



**Carmeuse Lime & Stone**

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February 4, 2014

***Via E-mail and Express Mail***

Department of Public Health  
Attn: Environmental Permitting and Inspections  
333 South State Street, Room 200  
Chicago, IL 60604

***Re: Comments Regarding Department of Public Health – Rules and Regulations for Bulk Material Storage Piles Proposed December 17, 2013***

Dear Sir or Madam:

Carmeuse Lime & Stone Company ("Carmeuse") respectfully submits the following comments regarding the City of Chicago's proposed "petcoke" Rule. Carmeuse's South Chicago operations will be seriously compromised as a result of the proposed rule's broad definition of "Bulk Materials". In general, we support the City of Chicago's efforts for controlling fugitive dust but are concerned that a reactionary regulatory response to the August 2013 petcoke dust incident has contributed to an overly broad proposed rule which does not appear to include a thorough evaluation of the breadth of the impact and appropriate balancing of economic vitality and healthy communities. Accordingly, Carmeuse timely submits the following comments in accordance with the City of Chicago Department of Public Health's Second Notice of Proposed Regulations for the Handling and Storage of Bulk Material Piles.

**I. Introduction**

With over 150 years in business, Carmeuse Lime & Stone, is a leading producer of high calcium and dolomitic lime, chemical grade limestone and crushed limestone aggregate products that are a vital part of important industries in steel manufacturing, energy, environmental services, and construction. Carmeuse products make steel stronger, air cleaner, water more pure and roadways last longer—they are a vital ingredient in the materials that build and renew infrastructure around the world. The Carmeuse South Chicago facility was at one time an operating lime manufacturing facility. In recent years, the property has served mainly as a bulk material storage and trans loading operation handling mostly lime, but also some aggregate material. Carmeuse is presently considering a new economic opportunity that involves, in part, leasing the dock facilities for the purposes of receiving, storing and shipping bulk solid materials. This operation is planned to employ at least ten full-time employees as well as contractors and other service providers. The restrictions on bulk material storage contained in the Rule will significantly affect the economic viability of this opportunity and may cause Carmeuse to lose in excess of one million dollars in annual revenue. The proposed Rule will also impact jobs and revenue for supporting services in an already economically distressed area; the direct and indirect effects of which will ripple through local and national commerce.

**II. Substantive Comments to Ordinance**

**A. The City of Chicago Has Failed to Meet the Minimum Requirements of Due Process**

On December 19, 2013 the City of Chicago proposed sweeping regulations for businesses that store, blend, handle, process and transport bulk solid materials. These far-reaching and extensive changes



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caught many affected and potentially affected businesses off guard, including Carmeuse, particularly when Carmeuse has a Fugitive Operating Program and contingency measures plan.

Indeed, prior to the December 19 publication of the proposed regulations, the City had been vocal about its focus on fugitive emissions from petroleum coke and metallurgical storage piles only. For example, the City of Chicago's December 19, 2013 press release regarding the proposed rule ("Rule") indicates the current regulatory efforts are specifically targeted to protect residences from petroleum coke and metallurgical coke dust, and thus as framed, fails to put on notice other operations which may become subject to the Rule. This press release quotes Mayor Emanuel as stating, among other things... "we are working to force these petroleum coke facilities to either clean-up or shut down". Indeed, comments to the Rule are to be submitted to: "[petcokecomments@cityofchicago.org](mailto:petcokecomments@cityofchicago.org)". Additionally, U.S. Senator Dick Durbin's December 13, 2013 press release focuses specifically on the nearby petroleum coke storage sites. These public announcements, on their face, fail to be reasonably calculated to apprise and inform facilities across the City of Chicago which handle bulk materials other than petcoke of the applicability of the Rule to their operating facilities; many of whom are not aware of the proposal. Such notice also fails to adequately inform the affected facilities of the scope, extent and impact of the Rule on the operation of their facilities. Moreover, the City's *ad hoc* announcement on Thursday, January 9, 2014 that it would hold a meeting for affected businesses on Friday, January 10, 2014, fails to provide such stakeholders with any meaningful notice or ability to engage the City on this subject matter.

The City's publicly expressed purpose of the Rule fails to inform all affected facilities of its full breadth and impact, and is therefore defective. Indeed, the proposed regulations go far beyond limiting fugitive emissions from petroleum coke or metallurgical coke storage piles and encompass all "bulk solid material." The City defines "bulk solid material" as follows:

Bulk Solid Material means any solid substance or material which can be used as a fuel or as an ingredient in a manufacturing process that may become airborne or be scattered by the wind, including but not limited to ores, coal, coke, including petcoke and metcoke, but shall not include construction and demolition materials or materials that are handled or stored pursuant to a recycling, reprocessing, or waste handling facility permit under Chapter 11-4 of the Code.

There are many industrial facilities which will be immediately impacted by the Rule which store ingredients used in manufacturing processes. These "other entities" covered by the broad reach of this Rule have not been provided notice of and the same time, opportunity and benefit of working with the City to craft and mold an appropriate rule to address fugitive dust issues; opportunities which we understand have been provided to companies which store and handle coal and coke materials. The failure to provide adequate notice of and equal opportunity to discuss the development of this Rule to all facilities covered by the Rule renders the process discriminatory, violates equal protection, fails to engage all interested stakeholders; and therefore does not meet the minimum requirements of due process.

Moreover, the timing for commenting on this Rule is unreasonable under the circumstances due to the severe impact on existing facilities that can result in complete cessation of operations leading to job loss and erosion of the local tax base. This Rule was publicly noticed on December 19, 2013, immediately preceding the 2013/2014 Christmas and New Year's holiday. While the City subsequently extended the comment period from January 24, 2014 to February 7, 2014, the comment period still remains grossly inadequate in light of the breadth of the Rules and fails to give entities such as Carmeuse reasonable opportunity to evaluate potential impacts of the Rule, consult with technical resources to evaluate the economic and technical feasibility of the Rule as well as assess the ability of the existing facilities to



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comply. The opportunity, if any, to adequately evaluate the Rule must necessarily precede the development and submittal of comments on the Rule in an effort to engage the City of Chicago to develop fair and balanced regulations to control fugitive dust. Further, we note that the City of Chicago previously developed a substantial series of regulatory requirements for the control of fugitive dust (Municipal Code of Chicago, Title II, Chapter 4, Article II.). The pre-existing Rules, when implemented, are more than sufficient to control fugitive dust and protect human health and the environment. In this regard, the existing City of Chicago regulations have been reviewed and approved by the State of Illinois and the U.S. Environmental Protection Agency (U.S. EPA) for purposes of being incorporated into the state implementation plan designed to ensure compliance with the National Ambient Air Quality Standards (NAAQS) for particulate matter – a health based threshold.

Based upon the sweeping changes proposed by the City of Chicago on all businesses that store, blend, handle, process and transport bulk solid materials and its failure to notify and meaningfully engage interested stakeholders, we urge the City to withdraw this Rule and to engage instead, if at all, in a process with all interested stakeholders as to whether and how the City should approach fugitive emissions from "bulk solid material" before proposing rules that have an immediate and substantial negative impact on businesses and the employees of those businesses.

**B. The City of Chicago's Proposed Bulk Material Handling Rule is Impermissibly Vague and Overbroad.**

The City has based the Rule on an overly broad and vague definition of "bulk solid material", which amounts to an ambiguous and therefore arbitrary rulemaking. The City has defined "bulk solid material" as broadly encompassing "any solid substance or material which can be used as a fuel or as an ingredient in a manufacturing process...." The terms "used as a fuel or as an ingredient" or "ore" are particularly ambiguous as many substances or materials may qualify as a "fuel" or an "ingredient" or an "ore" in the manufacturing process. Moreover, "fuel", "ingredient" and "ore" are left undefined, thus, leaving the reasonable person unable to determine what is or what is not regulated, and thus what is or what is not prohibited herein. Further, the Rule is replete with numerous other terms and conditions which are vague and indecipherable including but not limited to the examples included below. Such terms render it impossible for a regulated facility to identify who is required to do what, when.

This inability to understand what is or is not regulated by the Rule is exacerbated by the City's Mayor and Health Department publicly describing the Rule as limited to petcoke, leading the initial understanding of the Rule to be limited to regulation of the handling, processing and storage of petcoke rather than the broad scope of materials potentially included within the definition of the Rule. Further, the City indicated the Rule was modeled after the much more limited coke, coal and sulfur rule from California's South Coast Air Quality Management District. The failure of the Rule to explicitly and definitively identify what facilities and materials are subject to the Rule can lead to future arbitrary enforcement and deprive affected facilities of fair notice and due process.

**B. The Terms and Requirements of the Proposed Rule Lack Rationality Amounting to Arbitrary and Capricious Rulemaking**

In addition to the Rule's entrenched problems of due process, vagueness and adverse effects on local and national commerce, lay very serious technical implementation challenges which will likely result in facility shutdowns. Therefore, while Carmeuse requests that the City of Chicago withdraw the Rule and engage in a meaningful dialogue with stakeholders to address fugitive dust concerns while also retaining the ability to grow the economy and jobs, Carmeuse provides more specific comments concerning the



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Rule that, as written, will have devastating economic impacts on businesses and communities across the City and directly on the Carmeuse Company. This sweeping Rule proposed by the City in many instances lacks any rational basis for its purported purpose of improving public health, and therefore amounts to an arbitrary and capricious act of rulemaking.

1. It is proposed that all bulk solid material (with a few limited exceptions) be maintained in fully enclosed structures with air pollution control equipment, construction of which is required within two (2) years from the Rule's effective date to comply. This two year period is arbitrary and capricious given the lengthy time needed to obtain a building permit from the City of Chicago as well as any required permitting for the pollution control equipment from Illinois EPA.

2. The Rule also proposes overly restrictive setbacks for outdoor bulk solid material storage which are not rational in light of the existing approved Fugitive Operating Program required for outdoor storage. As currently drafted, the setbacks would eliminate Carmeuse's ability to store any bulk materials outdoors, even when implementing the approved protection provided by the existing approved Fugitive Operating Program. These measures have a direct negative impact on the fundamental nature and purpose of Carmeuse's business, its daily operating practices and its economic investment in this facility. This elimination will immediately impact current business opportunities reducing facility annual revenue by approximately one million dollars (\$1,000,000.00).

3. Even more, the Rule imposes arbitrary and capricious limits on materials received (10,000 ton on a five-day basis), and sets a maximum outdoor storage capacity of 100,000 cubic yards. On its face, these provisions place needless arbitrary restrictions on production (and economic investment) on existing facilities whose emissions are currently well controlled by their permits and Fugitive Operating Program. A 10,000 ton weekly limit would restrict the facility to six or seven barges over a five-day period. With occasional inbound barges arriving in groups and with barge demurrage of \$250 - \$300/day, Carmeuse could easily hit \$25,000 to \$30,000 in demurrage charges for a group. This would also have a snowball effect on any barges arriving the following week or two which could result in months to catch up. Similar impacts will affect incoming rail shipments. By way of further example, this provision fails to account for the size and capacity of the U.S. and Canadian registered ships that are used to load and unload bulk materials in the Great Lakes. The ships normally carry 30,000 tons of cargo and can be unloaded in one day. The limitation to 10,000 tons in a five-day period would then require 15 or more working days to unload a ship that previously could be unloaded in one day and fails to account for the significant adverse economic impact of associated demurrage charges. Vessel demurrage can be as much as forty-eight thousand dollars (\$48,000.00) per day.

4. The City also proposes a laundry list of best management practices for outdoor bulk solid material storage if an affected facility can meet the overly restrictive setbacks. While Carmeuse implements many best management practices as set forth in the City of Chicago's approved Fugitive

Operating Program, many of the practices proposed in this new Rule are either unnecessary for the protection of health, or economically and/or technologically infeasible. By way of example:

i) The Rule proposes that each affected facility install and operate a minimum of at least four (4) Federally Equivalent Method (FEM) real-time PM-10 monitors around the perimeter of the facility. Mandating the installation, calibration and continuous operation of multiple FEM real-time PM-10 monitors is not reasonably relevant for demonstrating compliance and thus is not a lawful requirement. Given the number of facilities seeking to comply with this Rule, and the lack of adequate equipment available on the market, as written, compliance is impossible. Furthermore, this requirement is not rationally related to



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improving public health. To have every affected facility required to install four monitors without any analysis of wind direction and no ability to determine causation of the source of specifically monitored dust (PM) levels, consideration of the surrounding community is excessive and not rationally related to improved public health and protection, as the data will not identify the subject facility's contribution to ambient fugitive dust levels. Since the monitors will be detecting ambient particulate matter with monitors that do not and cannot distinguish background concentrations nor any other origin, then monitored readings arbitrarily trigger response activities for detection of fugitive dust not attributable to the facility.

Further, such response actions may not have any impact on ambient levels. The inability to immediately identify background contributions coupled with the inability to identify causation renders this Rule vague, arbitrary and capricious.

It is our understanding that such PM-10 monitors are not readily available. The Company objects to the Rule mandating the installation of these monitors because their monitoring technology has not been demonstrated to be either economically or technologically feasible for use in the unique variable environmental condition or for the purpose envisioned by the Rule. A study by Carla Ferguson and Asok Jain, titled "Particulate Matter Continuous Emission Monitors – Do They Really Work?" presented at the 2003 TAPPI International Environmental Conference evaluated all known PM CEMS studies. Ferguson and Jain concluded that those studies disclosed serious concerns regarding PM CEMS accuracy, stability, poor correlation evaluations and poor calibration below ISO and U.S. EPA's standards. The study also found that PM CEMS fail to meet EPA response calibration audit requirements.

ii) The Rule arbitrarily defines "High Wind Conditions" as "wind speeds exceeding 15 miles per hour." Chicago, the "Windy City" is well known for its high average wind speed.<sup>1</sup> By defining High Wind Conditions within the normal range of wind speed in the City of Chicago, and then proposing a complete prohibition on disturbing outdoor bulk solid material piles (including loading and unloading) during many average wind speed conditions ultimately shuts down operations at affected facilities without basis for improved public health. Thus, the Rule's definition of High Wind Speed lacks a rational basis and amounts to an arbitrary and capricious rulemaking. This Rule results in eliminating Carmeuse Company's outdoor raw material storage operations and its impact on the Company's economic investment in facility operations.

iii) The Rule is arbitrary and has no rational basis for requiring vessels that carry most types of stone material be unloaded using an enclosed chute. Materials received by barge, such as stone, may not be safely unloaded through a chute due to the size of the material, and therefore renders the Rule economically and technically infeasible. For many materials it is not technically feasible to offload the material with a chute as the size, weight and structure of the materials require either an excavator or a crane to offload the material. Further, the offloading of many materials and the application of water suppression control measures is detrimental to the storage and use of some materials. In many respects, additional requirements for water spray controls are likely counterproductive. The Rule is arbitrary and has no rational basis for requiring vessels that carry most types of stone to be unloaded using an enclosed chute.

iv) The Rule's vague street sweeping requirements, if we understand them, propose to require sweeping city streets outside the facility property boundary. This requirement would needlessly

<sup>1</sup> National Weather Service's NOAA database for 2013 alone reveals the average monthly wind speed in Chicago exceeds 10mph.



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overlap with similar sweeping required to be conducted by other local facilities, and as proposed are economically infeasible. One street sweeper costs in excess of three hundred thousand dollars (\$300,000.00), excluding maintenance and fuel, and an annual operating cost in excess of ninety thousand dollars (\$90,000.00).

v) The Rule is arbitrary in that it does not consider or allow for demonstrated alternative control measures such as the tarping or stabilization of outdoor storage piles or the use of an excavator to unload a barge. The effective tarping or stabilizing of outdoor storage piles are demonstrated effective control technologies that have been utilized in the storage of many bulk materials. Using an excavator to unload bulk materials from barges allows the terminal to minimize the handling of the material and to minimize drop heights.

5. The Rule is arbitrary and capricious, not reasonably related to the expressed purpose intended by the Rule in that it applies to all bulk material handling facilities and does not consider exclusion of facilities that have an approved Fugitive Operating Program and which have sufficient record keeping to demonstrate compliance with the Fugitive Operating Program. Such plans consists of fully evaluated and demonstrated technologically feasible control measures approved by the City of Chicago and the City's existing regulatory requirements are incorporated into the Illinois State Implementation Plan ultimately approved by U.S. EPA.

D. The Proposed Scope, Extent and Impact of the City of Chicago's Proposed Bulk Material Handling Rule Constitutes a Regulatory Taking.

The City of Chicago's Rule and its impact on operating facilities constitutes a regulatory taking of affected facilities operations without due process and just compensation for the reasons noted within these comments. The Rule constitutes excessive regulation in and of itself; and also given the fact that the City of Chicago already has a substantial number of regulatory requirements that apply to the control and restriction of fugitive dust within the City of Chicago. The broad impact of these Rules constitutes a *defacto* equivalent of divesting the company's operating facilities of their property rights resulting in no further economically viable use of their facilities. Restrictions on the amount of material stored and the ability to conduct operations under these overly stringent requirements, i.e., must halt operations, any time the wind speed is within the average recorded wind speed for the City of Chicago, independently or in conjunction with the unspecified response activities required when FEM PM-10 monitors detect fugitive dust (specific threshold also unspecified), constitutes an impermissible taking. Thus, the impact of this Rule does not merely constitute a regulation of ongoing operations but in fact constitutes a complete shutdown of the operations as noted herein. The shutdown of the operations essentially voids any economically viable intended use of the facilities as industrial. The affected facilities have not received just compensation for this taking.

The City of Chicago's proposed bulk material handling Rule's compliance measures creates a cascade of capital expenditure requirements within the first two (2) years of the effective date, which for the Carmeuse Company is economically infeasible. In the aggregate, all capital expenditures required by the Rule impose a crushing financial obligation that is most likely to result in significant reduction of, or closure of, this facility and a loss of known current business opportunities.

Carmeuse provides below a rough estimate of the adverse financial impact on the facility, which in all likelihood could lead to complete closure of the business or cancellation of currently negotiated business opportunities.



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- Building enclosure – Given the other negative impacts of the Rule (i.e.: setbacks) and assuming compliant space was available, indoor storage for typical inbound shipments would require a minimum of 30,000 square feet and cost at least \$55/square foot to purchase (\$1,650,000.00), not including construction costs. Not only is this proposal economically infeasible for Carmeuse due to the building cost, but it will have a significant reduction in the amount of material stored and the facility's operational throughput, cost estimates of which have not yet been established.
- Wind Barrier – Ignoring the setback requirements in the Rule for outdoor storage which would eliminate outdoor storage completely, Carmeuse's estimated cost for installation of a 40-foot tall wind barrier for current outdoor storage areas, totaling approximately 30,000 square yards at \$150 per square yard is in the range of four million, five hundred thousand dollars (\$4,500,000.00). The setback requirements for the piles from the barrier as stated in the Rule (a distance between the base of the pile and the barrier sides equal to the height of the pile) would remove 50% - 80% of the existing available square footage for outdoor storage.
- Dust Suppression – A water suppression system for the approximately 125,400 square foot outdoor storage is approximately six hundred thousand dollars (\$600,000.00) in equipment and site preparation work. This does not include design, permitting or installation. Additionally, the system is anticipated to have a 500 gallon-per-minute water requirement. Assuming continuous operation as required by the current proposed regulation, 240,000 gallons of water would be required for an eight-hour day. Given the types of materials handled by Carmeuse, this quantity of water is not necessary to provide adequate dust suppression and is an imprudent use of a natural resource: current water dust suppression measures provide the necessary measures of control. At current City of Chicago water rates (\$3.31/1000 gallons), that would be a water cost of eight hundred dollars (\$800.00) per operating day. Further, the volume of runoff generated will not likely be able to be handled through evaporation and recycle; therefore, either a retention pond and/or discharge to the MWRD will be required (where no such discharge currently exists). Costs for these items, including additional piping, sampling access, and user charge fees, have not been included in these estimates.
- Fugitive Dust Monitors – The cost estimate provided by a vendor for the ambient PM-10 FEM monitors themselves, not including design, installation and required ancillary equipment, is in the range of \$130,000 - \$150,000. Annual operating costs are estimated to be in the range of \$70,000 - \$100,000.

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Accordingly, given the strong concerns noted above, Carmeuse respectfully requests the City of Chicago withdraw the Proposed Rule. Further, Carmeuse encourages the City of Chicago to engage and work with all interested stakeholders to evaluate the burden on industry in relation to any potential health impacts, if any, given that the federal government finds that the City's targeted pollutants are not hazardous and the local area is in attainment with federal ambient air quality standards for both PM-10 and PM-2.5.

Respectfully submitted,

Kevin Whyte  
Vice President and General Counsel  
Carmeuse North America

Cc: Alderman John A. Pope / Chicago  
Dave Holmberg / Calumet Area Industrial Commission  
Scott R. Dismukes / Eckert Seamans Cherin & Mellott, LLC