2.b.(2).

8. Condition I.1.b.(1): Carmeuse commented that the baghouse should be identified as CB1, rather than BH1.

DNR Response: The requested change was made in the proposed permit.

9. Conditions I.2.b.(1)(a) and (2): Carmeuse commented that the requirements to perform 18 minutes of VE observations daily and to perform Method 9 visible emissions compliance testing once every two months are unnecessary and burdensome, given the small size and infrequent operation of Process P39.

DNR Response: The Department agrees with this comment. In contrast with the sources regulated under conditions C.1.a.(1) and C.2.b.(2), the portable belt conveyor is not subject to a BACT limit and is infrequently operated. The requested changes were made in the proposed permit.

10. Condition I.2.c.(3): Carmeuse commented that there is a typographical error in this permit condition: the opacity limit for this process is 20%, not 5%.

DNR Response: The requested change was made in the proposed permit.

11. Format of Table ZZ: Carmeuse commented that the format for Table ZZ should be similar to other tables in the permit. Specifically, Carmeuse wants particulate matter to be listed as the pollutant ZZ.1., and visible emissions to be listed as the pollutant in ZZ.2. Carmeuse wants ZZ.3. to be labeled simply "Required Reports".

DNR Response: Subpart AAAAA regulates particulate matter and opacity solely as surrogates for non-volatile and semi-volatile metal HAP. Although the emission limits are for particulate matter and opacity, the pollutants being regulated are the HAPs targeted by the MACT standard. The labels in ZZ.1. and ZZ.2. accurately describe the pollutants being regulated and will be retained in the proposed permit. The label for ZZ.3. will be changed as Carmeuse requested.

Comments from Sierra Club:

The Department also received comments on Carmeuse Lime and Stone's air pollution control operation permit renewal # 436034390-P10 from Mr. David Bender on behalf of Sierra Club on August 3, 2009. The Department's response to the comments received are as follows.

Comment I:

DNR must clarify that the limits are instantaneous - Some of the permit limits lack averaging periods. Therefore, the averaging period is instantaneous (i.e., emissions can never exceed at any time). DNR should note that these limits are instantaneous - which provides no averaging of emissions over time.

DNR Response:

The comment did not specifically state which emission limits lacked averaging periods. The Department will attempt to respond as specifically as possible to the general comment.

A number of the emission limits are instantaneous limits but compliance is demonstrated through test methods that include averaging periods. This does not mean that the emission limit has an averaging period incorporated into the limit; in order for that to occur an averaging period needs to be expressly stated in administrative code or statute. The emission limits will not be changed in the proposed permit as a result of this comment.

Specifically for Processes P36, neither the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Lime Manufacturing Plants, nor the New Source Performance Standards (NSPS) for Lime Manufacturing Plants, nor the BACT particulate matter limit, specify an averaging period for the particulate matter emission limit. For Process P33, the NESHAP does not specify an averaging period for the particulate matter emission limit. Instead, these rules require the use of specific test methods and specify the manner in which the results of the testing are used to demonstrate compliance with the emission limit. Both the NSPS and the NESHAP call for compliance determination based on the average emission rate from three one-hour test runs using Method 5.

Similarly, for opacity limits, the applicable administrative rules for use of continuous opacity monitoring systems (COMS) define compliance or excess emissions in terms of 6-minute periods (see for example s. NR 440.51(4)(e), Wis. Adm. Code). For sources that are not controlled by COMS, administrative rules or permits specify that EPA Method 9 shall be used to determine compliance. Method 9 specifies that opacity shall be determined as an average of 24 consecutive observations recorded at 15-second intervals (i.e., a period of 6 minutes). The methods used for measuring opacity are based on average readings over 6 minutes, not on instantaneous readings.

Comment II:

DNR Must Remove the Startup and Shutdown Exemptions That The D.C. Circuit Found To Be Unlawful from the HAP Limits (Including the PM Surrogate Limits) - The lime kilns are subject to a number of emission limits, including hazardous air pollutant emission limits:

- 0.12 lb of filterable particulate matter per ton of lime stone feed, see Draft Permit §§ I.A.1.a.(4), I.B.1.a.(3), I.ZZ.1.a; and
- 10% opacity, Draft Permit §§ I.ZZ.2.a.

The Draft Permit purports to exempt periods of startup, shutdown and malfunction from some of these HAP limits. *See* Draft Permit §§ I.ZZ.1.b., I.ZZ.2.b. However, the startup, shutdown and malfunction exemptions DNR relied upon have been deemed unlawful and, therefore, must be taken out of the permit. On December 19, 2008, the D.C. Circuit Court of Appeals held that startup, shutdown, and malfunction exemptions to national emission standards for hazardous air pollutants (NESHAPs) are unlawful. See *Sierra Club v. EPA*, Case No. 02-1135, Slip Op. (D.C. Cir. Dec. 19, 2008). The *Sierra Club* court then vacated the regulations providing for the exemptions. On July 30, 2009, the D. C. Circuit denied a petition for rehearing en banc. DNR cannot rely on vacated regulations. *Envtl. Defense v. Leavitt*, 329 F. Supp. 2d 55, 64 (D.D.C. 2004) (D.C. Circuit's decision to vacate a rule renders it a nullity). DNR must remove the exemptions from the permit. The particulate matter and opacity limits in the hazardous air pollutant regulations therefore apply at all times.

DNR Response:

After the D.C. Circuit Court of Appeals found the Startup, Shutdown and Malfunction federal exemptions to be unlawful, industry petitioners filed a petition for rehearing. The petition for rehearing has been denied. On August 5, 2009, the EPA filed a motion seeking a 60-day stay prior to issuance of the decision. On August 6, 2009, the industry petitioners filed a motion to stay the issuance of the decision pending their appeal of the decision to the United States Supreme Court.

The EPA has issued guidance on this subject in the form of a letter from Adam Kushner of the EPA dated July 22, 2009. The letter stated that the EPA's interpretation of the D.C. Circuit decision is that the Court specifically vacated §§ 63.6(f)(1) and 63.6(h)(1) in the General Provisions, and did not vacate SSM provisions in individual MACT standards. Therefore, SSM provisions will be vacated only for those NESHAPs that incorporate §§ 63.6(f)(1) and 63.6(h)(1) by reference and that contain no other regulatory text exempting or excusing compliance during SSM events. The lime manufacturing NESHAP exempts affected facilities from compliance during SSM events without reference to §§ 63.6(f)(1) and 63.6(h)(1): "After your initial compliance date, you must be in compliance with the emission limitations (including operating limits) at all times, except during periods of startup, shutdown and malfunction." [40 CFR §63.7100(a)] Therefore, Condition ZZ.1.b.(3) which references 40 CFR §63.7100(a) is unaffected by this court decision and will remain in the proposed permit. Condition ZZ.1.b.(4), which contains the language of the vacated §63.6(e)(1)(i), will not be included in the proposed permit.

Comment II (sic):

The Title V Permit Cannot Change Permit Limits Applicable Through Title I Programs, Including PSD BACT Limits Previously Established Through Construction Permits -U.S EPA issued a permit for this facility (when it was called Rockwell Lime) in 1979. That permit included the following requirements that have not been carried over into the Title V permit:

1. A BACT limit of 0.30 lb of PM per ton of limestone feed. The Draft Permit expresses this limit as 0.3 lb/ton, which causes potential confusion regarding rounding. [Condition A.1.a.(1)]

DNR Response: Permit #93-RV-108 contains the particulate matter limit "0.30 #/ton stone feed and BACT". The Department agrees that the limit in Condition A.1.a.(1) should be 0.30 pounds per ton stone feed. The requested change will be made in the proposed permit.

2. The EPA permit requires use of "a low sulfur coal with a maximum sulfur content of 1 percent," unless such coal is not available, in which case the permit provides that "a medium sulfur coal with a sulfur content not greater than 2.1 percent will be used."

It also appears that DNR attempted to change the sulfur limits in EPA's PSD permit, allowing higher sulfur coal and pet coke to be used if averaged with other lower-sulfur fuel (i.e., gas). This cannot replace the requirements in EPA's permit. DNR was not authorized to modify EPA's PSD permit at the time 93-RV-108 was issued.

DNR Response:

This comment makes two points: first, that the operation permit renewal should include a requirement to use 1% sulfur coal unless unavailable; second, that the operation permit should contain a requirement that coal sulfur content can never exceed 2.1% on a 24-hour average and allow no averaging of sulfur content with low-sulfur fuels such as natural gas.

On the first point, the language about 1% sulfur coal in EPA-5-A-79 is found in Item 6. in the "Findings" section, not in the "Conditions" section. The "Conditions" section specifies that "Conditions 8 through 11 represent the application of BACT as required by Section 165 of the Act." Item 6. is not included in the definition of BACT, and is a description of the facility's operation rather than a permit condition. The applicable requirement from this permit is Condition 10, limiting coal sulfur content to 2.1% on a 24-hour basis.

On the second point: DNR sought and received approval from EPA for the changes in the sulfur dioxide BACT limitation in Permit #93-RV-108. DNR described the changes and requested EPA comment in a letter dated December 20, 1994. In a reply dated January 13, 1995, EPA agreed with the sulfur dioxide limitations in Permit #93-RV-108. EPA concurred with the emission limits in #93-RV-108 and based upon the delegation of the program to DNR, the DNR had the authority to issue this permit. These limits will be retained in the proposed permit.

3. The sulfur content limit for the fuel coal is on a dry basis ("used to fire the kiln"). The permit should make clear that monitoring of coal sulfur content is done on a <u>dry</u> percentage basis.

DNR Response: The language cited does not support Sierra Club's contention. Condition 10 in Permit #EPA-5-A-79 reads: "The sulfur content of the coal used to fire the kiln shall not exceed 2.1 percent on a 24-hour basis." The condition does not state that the limit is on a dry basis. Therefore the company has the option of reporting sulfur content on either a wet or a dry basis.

4. There is no provision in the EPA-issued PSD permit allowing the facility to burn petroleum coke, a dirtier fuel than coal.

DNR Response:

DNR sought and received approval from EPA for the changes in the sulfur dioxide BACT limitation in Permit #93-RV-108. Permit #93-RV-108 allows the facility to burn petroleum coke. The proposed permit will allow burning of petroleum coke, according to the formula established in Permit #93-RV-108.

Comment III:

The Permit Must Ensure That The Kilns Comply with NR 415.05 (sic) for All Heat Input Levels. - The Draft Permit purports to contain PM limits from NR 415.05(2) for both kilns. However, the kilns are also fuel burning installations subject to NR 415.06. Therefore, DNR must ensure that the kilns are also subject to the more stringent limit in NR 415.06.

DNR Response III:

Although the heading refers to NR 415.05, it appears from the comment text and the reference to heat input levels that the commenter is really concerned with the emission limits in NR 415.06. The facility's lime kilns have the following heat input ratings and emission limits, when considered as fuel burning installations:

Process	BTU rating, million BTU/hour (mmbtu/hr)	Maximum stone feed rate, tons/hr	Applicable regulation for fuel burning installations	Emission limit, pounds per million BTU (lb/mmbtu)	Most stringent other PM limit
P36	87.5	25	NR 415.06(2)(a), Wis. Adm. Code	0.15; equivalent to 13 lb/hr at maximum btu rating	0.12 lb/ton stone feed (tsf), equivalent to 3 lb/hr at maximum feed rate
P33	44	12.5	NR 415.06(1)(a), Wis. Adm. Code	0.6; equivalent to 26.4 lb/hr at maximum btu rating	0.12 lb/tsf; equivalent to 1.5 lb/hr at maximum feed rate

Both the limits in pounds per million BTU and the limit in pounds per ton of stone feed will vary numerically with the inputs to the process. For Process P36, at a heat input of less than 20 million BTU per hour, the emission limit based on 0.15 lb/mmbtu is lower than the maximum emission limit based on lb/tsf. For Process P33, at a heat input of less than 2.5 million BTU per hour, the emission limit based on 0.6 lb/mmbtu is lower than the maximum emission limit based on lb/tsf.

However, if the kiln were to be operated at a low heat input and a high stone feed rate, either the product would contain a large amount of unreacted limestone or it would take much longer to produce the quicklime product. In fact, the lower the heat input, the lower the amount of limestone that can be processed. Thus at low heat inputs, the amounts of limestone that can be processed are also lower than the maximum. As a result, any time stone is added to the kiln the emission limit of 0.12 lb/tsf will be the most stringent applicable emission limit. The limits from NR 415.06 will only apply when stone is not being fed to the kilns. The permit will include the limits from NR 415.06, and note that they apply only under this circumstance.

Comment IV:

The Permit Must Establish Compliance Demonstration Requirements that Ensure Continuous Compliance with Emission Limits. PM Monitoring For the Kilns Is Not Sufficient - The Draft Permit

only requires monitoring of pressure drop at the inlet to the baghouse, a monitor for lime feed, and fuel type requirements to determine continuous compliance with the PM limits for the kilns. Nowhere in the permit record, however, does DNR explain how these parameters ensure compliance with each of the PM limits. Moreover, presumably, the baghouse must be operated correctly to meet the emission limits and the baghouse is only effective when pressure drop is within a specific range. . . . . Merely monitoring the pressure drop, alone, is insufficient to ensure compliance unless the facility establishes the baghouse pressure drop range that ensures that the baghouse is operated correctly and achieving sufficient control at all times.

To summarize, the Draft Permit's monitoring of PM/PM10 from the lime kilns is deficient for at least the following reasons:

1) DNR must explain in the statement of basis (Preliminary Determination) how the monitoring satisfies the requirements of continuous monitoring sufficient to assure that the source is in continuous compliance with all emission limits. . . .

2) If DNR relies on parametric monitoring (i.e., pressure drop), rather than direct continuous monitoring of emissions, then DNR must, at a minimum: (a) make sure the parametric monitoring matches the averaging time of the underlying limits; and (b) identify and make explicit in the permit the parametric ranges that ensure compliance with an underlying limit.

3) Baghouse pressure drop is not sufficient to assure compliance. There has been no connection between maintenance of baghouse pressure drop between 2 and 10 inches of water and compliance with each of the particulate matter limits.

4) Once baghouse pressure drop ranges are correlated to the PM limits . . ., DNR must make compliance with these pressure drop ranges into permit requirements.

DNR Response:

Periodic monitoring is acceptable under ss. NR 407.09(1)(c)1.b. and NR 439.055(2)(b)1., Wis. Adm. Code; continuous compliance monitoring is not necessary unless required by an underlying applicable requirement. There is no underlying applicable requirement that requires continuous compliance monitoring for particulate matter emissions from the lime kilns. The Department acknowledges that the EPA has identified concerns with periodic monitoring in its objections to the Title V permit for the WE Energies Oak Creek facility. The Department is working on developing a broad systematic approach to deal with these concerns which may result in permit revisions.

The comment states "The Draft Permit only requires monitoring of pressure drop at the inlet to the baghouse, a monitor for lime feed, and fuel type requirements to determine continuous compliance with the PM limits for the kilns." This statement is incorrect, and ignores or minimizes other important elements of particulate matter compliance demonstration for the lime kilns.

(1) Conditions A.1.b.(4)(b) and B.1.b.(5)(b) require the facility to install an alarm that will sound when the baghouse inlet temperature is too high, thus protecting the highly effective membrane bags from excessive temperatures.

(2) Condition A.1.b.(6) for P36 requires that each baghouse module be isolated and checked for leaks when the stack opacity exceeds 8 percent.

(3) The CAM requirements in Conditions A.1.b.(7) and B.1.b.(6) require that the permittee monitor opacity as an indicator of performance for Control Device C01, using a continuous opacity monitoring system. The CAM indicator range for Process P36 is 10% (lower than the operating range for compliance with the lime manufacturing NESHAP), and the CAM indicator range for Process P33 in the proposed permit will be 15% (the same as the operating range for compliance with the lime manufacturing NESHAP). (Note that the indicator range of 10% for P33 in the draft permit was an error.) Excursions are defined as any six-minute period where the opacity exceeds the applicable indicator range.

(4) The permit requires particulate matter emissions testing once every two years.

Although the permittee has not established a specific correlation between inlet pressure or opacity and particulate matter emissions, the compliance demonstration requirements when considered all together provide a reasonable assurance that the baghouse is operating properly. As an example of this approach, EPA stated in its response to comments on the lime manufacturing NESHAP that: "We agree that a COMS cannot directly measure PM emissions. However, a properly calibrated and maintained COMS is sufficient to demonstrate long term PM control device performance. The purpose of the monitor is to demonstrate with reasonable certainty that the PM control device is operating as well as it did during the PM emissions test used to demonstrate compliance."

Comment V:

All Plans Referenced in the Draft Permit Should Have Been Contained in the Permit Application - As U.S. EPA determined in the *Oak Creek* order, plans referenced in the permit or relied on by DNR in any way in determining that the plant will comply with any applicable limit or monitoring requirement must be: (1) reviewed and approved by DNR as part of the permit; (2) subject to public notice and comment; and (3) made part of the permit. . . . These plans include (but may not be limited to) the following in the Draft Permit:

- Malfunction Prevention and Abatement Plan,
- Compliance & Assurance Monitoring Plan,
- Quality control and quality assurance plan for the emission monitors,
- Combustion optimization plans required for NOx emissions from the kilns,
- Alternative sampling plan for fuel sampling

. . . . DNR must, at a minimum, require these plans, review them for adequacy, explain its basis for proposing to approve the plant (sic) in the statement of basis (Preliminary Determination), provide a public notice and comment period, and then adopt the plans into the permit.

DNR Response:

This response will address the plans specifically enumerated in the comments. In general, DNR is in the process of developing standard procedures for reviewing, public noticing and adopting plans that are referenced in operation permits.

Malfunction Prevention and Abatement Plan:

The malfunction prevention and abatement plan (MPAP) was submitted with the permit application and thus was available for review during the public comment process. The comment references U. S. EPA's *Oak Creek* order. In the *Oak Creek* order, EPA states that the MPAP must be submitted with the permit application and become part of the permit because compliance with the MPAP is cited as a means of demonstrating compliance in Condition I.A.1.b.(5) of the WE Energies Oak Creek permit. Unlike the permit for WE Energies Oak Creek Power Plant, Carmeuse Lime and Stone's permit #436034390-P10 does not rely on the MPAP to assure compliance with applicable requirements. The only place that the MPAP appears in the permit is in Table ZZZ, Conditions ZZZ.1.a.(1) and ZZZ. 1.b.(1), which require the permittee to prepare an MPAP and specify what information and requirements the MPAP shall contain. Since the MPAP is not otherwise relied on for demonstrating compliance with other permit conditions, it is not necessary for the text of the MPAP itself to be part of the permit.

Compliance Assurance Monitoring Plan (CAM):

In its permit application, the permittee proposed that the monitoring requirements in the lime manufacturing NESHAP are sufficient to satisfy the requirements of CAM. However, as discussed earlier in this document as well as in the preliminary determination, the NESHAP allows monitoring options that do not meet the CAM requirements for Processes P33 and P36. A CAM proposal was included in the permit application; CAM requirements were described and discussed in the preliminary determination; and CAM requirements were included in draft permit #436034390-P10. The preliminary determination and draft permit were public noticed as required by Wisconsin statutes. Therefore, procedures for plan review, public notice, and incorporation into a permit were met with respect to the compliance assurance monitoring plan.

Quality control and quality assurance (QAQC) plan for the emission monitors:

An opacity monitor quality control and quality assurance plan was submitted with the permit application and thus was available for review during the public comment period. DNR is in the process of developing standard procedures for reviewing, public noticing and adopting plans that are referenced in operation permits.

Combustion optimization plans required for NOx emissions from the kilns:

The permittee completed a combustion optimization in 2004. Submittal of a combustion optimization plan would only be required if Process P36 were modified with respect to NOx, such that a new combustion optimization was required [see Condition A.3.a.(2)]. Permit Conditions A.3.b.(2), (3) and (4) lay out requirements for the combustion optimization plan, should the facility be required to perform a new combustion optimization. A combustion optimization plan does not need to be submitted with the permit application, reviewed, public noticed and included in the permit because (1) the plan is required only if P36 is modified with respect to NOx, which may never happen; and (2) if a combustion optimization is required in the future, advances in technology or the nature of the modifications might mean that whatever plan was submitted now would no longer be appropriate.

Alternative sampling plan for fuel sampling:

The permit does not reference an "alternative sampling plan" for fuel sampling. Condition ZZZ.5.b.(1) contains methods for analyzing coal blend samples, and Condition ZZZ.5.b.(1)(e) does state that alternative methods may be used if approved, in writing, by the Department. The ASTM methods listed in Condition ZZZ.5.b.(1) are periodically revised by ASTM. Also, occasionally new ASTM methods become available due to advances in analytical techniques. Condition ZZZ.5.b.(1)(e) would allow the

permittee to use these new methods as they become available, if approved by the Department. It would not be feasible for DNR to review alternative analysis methods that have not yet been developed.

Exhibit D

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

SEP 27 1979

Mr. Joseph G. Brisch
Executive Vice President
Rockwell Lime Company
Route 2, Box 124
Manitowoc, Wisconsin 54220

Re: Rockwell Lime Company
Rotary Lime Kiln No. 2
Kossuth Township, Wisconsin

Dear Mr. Brisch:

We have completed our final review of Rockwell Lime Company's application for approval to construct a new rotary lime kiln No. 2 in Kossuth Township, Wisconsin.

A determination to approve with conditions, the construction of a new rotary lime kiln No. 2, has been made. There were no public comments and no request for a public hearing submitted concerning the preliminary approval of the lime kiln by the U.S. Environmental Protection Agency (U.S. EPA). The approval to construct which delineates the required conditions of construction and operation is enclosed. Please be advised that this approval is based upon your written application; any departure from the terms in the application must receive the prior written authorization from U.S. EPA.

I would like to stress that this approval only applies to the regulations contained in 40 CFR 52.21 concerning the Prevention of Significant Deterioration of Air Quality and the applicable sections of the Clean Air Act, as amended. This approval in no way relieves Rockwell Lime Company of the responsibility to comply fully with all the other requirements of the Clean Air Act, Clean Water Act or any other Federal, State and local environmental legislation.

In addition, the United States Court of Appeals for the D.C. Circuit has issued a ruling in the case of the Alabama Power Co. vs. Douglas M. Costle (78-1006 and consolidated cases) which has significant impact on the EPA Prevention of Significant Deterioration (PSD) program and approvals issued thereunder. Although the court has stayed its decision pending resolution of petitions for reconsideration, it is possible that the final decision will require modification of the PSD regulations and could affect approvals

issued under the existing program. Examples of potential impact areas include the scope of best available control technology (BACT), source applicability, the amount of increment available (baseline definition), and the extent of preconstruction monitoring that a source may be required to perform. The applicant is hereby advised that this approval may be subject to reevaluation as a result of the final court decision and its ultimate effect.

I appreciate your cooperation and that of your firm in this matter.

Sincerely yours,

John McGuire
Regional Administrator

Enclosures

cc: Robert Arnott, Ph.D., Director
Bureau of Air Pollution Control
Wisconsin Department of Natural Resources

Rosemary Singh
Manitowoc Public Library
Reference Section

In the Matter of	)	Approval to Construct
Rockwell Lime Company Kossuth Township, Wisconsin	)	EPA-5-A-79
Proceeding Pursuant to the Clean Air Act, as amended	)	

Authority

The approval to construct is issued pursuant to the Clean Air Act, as amended, 42 U.S.C. 7401 et seq., (the Act), and the Federal regulations promulgated thereunder 40 CFR 52.21 for the Prevention of Significant Deterioration of Air Quality (PSD).

Findings

1. The Rockwell Lime Company (Rockwell) proposes to construct a new rotary lime kiln (kiln No. 2) in Kossuth Township, Wisconsin.

2. The proposed construction of the new rotary lime kiln is subject to the requirements of 40 CFR 52.21 and the applicable sections of the Act.

3. On December 12, 1978, Rockwell submitted a PSD application. The application was determined to be deficient on January 18, 1979. On February 19,1979, additional information was submitted. The application was determined to be complete and preliminary approval was granted on April 5, 1979. On May 4, 1979, notice was published in the Herald-Times Reporter seeking comments from the public and giving an opportunity to request a public hearing on the application and U.S. EPA's review and preliminary determination to approve construction of the above-cited source. No comments or requests for a public hearing were received.

4. After a thorough review of all materials submitted by Rockwell, U.S. EPA has determined that emissions from the new rotary kiln will not violate the National Ambient Air Quality Standards nor will it violate the PSD air quality increments. The operation of the proposed lime kiln will be controlled by the application of the best available control technology (BACT).

5. A baghouse will be utilized to control particulate emissions from the kiln's exhaust gases. Fugitive particulate emissions from the kiln will be minimal. The coal will be unloaded into hoppers and conveyed underground to the main building. The lime will be transported by sealed screw conveyors to a sealed storage area.

6. The lime in the kiln and baghouse will absorb sulfur dioxide. In addition, a low sulfur coal with a maximum sulfur content of 1 percent will be used. If a low sulfur coal is not available a medium sulfur coal with a sulfur content not greater than 2.1 percent will be used.

7. The lime kiln is subject to the requirements of 40 CFR Part 60, Subpart HH, New Source Performance Standards for Lime Manufacturing Plants.

Conditions

8. Emissions of particulate matter from the baghouse shall not exceed 0.30 pounds per ton of limestone feed.

9. Fugitive particulate matter emissions shall not exceed 5% opacity from any of the following sources:

a. Limestone conveying and storage
b. Coal unloading and conveying
c. Lime conveying and storage

10. The sulfur content of the coal used to fire the kiln shall not exceed 2.1 percent on a 24-hour basis.

11. The exhaust gases from the baghouse shall not exceed 10% opacity.

Conditions 8 through 11 represent the application of BACT as required by Section 165 of the Act.

12. In accordance with 40 CFR Section 60.7 (c) and 60.343 (e), quarterly reports of all six-minute periods during which the average opacity of the plume is 10 percent or greater shall be submitted to U.S. EPA within 5 days of each occurrence.

Approval

13. This approval to construct does not relieve Rockwell of the responsibility to comply with the control strategy and all local, State and Federal regulations which are part of the applicable Implementation Plan, as well as all other applicable local, State and Federal requirements.

14. This approval is effective immediately. This approval to construct shall become invalid, if construction or expansion is not commenced within 18 months after receipt of this approval or if construction is discontinued for a period of 18 months or more. The Administrator may

extend such time period upon a satisfactory showing that an extension is justified. Written notification shall be made to U.S. EPA 5 days after construction is commenced.

15. A copy of this approval has been forwarded for public inspection to the Manitowoc Public Library, 808 Hamilton, Manitowoc, Wisconsin.

16. In addition, the United States Court of Appeals for the D.C. Circuit has issued a ruling in the case of Alabama Power Co. vs. Douglas M. Costle (78-1006 and consolidated cases) which has significant impact on the EPA Prevention of Significant Deterioration (PSD) program and approvals issued thereunder. Although the court has stayed its decision pending resolution of petitions for reconsideration, it is possible that the final decision will require modification of the PSD regulations and could affect approval issued under the existing program. Examples of potential impact areas include the scope of best available control technology (BACT), source applicability, the amount of increment available (baseline definition), and the extent of preconstruction monitoring that a source may be required to perform. The applicant is hereby advised that this approval may be subject to reevaluation as a result of the final court decision and its ultimate effect.

9-27-79
Date

Regional Administrator

Attachment #2

CORRESPONDENCE/MEMORANDUM — State of Wisconsin

Exhibit E

DATE: December 16, 1994

File Code: 4530
FID #: 436034390

TO: Raj Vakharia - AM/7

FROM: John Meier - AM/7 JFM

SUBJECT: Air Dispersion Analysis for Permit Alteration of Rockwell Lime Co - Rockwood

A. Introduction

A modeling analysis was completed by John Meier on 16 December 1994. This analysis assessed the sulfur dioxide impacts of a lime kiln at Rockwell Lime Company. The maximum allowable limit for the kiln is 5.5 lbs of sulfur dioxide per million BTU. At this limit, the kiln would emit 481.25 lbs/hour of sulfur dioxide. This air quality analysis was performed to ensure that the three-hour sulfur dioxide standard would still be protected at the maximum allowable if the permit is altered. The facility would like to fire the kiln with coal, coke, and natural gas. Rockwell Lime Company is located near the Town of Rockwood in Manitowoc County. Terrain was not considered in this analysis. The Prevention of Significant Deterioration (PSD) baseline has been set for sulfur dioxide in Manitowoc County as of February, 1979, however this alteration will not result in any increment being consumed as total emissions will not be increased. The Town of Rockwood is in attainment for all criteria pollutants except for ozone. Manitowoc County is a moderate nonattainment area for ozone.

B. Modeling Analysis

1. Raj Vakharia supplied the emission parameters used in this analysis. Building dimensions were taken from plot plan provided by the facility. Please refer to the attached source table.

2. Five years (1983-1987) of Green Bay preprocessed meteorological data was used in this analysis. Both the surface and upper air meteorological data originated in Green Bay.

3. The Industrial Source Complex Short Term 2 (ISCST2) model was used in the analysis. The model used rural dispersion coefficients. The regulatory default option was activated in the model which allows for calm correction, buoyancy induced dispersion, and building downwash.

4. Regional background concentrations were calculated and found to be as follows:

Background Concentrations

Monitoring Site	Pollutant	Time Period	Concentration ($\mu g/m^3$)
Wilson Township Sheboygan	SO_2	3-hr 24-hr Annual	197.5 41.2 9.3

5. A receptor grid of 49 receptors was used in the analysis. The grid was centered on the lime kiln with receptors having 100 meter spacing. Terrain was not considered in this analysis.

D. Model Results

Results show that the sulfur dioxide concentration is below its respective standards.

Pollutant/Time Period	SO_2/3-hr	SO_2/24-hr	SO_2/Annual
Source impact ($\mu g/m^3$)	844	300	14.2
Background ($\mu g/m^3$)	197.5	41.2	9.3
Total ($\mu g/m^3$)	1042	341	24
Air Quality Std. ($\mu g/m^3$)	1300	365	80
% of standard	80%	93%	30%

E. Conclusion

The results of the modeling analysis demonstrate that if the kiln emitted SO_2 at the maximum allowable rate of 5.5 lbs per million BTU, the standards for sulfur dioxide will not be exceeded.

cc: Ralph Patterson - AM/7

TABLE 1

*** ROCKWELL LIME CO - ROCKWOOD ***
*** SO2 SOURCE DATA ***

STACK NUMBER	EMISSION RATE (LBS/HR)	X (METERS)	Y (METERS)	BASE ELEV. (METERS)	HEIGHT (METERS)	TEMP TYPE=0 (DEG.K)	EXIT VEL TYPE=0 (M/SEC)	DIAMETER TYPE=0 (METERS)	BLDG. HEIGHT TYPE=0 (METERS)	BLDG. HORIZ DIMEN (METERS)
1	481.25	0.0	0.0	0.0	23.5	533	12.4	1.80	17.10	15.2

TABLE 2

SULFUR DIOXIDE 3-HR HIGH

YEAR	MONTH	DAY	EASTING (M)	NORTHING (M)	CONCENTRATION (UG/M^3)
1983	NOV	27	-200	-100	844
1984	APR	21	-200	-100	813
1985	DEC	01	100	-200	799
1986	NOV	14	100	200	771
1987	APR	02	100	-200	674

SULFUR DIOXIDE 24-HR HIGH

YEAR	MONTH	DAY	EASTING (M)	NORTHING (M)	CONCENTRATION (UG/M^3)
1983	NOV	24	200	50	300
1984	MAR	21	100	-200	250
1985	MAY	12	200	200	221
1986	DEC	03	200	0.0	286
1987	FEB	08	100	-200	275

SULFUR DIOXIDE ANNUAL HIGH

YEAR	EASTING (M)	NORTHING (M)	CONCENTRATION (UG/M^3)
1983	-100	-100	13.2
1984	100	200	14.2
1985	100	200	11.2
1986	100	200	11.1
1987	-100	-100	11.1

Exhibit F

PRELIMINARY DETERMINATION ON THE REVISION OF AN AIR POLLUTION CONTROL OPERATION PERMIT FOR ROCKWELL LIME COMPANY LOCATED AT 4110 ROCKWOOD ROAD MANITOWOC, MANITOWOC COUNTY, WISCONSIN

This review was performed by the Wisconsin Department of Natural Resources, Bureau of Air Management Air Program in accordance with Sections 144.30 to 144.426, Wis. Stats. and chapters NR 400 to 499, Wis. Adm. Code. The Department has made a preliminary determination that this request for a revision of a operation permit be approved with conditions. A final decision on the revision will be made after notice has been provided pursuant to s. NR 407.13, Wis. Adm. Code and sec. 144.3925, Wis. Stats. The conditions proposed in this preliminary determination may be revised in any final operation permit revision that is issued based on further evaluation by the Department.

PERMIT REVISION #93-RV-108

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
AIR MANAGEMENT PROGRAM
Bureau of Air Management, P.O. Box 7921, Madison, Wisconsin 53707
608/266-7718

REVIEWED BY

Raj Vakharia

March 1, 1994

INTRODUCTION

Any person holding an air pollution control permit who seeks a revision of the permit shall file a request for revision of the permit with the Department. The Department shall review the request according to the procedures set forth in section NR 407.13, Wis. Adm. Code and section 144.3925, Wis. Stats.

Subject sources are to be reviewed for their ability to meet all applicable requirements and for their impact upon the air quality. The review will show why the operation permit revision, request should be approved, conditionally approved, or denied. It will encompass emission calculations and air quality analysis using U.S. EPA models, if applicable. Emissions from volatile organic compound (VOC) sources and small sources whose emissions are known to be insignificant are normally not modelled. As a precautionary note, the emission estimates are based on U.S. EPA emission factors (AP-42) or theoretical data and can vary from actual stack test data.

Date of Request: October 5, 1993

Additional Information: None submitted

Owner/Operator: Rockwell Lime Company
4110 Rockwood Road
Manitowoc, WI 54220

Contact: Donald Brisch
Vice President - Operations
414-682-7771

Principal Executive Officer: Donald Brisch
Vice President - Operations
414-682-7771

Submitted By: Dr. Perry W. Fisher
Dames & Moore
708-228-0707

SOURCE DESCRIPTION

Rockwell Lime Company (RLC) has submitted a new source air pollution control permit application to revise Federal PSD Permit for kiln No. 2.

Rockwell Lime Company received federal and state construction permits for kiln No. 2 in 1978 and 1979. Both permits specify that the maximum sulfur content of the fuel(s) burned in the kiln be 2.1 percent. The state permit allows this limit to be met by burning a mix of fuels -- gas, coal and petroleum coke. The federal permit however, specified that this limit applies only to coal.

At present time, Rockwell Lime Company is burning a blend of these three fuels in the kiln No. 2. Because the federal permit differs from the state permit, Rockwell Lime Company is interested in resolving this difference so that the federal permit is consistent with the state permit. This will assure that Rockwell Lime Company will be allowed to continue burning the fuel blend in demonstrating compliance with 2.1 percent sulfur limit.

Rockwell Lime Company manufactures dolomitic lime. Kiln No. 2 is of a rotary type. The kiln is installed at about 3° inclination on four foundation piers and revolves on trunnions at 45-75 seconds per revolution. Limestone is fed into the elevated end of the kiln and is discharged as quicklime at the lower end. Cooling air is induced into the discharge end of the product cooler and into the kiln as secondary combustion air. The combustion gases flow countercurrently to the flow of the stone at the charging end, where they are used to preheat the kiln feed.

Kiln No. 2 can handle a range of stone feed sizes between 1/4-inch and 2 1/2-inches. When the feed size range is narrow and the minimum size is above 1/2-inch, a high degree of mixing in the bed during calcination produces a very uniform lime. Approximately 2 tons of feedstone are required to manufacture a ton of lime.

Heat input to kiln No. 2 is rated at 85 million BTU per hour. At this rating, fuel consumption is equivalent to 3.54 tons per hour of coal or 3.18 tons per hour of coal/petroleum coke blend. This fuel rate, in turn, enables Kiln No. 2 to produce 300 tons per day of dolomitic lime at a feedstone rate of approximately 600 tons per day.

Emissions from Kiln No. 2 come from the calcination of the feedstone and the combustion of fuel. Kiln No. 2 is equipped with a baghouse to reduce its particulate emissions during the operation. The removal efficiency of particulate matter in this baghouse is 99.83 percent.

Equipment Specifications:

Process #P36, Stack #S11, Kiln No. 2

Normal operating schedule: 24 hrs/day, 365 days/yr

Amount of raw materials: limestone = 25.0 tph
coal = 3.54 tph
fuel blend = 3.18 tph

Amount of finished product: 12.5 tph

Process flow rate: 50,000 maximum lbs raw material/hr
25,000 maximum lbs finished product/hr

Process fuel usage: coal = 85 tpd
fuel blend = 76.32 tpd
maximum heat input = 85.0 MMBTU/hr

Control equipment: Baghouse (C017)
Control efficiency: 99.83%

Stack Parameters: (S11)

Height (ft): 36
Diameter (ft): 6
Flow rate (acfm): 69,107

Gas temperature (°F): 500
Discharge direction: up
Equipped with rain hat: no

Emissions Calculations:

Rockwell Lime Company has provided the following emission information with their air permit revision application.

The emission rates are based on emission factors from AP-42.

The equation used to estimate the pollutant emission rate in tons per year (tpy) is:

Emission rate = process rate x emission factor x 8760 hrs/yr x ton/2000 lbs

Pollutant	Emission Factor[1]	Process Weight Rate	Control Measure	Percent Eff.	Emission Rate (lb/hr)	Annual Emission (tons)[2]
TSP	0.595 lb/ton lime produced[4]	12.5 tons/hr	baghouse	99.83	7.44	32.58
PM-10	0.327 lb/ton lime produced[5]	12.5 tons/hr	baghouse	99.83	4.09	17.92
NO_x	2.8 lb/ton lime produced[6]	12.5 tons/hr		-	35.0	153.30
CO	2.0 lb/ton lime produced[6]	12.5 tons/hr		-	25.0	109.50
VOC	0.07 lb/ton coal fired[7]	3.54 ton/hr coal fired		-	0.25	1.09

SO_2 coal	39 (S) lb/ton in coal[8]	3.54 ton/hr coal fired	lime/limestone reaction baghouse	50.0	144.96	633.35
SO_2 fuel blend	2.1 wt. % S in fuel blend[9] 39.96 (S) lb/ton	3.18 ton/hr fuel blend fired	lime/limestone reaction baghouse	50.0	133.42	584.38

(1) Emission factors derived from AP-42
(2) Annual emissions based on 8760 hrs/yr operation and maximum hourly emission rate
(3) Based on AP-42, Table 8.15-1, lime kiln uncontrolled PM emissions factor (350 lb/ton) and 99.83 % control stated in the permit
(4) Based on TSP emissions factor and AP-42, Table 8.15-2, particle size distribution for a lime kiln with a fabric filter baghouse. Cumulative mass less than 10 micron particle size; 55% by weight
(5) Based on AP-42 Table 8.15-1, lime kiln uncontrolled NOx emission factor
(6) Based on AP-42 Table 8.15-1, lime kiln uncontrolled CO emission factor
(7) Based on AP-42, Table 1.1-1, non-methane organic compound emissions factors for coal combustion
(8) Based on AP-42, Table 1.2-6, Table 8.15-1, footnotes f and h, the coal maximum sulfur content and 50% control
(9) Based on AP-42, Table 8.15-1, footnotes f and h, the fuel blend maximum sulfur content, and 50% control

APPLICABILITY OF REVISION

Regarding permit modifications, the USEPA published the following guidance document; "Revised Draft Policy on Permit Modifications and Extensions", Darryl D. Tyler, Director of the Control Programs Development Division (MD-15), USEPA, July 5, 1985.

The permit modification policy identifies four categories of change to a permit and the approval requirements of each category. These changes are identified as administrative, minor, significant or fundamental. Based on the policy, this application in seeking to amend the federal permit would meet the category of "administrative" change and its associated level of review which is classified as "amendment". The administrative change to the federal permit constitutes an amendment, because it is administrative in nature and results in no increase in emissions or air quality impact from kiln No. 2.

To ensure that this request for the revision of a operation permit does not constitute a modification of the source, the definition of modification found in Section 144.30, Wis. Stats., is examined.

Rockwell Lime Company will not make a physical change or a change in the method of operation of the source that would increase the amount of emissions or result in the emission of a contaminant not previously emitted. Nor is the revision expected to contribute to or result in a violation of an ambient air quality standard or ambient air increment.

A letter was sent by U.S. EPA (Mr. Dave Kee) to Rockwell Lime Company (Mr. Joe Brisch) on January 1, 1990. Copy of this letter attached with the Preliminary Determination. Based on this letter Rockwell Lime Company is considered to be in compliance with the 2.1% fuel sulfur content via fuel blending. If a source has a PSD permit then, EPA has allowed the source to use the allowable emissions in the original permit to net out of any net emission increase if the allowable emissions in the modified/revised permit are the same as in the original permit. Thus in this case there will be no net increase in emissions from the use of different fuel. In this case, no net increase in emissions is expected because of the decision made by U.S. EPA by sending a letter to the source indicating that they are considered in compliance with the 2.1% fuel sulfur content via fuel blending.

EXISTING FACILITY EMISSIONS

The actual emissions are the emissions reported on the 1992 Emission Inventory Update.

	TSP	SO_2	NO_x	VOC	CO	PM_{10}
TPY	40.59	413.81	236.91	2.99	82.39	8.27

Rockwell Lime Company is located in Manitowoc County. Manitowoc County is designated moderate non-attainment for Ozone.

CONTROL TECHNOLOGY REVIEW

This source can meet all applicable air emission limitations. The particulate emissions from the lime kiln No. 2 are controlled by a baghouse. The exhaust from the kiln is cooled as it passes through a series of M-tubes. The baghouse is a Fuller Model #8MP 5900 positive pressure reverse jet. The collector is designed to draw 72,500 acfm (maximum) from the kiln burner up the kiln, through the M tubes. The baghouse consists of eight modules. All the modules may not be operating at the same time. Each module has 112 filter bags, 8" in diameter and 25 feet long. The air to cloth ratio is 1.7 to 1. The baghouse stack is equipped with a continuous opacity monitor.

The opacity monitor, reading daily visible emissions for fugitive sources, the biannual stack test results and the pressure drop range information across each module will be used as a tool to determine whether the source is in compliance with the particulate and visible emission limitations.

Lime fines collected are bagged and used for agricultural lime and acid neutralization. The facility has the capability to monitor pressure drop across each module (when the module is operating) but not across the whole baghouse. The facility also has a CEM on the baghouse stack and provides quarterly CEM reports to the Department. This permit will include a condition which will require the source to monitor pressure drop range across each module (when the lime kiln No. 2 is operating and the module is operating) and record the pressure drop range once each day. To monitor the pressure drop range across the baghouse will not be required because the facility is monitoring the opacity and submitting quarterly reports.

The facility will also be required to show compliance with the BACT emissions limit for SO_2 (use of fuel blend having a sulfur content of 2.1% on a 24-hr basis). The facility will be required to sample and analyze the fuel blend on a daily basis and record the amount of each fuel fired on a daily basis.

A stack test was conducted on November 24, 1992 and October 15, 1992. The stack test and results are summarized below. This information obtained from the 1993 annual air compliance inspection report.

P36	S11	11-24-92	SO_2	1.89 #/MMBtu
			HCl	8.1 #/hr
P36	S11	10-15-92	TSP	0.034 #/ton
			SO_2	1.92 #/MMBtu
			NO_x	21.6 #/hr
			HCl	5.64 #/hr
		sulfur content		2.03% by weight

The baghouse collection efficiency is 99.9% based on the stack test results.

HAZARDOUS AIR POLLUTANT REVIEW

Rockwell Lime Company submitted an sec. NR 445 Compliance Plan to the Department on September 16, 1993. This plan was prepared by the consulting firm of Dames and Moore. The Department's review of the hazardous compliance plan has yet not been completed.

The Air Compliance Inspection report (dated November 11, 1993) prepared by Eileen F. Ingwerson, LMD, indicates that the facility is in compliance for hazardous air emissions for notification requirement and compliance plan requirements. (The compliance plan presents a dispersion modeling analysis demonstrating compliance with the emission limit for calcium hydroxide, HCL and sulfuric acid)

AIR QUALITY ANALYSIS

The lime kiln No. 2 was modeled during the original permit review (for permits #s NS-78-36-61 and EPA-5-A-79) to demonstrate that the allowable emissions from the kiln No. 2 will not cause or contribute to a violation of the particulate, SO_2, NO_x and CO National Ambient Air Quality Standards or the maximum allowable PSD increments.

The proposed review will not result in the increase of any allowable emissions. Thus no new air quality analysis need to be performed.

CRITERIA FOR PERMIT REVISION APPROVAL

Section 144.3925, Wis. Stats., sets forth the procedures for operation permit revision issuance pursuant to sections NR 407.13, NR 407.05, Wis. Adm. Code. The Department has determined that the source will meet the criteria for permit approval under sections 144.393 and 144.3935 as follows:

1. The source will meet all applicable emission limitations and other requirements under ss. 144.30 to 144.426, Wis. Stats.

2. The source will not cause nor exacerbate a violation of an air quality standard or ambient air increment.

3. The source will not preclude the construction or operation of another source for which an air pollution control permit application has been received.

4. This permit revision will not affect the source's ability to meet the requirements for major attainment area sources.

    a. The source will be subject to the best available control technology for each applicable air contaminant.

    b. The effects on air quality as a result of the source and growth associated with the source were analyzed.

    c. The source will not adversely affect the air quality related values of any federal mandatory class I prevention of significant deterioration area.

    d. The Department has determined that it is not necessary for the source to conduct monitoring to determine the effects of the source on air quality.

Note: This source in not located in a nonattainment area for TSP, SO_2, CO, NO_x. This source is located in an ozone non-attainment area, but the source is minor for VOC. This source is not seeking to operate under growth accommodation credits or emission reduction options. This source is not a medical waste incinerator.

PERMIT APPLICABILITY

This source is subject to New Source Performance Standards (NSPS) and Prevention of Significant Deterioration (PSD) requirements.

EPA permit # EPA-5-A-79 established BACT to be the following:

- Emissions of particulate matter from the baghouse not to exceed 0.30 lbs per ton of stone feed (NSPS emission limit is 0.60 lb/ton)

- Sulfur content of the coal used to fire the kiln not exceed 2.1% on a 24-hr basis

- The exhaust gases from the baghouse not to exceed 10% opacity (NSPS limit is 15%)

- Fugitive particulate matter emissions not to exceed 5% opacity from any of the following sources:

    - limestone conveying and storage

- coal unloading and conveying
- lime conveying and storage

The source is also subject to the following requirements which are not included in the permit EPA-5-A-79:

- Periodic particulate compliance emission stack testing requirements per sec. NR 439.075(2)(c)1.s. Wis. Adm. Code and testing schedule per sec NR 439.075(3), Wis. Adm. Code and exception to compliance emission testing requirements per sec. NR 439.075(4)(a)1.b., Wis. Adm. Code
- Monitoring of emission and operation requirements (CEM for opacity) per sec. NR 440.51(4)(a), Wis. Adm. Code
- quarterly CEM reports submittal requirements per sec. NR 440.07(3), Wis. Adm. Code
- Periodic fuel sampling, analysis, reporting requirements per sec. NR 439.085, Wis. Adm. Code
- Periodic sulfur dioxide compliance emission stack testing requirements per sec. NR 439.075(2)(a)2., Wis. Adm. Code and testing schedule per sec. NR 439.075(3), Wis. Adm. Code
- preparing a malfunction prevention and abatement plan per sec. NR 439.11, Wis. Adm. Code
- reporting and recordkeeping requirements per sec. NR 439.03, Wis.Adm. Code, sec. NR 439.04, Wis. Adm. Code and sec. NR 437.03(1)(b), Wis. Adm. Code
- reporting of deviations from and violations of permit terms and conditions in accordance with sec. NR 439.03(4), (5) and (6), Wis. Adm. Code and sec. NR 407.09(1)(c)3.b., Wis. Adm. Code
- annual certification of the source compliance status under sec. NR 439.03(1)(c), Wis. Adm. Code and sec. NR 439.03(8), (9), (10), (11) and (12), Wis. Adm. Code
- permit shield under sec. NR 407.09(5), Wis. Adm. Code
- compliance of fugitive visible emissions limit under sec. NR 405.08, Wis. Adm. Code and sec. NR 407.09(1)(c)1.b., Wis. Adm. Code

These requirements will be included in this permit because the permit application is now being processes under sec. NR 407.13, and sec. NR 407.09, Wis. Adm. Code. The Department had received the application in October 1993 as a petition for alteration. The Department no longer has authority to process permit alteration as of December 1993.

Numerical emission limits for NO_x, CO, VOC will not be established in the revised permit.

DETERMINATION

The Bureau of Air Management Program, Wisconsin Department of Natural Resources has reviewed the materials submitted by Rockwell Lime Company and has made the determination that this request for operation permit revision is approvable and the following conditions will apply.

APPLICABLE LIMITATION

A. Process #P36, Stack #S11, Rotary Lime Kiln No. 2

1. Categorical Emission Limitations:

Pollutant	Applicable Wis. Adm. Code or Wis. Statute	Limitation/Requirement
Particulate	sec. NR 405.08, Wis. Adm. Code	0.30 #/ton stone feed and BACT See Note 1
Sulfur Dioxide	sec. NR 405.08, Wis. Adm. Code	BACT See Note 2
Visible Emissions	sec. NR 405.08, Wis. Adm. Code	10% opacity from the baghouse stack 5% opacity from limestone conveying and storage, coal unloading and conveying, lime conveying and storage See Note 3

Note 1

BACT has been determined to be the use of a baghouse to control particulate emissions from the lime kiln No. 2.

Note 2

BACT has been determined to be the use of fuel blend (natural gas, coal, coke) having a sulfur content of 2.1 percent, as determined by a 24-hour average.

Note 3

The NSPS emission limit for opacity is 15% per sec. NR 440.51(3)(a)2., Wis. Adm. Code. 10% opacity limit from the baghouse stack was established as part of the BACT determination under sec. NR 405.08, Wis. Adm. Code. Also 5% opacity limit for limestone conveying and storage, coal unloading and conveying, lime conveying and storage was established as part of the BACT determination under sec. NR 405.08, Wis. Adm. Code.

2. Other Conditions

a. The permittee shall prepare and have on-site a malfunction prevention and abatement plan to prevent, detect, and correct malfunction or equipment failures which may cause air pollution. (sec. NR 439.11, Wis. Adm. Code)

b. The permittee shall operate and maintain the baghouse used for controlling particulate emissions from the lime kiln No. 2 in strict accord with manufacturer's and/or supplier's recommendations and/or sound engineering principles. (sec. NR 439.11, Wis. Adm. Code)

c. The permittee shall equip the baghouse with pressure gauge instruments to allow for the measurements of pressure drop across each module of the dust collector. (sec. NR 439.11, Wis. Adm. Code)

d. The pressure drop range across each module of the baghouse controlling dust from the lime kiln No. 2 shall be maintained between 0.5 - 5 inches water. This condition only applies to the modules of the baghouse which are operating. (sec. NR 439.11, Wis. Adm. Code)

e. The pressure drop across each operating module of the baghouse controlling dust from the lime kiln No. 2 shall be visually monitored and recorded at least once on a daily basis. This condition only applies to the modules of the baghouse which are operating. These records shall be kept for a period of 5 years and be made available for inspection to the Department staff anytime during normal business hours. (sec. NR 439.04, Wis. Adm. Code)

f. The permittee shall conduct particulate emission test on lime kiln No. 2 every 24 months using U.S. EPA Method 5. These tests should be conducted within 90 days of the anniversary date of the first performance test, October 15. During the stack test the permittee shall also record the opacity (CEM data) and the pressure drop across each module which is operating in the baghouse. The Department shall be informed at least 20 working days prior to the tests so a Department representative can witness the testing. At the time of notification a compliance emission test plan following the provisions set forth in Section NR 439.07, Wis. Adm. Code shall also be submitted for approval.

The permittee may request and may receive a waiver from performing the stack test as allowed under sec. NR 439.075(4)(a)1.b., Wis. Adm. Code if the permittee submits a written request to the Department's Lake Michigan District Air Program and receives approval at least 60 days prior to the required test date. (sec. NR 439.075(2)(c)1.s., Wis. Adm. Code and sec. NR 439.075(3), Wis. Adm. Code)

g. The permittee shall monitor visible emissions from limestone conveying and storage, coal unloading and conveying, lime conveying and storage at least once per day of operation by using a certified visible emissions observer who will perform 3 Reference U.S. EPA Method 9 tests and record the results. Visible emissions observation shall occur during the normal operation of the rotary line kiln No. 2 at least once per day. Records shall

be maintained of any 6-minute average that is in excess of 5% opacity. Reports of excess emissions shall be submitted semiannually to the Department's Lake Michigan District Air Program. (sec. NR 407.09(1)(c)1.b., Wis. Adm. Code)

h. The permittee shall install, certify, calibrate, maintain and operate a CEM for opacity per sec. NR 440.51(4), Wis. Adm. Code. The quarterly CEM reports shall be submitted to the Department's Lake Michigan District Air Program per secs. NR 440.075(3), NR 439.03(1)(b), Wis. Adm. Code.

i. The permittee shall comply with the fuel sampling, analysis and reporting requirements per sec. NR 439.085, Wis. Adm. Code. The permittee shall sample and analyze the fuel blend (coke, coal and natural gas) fired in the kiln No. 2 on a daily basis. The permittee shall also keep daily records of type and amount of fuel fired in Kiln No. 2. A copy of sec. NR 439.085, Wis. Adm. Code requirement enclosed.

These records shall be kept for a period of 5 years and be made available for inspection to the Department staff anytime during normal business hours. All required reports under sec. NR 439.085 shall be submitted to the Department's Lake Michigan District Air Program. This condition is included to demonstrate compliance with the BACT limit of 2.1 percent sulfur. (secs. NR 405.08, NR 439.04, Wis. Adm. Code)

j. The permittee shall submit monitoring reports to the Department's Lake Michigan District Air program, identifying all deviations from violations of permit terms and conditions per sec. NR 439.03(4), (5) and (6), Wis. Adm. Code.

k. The permittee shall conduct sulfur dioxide emission test on lime kiln No. 2 every 24 months using U.S. EPA Method 6. These tests should be conducted within 90 days of the anniversary date of the first performance test, October 15. The Department shall be informed at least 20 working days prior to the tests so a Department representative can witness the testing. At the time of notification a compliance emission test plan following the provisions set forth in Section NR 439.07, Wis. Adm. Code shall also be submitted for approval.

The permittee may request and may receive a waiver from performing the stack test as allowed under sec. NR 439.075(4)(a)1.b., Wis. Adm. Code if the permittee submits a written request to the Department's Lake Michigan District Air Program and receives approval at least 60 days prior to the required test date. (sec. NR 439.075(2)(a)2.1, Wis. Adm. Code and sec. NR 439.075(4), Wis. Adm. Code)

l. The permittee shall annually certify the sources's compliance status with the operation permit as required under sec. NR 439.03(1)(c), Wis. Adm. Code.

m. The permittee required to certify the source's compliance status shall include in each certification the following information (sec. NR 439.03(8), Wis. Adm. Code:

- identification of each permit term or condition that is the basis of the compliance certification.
- the compliance status of the stationary source with respect to each term or condition identified above.
- information on whether compliance was continuous or intermittent.
- the methods used for determining the compliance status of the stationary source, currently and over the previous 12 month period.
- any other information the department may require, as specified in the operation permit, to determine the compliance status of the source.

n. The permittee shall submit the certification information report required under permit conditions h, and i and information required under sec. NR 439.03(10), (11), and (12), Wis. Adm. Code to the EPA Regional V Administrator and to the Department's Lake Michigan District Air Program, 1125 North Military Avenue, P.O. Box 10448, Green Bay, WI 54307. A copy of the sec. NR 439.03(10), (11), and (12), Wis. Adm. Code is attached for your information. (sec. NR 439.03(9), Wis. Adm. Code)

o. The permit shield provision of sec. NR 407.09(5), Wis. Adm. Code for this operation permit only applies to lime kiln No. 2.

p. This permit supersedes permit #s NS-78-36-61 and EPA-5-A-79.

q. This permit expires on February 1, 1995. February 1, 1995 is the application filing date for Air Pollution Operation Permit for existing Part 70 sources located in Manitowoc County. (sec. NR 407.04(1)(a), Wis. Adm. Code

GENERAL CONDITIONS APPLICABLE TO THE ENTIRE FACILITY

Whenever compliance emission testing is required by the Department, the following test method(s) shall be employed:

a. Compliance with a particulate emission limits shall be determined by U.S. EPA Method 5D including backhalf.

b. Compliance with a sulfur dioxide emission limit shall be determined by U.S. EPA Method 6.

c. Compliance with a visible emission limit shall be determined by U.S. EPA Method 9.

Review Engineer: Raj Vakharia. Raj V

Calculations Checked by: M. [illegible]

Checked by: VRM 3/3/94

Approved by: [illegible] 3/3/94

Planning Section: Marlene Hobart 3/3/94

cc: Lake Michigan District

Air Enforcement Branch - EPA, Region V (Certified Mail)

Commonwealth of Kentucky
Division for Air Quality Exhibit G

PERMIT STATEMENT OF BASIS

TITLE V PROPOSED PERMIT NO. V-05-003
CARMEUSE LIME & STONE, INC BLACK RIVER OPERATION
BUTLER, KENTUCKY.
OCTOBER 31, 2005
ROBERT L. WILLIAMS, REVIEWER
PLANT I.D. # 21-191-00002
APPLICATION LOG # 50254
AI # 3400

SOURCE DESCRIPTION:

Carmeuse Lime & Stone, Inc (formerly known as Dravo Lime, Inc) Black River Operation in Butler, Kentucky is a lime manufacturing facility. They also ship limestone that is too small to be calcined in the kilns.

They are currently operating under:

Permit O-89-088 (Amended), signed February 27, 1991, which covers their limestone operation, coal operation, Kilns #1, #2, and #3, with their existing lime processing, the hydration process, and the haul road and yard area;

Permit C-90-029, signed February 20, 1990, which covers the addition of a portable crushing and screening unit; and

Permit C-93-032, signed August 12, 1993, which is a PSD permit covering Kilns #4, #5, and #6 (which was not constructed) and additions to the lime processing.

COMMENTS:

TYPE OF CONTROL AND EFFICIENCY

The particulate emissions from the conveyors are controlled by water spray (control efficiency of 90%), moist material (control efficiency of 90%), enclosures (control efficiency of 90%) and/or baghouses (control efficiency of 99.9%). The application submitted to the Division listed "water spray" as control equipment for the majority of the limestone conveyor process, but the permittee requested this be changed during the permit writing process to "moist material". After a discussion with the Regional Office, the decision was made to change "Control Equipment" to "Control" and "Water Spray" to "Moist Material" for the conveyor process and associated stockpiles during the limestone and coal handling. Although the permit list the control for the limestone and coal processing (crushing, screening, conveying) as "Moist Material" the Division is assuming that the controls listed in the initial application as water spray will be similar to that utilized by the respective limestone and coal industries. These controls are a pressurized water system with atomizing nozzles. These controls will be in place, properly maintained, and in operation any time the associated piece of equipment is operated.

COMMENTS: (CONTINUED)

TYPE OF CONTROL AND EFFICIENCY (CONTINUED)

The stockpiles are to be monitored and sufficiently wetted to ensure the control of fugitive emissions. If any of the controls listed by the company in the application prove to be inadequate to meet the emission requirements listed in the permit, the Division reserves the right to require another form of "control equipment" be utilized to meet the permit requirements.

The CO, and NO_x have no controls assigned to them. Although the application lists no controls for SO_2, the SO_2 emissions are controlled by scrubbing with lime dust in the process. A control efficiency of 92% is allowed for the natural dry scrubbing with the lime dust acting as the scrubbing agent.

The emissions from haul roads (paved and unpaved) are controlled by a wet suppression method (water truck). The paved haul roads have a control efficiency of 90%, while the unpaved haul roads have a control efficiency of 70%.

EMISSION FACTORS AND THEIR SOURCE

AP-42, Chapter 11.17, Lime Manufacturing, was used for the lime processing, including the hydrate plant.

Emission Factors for limestone and coal are the standard factors used for those industries in the State of Kentucky by the Division for Air Quality's Minerals Section.

APPLICABLE REGULATIONS

The Limestone Handling is governed by **401 KAR 60:670**, New nonmetallic mineral processing plants (40 CFR 60, Subpart OOO as modified by Section 3 of 401 KAR 60:670) and **401 KAR 63:010**, Fugitive emissions.

The Coal Handling is governed by **401 KAR 60:005**, Standards of performance for new stationary sources, which incorporates by reference 40 CFR 60.250 (40 CFR 60, Subpart Y), and **401 KAR 63:010**, Fugitive emissions.

Kilns #1, #2, and #3 are governed by **401 KAR 61:020**, Existing process operations, since Kilns #1 and #2 were constructed in 1970 and Kiln#3 in 1974. Kiln #3 was listed in the Draft Permit as having a construction date of 1976 (per Title V application), but further review revealed a construction date of 1974 (See Response to Comments, Comment #3).

Kilns #4 and #5 are governed by **401 KAR 60:005**, Standards of performance for new stationary sources, which incorporates by reference 40 CFR 60.340 (40 CFR 60, Subpart HH), and **401 KAR 51:017**, Prevention of significant deterioration of air quality.

The Lime Handling is governed by **401 KAR 59:010**, New process operations; **401 KAR 61:020**, Existing process operations; **401 KAR 63:010**, Fugitive emissions; and **401 KAR 51:017**, Prevention of significant deterioration of air quality.

EMISSION AND OPERATING CAPS DESCRIPTION: (CONTINUED)

These issues were addressed by Mr. Dan Gray, PE, Permit Review Branch Manager, on April 25, 2000, to Mr. Love:

> "As you are aware, the Division has received similar requests from some of the electric power generating plants. As part of their Title V permit review and approval process, the Federal Environmental Protection Agency (EPA) has advised the Kentucky Division for Air Quality that petcoke is an alternative fuel or raw material, and its use therefore, is a change in the method of operation. Whether or not the use of the alternative fuel or raw material would be exempt from being considered a modification depends on whether the source was capable of accommodating its use prior to January 6, 1975. EPA considers the use of petcoke to be exempt only if the source considered the use of petcoke in its design prior to January 6, 1975 and has plans and/or specifications to document the intended use of the petcoke.
>
> Therefore, for the Division to be able to honor your request and allow the use of petcoke by the older three units, the Division requires documentation to demonstrate that the equipment was designed to use the petcoke prior to January 6, 1975. Alternatively, you can provide information to demonstrate that the potential emission increase associated with the proposed modification would not equal or exceed the PSD significant levels."

Although the above referenced correspondence addresses the burning of petcoke or other alternative blended fuel at Carmeuse's Maysville Operation, the same response would apply to Carmeuse's Black River Operation. Therefore, the burning of petcoke or other alternative fuel will not be authorized in Kilns #1, #2, or #3 until the documentation requested in Mr. Gray's letter has been submitted and reviewed by the Division. If the documentation cannot be provided, then a PSD review and request for a permit modification must be submitted to the Division for review before authorization to burn petcoke in Kilns #1, #2, #3, #4, and #5 is approved. Closer review of the Title V application and previous applications revealed that Petcoke had never been listed as a fuel until the Title V application, which included the changing from stockpiles to silos along with the additions of a coke scale and blend scale to accommodate the use of petcoke. This represents a physical change in operation to utilize petcoke as a blended or alternative fuel. Therefore a PSD review would be required prior to granting permission for the burning of petcoke or other alternative blended fuel in any of the kilns. See Response to Comments for a more detailed response.

When Kiln #2 in brought back on line, testing will need to be completed in accordance with the permit conditions and the results submitted to the Division for approval prior to placing it back operationally on line.

The maximum lime production rate from kilns #4 and #5 is 46 tons/hour, each. The particulate emissions from each kiln shall not exceed 0.60 lb/ton of stone feed [0.41 lb/ton of lime output (0.02 gr/acfm)]. The visible emissions discharged into the atmosphere from each kiln shall not exceed 15% opacity when exiting from a dry emission control device. The carbon monoxide, nitrogen oxide, and sulfur dioxide emissions from each kiln shall not exceed 91.67 lbs/hour, 128.33 lbs/hour, and 22.97 lbs/hour, respectfully.

The particulate emissions from Kiln #2 after restart shall not exceed 0.12 lb/ton of stone feed. Operating limits are established in Table 2 to Subpart AAAAA of Part 63.

EMISSION AND OPERATING CAPS DESCRIPTION: (CONTINUED)

The visible emissions associated with the Lime Handling, excluding the Hydrate Plant, shall not exceed 7% opacity. The visible emissions associated with the Hydrate Plant shall not exceed 20% opacity.

PERIODIC MONITORING:

Due to the product produced at Carmeuse Lime & Stone, Inc Black River Operation, it is imperative that the monitoring requirements listed in the permit be followed to ensure that any problem resulting from a control or equipment malfunction/failure be minimized as much as possible.

CREDIBLE EVIDENCE:

This permit contains provisions which require that specific test methods, monitoring or recordkeeping be used as a demonstration of compliance with permit limits. On February 24, 1997, the U.S. EPA promulgated revisions to the following federal regulations: 40 CFR Part 51, Sec. 51.212; 40 CFR Part 52, Sec. 52.12; 40 CFR Part 52, Sec. 52.30; 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12, that allow the use of credible evidence to establish compliance with applicable requirements. At the issuance of this permit, Kentucky has only adopted the provisions of 40 CFR Part 60, Sec. 60.11 and 40 CFR Part 61, Sec. 61.12 into its air quality regulations.