

May 11, 2020
City of Chicago
Department of Public Health
Attn: Department of Environmental Permitting and Inspections
330 South State Street, Room 200
Chicago, IL 60604

Submitted Electronically to: EnvComments@cityofchicago.org

Re: Application of Calumet River Terminal for a Variance from City of Chicago Rules for Control of Emissions from Handling and Storing Bulk Materials

To Whom It May Concern:

Thank you for the opportunity to submit comments on the application of Calumet River Terminals (“CRT”) for a variance from certain provisions of the City of Chicago Rules for Control of Emissions from Handling and Storing Bulk Materials (the “Variance Request”). These comments are submitted on behalf of the Southeast Environmental Task Force (“SETF”) and the Chicago Southeast Side Coalition to Ban Petcoke, active community groups dedicated to improving the Calumet neighborhood’s environment, and the Natural Resources Defense Council (“NRDC”) and its roughly 10,000 members and activists in the City of Chicago, including those who reside on the Southeast Side.

Introduction

The Department of Public Health issued the amended City of Chicago Rules for Control of Emissions from Handling and Storing Bulk Materials (the “Rules”)¹ on January 25, 2019, in order to protect communities from the health and environmental hazards caused by fugitive dust emissions from facilities handling and storing manganese.² The facilities known to be handling, storing, and emitting dangerous levels of manganese dust are located principally within the Southeast Side of Chicago.³ The hazards of the manganese emissions are serious and severe.⁴ According to US EPA and the Agency for Toxic Substances and Disease Registry (ATSDR), chronic inhalation exposure of humans to manganese results in effects on the central nervous system, including slower visual reaction time, poorer hand steadiness, and impaired eye-hand coordination.⁵ Chronic inhalation exposure of humans to high levels of manganese may result in a syndrome called manganism,

¹ City of Chicago Rules, *Control of Emissions from Handling and Storing Bulk Materials* (Eff. Jan. 25, 2019).

² Michael Hawthorne, *With EPA stalled by shutdown, Chicago cracks down on toxic manganese*, Chicago Tribune (Feb. 1, 2019).

³ *Id.*

⁴ ATSDR, *Public Health Statement Manganese CAS#7439-96-95* (Sept. 2012), available at: <https://www.atsdr.cdc.gov/ToxProfiles/tp151-c1-b.pdf>.

⁵ US EPA, *Manganese Compounds*, available at: <https://www.epa.gov/sites/production/files/2016-10/documents/manganese.pdf> (summarizing manganese hazards and citing ATSDR findings and multiple studies).

which typically begins with feelings of weakness and lethargy and progresses to other symptoms such as gait disturbances, clumsiness, tremors, speech disturbances, a mask-like facial expression, and psychological disturbances.⁶ Other chronic effects from inhalation exposure to manganese-bearing particles are respiratory effects such as an increased incidence of cough, bronchitis, difficulty breathing during exercise, and an increased susceptibility to infectious lung disease.⁷ There may also be reproductive effects and behavior and cognitive effects on children.⁸

Investigations by US EPA and monitoring and testing data confirmed dangerously high levels of manganese in both the air and soils as a result of the facilities handling manganese on the Southeast Side.⁹ ATSDR sets the minimal risk level for chronic exposure to manganese inhalation at 0.3 ug/m³¹⁰ and EPA sets the Removal Management Level (RML) for manganese in soil at 5500 ppm.¹¹ CRT does not have air monitors, but air monitoring data from nearby facilities shows that residents of this area have been subjected to manganese emissions far in excess of US EPA and ATSDR health standards. For example, up until just a year ago in May 2019 nearby Watco consistently reported manganese air monitoring levels significantly in excess of the threshold¹². Likewise, air monitoring near S.H. Bell's facility regularly exceeded health standards¹³ and soil samples taken from residential yards near the S.H. Bell facility exceeded 5500 ppm and soils in the area require remediation.¹⁴ And, air and soil contamination from numerous toxins over years to decades make residents of the Southeast Side particularly vulnerable to the toxic effects of additional exposure to manganese.¹⁵

Key to issuance of the Rules therefore was protection of the Southeast Side communities from these exposures.¹⁶ In considering CRT's application, CDPH must consider the particular vulnerabilities and multiple exposures to toxic contaminants of the residents of these communities. Absent a clear demonstration that a facility's activities will not contribute further to hazardous levels of manganese emissions, a variance that limits the ability of CDPH to

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ See e.g., Michael Hawthorne, *EPA finds another source of toxic manganese on the Southeast Side*, Chicago Tribune (Dec. 11, 2018);

<https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=89ee4acf89c34ed28d6b439b63a96adb>.

¹⁰ ATSDR, *Minimal Risk Levels (MRLs) for Hazardous Substances* (March 2020), available at:

<https://www.atsdr.cdc.gov/mrls/mrllist.asp>.

¹¹ US EPA, *Regional Removal Management Levels (RMLs) User's Guide* (November 2019), available at:

<https://www.epa.gov/risk/regional-removal-management-levels-rmls-users-guide>.

¹² US EPA, *EPA in Illinois Watco Terminal and Port Services* (air monitoring data for October 3, 2018 – May 3, 2020) (“Watco Air Monitoring Data”), available at <https://www.epa.gov/il/watco-terminal-and-port-services-air-monitoring>.

¹³ See US EPA, *EPA in Illinois S.H. Bell Chicago Air Monitoring Data* (air monitoring data for March 2, 2017 – March 31, 2020), available at: <https://www.epa.gov/il/sh-bell-chicago-air-monitoring-data>.

¹⁴ See US EPA, *EPA Plans Cleanup for Excessive Levels of Manganese S.H. Bell Chicago, Illinois*, (March 2019), available at: <https://semspub.epa.gov/work/05/946572.pdf>.

¹⁵ US EPA has designated the Southeast Side as an environmentally overburdened community. See EPA, *Environmental Issues in Southeast Chicago* Website, available at <https://www.epa.gov/il/environmental-issues-southeast-chicago>.

¹⁶ See Hawthorne, *supra* Note 2.

monitor and track manganese emissions from a facility would violate the Rules and further endanger the community. CRT's Variance Request as it relates to fugitive dust monitoring, wind monitoring, and air monitoring, if granted, would make it impossible to ensure compliance with the Rules and should be denied.

Demographic Information

According to information derived from the demographic feature of U.S. EPA's ECHO database, there are 20,564 people who live within a one-mile radius of the applicant's facility.¹⁷ More than 84% of the people who live within this one-mile radius are Hispanic (77.42%) or African-American (6.81%). U.S. EPA's ECHO database also indicates a total of 6,216 households in this one-mile radius, with a total population of 6,311 children 17 years and younger. CRT's facility is directly across Burley Avenue from the residential neighborhoods of the East Side. The building itself is 0.17 miles from Wolfe Playground Park. It sits next to a community baseball diamond, less than a quarter mile west of Wolfe Playground Park; just over a half mile west of Jane Addams Elementary School; less than a mile northwest of George Washington Elementary School, George Washington High School, and Annunciata School; and approximately a mile east of Orville T. Bright Elementary School and Trumbull Park. To access the facility, trucks must move through or immediately adjacent to residential neighborhoods. Rail lines are also immediately adjacent to homes along Burley. The applicant's facility is located adjacent to the Calumet River. The Calumet River is used extensively by recreational watercraft.

In sum, CRT's facility is located immediately near homes, several schools and parks.¹⁸ It is highly likely that CRT's historic handling of manganese has endangered the health of community members given this proximity and the facility's handling of unpackaged manganese in the open air, both through air pollution and also soil contamination. Manganese emissions from this facility put residents and children, who are already at high risk, in danger.

The Variance Request

The Variance Request seeks exemption from several requirements of the Rules, including the following:

1. Installation and maintenance of fugitive dust monitors and related requirements, including certification of maintenance and training;¹⁹
2. Wind monitoring;

¹⁷ CRT's Variance Request provides demographic data only for a 3-mile area. *Revised Variance Request from Bulk Material Storage Rules and Regulations for Calumet River Terminal, 10740 South Burley Avenue, Chicago, Illinois 60617* (March 2, 2020) ("Variance Request") at Attachment C. CRT also characterizes its location as an "industrial region." *Id.* at 2. While there are other industrial operations in the "region", CRT's facility is directly across from a residential neighborhood.

¹⁸ CRT characterizes its location as an "industrial region." *Variance Request, supra* Note 10 at 2. While there are other industrial operations in the "region", CRT's facility is directly across from a residential neighborhood and directly affects the health and well-being of thousands of residents, including, children attending schools and playing on nearby playgrounds.

¹⁹ *Id.* at 1.

3. Installation and maintenance of Federal Reference Method PM-10 filter-based monitors.

CRT bases its Variance Request on recent changes to its business operations, including enclosure of its facility, a stated plan to no longer accept receipt of bulk-affected material as of January 2020, conduct of its operations such that existing bulk-affected material currently stored on-site will continue gradually to be removed from the site “as customers' needs dictate,” implementation of its fugitive dust plan, movement and storage of all affected materials within the enclosed facility and covered, and a plan to keep doors closed at all times except during ingress and egress and for a minute after unloading.²⁰ CRT also cites costs of control measures and states that air monitoring cannot be effectively conducted because of manganese emissions in excess of background from the nearby S.H. Bell facility.

The Variance Request does not adequately justify exemptions from the three above-cited requirements and should be denied with respect to requirements for fugitive dust monitoring, wind monitoring, and air monitoring and related requirements.

Standards for a Variance

Section 10.0(3) of the Bulk Material Rules sets forth the criteria for reviewing applications:

In determining whether to grant a variance, the Commissioner [of CDPH] will consider public comments received pursuant to 10.0(4) and will evaluate the information provided in the application to meet the requirements of 10.0(2). Particular consideration will be given to the following information:

1. Inclusion of a definite compliance program;
11. Evaluation of all reasonable alternatives for compliance;
111. Demonstration that any adverse impacts will be minimal.

The Commissioner may deny the variance if the application for the variance is incomplete or if the application is outside the scope of relief provided by variances.

The Commissioner may grant a variance in whole or in part, and may attach reasonable conditions to the variance, or require alternative measures, to ensure minimization of any adverse impacts.²¹

Because CRT will be continuing to store a significant amount of manganese bearing metals at the site, with no fixed date for cessation of that storage and with no long-term commitment not again to handle or store manganese bearing metals,²² CRT has not

²⁰ *Id.* at 1-4, 5.

²¹ Rules, *supra* Note 1 at Sec.10.3.

²² CRT’s Variance Request states only that “Beginning in January 2020, CRT will no longer receive any bulk-affected material (manganese containing bulk solid materials), and all bulk-affected material currently stored on-site will continue to be *gradually* shipped off-site as the customers' needs dictate” and that “CRT commits to providing a *thirty-day advance notification* for any expansion

adequately demonstrated that “adverse impacts will be minimal.”

Continuing Non-Minimal Impacts

A significant measure of the protection for residents from the hazards of manganese emissions is embedded in the requirements for monitoring. Absent monitoring, there is no assurance to the community of compliance and accountability. Yet, these are requirements CRT seeks to avoid with this Variance Request. In view of historic high levels of handling and storage of manganese bearing metals at this facility, continuing indefinite storage of such materials currently on site, and no commitment not to restart handling of such materials, a variance to monitoring and related requirements for fugitive dust and air emissions poses greater than “minimal” adverse risks to the nearby community.

a. History of High Levels of Manganese Handling and Storage

CRT has operated at the South Burley Avenue site for almost two decades. CRT received 49 million pounds of manganese bearing material at this site in 2016 and received almost 1.3 million pounds as recently as 2018.²³ Up until recently, CRT handled this unpackaged material in the open air, creating a substantial risk of manganese contaminating the community’s air, soil, and water. And, CRT is continuing to receive millions of pounds of other materials at this site.²⁴ CRT has a long history of customer relationships for handling and storing manganese, CRT continues to store manganese bearing materials for some of those clients, and CRT has the capacity to begin handling and storing manganese at this site with as little as “thirty-day” notice to CDPH. CRT has already avoided the requirements of the Rules for more than a year while its multiple variance requests have been pending, not to mention the state’s prohibition on air pollution prior to CDPH’s manganese rule efforts. Further avoidance of the Rules without binding commitments to cease accepting manganese bearing materials in the future should not be acquiesced in by CDPH.

b. Continuing Storage of Millions of Pounds of Manganese Bearing Materials

According to the Variance Request, as of February 1, 2020, CRT was storing more than 7 *million pounds* of manganese bearing materials at the South Burley Avenue site. This is an enormous amount of manganese material that will be moved around within CRT’s facility and loaded onto trucks and railcars for transfer outside of the enclosed warehouse.²⁵ Notably, the road on which trucks transferring these materials out of CRT’s facility is not paved and, according to the Variance Request, CRT has no ability to have it paved.²⁶ The risk of fugitive dust and air emissions during these transfers from CRT’s facility are real, hazardous, and in accordance with the Rules, should be monitored.

or change in operations subject to a variance issued by the commissioner.” *Variance Request, supra Note at 1, 8 (emphasis added)*.

²³ *Id.* at 1.

²⁴ CRT received more than 7 million pounds of “non-affected” materials in 2019. *Id.*

²⁵ The Variance Request states that the CRT facility is no longer

²⁶ *Id.* at 5 (“CRT is not responsible for the pavement and improvement of a third party’s property”).

Moreover, CRT has provided no timeline for removal of the manganese bearing materials. Indeed, the Variance Request suggests the materials may stay on site for a lengthy period, with bulk affected material “*gradually shipped off-site as the customers’ needs dictate.*”²⁷ If granted, the Variance Request would allow CRT to continue to store and transport a huge amount of manganese bearing materials from the site without monitoring or other accountability for an indefinite period of time, with health risks continuing to be borne by nearby residents. Experience with monitoring at the Watco facility shows that manganese emissions can in fact go *up* during the period when a facility has stopped receiving shipments and is running down any accumulated amounts on site.²⁸

Nor do CRT’s statements that it will keep the doors of its enclosure closed to control dust provide the needed assurances that manganese emissions will be minimal moving forward. As shown by experience with the Watco facility’s handling of manganese documented in CDPH’s own inspection reports,²⁹ facilities do not at all times adhere to such work practice standards as keeping building doors closed. Fenceline air monitoring is needed to ensure that CRT staff do not in fact leave building doors open when conducting activities like vehicle loading that pose a high risk of manganese air pollution, and to otherwise ensure compliance with all work practice standards for manganese control.

c. Feasibility of Emissions and Dust Monitoring

CRT argues in the Variance Request that air monitoring of manganese emissions from its facility is not feasible because of its proximity to the S.H. Bell facility, which according to the Variance Request, makes determination of background levels of manganese impossible.³⁰ However, the existence of S.H. Bell’s facility only makes more important the characterization of manganese contributions from CRT through monitoring. Indeed, CRT’s facility is south of the S.H. Bell facility with prevailing winds from the Southwest, indicating that winds blow across CRT’s facility into the adjacent East and Northeast communities.³¹ Monitors can and should be placed at CRT to capture this dynamic, which is unlikely to be impacted significantly by S.H. Bell when the wind blows from the Southwest..

CRT also argues that it cannot effectively measure fugitive dust emissions because, “While

²⁷ *Id.* at 1. CRT also argues that the types of manganese bearing materials it handles are “dense,” “with particles that settle quickly and within the immediate vicinity of a transfer operation inside the building, and do not readily become air-borne or scattered by the wind.” *Id.* at 2. But, even if this is true, CRT acknowledges that it is storing other types of manganese bearing materials in unspecified quantities that do not fit this description. *Id.* at 2.

²⁸ For example, Watco’s emissions increased at some locations in February and March 2020, after the January 2020 date that Watco announced it was terminating receipt of bulk manganese shipments. Watco Air Monitoring Data, *supra* Note 12.

²⁹ See Alex Ruppenthal, *City Issues 4 Violations to Southeast Side Manganese Polluter*, WTTW (December 14, 2018), available at: <https://news.wttw.com/2018/12/14/city-issues-4-violations-southeast-side-manganese-polluter>.

³⁰ *Id.* at 3.

³¹ See *Id.* at Attachment B, Sec. 2.0 (CRT 2020 Fugitive Dust Plan).

the operations at the neighboring facility have been revised to reduce fugitive dust, it will still be difficult for fugitive dust monitors at CRT to detect small incremental fugitive dust emissions with a larger background source of fugitive dust immediately next door.³² In essence, CRT is arguing that it should be exempted from fugitive dust monitoring required by the Rules because a neighboring facility might not doing a good job of complying with the Rules. That cannot be a basis for failure to comply with the City's Rules intended to protect peoples' health. Taken to its logical extreme, no facilities in close proximity to each other would ever be required to conduct monitoring. In addition, S.H. Bell is relatively distant from the neighborhoods immediately bordering CRT's operations. Experience with S.H. Bell's monitoring and soil sampling indicate that the greatest impacts of manganese handling like S.H. Bell's and CRT's are likely to be at the fence line and within several hundred feet of the facility. Thus, it is entirely possible and probable that CRT's emissions will be more significant for its immediate neighbors than S.H. Bell's, not relatively "small" and "incremental" as CRT claims.

d. Soil Contamination

Soil testing conducted by CDPH and US EPA at properties located within approximately one-half mile of the CRT facility and south of S.H. Bell (on a tract bordered roughly by 103rd and 105th Streets on the north and south sides and South Calumet River Street and Avenue N on the north and west sides) recorded high levels of manganese. One sample in this tract recorded manganese at 5500 ppm and five properties had levels above 1600 ppm.³³ In view of the prevailing winds in this area combined with the enormous quantities of manganese bearing materials handled and stored in the open air by CRT at its Burley Avenue facility, there is at least a suggestion that this manganese contamination originated at or was contributed to by the CRT facility or from trucks servicing it. Monitoring therefore should be required both because there is a reasonable likelihood that the planned continuing shipment of a very large quantity of manganese bearing materials off-site will contribute non-minimally to further air and soil contamination, including soil levels that are already above relevant health thresholds, and because such monitoring can further shed light on the source of the soil contamination identified by the agency soil testing to date.³⁴

Variance Denial and Minimal Conditions

For each of the forgoing reasons the Variance Request should be denied with respect to air emissions monitoring, wind monitoring and fugitive dust monitoring, and all related requirements of the Rules. If, however, CDPH were to grant the Variance Request with respect

³² *Id.*

³³ *See*

<https://epa.maps.arcgis.com/apps/webappviewer/index.html?id=89ee4acf89c34ed28d6b439b63a96adb>.

Several properties also lead levels above 400 ppm. *Id.*

³⁴ The high manganese levels in soils at this tract strongly suggest the need for additional nearby soil testing. The parties commenting urge CDPH to request additional soil testing by US EPA in the area from 106th Street to 110th Street and from South Burley Avenue at least to Avenue O in order both to determine the extent of hazardous levels of manganese in soils in the wind path of the CRT facility and to ensure accountability.

to these requirements, it is essential that CDPH impose the following conditions to reduce the risks of CRT's continuing operations³⁵:

1. A firm commitment that CRT will not accept or engage in handling or storage of any new manganese bearing materials at this facility in the future;
2. A firm commitment that CRT will not use barges to transfer or transport manganese bearing material to or from this facility;
3. A commitment to end storage of all manganese bearing materials at this facility in not longer than 270 days from the grant of a variance;
4. Continuous video monitoring of all doors and openings of buildings in which manganese is being handled, with regular provision of such video monitoring results to CDPH and retention of all results until handling of bulk unpackaged manganese has ceased; and
5. Quarterly reports of compliance with all variance terms.

Conclusion

The residents of the Southeast Side have been exposed to harmful emissions of manganese and other toxic substances for decades and are exhausted from shouldering the burden brought to their community by these polluters. CRT is one of the firms that, during these decades, piled up manganese outside, allowing it to endanger its neighbors' lives. The City of Chicago and CDPH finally took action to protect Southeast Side residents from these hazardous manganese emissions when it passed the Rules in January 2019. The residents are entitled to the full protection of these Rules.

Accordingly, we urge CDPH to deny the Variance Request with respect to the monitoring requirements. Short of denying the Variance Request, CDPH must impose the above listed conditions in order to protect Southeast Side residents.

Respectfully submitted,

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³⁵ In urging these conditions, the parties commenting do not intend to suggest that imposing these conditions is either a preferred or sufficient response to the Variance Request.

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