



TULANE ENVIRONMENTAL LAW CLINIC

May 17, 2016

Via Email

Donald Trahan, Administrator, Air Permits Division
Louisiana Department of Environmental Quality
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Re: Oxbow Calcining- Baton Rouge Calcined Coke Plant Part 70 Air Permit
Renewal and Minor Modification Application
Permit No. 0840-00021-V4
Agency Interest No. 29884

Dear Mr. Trahan:

We submit these comments in place of and superseding the comments that we submitted to you on May 12 & 13, 2016 regarding Oxbow Calcining, LLC's Part 70 Air Permit Renewal. Please accept these comments in place of the earlier comments that we submitted.

On behalf of the Louisiana Environmental Action Network ("LEAN"), we would like to raise several concerns regarding the pending Part 70 Air Permit Renewal and Minor Modification Application that Oxbow Calcining, L.L.C. submitted on December 15, 2014 for its petroleum coke calcining plant in Baton Rouge ("the plant"). These concerns, which we detail further below, are as follows:

- The exemptions for particulate matter and opacity limits for the kilns during startups violate the Clean Air Act.
- The Clean Air Act prohibits LDEQ from authorizing kiln startup and shutdown emissions separately and without establishing enforceable limits for those emissions.
- LDEQ must ensure that Oxbow's sulfur dioxide ("SO₂") emissions do not cause an exceedance of the SO₂ 1-hour standard.

- Other similar calcining plants emit pollutants that LDEQ has not authorized in Oxbow's current permit, nor has Oxbow included these emissions in its pending permit application. LDEQ should require Oxbow to test for these pollutants to determine whether the Oxbow plant emits them.
- The current stack test requirements are not adequate to assure compliance with permitted emission limits.

LEAN asks LDEQ consider these issues and correct the deficiencies before issuing a draft renewal permit for public comment.

LEAN intends to submit comments during the public comment period, which may include additional issues that it has not raised in these preliminary comments.

Initial Comments

I. LDEQ must not grant an exemption for particulate matter ("PM") and opacity limits during kiln startups.

Chapter 13 of the Louisiana Air Regulations governs standards for particulate matter. Chapter 13, section 1311 establishes emission limit requirements for various sources. EPA approved Section 1311 on March 8, 1989, and incorporated it into the Louisiana State Implementation Plan ("SIP"). 54 Fed. Reg. 9795(Mar. 8, 1989) (codified at 40 C.F.R. § 52.970(c)(49)).

The SIP limits under sections 311.B and 1311.C apply to emissions from Oxbow's kilns. Section 1311.B provides:

No person shall cause, suffer, allow, or permit the emission of particulate matter to the atmosphere from any process or process equipment in excess of the amount shown in LAC 33:III.1321, Table 3 for the process weight rate allocated to such source. The rate of emission shall be the total of all emission points from the source.

LAC 33:III.1311.B. Based on Oxbow's process weight rate of 40 tons per hour, its rate of emissions under Table 3 is 42.5 lbs/hr. for particulate matter for each of its four kilns. In addition, section 1311.C provides:

The emission of particulate matter from any source other than sources covered under Subsection D of this Section shall be controlled so that the shade or appearance of the emission is not denser than 20 percent average opacity (see LAC 33:III.1503.D.2, Table 4); except the emissions may

have an average opacity in excess of 20 percent for not more than one six-minute period in any 60 consecutive minutes

LAC 33:III.1311.C.

LDEQ does not have the authority to suspend or modify the section 1311 SIP limits that apply to this plant. However, despite this, Oxbow's current permit provides for exemption from these limits during cold startups of the kilns. And in its renewal application, Oxbow seeks the same exemptions. Application, Section 22- Table 2: State and Federal Air Quality Requirements, Dec. 15, 2014, pp. 1, 6, 11, 16, EDMS # 9570030. Oxbow claims that "during periods of cold startup, the kiln is exempt from the emission rate requirement of LAC 33:III.1311.B as allowed by LAC 33:III.1311.G." *Id.* Similarly, Oxbow claims that "during periods of cold startup, the kiln is exempt from the emission rate requirement of LAC 33:III.1311.C as allowed by LAC 33:III.1311.G." *Id.*

LAC 33:III.1311.G provides:

Where upon written application of the responsible person or persons the administrative authority finds that by reason of exceptional circumstances strict conformity with any provisions of these regulations would cause undue hardship, would be unreasonable, impractical or not feasible under the circumstances, the administrative authority may permit a variance from or consider a change in these regulations upon such conditions and with such time limitations as it may prescribe for prevention, control or abatement of air pollution in harmony with the intent of the act.

Oxbow claims that it "was granted this exemption by letter dated May 30, 1980." *Id.*; see also LDNR letter to Reynolds Aluminum, May 30, 1980, EDMS No. 7443923. But use of this variance provision as an exemption from SIP emission limits violates the Clean Air Act requirements that some emission limit must apply on a "continuous" basis, and thus even during startups. 42 U.S.C. § 7602(k); see also *Club v. Dairyland Power Co-op.*, No. 10-CV-303-BBC, 2010 WL 4294622, at *13 (W.D. Wis. Oct. 22, 2010) ("PSD sources must apply best available control technology emission limits continuously, once PSD is triggered."); H.R. Rep. 95-294, at 92 (1977), as reprinted in 1977 U.S.C.C.A.N. 1077, 1170 ("By defining the terms "emission limitation," "emission standard," and "standard of performance," the committee has made clear that constant or continuous means of reducing emissions must be used to meet these requirements."). Furthermore, LDEQ must base any variance under LAC:III.1311.G on "exceptional circumstances" that make compliance "unreasonable, impractical or not feasible *under the circumstances.*" Clearly, circumstances have changed in the more than 30 years since DNR granted the variance request. Reynolds Metals Company based the May 12, 1980 variance request on a 1980 cost estimate and 1980s technology. EDMS No. 7443923 at p. 2.

LDEQ was not the agency that issued the variance and DNR did not issue this variance to the facility's current owner. The variance dates from *1*) more than 3.5 years before creation of LDEQ, *2*) more than 17.5 years before Great Lakes Carbon Corporation purchased the facility from Reynolds Metals Company on May 27, 2002,¹ and *3*) more than 22.5 years before Oxbow Carbon and Mineral Holdings, Inc. purchased Great Lakes Carbon LLC as a wholly owned subsidiary on March 28, 2007. EDMS Doc. 5853924. (Great Lakes Carbon LLC changed its name to Oxbow Calcining LLC on July 18, 2007. *Id.*) The permittee's capabilities undoubtedly changed after the 2002 sale of the facility and the 2007 sale of the facility's owner, rendering the basis for DNR's 1980 variance out-of-date.

DNR's May 30, 1980 variance letter does not specify a duration (which is out-of-step with LAC:III.1311.G's provision for "such time limitations as it may prescribe for prevention, control or abatement of air pollution in harmony with the intent of the act"). Under these circumstances, LDEQ should deem the variance term to be co-extensive with the permit term. LDEQ should also consider the facility's 2002 sale to a new owner to have terminated the variance. At minimum, LDEQ must reassess the need for the variance pursuant to the Department's role as public trustee under Louisiana Constitution art. IX, § 1. It would be arbitrary and capricious for LDEQ to further extend the variance.

A. The exemptions violate the Clean Air Act.

The exemptions waiving particulate matter and opacity limits during periods of cold startup are a violation of the Clean Air Act. SIP limits apply continuously, even during periods of startup, shutdown, or malfunction ("SSM"). This requirement is in the plain language of the Clean Air Act. Clean Air Act section 302(k), 42 U.S.C. 7602(k) defines the term "emission limitations" as "a requirement established by the State or Administrator which limits the quantity, rate, or concentration of emissions of air pollutants *on a continuous basis*, including any requirement relating to the operation or maintenance of a source to assure continuous emission reduction, and any design, equipment, work practice or operational standard promulgated under this Act." (Emphasis added). A federal circuit court has confirmed this requirement in the context of a Clean Air Act hazardous air pollutant requirement. *See Sierra Club v. EPA*, 551 F.3d 1019, 1028 (D.C. Cir. 2008) (finding that the SSM exemption violates the Clean Air Act's requirement that some emission standards must apply continuously). Even accepting that "continuous" for purposes of the definition of "emission standards" under Clean Air Act section 302(k) does not mean unchanging, the court found exemptions violate the Clean Air Act requirement that some emissions limitation standard apply at all times. *Id.*, 1021.

Here, the exemptions in Oxbow's current permit and requested in the pending application are complete exemptions from the SIP limits in sections 1311(B)-(C). There

¹ See EDMS Doc. 1563810 at p. 203 of 209.

are no alternative limits for cold startups. Thus, these exemptions violate Clean Air Act 302(k), 42 U.S.C. 7602(k), requirements.

Furthermore, section 116 of the Clean Air Act makes clear that LDEQ cannot remove or weaken emission limits established in the SIP. The provision states that “if an emission standard or limitation is in effect under an applicable implementation plan . . . , such State or political subdivision may not adopt or enforce any emission standard or limitation which is less stringent than [the SIP].” 42 U.S.C. § 7416. States may change SIPs but only after public notice and EPA review and approval process. 42 U.S.C. § 7410(l). LDEQ has not gone through the process to exempt the Oxbow plant from the emission requirements under section 1311(B)-(C). Therefore, LDEQ’s decision to exempt Oxbow from these emission requirements violates the Clean Air Act.

Indeed, when granting approval for the variance provision in section 1311.G, EPA explicitly stated that its “SIP approval . . . which allows . . . variances to [emission standards for particulate matter], does not imply automatic approval of any variances which may be granted.” Louisiana Regulation 19.0,² Emission Standards for Particulate Matter, 44 Fed. Reg. 13,479 (Mar. 12, 1979) (to be codified at 40 C.F.R. pt. 52). EPA went on to require that “[a]ny variance under 19.5.2 must comply with the requirements of 40 CFR 51.34 and be approved by EPA before it becomes a recognized revision to the [SIP].” *See e.g.*, Air Programs; Louisiana Variance; Kaiser Aluminum & Chemical Corp. (Norco), 44 Fed. Reg. 35224-01 (providing EPA approval of a variance to Louisiana Regulation 19.5 for a limited period to allow completion of pollution controls).

Here, EPA has never approved LDEQ’s exemption from section 1311 SIP limits for this plant. The approval that LDEQ granted in the May 30, 1980 letter that Oxbow references is not part of the SIP.

B. LDEQ may not grant a permanent exemption for startup emissions under LAC 33.III.1311.G.

Any variance sought under LAC 33.III.1311.G must be temporary. Indeed, the title of this provision is “Variance” and the plain language of this provision makes clear that it governs “variances.” LAC 33.III.1311.G (“[T]he administrative authority may *permit a variance* from or consider a change in these regulations.”) (emphasis added).

The Louisiana regulations do not define “variance” but Clean Air Act regulations do. Clean Air Act regulations define “variance” as the “temporary deferral of a final compliance date for an individual source subject to an approved regulation, or a temporary change to an approved regulation as it applied to an individual source.” 40 CFR 51.500(y). The variances that exist in Oxbow’s current permit and sought in the

² The regulations governing emissions standards for particulate matter were originally in Louisiana Regulation 19.0 until they were incorporated into the Louisiana Administrative Code in 1987.

pending application do not meet this definition as they are neither a temporary deferral of a final compliance date nor a temporary change of an approved regulation. Use of this variance provision to permanently exempt emission limits during startup events is therefore against Clean Air Act regulations.

C. LDEQ cannot rely on the request the plant made in 1980 to grant a variance today.

As discussed above, LDEQ must follow Clean Air Act's SIP change procedures and obtain EPA's approval before granting a variance from the emission limitations under 1311. But before LDEQ can consider any variance, Oxbow must provide a new application that shows that "strict conformity" with emissions limitations would cause "undue hardship, would be unreasonable, impractical, or not feasible under the circumstances." LAC 33.III.1311.G. The application on which Oxbow relies is 36 years old and cannot support a current determination under LAC 33.III.1311.G. *See* Reynolds Metals letter to LDEQ, May 12, 1980, EDMS No. 7443923, pp. 2-3.

Reynolds Metals, the former plant owner, submitted an application for a variance in 1980. Reynolds Metals based its request on the "unreasonable" cost of compliance with these limits. At the time, Reynolds determined "the only way the combustion chambers can be brought up to efficient operating temperature in a shorter period of time would be to install start-up burners in each combustion chamber." *Id.* at 1. Reynolds estimated that the cost to add startup burners would be \$400,000 for all kilns, which it claimed to be "unreasonable given the fact that they will only be used an average of three times per year per kiln." *Id.* Louisiana Department of Natural Resources Office of Environmental Affairs, the permitting authority at the time, granted the exemption, finding only that "[t]he expenditure required to insure compliance of your four (4) kilns during cold startup is substantial considering the limited number of cold startups anticipated." LDNR letter to Reynolds Aluminum, May 30, 1980, EDMS No. 7443923, p. 1.

Should LDEQ consider granting a variance of these emission limits today, it must do so in light of current technology and costs. Furthermore, any variance must be temporary. LDEQ must also determine that the excess emissions from Oxbow's plant during cold startups would not cause or contribute to a violation of ambient air quality standards. *See* LAC 33.III.1311.G (requiring the variance to be in harmony with the intent of the Clean Air Act). Furthermore, any variance must include specific conditions under which the variance applies. Moreover, LDEQ must require Oxbow to report all emissions from startup events.

II. The Clean Air Act prohibits LDEQ from authorizing kiln startup and shutdown emissions separately without applying enforceable limits.

Oxbow's current permit authorizes emissions from kiln startups/shutdowns under General Conditions XVII Activities. *See* Permit No. 0840-00021-V4, Air Permit

Briefing Sheet, section VIII, p. 5. Oxbow seeks the same in its pending application. *See* Application, Table 2-9, Insignificant Activities/General Conditions XVII Activities, p. 21. General Conditions XVII Activities provides that:

Very small emissions to the air, resulting from routine operations, that are predictable, expected, periodic, and quantifiable and that are submitted by the permitted facility to, and approved by, the Office of Environmental Services are considered authorized discharges. Approved activities are noted in the Louisiana General Condition XVII Activities List of the permit. To be approved as an authorized discharge, such very small releases must:

1. generally be less than 5 TPY of criteria and toxic air pollutants;
2. be less than the minimum emission rate (MER);
3. be regularly scheduled (e.g., daily, weekly, monthly, etc.); or
4. be necessary prior to plant start-up or after shutdown (line or compressor pressuring/depressuring, for example).

LAC 33:III.537, Table 1. LDEQ cannot use General Condition XVII to authorize emissions from sources that are subject to emission limits. It is a violation of Clean Air Act section 302(k), 42 U.S.C. 7602(k), to exempt startup/shutdown emissions from limitations that apply to the kilns by separating out those emissions and giving them a general authorization under General Conditions XVII Activities. This is an end-run around 302(k) requirements that emission limitations apply on a continuous basis (see discussion above under I.A). The SIP emission limits that apply to the kilns must apply at all times—i.e., during regular operations, during periods of startup and shutdown, and during malfunctions. All emission rates for all pollutants—including average/max lbs/hr and tons per year—apply to all sources subject to these limits at all times.

III. LDEQ must ensure that Oxbow's SO₂ emissions do not cause an exceedance of the SO₂ 1-hour Standard.

Oxbow is a major emitter of SO₂. Under its current permit, Oxbow is allowed to emit 1201.50 lbs/hr from each of its kilns. There are no restrictions on operating the kilns concurrently. This means that if Oxbow is operating all four kilns at the same time that it is permitted to emit over 4800 lbs/hr. during normal operations. And Oxbow's emissions during SSM events may even be higher.

Given Oxbow's high rate of SO₂ emissions, LDEQ must determine whether the plant causes an exceedance of the 1-hour SO₂ NAAQS of 75 during both regular operations and during SSM events before granting a renewal permit.

IV. LDEQ must require Oxbow to test for unpermitted pollutants.

It is likely that the current permit and pending application do not cover all pollutants emitted by the plant. For instance, the permit and pending application do not include a limit for sulfur trioxide (SO₃). Furthermore, the combustion of fuels containing sulfur converts the fuel sulfur into a mixture of gaseous sulfur dioxide (SO₂) and sulfur trioxide (SO₃). The SO₃ combines with water to form sulfuric acid or H₂SO₄. The SO₃ and H₂SO₄ combined are referred to as sulfuric acid mist or "SAM." The permit and pending application also do not include a limit for SAM.

In addition, the current permit and pending application do not include limits for carbon disulfide, carbonyl sulfide, hydrogen sulfide, or total reduced sulfur, which are pollutants that are emitted from other calcining plants (e.g. Rain CII in Chalmette). Further, the current permit and pending application do not include the following metals and other toxic or hazardous pollutants that are emitted from other calcining plants: antimony, arsenic, barium, beryllium, cadmium, chlorine, chromium, manganese, mercury, and selenium. Because these pollutants are known to be emitted from other calcining plants, Oxbow must be required to conduct testing to determine whether it emits these pollutants—or it must explain why its plant is different (e.g., from Rain CII in Chalmette) and does not emit such pollutants. The permit must include limits for all pollutants the plant emits.

V. LDEQ should require more frequent testing of Oxbow's kilns to comply with the Clean Air Act.

LAC 33:III.507.H.1 provides that each Part 70 permit must include "compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit as required by 40 CFR 70.6(a)(3)."

The current permit and pending application only require kiln testing of emissions "within five years, plus or minus 6 months, of when the previous performance test was performed." See Application, Section 22-Table 2: State and Federal Air Quality Requirements, p. 4. The provision allows the testing of "any two out of the four kilns . . . to demonstrate compliance" because the kilns are "identical in nature." *Id.* This requirement does not assure compliance with permit terms and conditions.

First, stack results show that the kilns are not "identical in nature." Stack tests from 2015, 2009, and 2001 show varying results for Nitrogen Oxides and Sulfur Dioxide lb/hr emissions estimates (see table below). Because the kilns produce varying results, they are not identical in nature and LDEQ require testing of each kiln to assure compliance with emissions limitations contained in the Permit.

	Kiln 1	Kiln 2	Kiln 3	Kiln 4
NOX STACK TEST RESULTS				
2001 NOX³		46.55	Not tested	
2009 NOX⁴	75.72			65.53
2015 NOX⁵		62.39	77.68	
SO2 STACK TEST RESULTS				
2001 SO2		892.0	Not tested	
2009 SO2	505.32			615.02
2015 SO2		398.49	1201.50	

Second, LDEQ must require more frequent testing or other methods to assure compliance with emissions limitations. For most pollutants, the stack test is the only method required to determine compliance. A snapshot taken many years apart cannot assure compliance with the hourly limits established for these pollutants. Stack testing alone therefore does not assure compliance with permit limits. Kilns 1 and 4, for example, have only been tested once in the last 15 years. That is wholly inadequate.

Furthermore, during the last emissions test in 2009, Kiln 1 exceeded the Nitrogen Oxides limit (≤ 75.70 lbs/hr average). Given that Oxbow is likely performing the stack tests under ideal conditions, it is possible that Kiln 1 cannot meet this NOx emissions limit. For this reason alone, LDEQ must require additional testing or methods to assure compliance with the NOx limit.

Conclusion

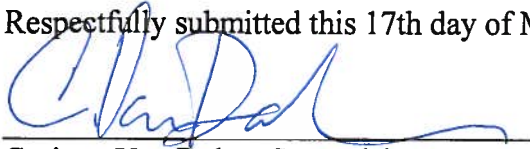
LEAN asks LDEQ to address these issues prior to the issuance of a draft renewal permit for the plant. If you would like to discuss any of these issues, please contact Corinne Van Dalen at 504-862-8818.

³ 2001 Stack Testing of Kiln 2, EDMS #2354903.

⁴ 2009 Stack Testing of Kilns 1 and 4, EDMS #6696590.

⁵ 2015 Stack Testing of Kilns 2 and 3, EDMS # 9979251.

Respectfully submitted this 17th day of May, 2016,



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