DEPARTMENT OF PUBLIC HEALTH
CITY OF CHICAGO

March 3, 2017

Kim R. Walberg
TAFT STETTINIUS & HOLLISTER LLP
111 East Wacker, Suite 2800
Chicago, IL 60601

Re: S. H. Bell Company, 10218 South Avenue O
Response to Fugitive Dust Plan

Dear Ms. Walberg,

Enclosed please find the Chicago Department of Public Health ("CDPH") response to S.H. Bell Company's most recent Fugitive Dust Plan. Our goal, which I hope you share, is to ensure safe and healthy air for all residents. Given the potential health impact of manganese, we expect S.H. Bell to provide a detailed dust control plan that protects nearby residents. Based on our review of your dust control plan, we conclude that it fails to meet this standard due to insufficient information.

In order to meet the standards set forth in the City's regulations, S.H. Bell must provide a more detailed description of protective measures the company will take with respect to the indoor and outdoor storage of bulk materials. Please respond to the following requests:

1. To the extent that manganese-containing materials are stored outdoors, analyze the feasibility of storing all such material inside a fully-enclosed building(s).
2. Analyze the feasibility of installing a fourth wall to the existing three-walled storage structures.
3. Ensure tarping of all trucks used to transport material on site.
4. Provide more robust controls to ensure dust in the buildings does not escape.
5. Provide more robust controls to ensure dust is not dispersed during barge and rail unloading.

Please submit a revised dust plan within thirty (30) days as instructed in the enclosed letter.

Sincerely,

Julie Morita

Julie Morita, MD
Commissioner
Chicago Department of Public Health

DEPARTMENT OF PUBLIC HEALTH
CITY OF CHICAGO

March 3, 2017

Kim R. Walberg
TAFT STETTINIUS & HOLLISTER LLP
111 East Wacker, Suite 2800
Chicago, IL 60601

Re: S. H. Bell Company, 10218 South Avenue O
Response to Fugitive Dust Plan

Dear Ms. Walberg:

The Chicago Department of Public Health ("CDPH") is in receipt of S. H. Bell Company's ("S.H. Bell's") Fugitive Operating Program dated December 2015 (hereafter the "Dec. 2015 Dust Plan"), which was submitted on December 2, 2016 as an exhibit to a variance request from S.H. Bell.[1] This is the most recent version of the facility's dust plan as required by CDPH's Rules and Regulations for Control of Emissions from the Handling and Storage of Bulk Material Piles ("Bulk Material Regulations").

Section 3.0(3) of the Bulk Material Regulations provides that:

> If the Commissioner finds that the submitted Fugitive Dust Plan is missing any required information or is insufficient to ensure compliance with these Regulations, the Commissioner may disapprove the Fugitive Dust Plan and request submission of a modified Fugitive Dust Plan.

At this time, the Commissioner finds that S.H. Bell's Dec. 2015 Dust Plan is missing some required information and needs to be modified to ensure compliance with the Bulk Material Regulations. In addition, CDPH has a number of questions regarding portions of the dust plan that require clarification. Accordingly, CDPH requests that S.H. Bell submit a

[1] In the December 2, 2016 variance request letter, the Dec. 2015 Dust Plan was characterized as "A true and correct copy of S.H. Bell's most updated Fugitive Operating Program/Fugitive Dust Plan (rev. December 2015)." Thus, the December 2015 plan presumably was intended to replace S.H. Bell's revised Fugitive Operating Program/Fugitive Dust Plan dated April 2015 (hereafter the "Apr. 2015 Dust Plan"), which was submitted on April 20, 2015.

modified Fugitive Dust Plan (the "Modified Dust Plan") addressing each of the points set forth below. Please submit the Modified Dust Plan within thirty (30) days of the date of this letter.

In addition, while the Bulk Material Regulations do not include a process for public review and comment on Fugitive Dust Plans, CDPH is aware of the public interest in S.H. Bell's Dust Plan. CDPH received written comments from the Natural Resources Defense Council (NRDC), the Southeast Environmental Task Force (SETF), and others as part of their comment letter on S.H. Bell's variance request. CDPH considered these comments as part of its review of the Dust Plan.

Handling of Manganese

As an initial matter, CDPH notes that S.H. Bell's handling of manganese is of particular concern. As you know, and as mentioned in CDPH's October 17, 2016 response to S.H. Bell's first variance request, the federal Agency for Toxic Substances and Disease Registry (ATSDR) recently issued a report entitled "Review of Analysis of Particulate Matter and Metal Exposures in Air." The report presented the results of a two-year study which examined monitoring data collected from February 2014 through January 2015. The data was collected from nine PM10 perimeter monitors at two petcoke transfer facilities operated by KCBX Terminals Company. Among ATSDR's findings was that the data suggested that there may be a source with high manganese concentrations to the southeast of KCBX's north terminal. In its risk evaluation, ATSDR concluded that the non-cancer health hazard in the area "was driven by potential manganese exposure—a pollutant handled in large quantities at a facility directly across the river, east and east-southeast from the North Terminal." (ATSDR Report, p. 21.)

S.H. Bell is the closest facility directly east-southeast and across the river from KCBX North. In addition, S.H. Bell is known to handle manganese-bearing materials. CDPH is aware of manganese concerns resulting from S.H. Bell's operations at its Ohio facility. Accordingly, CDPH requests that the Modified Dust Plan include specific information regarding how S.H. Bell will prevent the dispersion of manganese dust from its Chicago facility.

Questions and Comments on the Dec. 2015 Dust Plan

Please note that, for ease of reference, underlined subject headings and page numbers refer to those used in the Dec. 2015 Dust Plan.

1. Introduction (page 1)

This section in the Dec. 2015 Dust Plan states that the document was prepared in accordance with State regulations. In the Modified Dust Plan, please include references to the City's Bulk Material Regulations. In addition, this section states that the document represents an update to S.H. Bell's Fugitive Operating Program, dated August 2012. Please clarify whether this date should reference the Apr. 2015 Dust Plan.

Finally, while the facility's storage capacity is stated on page 3, the owner's certification in the introduction to the Dec. 2015 Dust Plan does not mention the capacity calculation. Section 3.0(3)(d) of the Bulk Material Regulations requires the capacity calculation to be certified by signature of an authorized representative. Therefore, please provide a certification in the Modified Dust Plan.

2. Facility Description (page 2)

In the Modified Dust Plan, please ensure that the facility diagram includes all items required under Section 3.0(3)(a) of the Bulk Material Regulations, including buildings and utilities on the property, as well as all roadways within one quarter mile of the perimeter of the facility and the locations of all potential emissions points and all control devices and monitoring devices.

3. Operations Summary (pages 3 – 4)

A. *Materials and Products*:

In the Modified Dust Plan, please address the following questions: i) What percentage of the total materials handled at the site are manganese-containing materials? ii) What percentage and what types of materials are currently stored outdoors? iii) With regard to materials stored outdoors, what is the potential for dust from these materials to become windborne? In other words, what is the size and composition of such material? iv) Is it possible to enclose all materials being stored at the site? v) If not all materials can be stored indoors, then, at a minimum, please analyze the feasibility of storing all manganese-containing material inside a fully-enclosed building or buildings.

Regarding materials that are stored "under roof in an exterior three-sided (covered) bin" (page 3), what is the size of the three-sided covered bins? If this refers to a type of building, can a fourth side be added?

Finally, please depict the outdoor material piles on the facility diagram.

B. *Process Operations – Bulk Materials:*

The Dec. 2015 Dust Plan states that the crushing/screening plant and screening plant are enclosed within a building (page 3). Please specify which buildings contain these plants and confirm that no crushing or screening occurs outdoors. If screening outdoors does occur, describe the dust control methods employed during this operation. In addition, please specify which building contains the boxing and bagging operations.

4. Regulatory Compliance (pages 5 – 12)

As mentioned above, please ensure that the Modified Dust Plan addresses all requirements of the Bulk Material Regulations.

A. *Storage piles and crushing/screening:*

Please explain how each building where material is stored and/or handled is sealed to prevent the escape of dust during storage, handling, and processing activities. Do trucks pass through overlapping flaps or sliding doors? Can a sealed garage-type door be used? What other methods of dust control are used during indoor processing? Are facility personnel trained to ensure the doors are closed whenever the screener is in operation, and that the control system or device is operating whenever the crusher and/or screener is running?

In addition, the Dec. 2015 Dust Plan states that: "Materials stored outdoors and which consist of particles one-half inch in size or less are sprayed daily (weather permitting) with water using a water truck until crusted and firm or tarped when no material transfer is occurring." (See page 6.) This section also states that "Piles are not typically sprayed in the winter, unless the pile is being worked, as needed." *Id.* However, the Dec. 2015 Dust Plan does not specify how or when a determination is made that weather precludes watering. For example, is this determination based on precipitation, temperature, or something else? Nor does the plan provide any alternate means of dust control during such conditions. Please provide more detail regarding

the watering system, including an explanation of the criteria used for determining when watering is not feasible. In addition, since watering may not always be an option (such as during freezing temperatures or equipment malfunction), please describe other methods of dust control at stockpiles.

B. *Traffic areas*:

Please confirm that all outbound trucks must pass over rumble strips that effectively shake off any loose debris in order to ensure that the trucks will not cause any track-out of materials onto the public way as required in Section 3.0(8) of the Bulk Material Regulations. Please also identify the location of the rumble strips on the facility diagram. In addition, please explain whether or why a wheel wash station cannot be installed.

With regard to roadway cleaning, please confirm that the street sweeper on site meets the criteria set forth in Section 3.0(15) of the Bulk Material Regulations, including the requirement that the sweeper be equipped with a water spray and vacuum system. Please note that street sweeping must be documented, pursuant to Section 3.0(15) of the Bulk Material Regulations. In the Modified Dust Plan, please also address how any spills or leaks are handled.

C. *Truck loading/unloading*:

Section 3.0(9) of the Bulk Material Regulations requires all truck trailers containing material to be immediately covered before leaving the facility. Please confirm that this is done and explain what types of covers are used. In addition, the Dec. 2015 Dust Plan refers to "in-house drayage trucks" (page 4). Are these trucks routinely covered? All trucks transporting material at the facility should be tarped to prevent the dispersion of windborne dust.

In addition, section 3.0(11) in the Bulk Material Regulations requires that outdoor truck loading and unloading occur in compliance with the requirements for transfer points, set forth in Section 3.0(7) of the Regulations. The options are a) total enclosure; b) water spray system sufficient to control Fugitive Dust emissions during operations; c) Vented to air pollution control equipment which is in full operation and permitted by the Commissioner; and d) Transfer only Moist Material and conduct such transfer in a manner that minimizes the exposed drop. *Id.* The Dec. 2015 Dust Plan indicates that option (c) is used for truck loading indoors and that options (b) and/or (d) are used for outdoor truck loading. Specifically, the plan says: "Materials stored

outside which are damp are loaded outside and are dampened as needed and/or mobile misters are appropriately positioned." However, this appears to be in contradiction of other sections of the plan that indicate that there are some situations when materials stored outside may not be watered. Therefore, please confirm that all materials loaded outside can be watered.

In addition, for truck unloading and loading that occurs within a building, please identify the building locations.

D. *Barge unloading/loading*:

As with truck loading and unloading, Section 3.0(13) of the Bulk Material Regulations requires that barge unloading be conducted in compliance with the requirements for Transfer Points described above. The Dec. 2015 Dust Plan notes that some materials are sprayed with water, but that other materials cannot be sprayed with water. Please explain why some materials cannot be sprayed with water and identify in detail how dust is controlled during barge unloading. Please further explain whether barge unloading could be conducted with an enclosure.

E. *Railcar unloading/loading*:

Section 3.0(12) of the Bulk Material Regulations requires railcar loading and unloading to occur in compliance with the requirements for transfer points set forth in Section 3.0(7) of the Regulations (as described above). The Dec. 2015 Dust Plan states that mobile misters and a dry fogging system are used to control dust during railcar loading and unloading (page 11). It further states that: "In freezing temperatures, the dry fogging system is used with additional control, as needed from the portable dust collector." *Id.* There is no mention of any types of material that cannot be dampened. Please confirm that the dry fogging system is a type of watering system, and please also confirm that all materials loaded into and unloaded from railcars are able to be watered. If not, then please analyze the feasibility of conducting such operation within an enclosure.

F. *High Wind Events*:

Section 5.0(4) of the Bulk Material Regulations provides that disturbance of bulk solid materials, "including but not limited to outdoor loading, unloading, and any other Processing,

shall be suspended during High Wind Conditions, as detected by the wind monitor required under 3.0(5), unless alternate measures are implemented to effectively control dust in accordance with the approved Fugitive Dust Control Plan." *High Wind Conditions* is defined, under Section 2.0(12), as the condition "when average wind speeds exceed 15 miles per hour over two consecutive five minute intervals of time." In the Modified Dust Plan, please include a section that explains in detail how facility operators will respond to High Wind Events.

5. Dust Surveillance and Monitoring Plan (pages16 – 17)

A. *PM10 Monitors:*

Please revise this section to include a description of the placement, operation, and maintenance of the PM10 monitors as required by Section 3.0(3)(f)(i) of the Bulk Material Regulations. Please also include a contingency plan along with the other requirements set forth in Section 3.0(3)(g),(h), and (i) of the Bulk Material Regulations. In particular, please note that the Bulk Material Regulations require facilities to create a contingency plan describing a range of increasingly aggressive response activities when the dust monitors exceed the "Reportable Action Level." (See Section 3.0(3)(g) of the Bulk Material Regulations.) The Reportable Action Level is defined under the Regulations as "the positive difference between the level of PM10 measured at the upwind monitor(s) at a Facility and the level of PM10 measured at the downwind monitors(s) at a Facility that will trigger response activities...." (See Section 2.0(20) of the Bulk Material Regulations.) Accordingly, the Modified Dust Plan must set forth a justified Reportable Action Level. In addition, it must include a detailed Response Action Plan.

Finally, CDPH requests that you provide the monitoring results by email, to CDPHPermits@cityofchicago.org, at the same time you provide the data to the U.S. EPA.

B. *Opacity Testing*:

Section 3.0(2)(d) of the Bulk Material Regulations requires, on at least a quarterly basis, periodic tests of visual fugitive dust and opacity "in accordance with the protocol set forth in the approved Fugitive Dust Plan." Further, Section 3.0(2)(b) sets an opacity limit that applies to every "Bulk Solid Material storage pile, Transfer Point, roadway [and] parking area." The Dec.

2015 Dust Plan states that opacity testing is conducted on a quarterly basis by a trained and certified individual who performs at least two opacity reads, at two different wind speeds (page 17). The plan further states that the "readings will be taken at a representative outdoor storage pile." *Id.* However, the plan does not specify a protocol for the testing nor explain what is meant by "a representative outdoor storage pile." Further, there is no mention of observations at any transfer points where dust is more likely to be generated.

Accordingly, the Modified Dust Plan must include a protocol for the opacity readings and should identify multiple locations for opacity observations that include field-determined process-specific activities where dust is potentially generated. Further, while the Bulk Material Regulations require testing during a range of weather conditions (per Section 3.0(3)(f)(ii)), this should be understood to mean a range of conditions, including temperature and wind conditions, that will still allow for compliance with Method 9. Thus, as Method 9 recommends that a blue sky background be present for black plumes, rainy days should be avoided for the opacity testing.

C. *Testing of Visual Emissions*:

The Bulk Material Regulations require periodic testing of visual emissions, as well as of opacity limits. (See Section 3.0(2)(d).) Section 3.0(2)(b) provides that facility owners and operators "shall not cause or allow any Fugitive Dust that is visible beyond the property line of the Facility." The Dec. 2015 Fugitive Dust Plan includes a plan for daily visible observations that requires the observer to determine whether or not visible emissions are "normal" or "abnormal." (See pages 16-17 and Appendix A.) Please define what is meant by "normal" and "abnormal."

6. Recordkeeping (pages 18 – 19)

Please include a description of the facility's recordkeeping system as required by Section 3.0(3)(i) and ensure that the records kept at the facility include all of the records required by Section 3.0(17) of the Bulk Material Regulations, including, but not limited to, daily weather conditions, including wind speed and direction, the results of the required monitoring, and a schedule for routine maintenance and inspections, including a schedule for "inspection of off-site

areas for the presence of dust." *Id.* With regard to control devices such as dust collectors, include a description of the operation and maintenance plans and schedules, including a statement regarding whether the maintenance is handled in-house or by outside contractors. Finally, if a particular control device is faulty or not operational, what is the procedure for ceasing operations until the control device is repaired?

Please contact the undersigned at (312) 745-4034 if you have any questions regarding this letter.

Sincerely,

Dave Graham
Assistant Commissioner

cc: Mort Ames, DOL