



## ENVIRONMENTAL LAW & POLICY CENTER

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**BY EMAIL ONLY**

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**Re: Comments on Proposed Part 70 Operating Permit Renewal for  
Carmeuse Lime, Inc.; 1 North Carmeuse Drive, Gary, Lake County  
Permit Renewal No.: T089-41162-00112**

To Indiana Department of Environmental Management:

The Environmental Law & Policy Center (“ELPC”), on behalf of itself and its members, submits these comments to the Indiana Department of Environmental Management (“IDEM”) on the proposal to renew the Part 70 Operating Permit for Carmeuse Lime for five years. ELPC does not oppose renewal of the Permit for Carmeuse. These comments are intended to increase public awareness of pollution sources in the community. To promote this, ELPC requests that IDEM hold a public hearing or public meeting on the permit renewal. These comments are also intended to limit the facility’s environmental impact on this community. The facility’s compliance history is poor. Renewal on largely the same terms fails to address this history. ELPC’s comments recommend that Permit Renewal No. T089-41162-00112 be amended to: (1) advance environmental justice; (2) increase inspections; (3) address prior noncompliance; (4) prohibit the use of engineered fuel; and (5) improve monitoring and public reporting.

ELPC is the Midwest’s leading public interest environmental legal advocacy organization and works to protect the environment and public health. ELPC’s work includes a focus on industrial and other major sources of pollution affecting the health and welfare of residents along Lake Michigan’s southern shoreline in Northwest Indiana. As part of this work, ELPC tracks air emissions reports from major industries along the Indiana lakeshore, including their compliance with federal and state environmental regulations. In doing so, ELPC seeks to clean up, not close, the industrial facilities – which have long been drivers of the regional economy – requiring industry to play by the rules and implement the latest emissions control technologies to reduce pollution and improve the landscape where people live, work, and play.

To assist IDEM in its consideration of these comments, each of ELPC’s recommendations is indented and highlighted. All other text is explanatory background in support of these recommendations. There are multiple recommendations in each of the five categories.

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## 1. Advance Environmental Justice

There are approximately 50 major air emission sources within 5 miles of the Carmeuse Lime facility. Despite being just one of many stationary sources of air emissions in the Region, Carmeuse's emissions are significant, as shown in its annual air emission statement certifications over the past ten years, as summarized in the following table.

**Pollutants Reported by Carmeuse Lime Per Year (in tons)**

Year	PM10	PM2.5	NOx	SO <sub>2</sub>	VOCs	CO	Lime Production
2012	35.1199	30.2101	1642.3516	308.9264	13.1892	1747.1825	715,931
2013	60.0393	52.1307	2158.7384	351.1038	12.8332	1760.5703	735,025
2014	104.7131	88.7819	2153.9443	401.4146	14.1916	1756.6604	724,920
2015	121.1278	112.8541	2080.3859	493.1670	13.1065	1696.6695	685,764
2016	65.1470	56.7931	1556.1990	361.1400	4.9986	389.2126	635,188
2017	59.2334	50.8427	888.7339	90.6418	5.1453	136.7401	637,391
2018	47.2035	38.6198	961.6137	88.9131	9.7591	153.8323	695,209
2019	39.3998	30.8053	976.5136	74.1631	10.2760	144.5773	681,610
2020	39.0381	30.6715	943.3264	50.0097	10.2323	141.3277	663,518
2021	40.4707	31.9201	1015.4049	63.9291	11.1994	155.9405	720,607

The location of the Carmeuse Lime facility also happens to be amidst the Lake Michigan southern shoreline, home to globally rare dune and swale ecology that hosts a national park and state park, public beaches, and numerous outdoor recreational activities. And it is called home by over 18,000 residents within a three-mile radius of Carmeuse Lime. Over 95% of these residents are African-American or of Hispanic origin. These neighborhoods have some of the highest levels in Indiana for many environmental justice indexes as reported by the U.S. Environmental Protection Agency's ("EPA's") EJScreen mapping and screening tool.

Some industry can co-exist with residents if steps are taken to prevent over-burdening that community. The more industry there is, however, the more precautions are needed to assure that local residents are not shouldering a disproportionate burden to serve the needs of all. The Carmeuse Lime facility primarily serves the steel industry. The importance of the steel industry to Lake County and the nation does not justify its operation without regard to the surrounding communities, which is why environmental regulations exist. Those laws, designed to protect the environment and public health and welfare, must be rigorously enforced.

- **Environmental Justice Analysis.** IDEM should conduct an environmental justice analysis of appropriate scope to inform the permitting decision. The analysis should include an EJScreen analysis, input from the affected community to identify their concerns, an evaluation of existing environmental data, and an evaluation of existing demographic and public health data about the community. The analysis should evaluate the effects that the Permit, as renewed, will have on the community, and the degree to which these effects will be disproportionately high and adverse. The analysis should further discuss mitigations to the permit to address any identified adverse effects.

- **Cumulative Impact Analysis.** IDEM should conduct a cumulative impact analysis to determine Carmeuse's impact on the affected communities. A cumulative impact analysis will demonstrate that the permit will be protective of health and the environment in those communities. Carmeuse is located in an area that has numerous other sources in the vicinity, suggesting that a cumulative impact analysis is appropriate.
- **Mitigation.** IDEM should consider opportunities to address disproportionately high and adverse effects that extend beyond the scope of the air permitting decision that utilize a whole-of-government approach by working with Carmeuse and local officials to reduce impacts on the surrounding neighborhood.
- **Greater Public Engagement.** IDEM should hold a public hearing or public meeting in Gary to hear and answer questions and comments from local residents regarding the Carmeuse Lime facility. ELPC further recommends that responsible officials from Carmeuse attend. Situated, as it is, behind fencing at the end of a private road, the public has little access to what goes on at the Carmeuse Lime facility. A public hearing could help dispel some concerns and raise understanding among local residents, and apprise the company of its role and impact on the community.

ELPC's remaining comments stand alone from, but are influenced by, its recommendations regarding environmental justice. The remaining comments are not, however, exhaustive of the ways in which Permit Renewal No. T089-41162-00112 could be amended to mitigate the impact to the environment and local residents. ELPC encourages IDEM and Carmeuse, based on their superior knowledge of the facility's operations and emissions, to look for and implement ways to reduce the facility's adverse impacts.

## **2. Increased Inspections**

According to information contained in IDEM's Virtual File Cabinet, it appears that the Carmeuse Lime facility has been inspected five times since its last permit renewal in 2014. These inspections, each of which identified violations of the facility's Part 70 Permit (and often of the same type) are summarized as follows:

October 24, 2022 (VFC #83391215): A 6-hour inspection identified seven types of violations, including a failure to note and maintain records of visible emissions of multiple emission units' stack exhaust, and failure to record and report parametric limits on baghouses controlling emission from multiple emission units.

October 21, 2020 (VFC #83070532): A 6-hour inspection identified six separate violations including a failure to timely test two emission sources, operating outside of parametric limits for multiple baghouses, and failure to perform and maintain visible emission of two stack exhausts.

September 5, 2019 (VFC #82843540): A 6-hour inspection identified three types of violations, including failure to timely retest emissions from Kilns 1 & 2, failure to timely conduct

performance tests of two baghouses, and failure to monitor parametric limits and take appropriate response steps for multiple baghouses.

September 28, 2017 (VFC #80573223): A 5-hour inspection identified two types of violations, including a failure to comply with the sampling and analysis requirements for limestone, engineered fuel, and coal; and missing information from a stack test report.

September 1, 2015 (VFC #80173993): An 8-hour inspection identified a failure to control emissions from the East Bay lime loadout.

- **Compliance Audit.** IDEM does not have the resources necessary to inspect Carmeuse Lime frequently enough to keep it in compliance with its Part 70 permit, nor is it IDEM's responsibility to do so. To improve compliance, ELPC recommends that, as a condition of permit renewal, Carmeuse be required to hire an IDEM-approved and ISO 14001 certified outside consultant to conduct an exhaustive compliance audit of the entire facility within the next six months and issue a report to Carmeuse and IDEM identifying:
  - Recommendations for process and pollution control equipment in need of repair, maintenance, or replacement;
  - Recommendations for automating Carmeuse's compliance with its Part 70 Permit requirements consistent with EPA's guidance on Environmental Management Systems; and
  - Recommendations for additional training, improved Operation & Maintenance, and needed equipment and other systems.

Furthermore, Carmeuse should be required to carry out any recommendations of the consultant described above or provide reasons to IDEM for not doing so that will result in as good or better compliance with its Part 70 Permit.

### **3. Address Prior Noncompliance**

Under the "Enforcement Issue" section of the proposed Renewal Permit's Technical Support Document ("TSD"), the permit states that there "are no enforcement actions pending." See VFC #83456718.

- **Permit Correction or Explanation.** IDEM should correct the "Enforcement Issue" section of the TSD to reflect the violations identified in the IDEM inspection of October 24, 2022, referenced above. In the cover letter for that inspection report (VFC #83391215), IDEM states that the violations "will be referred for formal enforcement action." If these violations were not referred for enforcement or any such referral has been resolved, this should also be explained in an addendum to the TSD.
- **History of Noncompliance.** To serve as the basis for amendments to its permit to improve compliance and emissions reductions, the Permit Renewal should list and summarize Carmeuse's history of noncompliance and enforcement actions since the date of the last permit renewal in 2014 including:

- Violation Letters and Enforcement Action Letters dated:
  - February 25, 2022
  - December 3, 2021
  - August 24, 2021
  - May 15, 2020
  - May 1, 2020
  - November 14, 2019
  - August 28, 2019
  - February 18, 2019
  - December 5, 2017
  - November 6, 2017
  - August 9, 2017
  - July 20, 2017
  - June 8, 2017
  - February 27, 2017 (two)
  - November 30, 2016
  
- Formal IDEM Enforcement Actions:
  - 2022-28978-A: Failure to timely conduct performance tests
  - 2021-27796-A: Failure to timely conduct performance tests
  - 2020-27508-A: Multiple performance testing and monitoring violations
  - 2019-26681-A: Emission exceedance
  - 2019-26530-A: Multiple performance testing and monitoring violations
  - 2017-24807-A: Emission exceedance
  - 2015-23817-A: Multiple performance testing and monitoring violations
  - 2015-23445-A: Fugitive dust exceedance
  - 2015-22911-A: Multiple performance testing and monitoring violations
  
- Other Enforcement Actions:
  - EPA Case No. 05-2019-5049 (9/30/2019): Consent Agreement and Final Order (CAFO) and an Administrative Consent Order (ACO), for installing a hot face dam in Kiln 3 that resulted in a significant net increase of NO<sub>x</sub> without installing Best Available Control Technology (BACT) until December 2016. The ACO required Carmeuse to: (1) operate a custom-made low-NO<sub>x</sub> burner on Kiln 3 to meet BACT; (2) install, operate, maintain and certify a continuous emissions monitoring system (CEMS) to measure NO<sub>x</sub> emissions from Kiln 3; (3) meet a 5.2 lb NO<sub>x</sub>/ton of lime, 30-day rolling average limit; and (4) modify its Title V permit to reflect the ACO requirements. The CAFO require payment of a \$50,000 penalty.
  - Commissioner's Order No. 2016-04 (Nov. 16, 2016) required Carmeuse Lime to comply with SO<sub>2</sub> requirements for Kilns EU-1 through EU-5.

The summary of Carmeuse's history of noncompliance should include a summary of any response to these notices and any corrective actions taken and fines paid.

- **Notice of Delay.** Recognizing that the Carmeuse’s Part 70 permit is being proposed for renewal three years after its prior permit expired, the Addendum to the Technical Support Document (“ATSD”) should provide a detailed explanation for the delay.

Carmeuse has repeatedly failed to conduct performance testing of its emission units once every five years, and when it has done so the tests have occasionally demonstrated an exceedance of emission limits.

- **Increased Performance Tests.** Carmeuse’s Part 70 Permit Renewal should be amended to require performance testing for PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, and VOCs of all emission units every year.

As noted in Permit Renewal No. T089-41162-00112, Carmeuse Lime is not subject to the requirements of the New Source Performance Standard (“NSPS”) for Lime Manufacturing Plants (40 CFR 60.340, Subpart HH), because the rotary lime kilns, identified as EU-1 through EU-5, were constructed prior to the applicability date of May 3, 1977. The Permit Renewal also notes, however, that each of the lime kilns were modified multiple times in 2010 or later. Each of the lime kilns are now more than 50 years old. Any reason for grandfathering in the facility’s aging equipment has long since been accomplished.

- **NSPS Applicability.** Carmeuse’s Part 70 Permit Renewal should be amended to require that each of its rotary lime kilns, identified as EU-1 through EU-5, comply with the NSPS for Lime Manufacturing Plants, 40 C.F.R. Part 60, Subpart HH.

#### **4. Prohibit the Use of Engineered Fuel**

The proposed Permit Renewal authorizes Carmeuse to burn up to 5.74 tons per hour of “Engineered Fuel” in each of its five lime kilns. If operated continuously, the facility is authorized to annually burn over 280,000 tons of Engineered Fuel. Neither the Permit nor its TSD identifies what constitutes “Engineered Fuel” or where it is sourced.

- **Disclosure of Engineered Fuel.** Permit Renewal No. T089-41162-00112 should be amended to disclose the source and any limits on the composition of “Engineered Fuel” so that the public can understand what is being burned in their city.

The only indication of the nature of “Engineered Fuel” is in the Source Definition section of the TSD. It states that Carmeuse purchased Innofuel Energy Solutions, LLC in 2019, but that a fire damaged the plant in November 2020. “As a result, the emission units have been permanently shut down and removed from the source.” *See* TSD, at 1. Based upon Innofuel’s web site, Engineered Fuel is a “manufactured product” made from “low value plastics, paper and cardboard that are difficult to recycle.” In other words, trash.

- **Disclosure of Relationship with Innofuel.** The ATSD should be amended to include additional information regarding the history and operation of Innofuel:

- Note that in addition to the fire on November 11, 2020, the Innofuel facility also experienced a fire on June 17, 2021 that “completely shut down the site.” (VFC #83172426). IDEM also received notices that the facility had fires on May 1, 2020; June 4, 2019; and April 11, 2018. IDEM should include the cause of each fire, its duration and scope, the amount and type of materials burned, and the results of any air monitoring or other environmental analysis related to each fire.
- Explain which “emission units” have been permanently shut down and what it means to be “removed from the source.” Neither Innofuel, nor its predecessor Vexor, appear to have previously been listed within the definition of “Source” for purposes of the Carmeuse Part 70 permit.
- Considering that Carmeuse owns and controls the Innofuel facility, its Part 70 permit should be transparent regarding the future of that facility with regard to producing “Engineered Fuel.” On May 3, 2021, IDEM approved Innofuel’s permit renewal application (VFC #83149171). On April 4, 2023, Innofuel sought an “insignificant modification” to its existing permit seeking approval of a “blending only” operation of wastes inside the “fuel barn,” described as “the only structure left onsite since the last fire.” (VFC # 83464064). As such, the Innofuel facility does not appear to be “permanently shut down” as the TSD suggests.

Engineered Fuel derived from municipal solid wastes can have a wide variety of hazardous and toxic constituents when burned due to synthetic chemicals in coated papers, plastics, and other materials that people commonly throw away. These toxins include dioxins, arsenic, mercury, chromium, polychlorinated biphenyls (PCBs), lead, and other hazardous air pollutants that have been found to be carcinogenic. Burning trash is illegal in Indiana.<sup>1</sup> 326 IAC 4-1-2.

- **Prohibit the Use of Engineered Fuel.** Permit Renewal No. T089-41162-00112 should be amended to prohibit the use of Engineered Fuel as a fuel source for the lime kilns. If IDEM is unwilling to prohibit the use of Engineered Fuel or believes its authority is so limited as to not allow it to prohibit the use of Engineered Fuel, the Renewal Permit should be amended to require Carmeuse to:
  - Monitor and record the composition and amount of Engineered Fuel used on a daily basis and include this in the facility’s quarterly report;
  - Conduct performance testing of emissions stacks associated with a lime kiln while being fueled by Engineered Fuel to measure dioxins, arsenic, mercury, chromium, polychlorinated biphenyls (PCBs), lead, and other hazardous air pollutants.
  - Consider placing limits on the amount and/or composition of Engineered Fuel based on the reported results of the performance testing to mitigate the amount of harm to the environment, public health and welfare.

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<sup>1</sup> <https://www.in.gov/idem/openburning/burning-trash-is-illegal/>

## 5. Additional Monitoring and Public Reporting

Based on EPA's enforcement database, a 2016 Consent Agreement and Final Order with Carmeuse required it to install, operate, maintain and certify a continuous emissions monitoring system (CEMS) to measure NO<sub>x</sub> emissions from Kiln 3 (EU-3) and to modify its Part 70 permit to reflect this requirement. Permit Renewal No. T089-41162-00112 does not appear to contain this requirement. Instead, emissions of NO<sub>x</sub> and SO<sub>2</sub> from the kilns is calculated using emission factors. This method of calculating emissions is inadequate, particularly as applied to Engineered Fuel that could have a wide range of constituents. Moreover, compliance between performance tests conducted every 30 months relies on 30 minutes per day of watching smoke from the stacks and a daily reading of the pressure drop on the baghouses. These compliance measures are insufficient to protect public health.

- **Continuous Emissions Monitoring.** Permit Renewal No. T089-41162-00112 should be amended to require CEMS on each of the vents from baghouses CE-1 through CE-5 controlling emissions from each of the five lime kilns.

Alternatively, if IDEM is unwilling to require CEMs for the kiln baghouses, or believes its authority is so limited as to not allow it to require CEMs, Permit Renewal No. T089-41162-00112 should be amended to require installation of continuous opacity monitors ("COMS") to record opacity from each of the stacks from baghouses CE-1 through CE-5 controlling emissions from each of the five lime kilns.

Alternatively, if IDEM is unwilling to require CEMS or COMS for the kiln baghouses, or believes its authority is so limited as to not allow it to require CEMS or COMS, Permit Renewal No. T089-41162-00112 should be amended to at least require quarterly reports that explain the calculated basis of the lime kilns' emissions, the variability in the fuel source options, the composite sampling method for estimating the sulfur content of all Engineered Fuel, and which fuels were used during which periods of each quarter.

ELPC appreciates IDEM's considerable efforts in providing public access to compliance reports from permitted sources through its Virtual File Cabinet. For some permitted facilities, the quantity and complexity of these reports can sometimes be confusing to those unfamiliar with environmental regulations. For example, Carmeuse's quarterly reporting submitted in accordance with paragraph 5.a of the IDEM Commissioner's Order dated November 16, 2016, is too large and cumbersome to be understandable.

- **Improved Reporting.** IDEM should explore opportunities to improve public access to the data regularly generated by Carmeuse to comply with its Part 70 permit. This could include the preparation of executive summaries on the information contained in Carmeuse's regular reports and making those publicly available on a Carmeuse-specific website. The transparency of such information will promote public engagement and help build trust among all stakeholders.



Thank you for considering ELPC's recommendations.

Respectfully submitted,



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