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February 7, 2014

Chicago Department of Public Health
Attn: Environmental Permitting and Inspections
333 S. State St., Room 200
Chicago, IL 60604

Re: Proposed Rules and Regulations for the Handling and Storage of Bulk Material Piles

Dear CPH – Environmental Permitting and Inspections:

This correspondence, prepared on behalf of Gulf Sulphur Services Ltd., LLLP ("GSS"), comments on the Department of Public Health's *Proposed – December 19, 2013 – Rules and Regulations for the Handling and Storage of Bulk Material Piles* (the "Draft Rules"). We understand that the City's Department of Public Health is reviewing whether the storage, handling and loading of sulphur prill or sulphur formed to a specific shape should be specifically excluded from the Draft Rules. GSS wholeheartedly supports any such action taken by the Department to exclude the storage, handling and loading of sulphur prill or sulphur formed to a specific shape and submits this correspondence as further support for that effort.

GSS' Operations

Since January 2012, GSS has operated a sulphur prilling facility on approximately 4.25 acres at 12200 S. Carondolet Avenue (the "Site") in Chicago, Illinois. GSS invested over eleven million dollars ($11,000,000) in designing and constructing the Site, representing GSS' significant commitment to the City of Chicago. Throughout its first year of operation, GSS has been a good corporate citizen, operating pursuant to all applicable licenses and certifications and fulfilling federal, state and local requirements. GSS's operations at the Site cause little or no fugitive dust during storage, handling and loading due to the size, moisture content and makeup of sulphur prill. GSS has not received any complaints from the community or its elected officials regarding GSS' operations at the Site. GSS prides itself on being an upstanding member of the community and a good neighbor.

The Site has a Chicago Air Pollution Control Permit and Certification of Operation, a Chicago Manufacturing Establishment Business License, a Chicago Hazardous Material Business License, and an Illinois EPA Joint Construction and Lifetime Operating Permit. The Illinois EPA has registered the Site in the Registration of Smaller Sources (ROSS) program under 35 Ill. Adm. Code § 201.175.

The Site receives sulphur in molten (i.e. liquid) form, typically in tank trucks, but occasionally in rail cars. The molten sulphur is unloaded via pump into a storage tank. The molten sulphur is eventually pumped from the storage tank to an enclosed priller structure. The prilling process involves passing the molten

sulphur through forming trays (i.e., trays with small holes) which creates droplets of molten sulphur that fall into a water bath. The droplets solidify upon entering the water bath and the resulting sulphur product is referred to as sulphur prill – pelletized, sphere-like aggregate material that provides a neater, simpler form for handling, and which results in dramatically reduced or insignificant amounts of dust as compared to non-formed sulphur. After the prill is cooled and screened to drain water, the pellets are conveyed out of the enclosed priller structure via open-top conveyors to an outdoor storage pile. The prilled sulphur pellets contain average moisture of 2% by weight when they are conveyed to the storage pile. Such moisture is typically maintained until the product is loaded into one of the forms of transportation from the facility. This moisture content further reduces the likelihood of fugitive dust.

The outdoor storage pile rests on an engineered foundation comprised of an impermeable membrane on which a layer of molten sulphur is applied. The outdoor storage area is approximately 2.46 acres. The Site's storage capacity for sulphur prill is approximately 87,420 cubic yards. When needed for shipping, front-end loaders are used to transfer the prill from the storage pile to hoppers that drop the prill into open-top conveyors, which typically transfer the prill to trucks, railcars, and occasionally to barges on the Calumet River. The Site also has the capacity to load and ship on rail cars.

GSS' Response to the Draft Rules

GSS submits that the proposed regulations (1) are unnecessarily broad in their reach and in their apparent applicability to the handling and storage of prill sulphur; (2) are more onerous than existing state and federal regulations, which sufficiently regulate the handling and storage of prill sulphur; (3) impose uncertainty and unwarranted economic hardship on existing facilities that are safely operated and that create very little – or no – fugitive dust; and (4) are not appropriately crafted with respect to their effect on existing facilities in general and their potential applicability to the sites that generate little or no fugitive dust (such as sulphur prill material storage) in particular.

More specifically, given the operations at the Site, GSS has the following concerns over the Draft Rules:

Exclusion for Sulphur Prill

GSS respectfully submits that the Draft Rules should expressly exclude sulphur in prill form from the definition of Bulk Solid Material because sulphur prill, by design, generates very little fugitive dust compared to other substances during storage, handling and loading. The Draft Rules expressly target coal and coke, including petcoke and metcoke, and other carbonaceous and fuel products. That targeting is further illustrated by the exceptions in the proposed regulations for construction and demolition materials, recycling facilities, and cement manufacturing facilities. In an analogous regulatory situation, the Illinois Pollution Control Board is currently considering regulating the handling of coal and coke, including petcoke, as distinguished from dissimilar materials such as prill sulphur.

Sulphur in prill form is distinguishable from substances such as coal and coke in makeup, form, and with respect to the amount of fugitive dust generated. Sulphur is a common non-metallic element and is non-carbonaceous. Sulphur is virtually non-toxic. In international trade, sulphur is generally shipped as formed sulphur and specifically not as bulk solid material. Formed sulphur (including prills) is preferred, in part, because it causes far fewer dust problems. A wet formed sulphur prill has virtually no "dust particulate" immediately following being placed into a storage pile. Therefore, virtually no dust can be

generated. During formation, the sulphur is annealed into relatively hard- and smooth-surfaced prills. Wet-formed sulphur prill retains moisture from the forming process and has virtually no surface residue during its placement on a storage pile. To understand emissions from wet prill sulphur, it is important to know that moisture, which is an integral part of the wet prill production process, is the essential component that thoroughly suppresses what dust is present in this type of sulphur granule.

The manufacturer of GSS' sulphur forming units, DEVCO USA, LLC ("DEVCO"), recommends storage of formed sulphur in an open storage area based on its experience in all types of climates. DEVCO advises that it has stored sulphur outside at all its operating facilities even with extreme variations in climate, rainfall and temperatures. Due to their size and weight, the prills themselves cannot generally 'escape' from a properly designed and operated stockpile. The sulphur prills are simply too dense and heavy. DEVCO further instructs that its formed product is produced with up to 2% water mechanically adhering to the surface, and that while this percentage decreases somewhat during storage, enough water remains on the prills to prevent dust from occurring during storage, handling, and loading on conveyances.

Although prill sulphur has relatively little surface residue, a water based, non-toxic, biodegradable dust suppressant (Envirobind) is sprayed on the Site's stockpile to minimize the chance of fugitive dust. While a very limited amount of fugitive dust may be generated by material storage and material movements, material stored at the Site is not frequently disturbed. Uncontrolled PM_{10} emissions from sulphur prill conveying, storage and loading are approximately 3.9428 lb/hr and 3.2879 TPY.

Because sulphur prill generates very little dust, the final regulations should provide an express exception in their applicability for sulphur prill or sulphur formed to a specific shape – just as the Draft Rules do for construction and demolition materials.

Existing Regulatory Schemes are Adequate and have been Relied Upon

Material storage of prill sulphur at the Site is already subject to state and federal regulations. The Site was specifically located and designed, using careful engineering and at significant cost, to satisfy all current regulations, and GSS has obtained – and satisfies – the conditions of the required licenses, permits, and operating certificates for the Site. An additional layer of regulation is onerous and unnecessary for storage of a material that generates little – or no – dust, that is inherently different from targeted materials such as petcoke and metcoke, and that is not a threat to the public interest or welfare. Existing regulations and practices are sufficient to prevent sulphur prill from causing a nuisance to surrounding property.

For the above reasons, the final regulations regarding storage, handling and loading should provide an express exception in their applicability for sulphur prill or sulphur formed to a specific shape.

Existing Sulphur Prill Storage Facilities Warrant Grandfather Treatment in Draft Rules

Additionally, as indicated above, GSS has invested over $11,000,000 in designing and constructing the Site. The imposition of the Draft Rules on the Site will only add an additional layer of regulation which will not satisfy any public purpose; they will create an undue financial hardship for a business that generates little or no dust and other pollution. The layout of the Site will likely preclude a complete set

of windscreens as mandated by the Draft Rules. At a minimum, several variations will need to be approved for the site, making the regulations meaningless as applied to this sulphur prill storage facility – the only such facility in the City of Chicago.

Finally, because the proposed regulations could cause curtailment of commercial activities at the Site, or at a minimum will increase costs to achieve compliance, producers, transporters, consumers, and other users of sulphur will be impacted.

For the above reasons, and to the extent sulphur prill is not expressly exempted from the definition of Bulk Solid Materials in the Draft Rules, GSS requests that existing sulphur prill facilities be 'grandfathered'.

Comments regarding Specific Requirements in the Draft Rules

In the event the final regulations are applicable to sulphur prill storage, handling and loading facilities, GSS has various concerns with specific provisions contained in the proposed regulations and their effect on GSS' existing facilities and feasibility of implementation:

Draft Rule 3.0(2) limits fugitive dust at the property line to within 10% opacity. The limitation is in contrast to the current operating permit issued to GSS by the Illinois EPA, which provides for an opacity trigger of 30%. GSS suggests that the opacity trigger in the Draft Rules be maintained at 30% for prilled sulphur or sulphur formed to a specific shape.

Draft Rule 3.0(3)(b) and Draft Rule 3.0(5)(b) reference situations where bulk solid material storage capacity is less than or equal to 100,000 cubic yards (the latter provision allowing outdoor storage in such situations). GSS suggests that a storage capacity of more than 100,000 cubic yards be a necessary prerequisite to trigger any applicability of the rules and regulations (i.e., the final regulations should not be applicable to material storage less than or equal to 100,000 cubic yards).

Draft Rule 3.0(5)(b) references various setback requirements. GSS suggests that a site's failure to satisfy setback requirements be a necessary prerequisite to the applicability of the rules and regulations (i.e., the final regulations should not be applicable to sites satisfying the minimum setbacks).

Draft Rule 3.0(5) provides that continued outdoor bulk solid material storage is allowed for existing facilities, i.e., for 'grandfathered' operators. However, the 'existing facilities' status does not apply to "material processing, including but not limited to blending, mixing, crushing, and screening." The 'processing' prohibition appears intended to apply only to processes involving chemical or physical transformations of materials, but because the term "Processing" is defined (in Draft Rule 2.0(15)) as including stockpiling, the Draft Rule's 'processing' prohibition can be interpreted to defeat and eliminate the exception provided for 'grandfathered' outdoor bulk storage. GSS therefore suggests that the processing prohibition be clarified to exclude stockpiling and other non-transformational operations.

Draft Rule 3.0(5) extends permitted outdoor storage for existing facilities to include "truck loading and unloading" occurring within a wind barrier. GSS suggests that the provision for 'truck loading and unloading' be revised to include 'rail car loading and unloading' and 'barge loading and unloading,' and

that the requirements for wind barriers be expressly limited to situations where the installation of such barriers would not be physically impractical or economically unfeasible for an existing facility.

Draft Rule 3.0(6)(a) specifies a maximum height limit of 30 feet for material storage. That maximum height limit may be contrary to maximums allowed in prior approvals and licenses obtained for a facility (and be contrary to the assumptions relied upon for the original construction of facilities). GSS suggests that existing facilities with previously approved height maximums that exceed the height limitations in the Draft Rule be 'grandfathered' to allow continued operation within the previously approved maximum height.

Draft Rule 3.0(6)(b) contemplates an unspecified minimum setback from waterways. That unspecified setback, in addition to being vague, may be inconsistent with approvals previously obtained for locating a facility. GSS suggests that existing facilities be 'grandfathered' for continued operation at their existing locations, notwithstanding their proximity to a waterway.

Draft Rule 3.0(6)(c) requires a wind barrier meeting various requirements, including minimum height requirements and a requirement that the barrier "completely surround the storage pile and immediately adjacent material Processing area(s)." Because previously approved facility configurations may physically limit the ability to install a wind barrier, GSS suggests that existing facilities be 'grandfathered' for continued operation at their locations without the construction of a wind barrier.

Draft Rule 3.0(6)(f) requires PM_{10} monitors. Assuming installation of the monitors and implementation of the recordkeeping and reporting requirements required by the Draft Rules, GSS suggests that the other rules and regulations not be applicable to any particular facility unless monitored PM_{10} emissions exceed the reportable action level set forth in the Fugitive Dust Plan by more than 50% on more than 2 occasions in a calendar year.

Draft Rule 3.0(6)(g) places a one year time limit on bulk solid material piles. That time limit will likely be unworkable in practice, because for most facilities there will be a constant addition to and removal of materials from storage piles, so while the 'substance' of the piles will be constantly changing, its 'form' may remain relatively constant over a period of months or even years. It is suggested that Draft Rule 3.0(6)(g) be deleted.

Draft Rule 3.0(6)(h) requires dust suppressant systems in operation "at all times." However, the need for suppressant systems is dependent on the material being stockpiled – and may only be needed at infrequent intervals. It is therefore suggested that the requirement be tied to material requirements rather than a one-size-fits-all, 24/7 approach; e.g., requiring that the application of water or chemical stabilizers be of sufficient concentration and application frequency to maintain a stabilized surface.

Draft Rule 3.0(8) requires railcar loading and unloading in enclosed structures, which may be inconsistent with existing site locations that have been previously approved for licensing and certificate of operation, or impossible due to the physical layout of a site. It is suggested that existing facilities be 'grandfathered' to allow for railcar loading and unloading in areas not enclosed by a physical structure.

Draft Rule 3.0(9) requires barge loading and unloading through an enclosed chute, which may be inconsistent with existing site locations that have been previously approved for licensing and certificate

of operation, or impossible due to the physical layout of a site. It is suggested that existing facilities be 'grandfathered' to allow for barge loading and unloading, whether or not through an enclosed chute.

Draft Rule 3.0(11) imposes street sweeper requirements "so that not more than 4 hours elapses between each street sweeper cleaning or after every 100 truck materials receipts or dispatches, but not less than one time daily when the Facility is open for business." Some facilities remain open during regular business hours but may only have bulk solid material transfers on infrequent occasions. In those cases, it does not make sense to have street sweepers every 4 hours or even on a daily basis. It is suggested that the requirement for street sweeping be triggered by an actual accumulation necessitating the sweeping of the roads, and not by an arbitrary time trigger.

Draft Rule 3.0(13) requires enclosed conveyors. It is suggested that existing facilities be 'grandfathered' or that, alternatively, the requirement not be applicable unless monitored PM_{10} emissions exceed the reportable action level set forth in the Fugitive Dust Plan by more than 50% on more than 2 occasions in a calendar year.

Draft Rule 3.0(18) provides for the availability of variations from operating and maintenance practices. It is suggested that pending applications for a variation, made in good faith prior to the implementation of the final regulations, should extend the implementation date with respect to a particular site for the applicable operating or maintenance rule.

For all of the above reasons, GSS respectfully requests that the final regulations provide for an exception in their applicability for sulphur prill or sulphur formed to a specific shape (as the proposed regulations do for construction and demolition materials). In the alternative, it is requested that existing sulphur prill facilities be 'grandfathered,' and, to the extent the final regulations might be applicable to sulphur prill facilities, that they contain the aforementioned revisions. As currently proposed, the Draft Rules would cause significant economic hardship to GSS and its customers, even though GSS' sulphur prill operations produce little or no fugitive dust.

Sincerely,

Gulf Sulphur Services Ltd., LLLP

By: Sulphur Assets Holding Company, LLC
a Delaware limited liability company, as its
General Partner

By: Savage Services Corporation,
a Utah corporation, as its manager

By: _____
Name: Jack Cohn
Title: Sr. VP & General Manager