

ANALYSIS

What Effect Did the November 27, 2001, Title V Rulemaking Have on the Counting of Fugitive Emissions?

On November 27, 2001 (66 FR 59161), EPA published a rule, "Change to Definition of Major Source," that requires or clarifies the following for Title V:

- An owner or operator of a source must include the fugitive emissions of all pollutants regulated under the Clean Air Act in determining whether the source is a major stationary source under Title V if the source falls within one of the source categories listed through a rulemaking pursuant to section 302(j) of the Act ("listed source categories").¹ Included as listed source categories are source categories regulated by a section 111 or 112 standard on or before August 7, 1980.
- An owner or operator of a source that falls within a listed source category that was regulated by a section 111 or 112 standard on or before August 7, 1980, must include the fugitive emissions of all air pollutants regulated under the Act, not just those pollutants regulated by the section 111 or 112 standard, in determining whether the source is a major stationary source under Title V.
- An owner or operator of a source must include the fugitive emissions of all hazardous air pollutants ("HAPs") listed under section 112(b) of the Act in determining whether the source is a major source for purposes of section 112 and Title V, regardless of whether the source falls within a listed source category. See National Mining Ass'n v. EPA, 59 F.3d 1351 (D.C. Cir. 1995).

What Are Some Examples of When You Count Fugitive Emissions to Determine Whether Your Source is Major?

Below are several scenarios that illustrate how to consider fugitive emissions in determining whether a source is a major stationary source.² You should note that the examples below rely

¹ For the purposes of this document, "listed source categories" refer to the source categories identified in 40 CFR §§ 51.165(a)(1)(iv)(C), 51.166(b)(1)(iii), 52.21(b)(1)(iii), 52.24(f)(4)(iii), and the second definition of "major source" in 40 CFR 70.2 and 71.2.

² Consistent with a voluntary remand in a case regarding the question of when is a source of fugitive emissions major for purposes of Title V, EPA has rescinded its interpretation of what the collocation language of 40 CFR part 70 requires with respect to unlisted sources of fugitive emissions. As explained in a memorandum from

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on certain assumptions regarding the complex industrial facilities described. The question of what is the primary activity at such a source or what emission units are properly considered to be a part of the source can be difficult to answer in any given case. The assumptions underlying these examples are not intended to shortcut the very fact intensive inquiry that such questions may require.

Scenarios

The first 3 scenarios below apply to the counting of fugitive emissions of regulated pollutants. The last scenario applies to the counting of fugitive emissions of any HAP listed under section 112(b) of the Act.

1. A stationary source in a listed source category. If the primary activity of a stationary source falls within a listed source category, then fugitive emissions are included from all emissions units at the source. The stationary source encompasses not only all emission units within the same SIC code at the facility, but also emission units at support facilities that are part of the source.

Examples:

- A petroleum refinery. Petroleum refineries are a listed source category. You include fugitive emissions from the refinery to determine whether it is a major stationary source.
- A steel mill with an onsite slag handling operation. The primary activity of the source, in this case, is the production of steel, and steel mills are a listed source category. Although slag handling is not a listed source category, the onsite slag handling operation here is a support facility for the steel mill. You include fugitive emissions from the steel mill (a listed source category and the primary activity at this source) as well as the fugitive emissions from the slag handling operation (an unlisted source category, but one which supports the primary activity here) to determine if the source is a major stationary

EPA, States have discretion in interpreting what the part 70 rule's collocation language requires with respect to unlisted sources of fugitive emissions. Memorandum from Lydia Wegman to Regional Air Director (June 2, 1995) (<http://www.epa.gov/Region7/programs/artd/air/title5/t5memos/amcguide.pdf>). Please refer to this memorandum for an explanation of the scope of the voluntary remand. As a result of this voluntary remand, the first two scenarios discussed below may, or may not, be applicable to the implementation of part 70 in your State, depending on your State's exercise of its discretion.

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source.

- A fossil-fuel-fired steam electric plant of more than 250 million BTUs per hour heat input located a short distance away from a coal mine that supplies all of its coal to the steam electric plant. The primary activity of the source, in this case, is the generation of steam and electricity, and steam electric plants as described above are a listed source category. You include fugitive emissions from the steam electric plant (a listed source category and the primary activity at this source) as well as the fugitive emissions from the coal mine (an unlisted source category and the support facility at this source) to determine if the source is a major stationary source.

2. A stationary source in an unlisted source category. If the primary activity of a stationary source falls within a source category that is not listed, then as a general matter fugitive emissions from the emissions units at the source are not included in determining whether the source is a major stationary source. However, if the source also contains emission units which do fall within a listed source category (or categories), then you include fugitive emissions from these listed emissions units to determine if the source is a major stationary source.

Examples:

- A food processing plant that has several petroleum liquid storage tanks subject to the NSPS in 40 CFR part 60, subpart Ka. The primary activity of the source, in this case, is the processing of food, and food processing plants are not a listed source category. The storage tanks, however, fall within a listed source category as this source category was regulated by subpart Ka as of August 7, 1980. You include fugitive emissions only from the storage tanks to determine if the source is a major stationary source.
- A coal mine with an onsite coal cleaning plant with a thermal dryer. The primary activity of the source, in this example, is the mining of coal, and coal mines are not a listed source category. The coal cleaning plant, however, does fall within a listed source category. You include fugitive emissions only from the coal cleaning plant to determine if the source is a major stationary source.

3. A stationary source in one of the source categories regulated by a section 111 new source performance standard (NSPS) on or

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before August 7, 1980, that contains emissions units that are grandfathered from the NSPS requirements (e.g., constructed before the applicability date of the NSPS) or that are not regulated as "affected facilities" under the NSPS. You include fugitive emissions from all emission units at the source to determine if it is a major stationary source because the source falls within a listed source category. The decision to include fugitive emissions from a stationary source is not influenced by whether specific emissions units are subject to regulation.

Examples:

- A grain elevator of the type covered by the NSPS in 40 CFR part 60, subpart DD, but which is grandfathered from the requirements of this NSPS. Since subpart DD was promulgated prior to August 7, 1980, the grain elevator falls within a listed source category. You include fugitive emissions from the grain elevator to determine if the source is a major stationary source.
- A coal prep plant of the type covered by the NSPS in 40 CFR part 60, subpart Y. The coal prep plant falls within a listed source category as this source category was regulated by subpart Y as of August 7, 1980. The coal prep plant includes emissions units that are not regulated as "affected facilities" under the NSPS. You include fugitive emissions from all emission units at the coal prep plant to determine if the source is a major stationary source, including fugitive emissions from the units that are not regulated as "affected facilities" under the NSPS.

4. A source which emits fugitive emissions of any HAP listed under section 112(b) of the Act.³ You include fugitive HAP emissions from all emissions units at a source to determine if the source is a major source without regard to whether the source falls within a listed source category. Although most emissions of HAPs are nonfugitive due to advancing technology, some likely emitters of fugitive HAPs as of the date of this letter are pumps, valves, compressors, or flanges found at petroleum refineries, chemical processing plants, tank farms (i.e., facilities which have a collection of storage tanks), and crude oil and natural gas production facilities.

³ This scenario is relevant for determining whether a source is a major source for purposes of section 112 and therefore Title V. (See first definition of "major source" in 40 CFR 70.2 and 71.2). The inclusion of fugitive emissions of HAPs in major source determinations is generally not relevant for PSD. The requirements of the PSD program do not apply to pollutants listed as HAPs under section 112(b) of the Act. See 42 U.S.C. § 7412(b)(6).

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In reading this document, please remember that it is not a regulation and does not substitute for the applicable regulations. The Clean Air Act and EPA's regulations governing NSR, PSD, and Title V contain legally binding requirements. In contrast, the statements made in this document do not create legal rights or impose legally binding requirements on EPA, the States, or the regulated community. Rather, the purpose of this document, including the scenarios above, is to help you understand the statutory provisions and regulations which govern when fugitive emissions are included in major source determinations and EPA's interpretation of these provisions and regulations. It is important to note that any decisions regarding a particular facility will be made based on the statute and regulations.

This discussion of various possible scenarios is not exhaustive. In deciding whether to include fugitive emissions from a stationary source in determining major source applicability, you may find the following sources of information useful in addition to those mentioned above:

- "Requirements for Preparation, Adoption, and Submittal of Implementation Plans; Approval and Promulgation of Implementation Plans," 45 Fed. Reg. 52676, 52695 (August 7, 1980)
- "Requirements for Implementation Plans: Surface Coal Mines and Fugitive Emissions; Approval and Promulgation of Implementation Plans," 54 Fed. Reg. 48870, 48881-48882 (Nov. 28, 1989)
- "New Source Performance Standards (NSPS) - Applicability of Standards of Performance for Coal Preparation Plants to Coal Unloading Operations," 63 Fed. Reg. 53288, 53290 (October 5, 1998)
- Letter from Edward J. Lillis to Thomas C. O'Connor (Oct. 14, 1994) (<http://www.epa.gov/rgytgrnj/programs/artd/air/title5/t5memos/fugitive.pdf>)
- Letter from Robert G. Kellam to Donald P. Gabrielson (March 1, 1996) (<http://www.epa.gov/rgytgrnj/programs/artd/air/title5/t5memos/donaldpg.pdf>)

October 16, 1995

MEMORANDUM

SUBJECT: Definition of Regulated Pollutant for Particulate Matter for Purposes of Title V

FROM: Lydia N. Wegman, Deputy Director /s/
Office of Air Quality Planning and Standards (MD-10)

TO: See Addressees

In a guidance memorandum dated April 26, 1993, the Agency clarified its interpretation of the term "regulated air pollutant" as defined in the operating permit rule (see 40 CFR 70.2). Recently, many discussions have been held concerning the application of this definition to sources of particulate matter under the title V operating permit program. Today's memorandum provides additional guidance to assist permitting authorities in determining which sources of particulate matter are subject to the requirements of title V.

There are different forms of particulate matter for which controls are required by various regulations. The April 26, 1993 memorandum listed PM-10 and total suspended particulates as regulated forms of particulate matter and, consequently, regulated air pollutants. The EPA has recently reevaluated this finding and has concluded that its definition of regulated air pollutant under title V applies only to emissions of PM-10. A detailed discussion of the basis for this conclusion is attached.

Today's guidance should be used to determine which sources of particulate matter are subject to minimum title V requirements and fee calculations. The Federal minimum for applicability of title V to sources of particulate matter should be based on the amount of emissions of PM-10, not particulate matter, that the source has the potential to emit. Some sources [such as country grain elevators, aggregate (rock, gravel, and sand) handling operations, and some mining operations] may not be major

sources of PM-10 even though they would have been considered major sources of particulate matter.

This guidance does not change any requirements for sources to comply with emission limitations or work practice standards as described in State implementation plans (SIPs) and new source performance standards (NSPS). For example, the required procedures for determining compliance with NSPS continue to be based on in-stack measurements of particulate emissions or visible emissions observations (i.e., Test Methods 5, 9, 17, and 22, and Performance Specification 1). The Federal minimum is that if sources are major, then they must obtain title V operating permits which include all applicable requirements. Therefore, if a source is major for particulate matter, but not for PM-10, the Federal minimum would be that a title V operating permit would not be required if the only pollutant that would make the source major is particulate matter. Any requirements to comply with NSPS or SIPs would remain in effect, however.

This clarification of PM-10's status as the regulated pollutant will cause some difficulties in estimating emissions; however, tools are available for many source categories. For example, although some 1900 particulate matter emission factors can be found in the document referred to as "AP-42," there are also over 1200 PM-10 factors. In addition, category specific particle-size distributions are available for a number of other categories on EPA's data bases.

This revision of previous guidance constitutes a change only with regard to the title V operating permit program. It does not change any other interpretations or requirements that have been previously provided for implementing the Clean Air Act.

The policies set forth in this memorandum are intended solely as guidance and not final Agency action. This guidance cannot be relied upon to create any rights enforceable by any party. For further information on the title V aspects of this guidance, please contact Leo Stander at 919-541-2402, and for further information on emissions estimation techniques, please contact David Mobley at 919-541-4676.

Attachment

Addressees:

Director, Office of Ecosystem Protection, Region I
Director, Air & Waste Management Division, Region II
Director, Air, Radiation & Toxics Division, Region III
Director, Air, Pesticide & Toxics Management Division, Region IV
Director, Air and Radiation Division, Region V
Director, Multimedia Planning and Permitting Division, Region VI
Director, Air, RCRA and TSCA Division, Region VII
Director, Office of Pollution Prevention, State and Tribal,
Region VIII
Director, Air & Toxics Division, Region IX
Director, Office of Air, Region X

cc: Chief, Air Branch, Regions I-X
Operating Permits Program Contact, Regions I-X
OAQPS Division Directors

REGULATED AIR POLLUTANT: PARTICULATE MATTER

This document explains the Environmental Protection Agency (EPA) policy that, at this time, PM-10 is considered to be the only regulated form of particulate matter. Today's policy supersedes prior EPA statements which indicated that a second regulated form of particulate matter existed. As explained further below, such prior statements were based on the fact that EPA had established specific compliance methods for sources of particulate matter under the new source performance standards (NSPS). The immediate consequence of this policy is that under the title V operating permits program only PM-10 is considered by EPA to be the regulated form of particulate matter for applicability and fee purposes. This policy does not affect (1) existing requirements under the NSPS that a source comply with applicable performance standards for particulate matter emissions or (2) provisions contained in State implementation plans for particulate matter, including existing particulate emissions limitations, which have been approved by EPA and are relied upon to attain or maintain the national ambient air quality standards (NAAQS) for particulate matter.

Background

The part 70 regulations for State title V operating permit programs define "regulated air pollutant" at 40 CFR 70.2. This definition is intended to ensure that permitting authorities receive appropriate information on all pollutants which are "regulated" under the Clean Air Act (Act) and emitted by a source. The term "regulated air pollutant" is intended to reflect all pollutants subject to a standard, regulation, or requirement by including in the definition five specific categories of pollutants which would be considered regulated air pollutants.¹ Questions have arisen, based on an EPA-issued memorandum on April 26, 1993, entitled "Definition of Regulated Air Pollutant for Purposes of Title V," concerning how many regulated forms of particulate matter the definition includes. The memorandum identified two regulated indicators--PM-10 and total suspended particulate (TSP). The PM-10 was considered regulated because it was a pollutant for which a NAAQS had been

The five categories of pollutants included (1) nitrogen oxides and volatile organic compounds, (2) any pollutant for which NAAQS have been established, (3) any pollutant that is subject to an NSPS under section 111, (4) certain ozone depleting substances, and (5) any pollutant subject to national emission standard for hazardous air pollutants (NESHAP) under section 112.

promulgated. The TSP was listed as a pollutant regulated under the NSPS.²

Implied in the April 1993 memorandum (though not explicitly stated therein) was the interpretation that the NSPS for particulate matter--which measures a different form of particulate than PM-10--automatically constituted a separate regulated indicator for particulate matter. The EPA has reevaluated this interpretation and has concluded that it is no longer appropriate. It is EPA's current position that different indicators for particulate matter may be used as surrogate measures where appropriate for controlling ambient concentrations of PM-10 without specifically requiring such surrogates themselves to be regarded as regulated pollutants. The EPA further believes that the basis for determining what the regulated pollutant or indicator is for particulate matter should focus on EPA's intent as evidenced primarily by the underlying statutory authority used by EPA to subject the relevant air pollutant to a standard, regulation or requirement, and by statements made by EPA in connection with its promulgation. This interpretation does not preclude EPA from specifically choosing to regulate a different indicator for particulate matter under the authority of section 111 of the Act. However, as explained below, it was not EPA's intent to do so for any of the NSPS promulgated to date for particulate matter.

Section 109 authority

To date, EPA's efforts to regulate particulate matter have relied primarily upon the joint authorities of sections 108 and 109 of the Act. Section 108 directs the Administrator to identify pollutants which may reasonably be anticipated to endanger public health or welfare and to issue air quality criteria for those pollutants. Section 109 of the Act then governs the establishment and revision of NAAQS for criteria pollutants. On April 30, 1971, EPA promulgated the original NAAQS for particulate matter. The NAAQS defined ambient concentrations of particulate matter measured as TSP (ambient compliance sampling achieved by "high volume" samplers which collect particulate matter up to a nominal size of 25 to 45 micrometers). On July 1, 1987, EPA revised the NAAQS for particulate matter, replacing the TSP indicator with the new PM-10 indicator.

The EPA subsequently acknowledged that the correct description of the indicator considered to be regulated under the NSPS was "particulate emissions" as measured by in-stack test methods, e.g., Federal Reference Method 5.

Section 111 authority

The control of particulate matter is also required by various NSPS under section 111 of the Act. Section 111 generally requires EPA to promulgate NSPS for any category of stationary sources that "...causes, or contributes significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare." The EPA promulgated numerous NSPS specifically to address the criteria pollutant, particulate matter, during the period of time when the NAAQS for particulate matter were measured as TSP. While EPA indicated that particulate matter was a criteria pollutant for which NAAQS had been promulgated, EPA compliance tests used to meet the specific NSPS for particulate matter did not use the same indicator as the indicator for the NAAQS for particulate matter. Instead, such compliance tests typically involved measures of particulate matter in the stack using emissions testing procedures (e.g., Method 5) that do not take into account particle size. Nevertheless, preamble discussions to certain of these NSPS show that EPA regarded the pollutant of concern to be the criteria pollutant for which NAAQS had been promulgated. See e.g., NSPS for Phosphate Rock Plants (9/21/79), Nonmetallic Mineral Processing Plants (8/1/85), and Calciners and Dryers in Mineral Industries (9/28/92).

With the promulgation of PM-10 NAAQS in 1987, EPA considered the issue of whether to revise the NSPS with respect to particulate matter. In a July 1, 1987 Federal Register notice, EPA acknowledged that the indicator for particulate matter used to measure compliance with the NSPS was different from both TSP and PM-10 (52 FR 24710). The EPA stated, therein, that the existing NSPS "that reflect the best demonstrated control technology for particulate matter have the effect of controlling PM-10." The EPA later decided that, at least until further studies could be accomplished, the existing NSPS for particulate matter would serve as adequate surrogates for limiting ambient amounts of PM-10, the intended "regulated air pollutant." The NSPS promulgated after 1987 have continued to base compliance on in-stack emissions test methods which measure particulate emissions. Based on this regulatory history, it is EPA's position that the use of particulate matter emissions as the measure of compliance under various NSPS for particulate matter does not, in itself, constitute a new regulated air pollutant, but is simply designed as a surrogate measure of particulate matter to establish effective performance standards which limit the emissions of the regulated indicator, PM-10.

While the EPA contends that the control of a pollutant under an NSPS does not automatically result in that pollutant being considered regulated if the intended pollutant is already being regulated under separate legal authority, the EPA does specifically rely upon the NSPS to regulate certain pollutants. A case in point is the NSPS for kraft pulp mills at 40 CFR 60 subpart BB, which includes limitations for emissions of total reduced sulfur compounds. This and other specific non-criteria pollutants are considered "regulated air pollutants" by virtue of the fact that EPA intended for them to be regulated by the NSPS, since they are not regulated elsewhere.

Other examples of surrogate measures

The EPA has used the measurement of particulate matter emissions for compliance purposes as the surrogate for controlling the pollutant intended to be regulated in the section 112 context as well. Examples of such situations are the NESHAP for arsenic and asbestos at 40 CFR 61.140 and 61.170, respectively. The EPA listed asbestos and arsenic as hazardous pollutants under section 112 of the Act. Subsequently, the EPA promulgated standards for several sources of asbestos and for inorganic arsenic emissions from primary copper smelters which require compliance with a particulate matter emissions limit using Method 5 and opacity monitoring (51 FR 27956, August 4, 1986 at 27981.) Nevertheless, the EPA considers arsenic and asbestos, as listed in accordance with section 112 of the Act, to be regulated pollutants in these instances.

Other implications

Nothing stated in this current policy is intended to negate, void or otherwise affect limits expressed as particulate matter emissions under any NSPS, or the enforceability of existing standards contained in State control strategies for PM-10 which may actually require compliance with other indicators for particulate matter. The EPA historically has allowed States to rely upon their original SIPs based on the control of particulate matter emissions to demonstrate attainment with the PM-10 NAAQS. The EPA continues to consider these plans to be adequate so as to remain in effect and be enforceable as long as they continue to be used to demonstrate attainment of the regulated indicator for particulate matter, PM-10.

Emission Calculations - KCBX Terminals Co. Chicago, IL

Emission Equations @ 7.5% moisture (current permit)

1. Material Handling (from AP-42 13.2.4, "Aggregate Handling and Storage Piles", Equation 1, 11/2006)

$EF = k(0.0032)[(U/5)^{1.3}]/[(M/2)^{1.4}]$ where:

	PM ₃₀	PM ₁₀	PM _{2.5}	
k =	0.74	0.35	0.053	
U =	10.3	mph (average wind speed for O'Hare through 2001 - NOAA)		
M =	7.5	Current FESOP limit		
EF =	0.00095	0.00045	0.00007	lb pollutant/ton transferred
	112.8	ton/hr screening rated capacity (from FESOP renewal app.)		
	9	maximum drop points in rail unload system to rock chute plus 2 drops for pad transfers		
	11	maximum drop points in ship load system plus 2 drops for pad transfers		

Emissions = Amount Transferred * Material Handling EF * No. of Drop Points
Control is by watering to maintain moisture at above-listed percentage

Potential Emissions - unloading

	PM ₃₀	PM ₁₀	PM _{2.5}	
	1.0	0.5	0.1	lb/hr
	4	2.0	0.3	ton/yr

Potential Emissions - loading

assumes blend of 25% reclaim & 75% virgin

	PM ₃₀	PM ₁₀	PM _{2.5}	
	3.5	1.7	0.3	lb/hr
	16	7	1.1	ton/yr

2. Screening (from AP-42, Crushed Stone Processing, Table 11.19.2-2, 08/2004)

	PM	PM ₁₀	PM _{2.5}	
EF =	0.0022	0.00074	0.000050	lb pollutant/ton screened (controlled)
EF =	0.025	0.0087	0.00013	lb pollutant/ton screened (uncontrolled)
	300	ton/hr screening rated capacity (from FESOP renewal app.)		

Emissions = Amount screened * Screening EF

Controlled emissions are those with material moisture content of at least 2.88 %
(see footnote b to AP42 Table 11.19.2-2)

Potential Controlled Emissions

	PM ₃₀	PM ₁₀	PM _{2.5}	
	0.7	0.2	0.02	lb/hr
	2.9	1.0	0.07	ton/yr

Potential Uncontrolled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
7.5	2.6	0.04	lb/hr
33	11.4	0.2	ton/yr

3. Storage Piles (AP-42, Chapter 11.9, Western Surface Coal Mining, 1998)

Note: k factors not available for PM₁₀ & PM_{2.5}, so the ratio of Material Handling k factors from Scenario 1 is applied

Area 4 acres of total available storage

Active Piles (from AP-42, Table 11.9-1)

EF = 0.72 * u lb PM₃₀/acre/hr (disturbed area)

U = 10.3 mph (average wind speed for Duluth for reporting year - NOAA)
100 % of storage piles that are active

	PM ₃₀	PM ₁₀	PM _{2.5}	
EF =	1.85	0.88	0.13	lb pollutant/acre/hr (controlled)
EF =	7.42	3.51	0.53	lb pollutant/acre/hr (uncontrolled)

Assume 75% assumed control efficiency from water application

Potential Controlled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
7.4	3.5	0.5	lb/hr
32	15	2.3	ton/yr

Potential Uncontrolled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
30	14	2.1	lb/hr
130	61	9.3	ton/yr

Inactive Piles (from AP-42, Table 11.9-4)

EF = 0.38 ton PM/acre/yr (undisturbed area)

	PM ₃₀	PM ₁₀	PM _{2.5}	
EF =	0.10	0.04	0.01	controlled
EF =	0.38	0.18	0.03	uncontrolled
	0			% of storage piles that are inactive

Assume 75% assumed control efficiency from water application

Potential Controlled Emissions

PM₃₀	PM₁₀	PM_{2.5}	
0	0	0	lb/hr
0	0	0	ton/yr

Potential Uncontrolled Emissions

PM₃₀	PM₁₀	PM_{2.5}	
0	0	0	lb/hr
0	0	0	ton/yr

4. Vehicle Traffic

Unpaved Roads (AP-42 Section 13.2.2 Unpaved Roads, 2003)
Applicable for 90% of vehicle traffic (estimate)

$$EF = k(s/12)^a * (W/3)^b * [(365-P)/365] \text{ lb/vehicle mile traveled (VMT)}$$

2,628,000 tons/yr maximum screener throughput

$$W = \frac{\sum (\text{VMT} * \text{avg. vehicle wt})}{\text{Total VMT}} \quad \text{Mean Vehicle Fleet Weight for all vehicle types}$$

Vehicle Type	Number	Weight (tons)			Operating			VMT		
		Loaded	Empty	Average	Distance ¹ (mi)	Speed (mi/hr)	Time (hrs/yr)	Unpaved (mi/yr)	Paved (mi/yr)	
										Average
End loader/dozer	1	20.0	10.0	15.0	0.03			7,466	0	
Water truck ²	1	20.0	5.0	12.5		5.0	52	260	0	
Haul truck	105,120	40.0	15.0	27.5	0.8			84,096	0	
								Total =	91,822	0

¹round trip

²50 fills/year @ 1 hr each

Where:

	PM₃₀	PM₁₀	PM_{2.5}	
k =	4.9	1.5	0.15	constant for lb/VMT
a =	0.7	0.9	0.9	
b =	0.45	0.45	0.45	
s =	5.1	5.1	5.1	road surface % silt (AP-42 Table 13.2.2.1 for Plant Road)
W =	26.4	26.4	26.4	Mean weight of vehicles, tons
P _{uncontrolled} =	120	120	120	Figure 13.2.2-1 for days with > 0.01 inches precipitation
P _{controlled} =	215	215	215	1/3 of P _{uncontrolled} (non-sprinkling season) + watering days
E _{ext} =	4.8	1.2	0.1	lb/VMT Uncontrolled
E _{ext} =	2.9	0.8	0.08	lb/VMT Controlled

Emission = Unpaved Road EF (adjusted for local rainfall) * Fleet Weighted Vehicle Miles Traveled

Control assumes P = 175 days of watering (Apr 1 - Nov 31 ~ 35 wks @ 5 days/wk)

Potential Controlled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
31	8.0	0.8	lb/hr
135	35	3.5	ton/yr

Potential Uncontrolled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
50	13	1.3	lb/hr
221	57	5.7	ton/yr

Paved Roads (AP-42 Section 13.2.1, Table 13.2-1.1, 2003)
Applicable for 0% of vehicle traffic (estimate)

$$EF_{ext} = [k (sL/2)^{0.65} (W/3)^{1.5} - C] [1 - (P/4N)]$$

Where:

	PM ₃₀	PM ₁₀	PM _{2.5}	
k =	0.082	0.016	0.0024	constant for lb/VMT
sL =	8.2	8.2	8.2	silt loading for quarries, g/m ² (from AP-42 Table 13.2.1-4)
W =	0.0	0.0	0.0	Mean weight of vehicles, tons
C =	0.00047	0.00047	0.00036	Constant for brake & tire wear, lb/VMT
P _{uncontrolled} =	120	120	120	Figure 13.2.2-1 for days with > 0.01 inches precipitation
P _{controlled} =	215	215	215	1/3 of P _{uncontrolled} + days of watering
N =	365	365	365	days/year
E _{ext} =	0.0	0.0	0.00	lb/VMT Uncontrolled
E _{ext} =	0.0	0.0	0.00	lb/VMT Controlled

Emission = Paved Road EF (adjusted for local rainfall) * Fleet Weighted Vehicle Miles Traveled

Potential Controlled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
0	0	0	lb/hr
0	0	0	ton/yr

Potential Uncontrolled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
0	0	0	lb/hr
0	0	0	ton/yr

SUMMARY OF CONTROLLED EMISSIONS

	Pounds/year			Tons/year		
	PM ₃₀	PM ₁₀	PM _{2.5}	PM ₃₀	PM ₁₀	PM _{2.5}
Transfers	39,521	18,692	2,831	20	9	1.4
Screening	5,782	1,945	131	2.9	1.0	0.1
Storage Piles	64,964	30,726	4,653	32	15	2.3
Vehicle Traffic	270,480	69,776	6,978	135	35	3.5
Site Totals	380,747	121,140	14,592	190	61	7

Emission Equations for < 90 tpy PM10 and < 250 tpy PM

1. Material Handling (from AP-42 13.2.4, "Aggregate Handling and Storage Piles", Equation 1, 11/2006)

$EF = k(0.0032)[(U/5)^{-3}]/[(M/2)^{1.4}]$ where:

	PM ₃₀	PM ₁₀	PM _{2.5}	
k =	0.74	0.35	0.053	
U =	10.3	mph (average wind speed for O'Hare through 2001 - NOAA)		
M =	2.80			
EF =	0.0038	0.00179	0.000271	lb pollutant/ton transferred
	112.8	ton/hr screening rated capacity (from FESOP renewal app.)		
	9	maximum drop points in rail unload system to rock chute plus 2 drops for pad transfer		
	11	maximum drop points in ship load system plus 2 drops for pad transfers		

Emissions = Amount Transferred * Material Handling EF * No. of Drop Points
 Control is by watering to maintain moisture at above-listed percentage

Potential Emissions - unloading

PM ₃₀	PM ₁₀	PM _{2.5}	
3.8	1.8	0.3	lb/hr
17	8.0	1.2	ton/yr

Potential Emissions - loading

assumes blend of 25% reclaim & 75% virgin

PM ₃₀	PM ₁₀	PM _{2.5}	
14	6.7	1.0	lb/hr
62	29	4.4	ton/yr

2. Screening (from AP-42, Crushed Stone Processing, Table 11.19.2-2, 08/2004)

	PM	PM ₁₀	PM _{2.5}	
EF =	0.0022	0.00074	0.000050	lb pollutant/ton screened (controlled)
EF =	0.025	0.0087	0.00013	lb pollutant/ton screened (uncontrolled)
	300	ton/hr screening rated capacity (from FESOP renewal app.)		

Emissions = Amount screened * Screening EF

Controlled emissions are those with material moisture content of at least 2.88 %
 (see footnote b to AP42 Table 11.19.2-2)

Potential Controlled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
0.7	0.2	0.02	lb/hr
2.9	1.0	0.07	ton/yr

Potential Uncontrolled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
7.5	2.6	0.04	lb/hr
33	11.4	0.2	ton/yr

3. Storage Piles (AP-42, Chapter 11.9, Western Surface Coal Mining, 1998)

Note: k factors not available for PM₁₀ & PM_{2.5}, so the ratio of Material Handling k factors from Scenario 1 is applied

Area acres of total available storage

Active Piles (from AP-42, Table 11.9-1)

EF = 0.72 * u lb PM₃₀/acre/hr (disturbed area)

U = mph (average wind speed for Duluth for reporting year - NOAA)
 % of storage piles that are active

	PM ₃₀	PM ₁₀	PM _{2.5}	
EF =	1.85	0.88	0.13	lb pollutant/acre/hr (controlled)
EF =	7.42	3.51	0.53	lb pollutant/acre/hr (uncontrolled)

Assume 75% assumed control efficiency from water application

Potential Controlled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
7.4	3.5	0.5	lb/hr
32	15	2.3	ton/yr

Potential Uncontrolled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
30	14	2.1	lb/hr
130	61	9.3	ton/yr

Inactive Piles (from AP-42, Table 11.9-4)

EF = 0.38 ton PM/acre/yr (undisturbed area)

	PM ₃₀	PM ₁₀	PM _{2.5}	
EF =	0.10	0.04	0.01	controlled
EF =	0.38	0.18	0.03	uncontrolled
	0			% of storage piles that are inactive

Assume 75% assumed control efficiency from water application

Potential Controlled Emissions

PM₃₀	PM₁₀	PM_{2.5}	
0	0	0	lb/hr
0	0	0	ton/yr

Potential Uncontrolled Emissions

PM₃₀	PM₁₀	PM_{2.5}	
0	0	0	lb/hr
0	0	0	ton/yr

4. Vehicle Traffic

Unpaved Roads (AP-42 Section 13.2.2 Unpaved Roads, 2003)
Applicable for 90% of vehicle traffic (estimate)

$$EF = k(s/12)^a \cdot (W/3)^b \cdot [(365-P)/365] \text{ lb/vehicle mile traveled (VMT)}$$

2,628,000 tons/yr maximum screener throughput

$$W = \frac{\sum (\text{VMT} \cdot \text{avg vehicle wt})}{\text{Total VMT}} \quad \text{Mean Vehicle Fleet Weight for all vehicle types}$$

Vehicle Type	Number	Weight (tons)			Operating			VMT		
		Loaded	Empty	Average	Distance ¹ (mi)	Speed (mi/hr)	Time (hrs/yr)	Unpaved (mi/yr)	Paved (mi/yr)	
										Average
End loader/dozer	1	20.0	10.0	15.0	0.03			7,466	0	
Water truck ²	1	20.0	5.0	12.5		5.0	52	260	0	
Haul truck	105,120	40.0	15.0	27.5	0.8			84,096	0	
								Total =	91,822	0

¹round trip

²50 fills/year @ 1 hr each

Where:

	PM₃₀	PM₁₀	PM_{2.5}	
k =	4.9	1.5	0.15	constant for lb/VMT
a =	0.7	0.9	0.9	
b =	0.45	0.45	0.45	
s =	5.1	5.1	5.1	road surface % silt (AP-42 Table 13.2.2.1 for Plant Road)
W =	26.4	26.4	26.4	Mean weight of vehicles, tons
P _{uncontrolled} =	120	120	120	Figure 13.2.2-1 for days with > 0.01 inches precipitation
P _{controlled} =	215	215	215	1/3 of P _{uncontrolled} (non-sprinkling season) + watering days
E _{ext} =	4.8	1.2	0.1	lb/VMT Uncontrolled
E _{ext} =	2.9	0.8	0.08	lb/VMT Controlled

Emission = Unpaved Road EF (adjusted for local rainfall) * Fleet Weighted Vehicle Miles Traveled

Control assumes P = 175 days of watering (Apr 1 - Nov 31 ~ 35 wks @ 5 days/wk)

Potential Controlled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
31	8.0	0.8	lb/hr
135	35	3.5	ton/yr

Potential Uncontrolled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
50	13	1.3	lb/hr
221	57	5.7	ton/yr

Paved Roads (AP-42 Section 13.2.1, Table 13.2-1.1, 2003)
Applicable for 0% of vehicle traffic (estimate)

$$EF_{ext} = [k (sL/2)^{0.65} (W/3)^{1.5} - C] [1 - (P/4N)]$$

Where:

	PM ₃₀	PM ₁₀	PM _{2.5}	
k =	0.082	0.016	0.0024	constant for lb/VMT
sL =	8.2	8.2	8.2	silt loading for quarries, g/m ² (from AP-42 Table 13.2.1-4)
W =	0.0	0.0	0.0	Mean weight of vehicles, tons
C =	0.00047	0.00047	0.00036	Constant for brake & tire wear, lb/VMT
P _{uncontrolled} =	120	120	120	Figure 13.2.2-1 for days with > 0.01 inches precipitation
P _{controlled} =	215	215	215	1/3 of P _{uncontrolled} + days of watering
N =	365	365	365	days/year
E _{ext} =	0.0	0.0	0.00	lb/VMT Uncontrolled
E _{ext} =	0.0	0.0	0.00	lb/VMT Controlled

Emission = Paved Road EF (adjusted for local rainfall) * Fleet Weighted Vehicle Miles Traveled

Potential Controlled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
0	0	0	lb/hr
0	0	0	ton/yr

Potential Uncontrolled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
0	0	0	lb/hr
0	0	0	ton/yr

SUMMARY OF CONTROLLED EMISSIONS

	Pounds/year			Tons/year		
	PM ₃₀	PM ₁₀	PM _{2.5}	PM ₃₀	PM ₁₀	PM _{2.5}
Transfers	156,997	74,256	11,244	78	37	5.6
Screening	5,782	1,945	131	2.9	1.0	0.1
Storage Piles	64,964	30,726	4,653	32	15	2.3
Vehicle Traffic	270,480	69,776	6,978	135	35	3.5
Site Totals	498,223	176,703	23,006	249.1	88.4	12

Emission Equations for 90 tpy PM10

1. Material Handling (from AP-42 13.2.4, "Aggregate Handling and Storage Piles", Equation 1, 11/2006)

$EF = k(0.0032)[(U/5)^{1.3}]/[(M/2)^{1.4}]$ where:

	PM₃₀	PM₁₀	PM_{2.5}	
k =	0.74	0.35	0.053	
U =	10.3	mph (average wind speed for O'Hare through 2001 - NOAA)		
M =	2.75			
EF =	0.0039	0.00183	0.00028	lb pollutant/ton transferred
	112.8	ton/hr screening rated capacity (from FESOP renewal app.)		
	9	maximum drop points in rail unload system to rock chute plus 2 drops for pad transfer		
	11	maximum drop points in ship load system plus 2 drops for pad transfers		

Emissions = Amount Transferred * Material Handling EF * No. of Drop Points
Control is by watering to maintain moisture at above-listed percentage

Potential Emissions - unloading

	PM₃₀	PM₁₀	PM_{2.5}	
	3.9	1.9	0.3	lb/hr
	17	8.2	1.2	ton/yr

Potential Emissions - loading

assumes blend of 25% reclaim & 75% virgin

	PM₃₀	PM₁₀	PM_{2.5}	
	14	6.8	1.0	lb/hr
	63	30	4.5	ton/yr

2. Screening (from AP-42, Crushed Stone Processing, Table 11.19.2-2, 08/2004)

	PM	PM₁₀	PM_{2.5}	
EF =	0.0022	0.00074	0.000050	lb pollutant/ton screened (controlled)
EF =	0.025	0.0087	0.00013	lb pollutant/ton screened (uncontrolled)
	300	ton/hr screening rated capacity (from FESOP renewal app.)		

Emissions = Amount screened * Screening EF

Controlled emissions are those with material moisture content of at least 2.88 %
(see footnote b to AP42 Table 11.19.2-2)

Potential Controlled Emissions

	PM₃₀	PM₁₀	PM_{2.5}	
	0.7	0.2	0.02	lb/hr
	2.9	1.0	0.07	ton/yr

Potential Uncontrolled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
7.5	2.6	0.04	lb/hr
33	11.4	0.2	ton/yr

3. Storage Piles (AP-42, Chapter 11.9, Western Surface Coal Mining, 1998)

Note: k factors not available for PM₁₀ & PM_{2.5}, so the ratio of Material Handling k factors from Scenario 1 is applied

Area acres of total available storage

Active Piles (from AP-42, Table 11.9-1)

EF = 0.72 * u lb PM₃₀/acre/hr (disturbed area)

U = mph (average wind speed for Duluth for reporting year - NOAA)

% of storage piles that are active

	PM ₃₀	PM ₁₀	PM _{2.5}	
EF =	1.85	0.88	0.13	lb pollutant/acre/hr (controlled)
EF =	7.42	3.51	0.53	lb pollutant/acre/hr (uncontrolled)

Assume 75% assumed control efficiency from water application

Potential Controlled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
7.4	3.5	0.5	lb/hr
32	15	2.3	ton/yr

Potential Uncontrolled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
30	14	2.1	lb/hr
130	61	9.3	ton/yr

Inactive Piles (from AP-42, Table 11.9-4)

EF = 0.38 ton PM/acre/yr (undisturbed area)

	PM ₃₀	PM ₁₀	PM _{2.5}	
EF =	0.10	0.04	0.01	controlled
EF =	0.38	0.18	0.03	uncontrolled
	<input type="text" value="0"/> % of storage piles that are inactive			

Assume 75% assumed control efficiency from water application

Potential Controlled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
0	0	0	lb/hr
0	0	0	ton/yr

Potential Uncontrolled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
0	0	0	lb/hr
0	0	0	ton/yr

4. Vehicle Traffic

Unpaved Roads (AP-42 Section 13.2.2 Unpaved Roads, 2003)
Applicable for 90% of vehicle traffic (estimate)

$$EF = k(s/12)^a * (W/3)^b * [(365-P)/365] \text{ lb/vehicle mile traveled (VMT)}$$

2,628,000 tons/yr maximum screener throughput

$$W = \frac{\sum (\text{VMT} * \text{avg vehicle wt})}{\text{Total VMT}} \quad \text{Mean Vehicle Fleet Weight for all vehicle types}$$

Vehicle Type	Number	Weight (tons)			Operating			VMT		
		Loaded	Empty	Average	Distance ¹ (mi)	Speed (mi/hr)	Time (hrs/yr)	Unpaved (mi/yr)	Paved (mi/yr)	
End loader/dozer	1	20.0	10.0	15.0	0.03			7,466	0	
Water truck ²	1	20.0	5.0	12.5		5.0	52	260	0	
Haul truck	105,120	40.0	15.0	27.5	0.8			84,096	0	
								Total =	91,822	0

¹round trip

²50 fills/year @ 1 hr each

Where:

	PM ₃₀	PM ₁₀	PM _{2.5}	
k =	4.9	1.5	0.15	constant for lb/VMT
a =	0.7	0.9	0.9	
b =	0.45	0.45	0.45	
s =	5.1	5.1	5.1	road surface % silt (AP-42 Table 13.2.2.1 for Plant Road)
W =	26.4	26.4	26.4	Mean weight of vehicles, tons
P _{uncontrolled} =	120	120	120	Figure 13.2.2-1 for days with > 0.01 inches precipitation
P _{controlled} =	215	215	215	1/3 of P _{uncontrolled} (non-sprinkling season) + watering days
E _{ext} =	4.8	1.2	0.1	lb/VMT Uncontrolled
E _{ext} =	2.9	0.8	0.08	lb/VMT Controlled

Emission = Unpaved Road EF (adjusted for local rainfall) * Fleet Weighted Vehicle Miles Traveled

Control assumes P = 175 days of watering (Apr 1 - Nov 31 ~ 35 wks @ 5 days/wk)

Potential Controlled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
31	8.0	0.8	lb/hr
135	35	3.5	ton/yr

Potential Uncontrolled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
50	13	1.3	lb/hr
221	57	5.7	ton/yr

Paved Roads (AP-42 Section 13.2.1, Table 13.2-1.1, 2003)
Applicable for 0% of vehicle traffic (estimate)

$$EF_{ext} = [k (sL/2)^{0.65} (W/3)^{1.5} - C] [1 - (P/4N)]$$

Where:

	PM ₃₀	PM ₁₀	PM _{2.5}	
k =	0.082	0.016	0.0024	constant for lb/VMT
sL =	8.2	8.2	8.2	silt loading for quarries, g/m ² (from AP-42 Table 13.2.1-4)
W =	0.0	0.0	0.0	Mean weight of vehicles, tons
C =	0.00047	0.00047	0.00036	Constant for brake & tire wear, lb/VMT
P _{uncontrolled} =	120	120	120	Figure 13.2.2-1 for days with > 0.01 inches precipitation
P _{controlled} =	215	215	215	1/3 of P _{uncontrolled} + days of watering
N =	365	365	365	days/year
E _{ext} =	0.0	0.0	0.00	lb/VMT Uncontrolled
E _{ext} =	0.0	0.0	0.00	lb/VMT Controlled

Emission = Paved Road EF (adjusted for local rainfall) * Fleet Weighted Vehicle Miles Traveled

Potential Controlled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
0	0	0	lb/hr
0	0	0	ton/yr

Potential Uncontrolled Emissions

PM ₃₀	PM ₁₀	PM _{2.5}	
0	0	0	lb/hr
0	0	0	ton/yr

SUMMARY OF CONTROLLED EMISSIONS

	Pounds/year			Tons/year		
	PM ₃₀	PM ₁₀	PM _{2.5}	PM ₃₀	PM ₁₀	PM _{2.5}
Transfers	161,008	76,152	11,532	81	38	5.8
Screening	5,782	1,945	131	2.9	1.0	0.1
Storage Piles	64,964	30,726	4,653	32	15	2.3
Vehicle Traffic	270,480	69,776	6,978	135	35	3.5
Site Totals	502,234	178,600	23,294	251	89.3	12

KCBX TERMINALS COMPANY

September 25, 2009

CERTIFIED MAIL

Mr. George Kennedy
Bureau of Air
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Springfield, IL 62794-9276

Re: Proposed Storage Activity
KCBX Terminals Co., 3259 East 100th Street, Chicago IL 60617
ID No. 031600AHI

Dear Mr. Kennedy:

This is a written follow up to the e-mail that I sent to you on September 25 acknowledging our telephone conversation on September 22, 2009. As we discussed on September 22, KCBX Terminals Co. (KCBX), located at 3259 East 100th Street, Chicago IL 60617, is looking to utilize up to 7 acres for creation of additional storage pile(s) that may remain essentially untouched for a period of ten to 18 months or more before they are reclaimed and shipped to customers. This area has not historically been used for stockpile creation and reclamation. During the utilization period, the only activity that would occur on these piles after their creation would be periodic application of dust suppressant and possible remediation of hot spots (smoldering coal) should they develop.

Control of fugitives on these stockpiles would be accomplished using the periodic application of dust suppressant and the spot application of water through mobile or portable water cannons. In the interest of establishing a more reliable means to apply water, KCBX may also install fixed, pole-mounted water cannons similar to the cannons currently installed on the main storage pad. These new cannons would tie into the same water supply as the existing cannons.

It is possible that once the piles are reclaimed and shipped offsite that the area will no longer be used for stockpile storage. However, it is also possible that other long term or short-term storage and reclamation activities may occur in the area. Based on our discussions, KCBX has concluded that a construction permit from the Bureau of Air is not required either for the placement of stockpiles in the additional area or for the installation of permanently mounted water cannons to provide fugitive dust controls in this additional area.

In evaluating whether a construction permit is required to utilize this area and install permanent water cannons, the following were considered:

1. The facility has a FESOP (ID No. 031600AHI) which allows for the creation of stockpiles
2. The FESOP does not limit the facility either in terms of the number of stockpiles, the basal area of stockpiles, or the amount of material (mass) in the stockpiles.
3. The facility has water cannons mounted on fixed poles for watering the main (traditional) stockpile and vehicle traffic areas

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Mr. George Kennedy
September 25, 2009
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4. The facility has a Fugitive Particulate Operating Plan required by rule and by permit that specifies, among other things, that the facility maintain a water truck to wet traffic areas and provide the capability to apply water where the fixed cannon system does not provide complete coverage.
5. The Fugitive Particulate Operating Plan also describes fugitive particulate controls for stockpile creation and reclamation, including the use of loaders and conveyors to transfer bulk products. The Plan relies on the control provided by watering to minimize fugitive particulates during product transfers.

The conclusion that a construction permit is not required is based on the list of exempted activities in Title 35 Ill. Admin. Code Section 201.146. Specifically, Section 201.146(hhh) provides that:

(hhh) [A permit is not required for] replacement or addition of air pollution control equipment for existing emission units in circumstances where:

- 1) The existing emission unit is permitted and has operated in compliance for the past year;
- 2) The new control equipment will provide equal or better control of the target pollutants;
- 3) The new control device will not be accompanied by a net increase in emissions of any non-targeted criteria air pollutant;
- 4) Different State or federal regulatory requirements or newly proposed regulatory requirements will not apply to the unit; and
BOARD NOTE: All sources must comply with underlying federal regulations and future State regulations.
- 5) Where the existing air pollution control equipment had required monitoring equipment, the new air pollution control equipment will be equipped with the instrumentation and monitoring devices that are typically installed on the new equipment of that type.
BOARD NOTE: For major sources subject to Section 39.5 of the Act, where the new air pollution control equipment will require a different compliance determination method in the facility's CAAPP permit, the facility may need a permit modification to address the changed compliance determination method;

KCBX believes that subsection (hhh) exempts the new stockpile location because:

- (1) the existing FESOP covers storage piles, loading and unloading operations without specifying the areas where these activities may occur. Further the Monthly Emissions Calculation Spreadsheet, submitted as part of the FESOP application, recognizes and accounts for emissions from these activities;
- (2) the proposed permanent water cannons will provide equal control to the existing towers and more consistent control than applying water from water truck cannon;
- (3) the targeted pollutant is particulate matter in its various fractions and operation of a permanent water system will not increase any other pollutant because the water supply is driven from an electric pump;
- (4) state or federal regulatory requirements are not different and there are no or newly proposed regulatory requirements that KCBX is aware of; and
- (5) there is no monitoring equipment specified in the current FESOP for the water cannon system. Previous versions of the draft FESOP do have metering of water flow included, but if this FESOP condition becomes final, the metering will be installed regardless of whether the fixed cannon system is extended into the proposed storage area.

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Mr. George Kennedy
September 25, 2009
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Please confirm that this is also your understanding of the requirements around the activities that KCBX proposes. As there are generation companies that may rely on this storage, your prompt reply is greatly appreciated.

Sincerely,



Terry L. Steinert
Environmental Compliance Manager
Koch Carbon LLC

Cc: Chris Bailey, KCBX Terminals Co.
Joe Kotas, IEPA

K: 00220

 **KCBX TERMINALS COMPANY**

October 13, 2010

CERTIFIED MAIL

Edwin C. Bakowski, P.E.
Manager, Permit Section
Division of Air Pollution Control
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 62794-9276

Re: August 26, 2010 Meeting Follow-up
Renewal of Federally Enforceable State Operating Permit
KCBX Terminals Company, Chicago, Illinois
I.D. Number 031600AHI
Application Number 95050167

Dear Mr. Bakowski:

This letter is written in follow-up to the August 26, 2010 meeting ("Meeting") between KCBX Terminals Company ("KCBX") and the Illinois Environmental Protection Agency ("Illinois EPA") to discuss issues related to the pending Federally Enforceable State Operating Permit ("FESOP") renewal for the KCBX facility ("Facility") located at 3259 East 100th Street, Chicago, Illinois, 60617, and KCBX's July 16, 2010 letter ("July 16, 2010 Letter"), which included comments regarding the proposed renewal of the FESOP. Present at the Meeting were: Bob Bernoteit, George Kennedy and Chris Pressnall on behalf of Illinois EPA; Terry Steinert, Tom Safley and Pete Rotundo on behalf of KCBX; and Katherine Hodge and Lauren Lurkins of Hodge Dwyer & Driver, on behalf of KCBX. KCBX extends its appreciation to Mr. Pressnall, Mr. Bernoteit and Mr. Kennedy for taking the time to meet to discuss the issues regarding the pending FESOP renewal. KCBX hopes the Meeting provided Illinois EPA with information that clarifies the equipment and potential emissions at the Facility. KCBX benefitted from the Meeting by gaining an understanding of Illinois EPA's point of view on several key issues.

Per the discussion at the Meeting, Mr. Steinert on September 2, 2010 forwarded Mr. Kennedy an electronic copy of the spreadsheets (with calculation formulae) for the screening operations, which were attached in hard copy to KCBX's July 16, 2010 Letter (as Attachments C and D, respectively) and a spreadsheet with calculations for quantifying emissions from offloading low moisture material at the Facility. During the Meeting, Illinois EPA agreed to review this information and provide KCBX with comments regarding the same. KCBX looks forward to receiving those comments.

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Edwin C. Bakowski, P.E.

October 13, 2010

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Also during the Meeting, KCBX agreed to: (1) respond to Illinois EPA regarding whether emissions from material storage and handling, including conveying operations, at the Facility are fugitive in nature (and thus, whether they should be included in determining whether the Facility would be a "major source" based on potential to emit); (2) clarify its intent with regard to its proposed moisture language, as detailed in the July 16, 2010 Letter; and (3) provide additional equipment detail regarding draft permit condition 2q (as contained in the June 16, 2010 revised draft FESOP). KCBX addresses these issues through this correspondence.

Material Transfer Fugitive Emissions

At the Meeting, KCBX and Illinois EPA discussed emissions of particulate matter ("PM") from material storage and handling, including conveying operations, at bulk material operations such as the KCBX Facility, and Illinois EPA raised the question of whether such emissions should be considered fugitive in nature. After the Meeting, KCBX researched this question. In doing so, the following were reviewed:

- Illinois EPA's Lifetime General Operating Permit for Large Aggregate Processing Plants – NSPS Sources ("General Permit"), as suggested by Mr. Bernoteit;
- AP-42, *Compilation of Air Pollutant Emission Factors* ("AP-42");
- Illinois's fugitive PM emissions regulations located at 35 Ill. Admin. Code Part 212, Subpart K (Sections 212.301 through 212.316);
- the regulatory history of 35 Ill. Admin. Code Part 212, Subpart K, as detailed in rulemakings before the Illinois Pollution Control Board ("Board");
- Illinois EPA's Clean Air Act Permit Program ("CAAPP") application form regarding fugitive emissions; and
- United States Environmental Protection Agency ("USEPA") comments regarding the control of fugitive coal dust emissions from open storage piles located at coal preparation and processing plants.

As discussed below, these sources establish that PM emissions from bulk material storage and handling operations such as the KCBX Facility – including emissions from conveyors used to load materials to and unload materials from outdoor storage piles, as well as emissions from those storage piles themselves – are fugitive in nature.

Because of the reference made during the Meeting, KCBX first reviewed Illinois EPA's General Permit. After conducting that review, KCBX has concluded that the language of the General Permit is consistent with KCBX's view that PM emissions from material handling and storage operations at the Facility are fugitive in nature.

Illinois EPA issued the General Permit:

to limit the emissions [of] particulate matter (PM) and all other pollutants from the source to less than 100 tons per year for the purposes of the Air Pollution Operating Permit Fee under Section 9.6(b)(1) of the Illinois Environmental Protection Act (Act).

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General Permit, Finding 6.

Under Section 9.6(b) of the Illinois Environmental Protection Act, after July 1, 2003, the air permitting fee for a site that is permitted to emit "less than 100 tons per year of any combination of regulated air pollutants ... is ... \$1,800 per year," while the permitting fee for a site that is permitted to emit "at least 100 tons per year of any combination of regulated air pollutants is ... \$3,500 per year." 415 ILCS 5/9.6(b)(2), (3).

To meet its goal of keeping the permitting fee for sites covered by the General Permit at \$1,800 rather than \$3,500, Illinois EPA included the following in the General Permit: (1) throughput limits for "Crushers," "Screens," and "Conveyors and Bins/Transfer Points" at covered sites; and (2) limits on emissions of PM from "Crushers," "Screens," and "Conveyors and Bins" at covered sites. General Permit Condition 4(a)(ii), (iii). The fact that a permit limit applies to emissions from conveyors at aggregate processing plants, however, does not mean that such emissions are not "fugitive." A permit limit can apply to fugitive emissions - all that is required to establish a permit limit is a means to quantify emissions, and as discussed below, AP-42 includes emission factors for fugitive emissions. (That is not to say that a limit on PM emissions is necessary or appropriate in every situation. As noted above, such a limit was appropriate in the General Permit if PM emissions were to be limited so as to keep the permitting fee for covered sites at \$1,800 rather than \$3,500. KCBX is not concerned about limiting emissions in order to limit permitting fees.) Further, the General Permit specifically refers to "fugitive" emissions from conveyors, stating:

Pursuant to 40 CFR 60.672(b), no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors, any crusher, at which a capture system is not used, or from any other affected facility any fugitive emissions which exhibit greater opacity [than specified in Part 60 Subpart OOO].

General Permit Condition 2.a.iv. (Emphasis added.) See also General Permit Condition 2.b.ii (addressing the "emission of fugitive particulate matter from any process, including any material handling or storage activity ...").

Consistent with the treatment of such PM emissions as fugitive, the General Permit does not require capture systems for emissions from conveyors. Rather, the General Permit provides:

In lieu of natural moisture, water sprays are used on the emission units associated with the aggregate processing plant (crushers, conveyors and bins with associated transfer points, and stockpiles) ... in order to control particulate matter emissions, rather than by capture systems and collection devices.

General Permit, Finding 1.a.ii. (Emphasis added.) See also General Permit, Condition 3.c.

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KCBX would note that just as an emission limit does not mean that PM emissions are not fugitive, the fact that PM emissions from aggregate processing plants are subject to a control – that is, water sprays – does not mean that such emissions are not fugitive.

In addition, KCBX's operation is distinguishable from that of an aggregate processing plant. Aggregate plants covered by the General Permit process (crush, screen), as well as store and handle aggregate. The primary activities at the KCBX Facility, however, are storage and handling, and KCBX understands that Illinois EPA's question relates to emissions from these material handling activities. As discussed in previous communications with Illinois EPA, the Facility does conduct a very minor amount of processing in the form of screening. However, KCBX has quantified the emissions from storage and handling associated with such screening as a distinct activity. See the July 16, 2010 Letter. The storage and handling, as well as conveying, about which Illinois EPA inquired (which, again, comprises the vast majority of the activity at the Facility) takes place on a separate portion of the Facility. Therefore, in addition to the points above regarding the implications of the General Permit, KCBX does not believe that the Facility as a whole should be treated, for permitting purposes, in the same manner as the aggregate plants covered by the General Permit.

Similarly, AP-42 distinguishes activities that involve the processing of minerals from activities that involve only the handling and storage of materials. Specifically, Chapter 11 of AP-42 covers the "Mineral Products Industry," which includes 31 different production, processing, crushing and screening sources, such as sand and gravel processing (Section 11.19.1) and crushed stone processing and pulverized mineral processing (Section 11.19.2). Chapter 13 of AP-42, on the other hand, covers "Miscellaneous Sources," with Section 13.2 addressing six different types of "Fugitive Dust Sources." The six types of fugitive dust sources include outdoor "aggregate handling and storage piles." While this section covers aggregate, its extension to the coal and petroleum coke handled at the KCBX Facility has been recognized by Illinois EPA in various permit actions, including the existing KCBX FESOP. See AP-42, Section 13.2.4.1.

By placing fugitive dust from aggregate handling and storage piles in a separate section of AP-42, USEPA is acknowledging that the activities associated with storage pile construction and reclamation, including material batch (loader) or continuous (conveyor) drops, create fugitive emissions to be considered apart from the Mineral Products Industry. See AP-42 Section 13.2.4.3. As set forth in the narrative discussion below under the heading "Intent of Proposed Moisture Language," KCBX's storage and handling operations are, for the most part, associated with storage piles (though KCBX also handles some material by conveying it from rail to vessel without the use of storage piles). As Section 13.2.4.1 of AP-42 notes, fugitive emissions result from "material loading onto [a] pile, disturbances by strong wind currents, and load out from the pile," as well as from "the movement of trucks and loading equipment in the storage pile area." See Section 13.2.4.1. AP-42, therefore, demonstrates that emissions from material storage and handling, including conveying operations at the Facility, are fugitive in nature.

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The fugitive PM rules at 35 Ill. Admin. Code Part 212, Subpart K also support KCBX's conclusion that PM emissions from material handling and storage are fugitive. Section 212.301 -- "Fugitive Particulate Matter" -- states the following:

No person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

35 Ill. Admin. Code § 212.301. (Emphasis added.)

Additionally, Section 212.304 addresses fugitive PM emissions from storage piles, and Section 212.305 addresses fugitive PM emissions from conveyor loading operations. Therefore, the Illinois regulations are structured based on the understanding that the PM emissions from these sources are fugitive in nature.

This conclusion is supported by the regulatory history of 35 Ill. Admin. Code Part 212, Subpart K. In the Board's November 1, 1979 Opinion in In the Matter of: Fugitive Particulate Emissions from Industrial Sources, R78-11, the Board included a summary of the "[t]raditional sources of controllable fugitive particulate matter," which included the following:

- 1) Material loss from conveyors, which primarily occurs at feeding, transfer and discharge points or from spills;
- 2) Emissions during loading and unloading of bulk materials into transportation vehicles, which arise mainly from mechanical agitation of the material as it strikes the sides and bottom of the vehicle and from air turbulence created as the material is moved into and out of the vehicle;
- 3) Load-in (addition) and load-out (removal) operations from storage piles, vehicular traffic around storage piles, and wind erosion of the surficial material from storage piles (R.13);
- 4) Material handling operations, such as railcar side dumping, motorized car side chute dumping, clam shell bucket loading and material sizing at screening operations (R.20); and
- 5) Vehicle traffic on dust-laden plant roads, which can lead to dust reentrainment (R.28).

Board Opinion, In the Matter of: Fugitive Particulate Emissions from Industrial Sources, R78-11 at 36-64 (Ill. Pol. Control Bd. Nov. 1, 1979). (Emphasis added.)

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Likewise, Illinois EPA has characterized these types of emissions as "fugitive." In Illinois EPA's Statement of Reasons, received by the Board on August 19, 1991, in In the Matter of: PM-10 Emission Limits for McCook and Lake Calumet Areas in Cook County, Illinois and the Granite City Area in Madison County, Illinois, R91-22, Illinois EPA discussed the differences between point sources, process fugitive sources and open fugitive dust emissions. With regard to open fugitive dust emissions, Illinois EPA stated as follows:

Open fugitive dust emissions result primarily from raw material handling and from reentrainment from vehicular activities on paved and unpaved plant roads. Open fugitive dust sources are generally distributed throughout an industrial facility and are typically located at or near ground level.

Illinois EPA, Statement of Reasons, In the Matter of: PM-10 Emission Limits for McCook and Lake Calumet Areas in Cook County, Illinois and the Granite City Area in Madison County, Illinois, R91-22 (Ill. Pol. Control Bd. Aug. 19, 1991). (Emphasis added.)

Likewise, the Illinois EPA 391-CAAPP form, available on Illinois EPA's website, which is titled "Fugitive Emissions Data and Information" includes "some examples of emissions which are typically considered fugitive," such as:

- Road dust emissions (paved roads, unpaved roads, and lots);
- Storage pile emissions (wind erosion, vehicle dump and load);
- Loading/unloading operation emission;
- Emissions from material being transported in a vehicle;
- Emissions occurring from the unloading and transporting of materials collected by pollution control equipment;

Illinois EPA, 391-CAAPP Form, Fugitive Emissions Data and Information at 1. (Emphasis added.)

Also, because Illinois has been delegated the authority to issue air permits to facilities regulated by NSPS requirements, on behalf of USEPA, therefore referred to as a "delegated State," KCBX reviewed USEPA's prior comments regarding emissions from open storage piles located at coal preparation and processing plants. Specifically, when USEPA promulgated amendments to the NSPS for coal preparation and processing plants, it established work practice standards to control fugitive coal dust emissions from open storage piles located at new coal preparation plants. See 74 Fed. Reg. 51950 (Oct. 8, 2009).

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In doing so, USEPA explained it had determined it was not feasible to establish opacity or PM limits for these types of facilities and it believed, at that time, that it was difficult and prohibitively expensive to measure actual PM emissions from individual storage piles. Id. at 51954. Based on that determination, USEPA required owners or operators of open storage piles associated with new coal preparation plants to develop and comply with a fugitive coal dust emissions control plan to control fugitive PM emissions. Id. USEPA stated the following, in pertinent part:

A fugitive coal dust emissions control plan is required for open storage piles, which include the equipment used in the loading, unloading and conveying operations of the affected facility, constructed, reconstructed or modified after May 27, 2009.

* * *

For open coal storage piles, the fugitive coal dust emissions plan must require that one or more of the following control measures will be used to minimize to the greatest extent practicable fugitive coal dust: locating the source inside a partial enclosure, installing and operating a water spray or fogging system, applying appropriate chemical dust suppression agents on the source (when additional provisions discussed below are met), use of a wind barrier, compaction, or use of a vegetative cover. The owner or operator must select, from the list provided, the control measures that are most appropriate for the site conditions.

Id. (Emphasis added.)

The NSPS requirement to develop a fugitive coal dust emissions control plan does not apply to the KCBX Facility, as it was not constructed, reconstructed, or modified after May 27, 2009. Regardless, USEPA's language in promulgating the control plan requirement for new facilities illustrates that USEPA treats the emissions associated with open storage piles – including “loading, unloading and conveying operations of the affected facility” – as fugitive and identifies several control measure options for such piles. Clearly the fact that controls are required for such piles does not mean that emissions from the piles are not fugitive in nature. Further, as noted above, USEPA considers “operating a water spray or fogging system” to be an appropriate control measure for some site conditions, and states that the owner or operator of the site is responsible for the selection of the most appropriate control measure(s) for the specific conditions of the site. USEPA understands that emissions can be controlled by methods other than venting through a control device. KCBX believes that controls on varied and spatially dispersed sources, such as conveyors, roads and loading/unloading product into trucks, trailers and railcars, are best achieved by keeping the material moist and by regular treatment of roads (e.g., sweeping paved roads or wetting unpaved roads).

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Overall, based on the review of the above-detailed information, KCBX believes that the emissions from the material storage and handling, including conveying operations, at the Facility are fugitive in nature. Therefore, because the emissions are fugitive in nature, they should not be considered when making the determination of whether the Facility is a "major source." Instead, only the fugitive emissions of PM and PM with an aerodynamic diameter of less than or equal to 10 micrometers ("PM₁₀") from the screener, equipment used to convey coal to or remove coal and refuse from the screener, and stockpiles of screened coal should be included in the determination of "major source" status for Prevention of Significant Deterioration ("PSD") purposes, and only PM₁₀ for purposes of Title V (see discussion at p. 2-3 of KCBX's correspondence to Illinois EPA dated August 7, 2009, and USEPA's October 16, 1995 memorandum enclosed therewith).

Intent of Proposed Moisture Language

With regard to the moisture content of materials handled at the Facility, as discussed during the Meeting, through its suggested revisions to the FESOP as contained in the July 16, 2010 Letter, KCBX's intent was to propose less complex language that would: 1) allow receipt of low moisture material; 2) streamline compliance demonstration and recordkeeping activities; 3) use performance-based results (i.e., moisture content) in lieu of surrogate measures (i.e., water application rate and equipment inspections); 4) clarify how moisture analysis results collected at the Facility will be used in calculating emissions; and 5) clarify the fugitive emissions that count toward Title V and PSD applicability.

KCBX provides the following narrative to summarize how it intends to manage bulk solid materials of any moisture content that are received at the Facility. As under the Facility's last FESOP, KCBX proposes to record the moisture content of the bulk solid material that is provided by the supplier for the "as received" moisture content. If the "as received" moisture content of a bulk solid material received at the Facility is less than 3% by weight (as documented by the supplier), then KCBX will increase the moisture content of that material by either: 1) adding water or applying chemical to the material before it is stockpiled or discharged from the first conveyor (whichever comes first); or 2) blending the material with a higher-moisture material before it is stockpiled or discharged from the first conveyor (whichever comes first). KCBX will continue to add water/apply chemical or continue to add higher-moisture material to the subject low-moisture material, until three consecutive weekly tests of the subject material show moisture content of 3% or greater by weight.

For bulk solid materials with a moisture content of 3% or greater (as provided by the supplier), KCBX will not be required to analyze the moisture content, but KCBX may test the moisture content of the material at any time. For particulate emission calculation purposes, where KCBX does analyze moisture, KCBX's most recent moisture analyses for the material shall supersede all previous moisture analyses for that material, including the analyses documented by the supplier with the exception of the initial receipt of the low-moisture material. In this one case, KCBX will use the weighted average of the moisture contents (as provided by the supplier) to calculate emissions for the initial material transfer (material drop) and all subsequent material

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transfers upstream and before the addition of water or chemical or blending with a higher-moisture material.

For purposes of quantifying emissions of bulk solid material with moisture content of 3% or greater (as provided by the supplier), KCBX will use the weighted average moisture content provided by the supplier of the material or as otherwise superseded by moisture contents obtained from samples collected by KCBX. KCBX wishes to emphasize the importance of running separate weighted average calculations for the moisture content of "as received" low-moisture material and the other bulk solid material received at the Facility.

Additional Equipment Detail Regarding Draft Permit Condition 2q

During the Meeting, KCBX agreed to provide Illinois EPA with additional equipment detail regarding draft permit condition 2q (as contained in the June 16, 2010 revised draft FESOP). KCBX proposes to list the equipment at the Facility that is subject to the draft permit condition and also proposes to add two conditions (hereafter referred to as draft permit conditions 2o and 2p) for equipment that is not subject to draft permit condition 2q.

Draft permit condition 2q references 35 Ill. Admin. Code §§ 212.321(a) and 212.321(c). Section 212.321 was written specifically for equipment constructed or modified on or after April 14, 1972. KCBX has equipment at the Facility with the potential to emit PM that was constructed before this applicability date. This equipment has undergone routine maintenance and worn parts have been replaced, but the equipment has not been modified as that term is defined in 35 Ill. Admin. Code § 201.102, and therefore, should be regulated under 35 Ill. Admin. Code §§ 212.322(a) and 212.322(c).

Equipment constructed or modified prior to April 14, 1972, at the Facility includes the following:

- The South Rail Unloading Hoppers in the Shaker Building
- The South Collector Belt
- The South Incline Belt
- The South Highline
- The South Transfer Tower
- The South Shiploader

Because this list of equipment is shorter than the list of equipment subject to draft permit conditions 2o and 2p, KCBX proposes that draft permit condition 2q be reworded as follows:

- 2q Pursuant to 35 Ill. Adm. Code 212.321(a) and except as further provided in 35 Ill. Adm. Code 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill.

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Adm. Code 212.321(c). For this source, the emission units subject to the process emission rates of 35 Ill. Adm. Code 212.321(c) are those emission units that are not named specifically in Condition 2o.

Draft permit conditions 2o and 2p are proposed for addition to include the requirements for these emission units with proposed wording as follows:

2o Pursuant to 35 Ill. Adm. Code 212.322(a) and except as further provided in 35 Ill. Adm. Code 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.322(c). For this source, the emission units subject to the process emission rates of 35 Ill. Adm. Code 212.321(c) are:

1. The South Rail Unloading Hoppers in the Shaker Building,
2. The South Collector Belt,
3. The South Incline Belt,
4. The South Highline,
5. The South Transfer Tower, and
6. The South Shiploader

2p Pursuant to 35 Ill. Adm. Code 212.322(b), interpolated and extrapolated values of the data in 35 Ill. Adm. Code 212.322(c) shall be determined by using the equation:

$$E = C + A (P)^{B10}$$

where

P = Process weight rate; and
 E = Allowable emission rate; and,

i. For process weight rates up to 27.2 MG/hour (30 T/hour):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

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ii. For process weight rates in excess of 27.2 Mg/hour (30 T/hour):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	25.21	55.0
B	0.11	0.11
C	-18.4	-40.0

Additional Follow-up Issues

Further, KCBX would like to detail its understanding with regard to the constituents that should be limited in the FESOP in order to avoid classification as a "major source." KCBX believes that the FESOP should include only limitations for Nitrogen Oxides. Limitations on emissions of PM and PM₁₀ are not necessary because of the exclusion of fugitive emissions, as discussed above. (Note that emissions of PM₁₀ (and PM_{2.5}) from screening operations and associated storage and handling are genuinely minor.) Additionally, limitations on emissions of Carbon Monoxide, Sulfur Dioxide, and Volatile Organic Material are not necessary because the Facility is genuinely minor for these pollutants.

During the Meeting, Mr. Bernoteit and Mr. Kennedy agreed to discuss internally and determine whether they concur that KCBX is not a "major source" for PM₁₀ for purposes of Title V and PSD. Mr. Bernoteit also acknowledged that Illinois EPA was comfortable that KCBX was not a "major source" of PM for PSD. As noted above, Mr. Kennedy agreed to review the calculation formulae for screening operations, and provide comments regarding the same to KCBX.

Additionally, during the Meeting, there was a brief discussion regarding those regulations which are referenced in the draft renewal FESOP (specifically, the June 16, 2010 revised draft), but which do not apply to the Facility, and thus, should be deleted. As discussed in the July 16, 2010 Letter, the following provisions should be deleted from the draft renewal FESOP because they do not apply to the Facility:

- Draft permit conditions 2d, 2e and 2f;
- Draft permit condition 2g;
- Draft permit conditions 2h.i and 2h.ii;
- Draft permit condition 2l;
- Draft permit condition 2t;
- Draft permit condition 4b;
- Draft permit conditions 6b and 6c;
- Draft permit condition 8f; and
- Draft permit condition 14b.

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Likewise, there was also a brief discussion during the Meeting regarding the provisions of the draft renewal FESOP (specifically, the June 16, 2010 revised draft) that do not reflect the exact language of the regulation cited therein, and thus, should be edited to do so. As discussed in the July 16, 2010 Letter, the following provisions of the draft renewal FESOP should be so edited:

- Draft permit condition 2c;
- Draft permit condition 2h;
- Draft permit condition 2m;
- Draft permit condition 6a;
- Draft permit condition 7b;
- Draft permit condition 8e; and
- Draft permit condition 13b.ii.

In addition, KCBX would like to note that, because of Illinois EPA's clarification during the Meeting regarding the term "process emission source," as contained in draft permit condition 4c (as numbered in the June 16, 2010 revised draft), KCBX's discussion of the term in the July 16, 2010 Letter is no longer relevant.

Also, as discussed during the Meeting, there is a typographical error contained in the formula at KCBX renumbered condition 9a (as numbered in Attachment B to KCBX's July 16, 2010 Letter). Specifically, KCBX proposes the following revised formula:

$$E = [(T \times F_m) + (S \times F_s) + (C \times F_c) + (H \times Z \times F_r) + (R/1000 \times F_1)]/2000$$

Where:

E = Total PM10 or PM emissions, (tons);

T = Amount of bulk material transferred, (tons);

$F_m = (k * 0.0032 * N) * [(U/5)^{1.3}] / [(M/2)^{1.4}]$;

Where:

k = 0.35 for PM10;
 = 0.74 for PM;

N = Number of bulk material Transfers (drop points);

U = mean wind speed, (miles/hour);

M = material moisture content as determined from Condition 8, (percent);

S = Amount of bulk material Screened, (tons);

$F_s = 0.0022 \text{ lb PM/ton}$;
 $= 0.00074 \text{ lb PM10/ton}$;

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- C = Amount of bulk material Crushed, (tons);
- F_c = 0.0012 lb PM/ton;
= 0.00054 lb PM10/ton;
- H = Cumulative operations of engines in each size class (hours);
- Z = Cumulative size of engines in each size class (horsepower)
- F_F = 0.000721 lb/(hp-hr) for gasoline engines ≤250 hp;
= 0.00220 lb/(hp-hr) for diesel engines ≤600 hp;
= 0.0007 lb/(hp-hr) for diesel engines > 600 hp;
- R = Gallons of kerosene use;
- F_l = 1.3 lb/1000 gallons for diesel*;

*The use of diesel emission factors conservatively includes kerosene since the heat content of kerosene is slightly lower than diesel.

Finally, during the Meeting, KCBX agreed that it would hold the construction permit appeal matter currently before the Board (KCBX Terminals Company v. Illinois EPA, PCB No. 10-110) until the issues with the FESOP renewal are resolved. Counsel for KCBX intends to continue to participate in discussions with the Illinois Attorney General's Office regarding the same.

Conclusion

KCBX appreciates the opportunity to provide this additional information to ensure the issuance of an accurate FESOP for the KCBX Facility. If you have any questions concerning this information, please contact Mr. Terry Steinert, Environmental Compliance Manager, at 316.828.7847.

Sincerely,



Jim Simmons
Terminal Manager

Cc: Mr. Robert W. Bernoteit (via U.S. Mail)
Mr. George M. Kennedy (via U.S. Mail)
Christopher R. Pressnall, Esq. (via U.S. Mail)
Katherine D. Hodge, Esq. (via U.S. Mail)

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KCBX:003/Corr/Bakowski 02 Ltr - 8 26 10 meeting follow up

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 **KCBX** TERMINALS COMPANY

July 14, 2011

VIA CERTIFIED MAIL
(Return Receipt Requested)

Mr. Robert W. Bernoteit
FESOP/State Permits Unit Manager
Permit Section, Bureau of Air
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 67294-9276

RECEIVED

JUL 14 2011

Environmental Protection Agency
Bureau of Air
STATE OF ILLINOIS

RE: FESOP Application Supplement
KCBX Terminals Company, Chicago, Illinois
Application No.: 95050167
Facility I.D. No.: 031600AHI

Dear Mr. Bernoteit:

This letter is written in follow-up to the confidential settlement negotiations held on June 1 and 2, 2011, between representatives of KCBX Terminals Company ("KCBX") and the Illinois Environmental Protection Agency ("Illinois EPA") to discuss issues related to the Federally Enforceable State Operating Permit ("FESOP") issued to KCBX by Illinois EPA on December 29, 2010, for the KCBX facility located at 3259 East 100th Street, Chicago, Illinois, 60617 ("Facility"), and regarding the Revised Construction Permit issued to KCBX by Illinois EPA on May 25, 2010. The appeals of both permits before the Illinois Pollution Control Board ("Board") have been consolidated in KCBX Terminals Company v. IEPA, PCB Nos. 10-110 and 11-43. The revised FESOP, attached hereto as Attachment E as detailed below, incorporates the agreements reached during the June 1 and 2, 2011 settlement negotiations, and is intended to resolve both permit appeals. This letter also is written for the purpose of submitting a FESOP application supplement, as requested by Illinois EPA.

Present at the June 1 and 2, 2011 negotiations were: you and Chris Pressnall on behalf of Illinois EPA; Chris Grant, of the Illinois Office of the Attorney General, on behalf of Illinois EPA; Terry Steinert and Tom Safley on behalf of KCBX; and Katherine Hodge and Lauren Lurkins, of HODGE DWYER & DRIVER ("HD&D"), on behalf of KCBX. KCBX extends its appreciation to you, Mr. Pressnall and Mr. Grant for meeting to discuss the issues regarding the permit appeals and negotiating a settlement in the above-referenced permit appeal proceedings.

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Please recall that on June 2, 2011, Lauren Lurkins of HD&D, on behalf of KCBX, forwarded to you, Mr. Pressnall and Mr. Grant by e-mail the final settlement negotiation draft FESOP that resulted from the discussions between the parties on June 1 and 2, 2011. Additionally, on June 13, 2011, Lauren Lurkins also forwarded to you, Mr. Pressnall and Mr. Grant by e-mail a revised draft FESOP showing minor additional changes made by KCBX following the settlement negotiations (to reflect discussions of the parties), as well as a draft of the FESOP showing all changes made by both parties from the date of permit issuance through June 13, 2011. KCBX asks that both of these e-mails, and the attachments thereto, be incorporated herein by reference.

This submittal includes the following, which are each attached hereto for your review:

- Attachment A – Illinois EPA Permit Application Form APC 205A;
- Attachment B – Revised potential to emit (“PTE”) calculations (which include two spreadsheets: one showing Facility-wide PTE for Particulate Matter (“PM”) and PM with an aerodynamic diameter less than or equal to 10 micrometers (“PM₁₀”) emission rates, and one showing more detail regarding PTE associated with the operation of generators, engines and heaters). (Please note that Illinois EPA requested potential emissions, but KCBX has agreed to accept limitations on emissions as set forth in Attachment E hereto.);
- Attachment C – A detailed equipment list for the Facility;
- Attachment D - A plot diagram of the Facility;
- Attachment E – A settlement draft FESOP, which is a clean version of the revised FESOP incorporating all edits agreed to by both parties during the June 2011 settlement negotiations and additional minor changes made by KCBX following the negotiations (pursuant to discussions between the parties). In addition, as KCBX was working on finalizing this letter and the attachments hereto, it noticed some additional minor edits that should be made to this Attachment E. Therefore, the version of the draft FESOP attached hereto as Attachment E differs from the version e-mailed by Lauren Lurkins on June 13, 2011, in the following ways:
 - Conditions 8(a) and (b) – Revised formatting/spacing;
 - Conditions 8(e) and (f) – Revised references to Condition 9(a) to reference Condition 9(a)(i) instead;
 - Condition 8(i)(ii) – Revised “wt.” to “weight”;
 - Condition 9(a) – Revised formatting/spacing at 9(a)(i) and (ii), and corrected the coefficients in the equation at 9(a)(i);
 - Conditions 9(b), (c) and (d) – Revised formatting/spacing;
 - Condition 17(a)(i) – Revised formatting/spacing;

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- o Condition 17(a)(i) – Deleted KCBX notes regarding redundancy; and
- Attachment F – a CD containing electronic versions of the attachments hereto, including a Word version of Attachment E for use by Illinois EPA in its continued drafting of the FESOP.

Also, as requested by Illinois EPA, this letter includes a discussion of the changes made to the FESOP by both parties since its issuance on December 29, 2010.

FESOP Revisions Made by Both Parties Since Permit Issuance on December 29, 2010

A number of revisions have been made to the draft FESOP by both parties since its issuance on December 29, 2010. In particular, please see Attachment E. The following is a description of the significant revisions:

Permittee Information

Revisions have been made to this information to reflect the correct name of KCBX, the current contact person at the Facility, and the full description of the type of terminal operated at the Facility.

Opening Paragraph

Revisions have been made to this paragraph to accurately describe the emission source(s) and/or air pollution control equipment at the Facility.

Condition 1(a)

Revisions have been made to this condition to reflect that the FESOP is issued to limit the emissions of air pollutants from the source to less than major source thresholds for only Nitrogen Oxides (“NO_x”) and PM₁₀.

Condition 1(d)

This condition was added to clarify that, once the revised FESOP is issued, it will only become effective upon the withdrawal of the consolidated permit appeal currently before the Board.

Conditions 2(a) and (b)

These conditions were added to clarify which equipment at the Facility is subject (and is not subject) to the New Source Performance Standard (“NSPS”) for Coal Preparation and Processing Plants, 40 CFR 60, Subparts A and Y.

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Condition 3(d)

This condition was revised to accurately reflect the regulatory language.

Old Condition 3(g)

This condition was deleted because the only pollution control equipment at the Facility that collects particulate is the street sweeper, to which the regulatory section is not applicable. If any applicable pollution control equipment is added at a later time, a construction permit would be required.

Condition 3(h)

This condition was revised to accurately reflect the regulatory language.

Old Condition 3(l)

This condition was deleted because there is no pollution control equipment at the Facility that collects particulate from bucket elevators, conveyor transfer points, conveyors, storage bins or fine product loading operations. If any applicable pollution control equipment is added at a later time, a construction permit would be required.

Condition 3(k)

This condition was revised to accurately reflect the regulatory language.

Condition 3(o)

The first sentence of this condition was deleted because the parties decided to list the equipment subject to Section 212.322 in Condition 3(q) instead of listing the equipment subject to Section 212.321 in Condition 3(o).

Condition 3(q)

See discussion above regarding Condition 3(o).

Condition 3(r)

Revisions were made to the formula in this condition to address typographical errors.

Old Condition 3(t)

This condition was deleted because there are no stacks of non-combustion process emission units at the Facility with forced air discharge as would be required to achieve a

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mass emission rate expressed as gr/scf. If any applicable process emission units are added at a later time, a construction permit would be required.

Condition 4(b)

This condition was revised to accurately reflect the regulatory language.

Condition 5(a)

This condition was added to include language addressing Section 212.304.

Old Condition 5

This condition was deleted because the applicability of NSPS Subparts A and Y is now addressed in Condition 2.

Old Conditions 6(a), (b) and (c)

These conditions were deleted because the Emissions Reduction Market System is not applicable to the Facility, as the Facility's Volatile Organic Material ("VOM") emissions are well below 25 tons per year. See discussion below regarding Condition 9(b).

Condition 5(c)

This condition was added to clarify that "stockpiles" are not subject to Sections 212.321 and 212.322.

Condition 5(d)

This condition was revised to accurately reflect the regulatory language.

Conditions 6(a) and (b), 10, 11, 12, 15 and 18

These conditions were added to include the applicable requirements from NSPS Subparts A and Y.

Condition 8

Significant revisions were made to this condition to accurately reflect the handling of bulk solid material at the Facility, to clarify the requirements with regard to bulk solid material received at the Facility with a moisture content below 3.0% by weight as documented by the supplier, and to clarify the requirements with regard to bulk solid material received and off-loaded at the Facility with a moisture content of less than 1.3% by weight. Revisions were also made to describe how KCBX must demonstrate compliance with the requirements in the condition, how the Facility must test the

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moisture content of bulk solid material, and how the Facility must calculate PM and PM₁₀ emissions from certain material. Condition 8(g) was added to clarify the relationship between Condition 8 of the FESOP to the previously issued Construction Permit. Condition 8(h) was revised to clarify the fuel to be used in engines, generators and heaters at the Facility.

Condition 9(a)

The PM and PM₁₀ emissions limits included in the condition were revised based on the amounts of bulk solid materials transferred and screened, the operation of generators, engines and heaters, and revised AP-42 standard emission factors. The formula in Condition 9(a)(i) used to calculate the PM and PM₁₀ emissions was updated to reflect the AP-42 standard emission factors agreed to by the parties during the negotiations. Condition 9(a)(ii) was added to clarify the relationship between the emissions limits for PM and PM₁₀ contained in the FESOP and those contained in the previously issued Construction Permit. KCBX intends to demonstrate compliance with these emissions limits by following the recordkeeping and reporting requirements included in the FESOP.

Condition 9(b)

The Carbon Monoxide ("CO"), NO_x, Sulfur Dioxide ("SO₂") and VOM emissions limits for generators, engines and heaters at the Facility included in the condition were revised based on revised AP-42 standard emission factors. The formula in Condition 9(b) used to calculate the CO, NO_x, SO₂ and VOM emissions from the generators, engines and heaters at the Facility was updated to reflect the AP-42 standard emission factors agreed to by the parties during the negotiations. Condition 9(c) was added to clarify how KCBX can measure fuel use in small heaters and engines. Condition 9(d) was revised to correct a typographic error regarding monthly versus weekly compliance determinations, which had been previously discussed by the parties. KCBX intends to demonstrate compliance with these emissions limits by following the recordkeeping and reporting requirements included in the FESOP.

Conditions 16(b)(iii) and 16(c)(iii)

These conditions were revised to accurately reflect the regulatory language, and correct typographical errors.

Condition 17

This condition was substantially revised to reflect and to be consistent with the revisions made to Condition 8.

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Condition 20(a)

This condition was revised to correct typographical errors.

Final Sentence

This language was revised to reflect the fact that George Kennedy is no longer the contact person at Illinois EPA with regard to this FESOP. Illinois EPA has not indicated who the new contact person will be, so this information remains blank.

Attachment A to the FESOP

The language in the attachment has been revised to reflect the agreed-upon revised emissions limits now included in the FESOP.

Conclusion

KCBX appreciates the opportunity to provide this application supplement to Illinois EPA in order to effectuate the settlement reached in the above-referenced permit appeal proceedings. KCBX understands that Illinois EPA will be providing KCBX with a final pre-public notice version of the draft FESOP for review prior to September 5, 2011. KCBX understands that it will be given an opportunity to provide comments on the same before it is sent to public notice. In the event that Illinois EPA determines that any revisions in addition to those included in Attachment E hereto are necessary, KCBX respectfully requests that it be contacted so that the parties may discuss the same. If you have any questions concerning this information, please contact Mr. Terry Steinert, Environmental Compliance Manager, at 316.828.7847.

Sincerely,



Jim Simmons
Terminal Manager
attachments

cc: Christopher R. Pressnall, Esq. (via U.S. Mail; w/attachments)
Christopher J. Grant, Esq. (via U.S. Mail; w/attachments)
Thomas G. Safley, Esq. (via U.S. Mail; w/attachments)
Mr. Terry Steinert (via U.S. Mail; w/attachments)
Katherine D. Hodge, Esq. (via U.S. Mail; w/attachments)

**ATTACHMENT A –
Illinois EPA Permit Application
Form APC 205A**



STATE OF ILLINOIS
 ENVIRONMENTAL PROTECTION AGENCY
 DIVISION OF AIR POLLUTION CONTROL
 1021 NORTH GRAND AVENUE EAST
 P. O. BOX 19506
 SPRINGFIELD, ILLINOIS 62794-9506

This Agency is authorized to require and you must disclose this information under 415 ILCS 5/39. Failure to do so could result in the application being denied and penalties under 415 ILCS 5 et seq. It is not necessary to use this form in providing this information. This form has been approved by the forms management center.

APPLICATION FOR RENEWAL OF A FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) OPERATION OF: <u>Bulk Solid Material Terminal</u> (A)	FOR AGENCY USE ONLY	
	I.D. NO.	_____
	PERMIT NO.	_____
	DATE	_____

1a. NAME OF OWNER: <u>KCBX Terminals Company</u>	2a. NAME OF OPERATOR: <u>Same</u>		
1b. STREET ADDRESS OF OWNER: <u>3259 East 100th Street</u>	2b. STREET ADDRESS OF OPERATOR:		
1c. CITY OF OWNER: <u>Chicago</u>	2c. CITY OF OPERATOR:		
1d. STATE OF OWNER: <u>IL</u>	1e. ZIP CODE: <u>60617</u>	2d. STATE OF OPERATOR:	2e. ZIP CODE:

3a. NAME OF CORPORATE DIVISION OR PLANT: <u>KCBX Terminals Company</u>	3b. STREET ADDRESS OF EMISSION SOURCE: <u>3259 East 100th Street</u>		
3c. CITY OF EMISSION SOURCE: <u>Chicago</u>	3d. LOCATED WITHIN CITY LIMITS: <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	3e. TOWNSHIP:	3f. COUNTY: <u>Cook</u>
			3g. ZIP CODE: <u>60617</u>

4. ALL CORRESPONDENCE TO: (TITLE AND/OR NAME OF INDIVIDUAL) <u>Brandon Walker</u>	5. WHO IS THE PERMIT APPLICANT? <input checked="" type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR
6. ADDRESS FOR CORRESPONDENCE: (CHECK ONLY ONE)	<input checked="" type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input type="checkbox"/> EMISSION SOURCE

7. THE UNDERSIGNED HEREBY MAKES APPLICATION FOR A PERMIT AND CERTIFIES THAT THE STATEMENTS CONTAINED HEREIN ARE TRUE AND CORRECT, AND FURTHER CERTIFIES THAT ALL PREVIOUSLY SUBMITTED INFORMATION REFERENCED IN THIS APPLICATION REMAINS TRUE, CORRECT AND CURRENT. BY AFFIXING HIS SIGNATURE HERETO HE FURTHER CERTIFIES THAT HE IS AUTHORIZED TO EXECUTE THIS APPLICATION.

AUTHORIZED SIGNATURE(S): (S)

BY *Jim Simmons* DATE 7-14-11

SIGNATURE	DATE	SIGNATURE	DATE
<u>Jim Simmons</u>			
TYPED OR PRINTED NAME OF SIGNER		TYPED OR PRINTED NAME OF SIGNER	
<u>Terminal Manager</u>			
TITLE OF SIGNER		TITLE OF SIGNER	

(A) THIS FORM IS TO PROVIDE THE ILLINOIS EPA WITH GENERAL INFORMATION ABOUT THE EQUIPMENT TO BE OPERATED.

(B) THIS APPLICATION MUST BE SIGNED IN ACCORDANCE WITH 35 ILL. ADM. CODE 201.154 OR 201.159 WHICH STATES: "ALL APPLICATIONS AND SUPPLEMENTS THERETO SHALL BE SIGNED BY THE OWNER AND OPERATOR OF THE EMISSION SOURCE OR AIR POLLUTION CONTROL EQUIPMENT, OR THEIR AUTHORIZED AGENT, AND SHALL BE ACCOMPANIED BY EVIDENCE OF AUTHORITY TO SIGN THE APPLICATION."

IF THE OWNER OR OPERATOR IS A CORPORATION, SUCH CORPORATION MUST HAVE ON FILE WITH THE ILLINOIS EPA A CERTIFIED COPY OF A RESOLUTION OF THE CORPORATION'S BOARD OF DIRECTORS AUTHORIZING THE PERSONS SIGNING THIS APPLICATION TO CAUSE OR ALLOW THE CONSTRUCTION OR OPERATION OF THE EQUIPMENT TO BE COVERED BY THE PERMIT.

SITE FEE BILLING INFORMATION		10. CONTACT PERSON FOR APPLICATION:	Terry Steinert
9a. COMPANY NAME:	KCBX Terminals Company	11. CONTACT PERSON'S TELEPHONE NUMBER:	316-828-7847
9b. STREET ADDRESS:	3259 East 10th Street	12. CONTACT PERSON'S FACSIMILE NUMBER:	316-828-9108
9c. CITY:	Chicago	13. FEDERAL EMPLOYER IDENTIFICATION NUMBER (FEIN):	48-1082551
9d. STATE:	IL	14. PRIMARY STANDARD INDUSTRIAL CLASSIFICATION (SIC) CATEGORY:	Coal/Coke Wholesale Trade
9e. ZIP CODE:	60617	15. PRIMARY SIC NUMBER:	5052
9f. BILLING CONTACT PERSON:	B. Walker	16. TAXPAYER IDENTIFICATION NUMBER (TIN):	st. - 833244 city - 815676
9g. CONTACT TELEPHONE NO.:	316-828-7847		

17a. I. D. NO.: 031600AHI
17b. HAS THE OPERATION AS DESCRIBED IN THE FESOP APPLICATION BEEN MODIFIED* AS DEFINED IN 35 ILL. ADM. CODE 201.102? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO IF "YES", SUBMIT THE APPLICABLE FORM(S) AND UPDATED FLOW DIAGRAM(S).
17c. DATE THE OPERATION WAS MODIFIED:

* **MODIFICATION:** ANY PHYSICAL CHANGE IN, OR CHANGE IN THE METHOD OF OPERATIONS OF, AN EMISSION SOURCE OR OF AIR POLLUTION CONTROL EQUIPMENT WHICH INCREASES THE AMOUNT OF ANY SPECIFIED AIR CONTAMINANT EMITTED BY SUCH SOURCE OR EQUIPMENT OR WHICH RESULTS IN THE EMISSION OF ANY SPECIFIED AIR CONTAMINANT NOT PREVIOUSLY EMITTED. IT SHALL BE PRESUMED THAT AN INCREASE IN THE USE OF RAW MATERIALS, THE TIME OF OPERATION, OR THE RATE OF PRODUCTION WILL CHANGE THE AMOUNT OF ANY SPECIFIED AIR CONTAMINANT EMITTED. NOT WITHSTANDING ANY OTHER PROVISIONS OF THIS DEFINITION, FOR PURPOSES OF PERMITS ISSUED PURSUANT TO SUBPART D, THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY MAY SPECIFY CONDITIONS UNDER WHICH AN EMISSION SOURCE OR AIR POLLUTION CONTROL EQUIPMENT MAY BE OPERATED WITHOUT CAUSING A MODIFICATION AS HEREIN DEFINED, AND NORMAL CYCLICAL VARIATIONS, BEFORE THE DATE OPERATING PERMITS ARE REQUIRED, SHALL NOT BE CONSIDERED MODIFICATIONS. 35 ILL. ADM. CODE 201.102.

**ATTACHMENT B –
Revised Potential to Emit Calculations**

**Facility-Wide Potential to Emit
for PM and PM10 Emission Rates**

KCBX Terminals Company - Chicago, IL

These calculations ARE NOT intended to establish limits on moisture, wind speed, PM, or PM₁₀. Inclusion of wind speed, drop points, moisture, throughputs, emission factors, operating hours, storage areas, and travel distance are for demonstration purposes only and do not establish individual limits. Although inputs may vary over time, the calculation methodology remains valid.

Minimum Moisture = **3.0** Percent (from proposed permit)
 Wind Speed = **10.3** mph
 Maximum Transfer = **26.3** million tons/year @ 3,000 tph belt rate

Material Handling		Annual Throughput ton/yr	No. of Drop Points	PM Emission		PM ₁₀ Emission		Emission Factor Source
				Factor	ton/yr	Factor	ton/yr	
Highest Emissions from 19 Material Handling Scenarios¹								
Scenario 4	Rail to Storage (enclosed) ²	13,140,000	6	0.00007	2.76	0.000023	0.91	AP-42, Table 11.19.2-2, Aggregate Handling and Storage Piles (moisture controlled) (08/04)
	Rail to Storage (not enclosed) ³	13,140,000	11	0.0034	248	0.0016	117	AP-42, Chapter 13.2.4, Aggregate Handling and Storage Piles (uncontrolled) (11/06)
Scenario 13	Storage to Vessel (enclosed) ²	13,140,000	4	0.00007	1.84	0.000023	0.60	AP-42, Table 11.19.2-2, Aggregate Handling and Storage Piles (moisture controlled) (08/04)
	Storage to Vessel (not enclosed) ³	13,140,000	18	0.0034	406	0.0016	192	AP-42, Chapter 13.2.4, Aggregate Handling and Storage Piles (uncontrolled) (11/06)
Scenario 15	Screening @112.8 tph capacity ³	988,128	0	0.0022	1.09	0.00074	0.37	AP-42, Table 11.19.2-2, Crushed Stone Processing (moisture controlled) (8/04)
	Screening @112.8 tph capacity ³	988,128	2	0.0034	3.39	0.0016	1.61	AP-42, Table 11.19.2-2, Crushed Stone Processing (moisture controlled) (8/04)
Subtotal from Material Handling:					663		313	
Generators, Engines & Heaters (non-fugitive)								
		Generator Operation Hr/Yr		PM Emission		PM ₁₀ Emission		Emission Factor Source
				Factor lb/hp-hr	ton/yr	Factor lb/hp-hr	ton/yr	
Worst Case Emissions Limited by NOx Emissions								
Scenario 24	1-750 + 1-760 hp generator ⁴	8,760		0.0007	4.63	0.0007	4.63	AP-42, Chapter 3.4, Large Diesel Engines (10/96) limited to 92 tpy NO _x in FESOP
	Other gasoline, diesel, kerosene use				1.22		1.22	From non-mobile, non-generator PTE on equipment list
Subtotal from Generators, Engines & Heaters:					5.9		5.9	
Storage Piles (fugitive)								
		Acres	Months per year	PM Emission		PM ₁₀ Emission		Emission Factor Source
				Factor lb/acre-mon	ton/yr	Factor lb/acre-mon	ton/yr	
Worst Case Scenarios								
Scenario 20	Active storage pile	1.8	12	5,414	58.5	2,561	27.7	AP-42, Chapter 11.9, Western Surface Coal Mining (uncontrolled) (07/98)
Scenario 21	Inactive storage piles	23.6	12	9.0	1.27	4.2	0.60	AP-42, Chapter 11.9, Western Surface Coal Mining (uncontrolled) (07/98)
Subtotal from Storage Piles:					59.7		28.3	
Vehicle Traffic (fugitive)								
		Trips per year	Trip Distance mile/trip	PM Emission		PM ₁₀ Emission		Emission Factor Source
				Factor lb/vmt	ton/yr	Factor lb/vmt	ton/yr	
Worst Case Scenarios								
Scenario 22	Fugitive dust from vehicles ⁵	525,600	0.60	1.0	158	0.70	110	AP-42, Chapter 13.2.2, Unpaved Roads (Controlled with water) (11/06)
Subtotal from Vehicles:					158		110	
Totals		Material Handling + Combustion			669		319	
		Total Plant			887		457	

Notes and Assumptions:

- Material Handling throughput is calculated based on the maximum material transfers (inbound + outbound) and lower limit of moisture from the FESOP. Actual material handling emissions will be less based on fewer transfer points and higher moisture. Because outbound and inbound cannot occur concurrently due to shared conveyors, throughputs for inbound and outbound are each one-half of maximum transfer which is 3,000 tph conveyor @ 8760 hr/yr.
- Control is > 1.3% moisture and 50% reduction for enclosure
- Control is > 1.3% moisture
- Generators are limited to 5,077 hours of operation per year because at that level, NO_x emissions equal the permit limit of 92 tpy
- Assumes roads are wetted and trucks travel the maximum distance to storage piles

**ATTACHMENT C –
Detailed Facility Equipment List**

Name / Description	Start Up Date
Texmarc Box Hopper	Post 1972
555' Barge Line Conveyor	Post 1972
35' Box Hopper	Post 1972
300' Conveyor	Post 1972
Shaker Building with receiving hoppers for railcars and 300' conveyor	Pre 1972
South Collector belt #1	Pre 1972
South Incline with belt #2	Pre 1972
30' Shuttle conveyor	Post 1972
Crossover Conveyor and rock chute	Post 1972
South Highline belt #3	Post 1972
South Shiploader tripper & belt #4	Pre 1972
South Shiploader pan, spout and trimmer	Pre 1972
Carter Box Hopper (portable)	Post 1972
60" x 95' Portable Conveyor	Post 1972
60" x 100' Portable Conveyor (1)	Post 1972
60" x 100' Portable Conveyor (2)	Post 1972
60" x 100' Portable Conveyor (3)	Post 1972
60" x 125' Portable Conveyor (4)	Post 1972
60" x 125' Portable Conveyor (5)	Post 1972
60" x 125' Portable Conveyor (6)	Post 1972
60" x 125' Portable Conveyor (7)	Post 1972
60" x 125' Portable Conveyor (8)	Post 1972
60" x 125' Portable Conveyor (9)	Post 1972
60" x 125' Stacker - American Bin	Post 1972
Kolberg Screen Plant	Post 1972
Stacker/Conveyor on Kolberg Screen Plant	Post 1972

**ATTACHMENT D –
Facility Plot Diagram**

Map #	Name	Description
1	Kolberg Screen Plant	
1	Stacker/Conveyor on Screen Plant	
2	Texmarc Box Hopper fixed at 555' conveyor	
3	555' Barge Line Conveyor from Texmarc box hopper	
4	35' Box Hopper fixed at 300' conveyor	
5	300' Conveyor from 35' box hopper	
6	Shaker Bldg - receiving hoppers for railcars and 300' conveyor	
7	Transfer House 1 with South Collector belt #1	
8	South Incline with belt #2	
9	Transfer House 2 with 30' Shuttle conveyor to crossover conveyor	
10	72" Crossover Conveyor to rock chute to ground (1 drop)	
11	South Highline and belt #3 to tripper	
12	South Shiploader tripper & belt #4 to shiploader pan (traveling)	
12	South Shiploader pan, spout and trimmer	

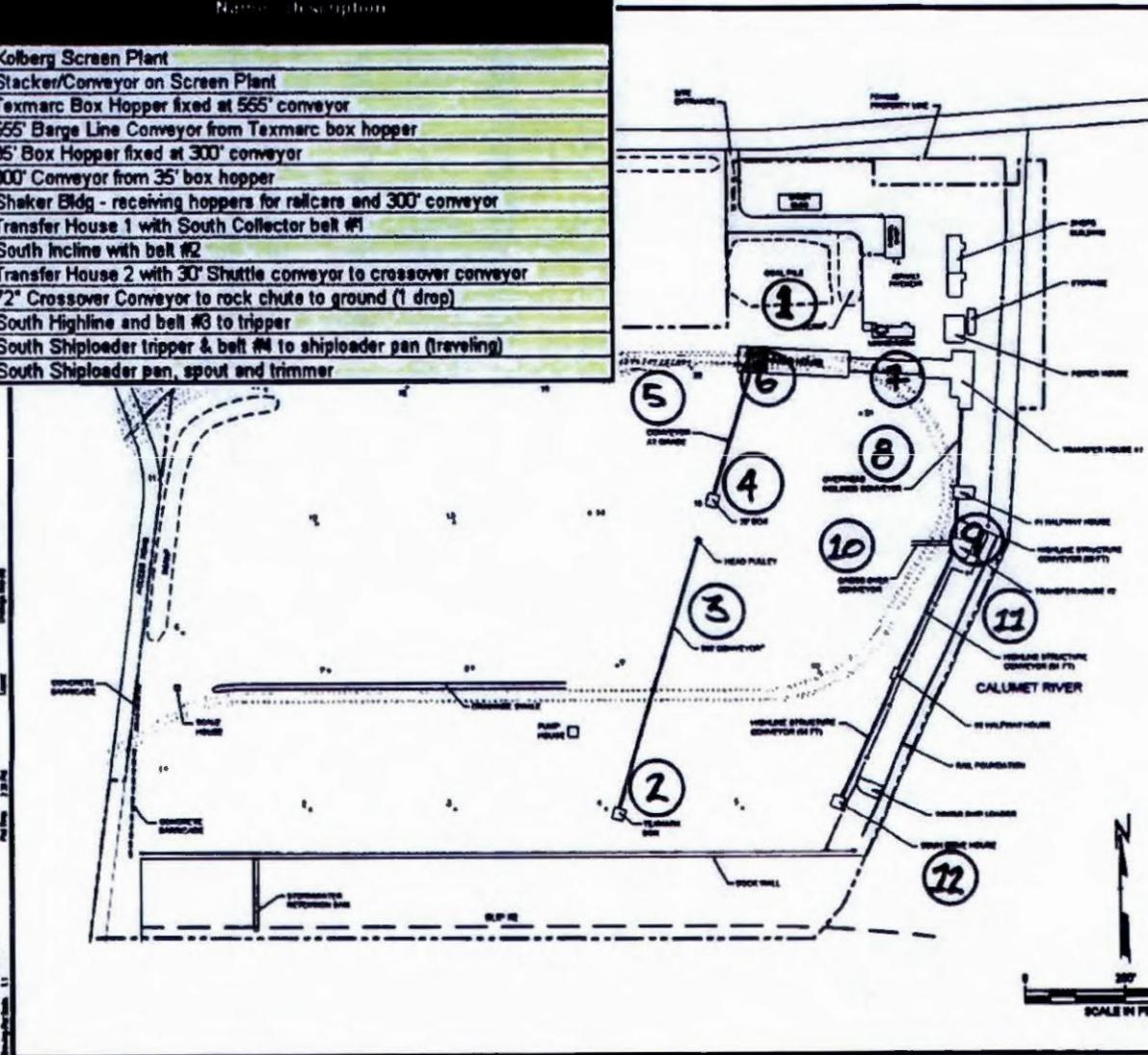


FIGURE 1			
KCBX TERMINALS CHICAGO, ILLINOIS			
SHEET TITLE			
SITE MAP WITH FIXED STACK EMBOWEN LOCATIONS			
DESIGNED BY	SCALE	FIELD NO.	INSTRUMENTATION
APPROVED BY	NO.	APPROVED	FILE NO.
DATE	DATE PRINTED	FIGURE 8	
RMT			
<small>3104 Randolph Drive Ann Arbor, MI 48106-3232 Phone: 734-911-7000 • Fax: 734-911-8077</small>			

**ATTACHMENT E –
Settlement Draft – 7/14/11 -
Clean Version of Revised FESOP
Incorporating All Edits Made by Both
Parties During and After June 2011 Negotiations**

Page 1

SETTLEMENT DRAFT (7/14/11)

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- NSPS SOURCE -- RENEWAL

PERMITTEE

KCBX Terminals Company
Attn: Brandon Walker
3259 East 100th Street
Chicago, Illinois 60617

Application No.: 95050167

I.D. No.: 031600AHI

Applicant's Designation: REV10/07

Date Received: YET TO BE SUBMITTED

Subject: Bulk Solid Materials Terminal

Date Issued: TO BE DETERMINED

Expiration Date: December 29, 2015

Location: 3259 East 100th Street, Chicago, Cook County, 60617

This permit is hereby granted to the above-designated Permittee to OPERATE emission source(s) and/or air pollution control equipment consisting of a bulk solid materials terminal, including unloading of materials from railcars, trucks and barges; conveying and transferring materials to/from storage piles; storage piles; loading to ships/barges, railcars and trucks; and associated dust suppression systems as described in the above-referenced application as follows:

Texmarc Box Hopper;
555' Barge Line Conveyor;
35' Box Hopper;
300' Conveyor;
Shaker Building with receiving hoppers for railcars and 300' conveyor;
South Collector belt #1;
South Incline belt #2;
30' Shuttle conveyor;
Crossover Conveyor and rock chute;
South Highline belt #3;
South Shiploader tripper & belt #4;
South Shiploader pan, spout and trimmer;
Carter Box Hopper (portable);
Ten Portable Conveyors;
Stacker - American Bin;
Kolberg Screen Plant;
Stacker/Conveyor on Kolberg Screen Plant;
760 hp Diesel-Powered Generator;
750 hp Diesel-Powered Generator;
13 Gasoline/Diesel-Powered Engines each less than 35 hp; and
19 Diesel/Kerosene-Fired Heaters each less than or equal to 0.6 MMBtu per hour

pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

- 1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for Nitrogen Oxides (NO_x) and Particulate Matter with an aerodynamic diameter less than or equal to 10 micrometers (PM₁₀)). As a result, the source is

SETTLEMENT DRAFT (7/14/11)

excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit are described in Attachment A.

- b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.
 - c. This permit supersedes all operating permit(s) for this location.
 - d. This permit is effective only upon the withdrawal of Consolidated Permit Appeal PCB Nos. 2010-110 and 2011-043.
- 2a. The Kolberg Screen Plant and Stacker/Conveyor on the Kolberg Screen Plant are subject to the New Source Performance Standard (NSPS) for Coal Preparation and Processing Plants, 40 CFR 60, Subparts A and Y. Existing stockpile areas of screened coal are not subject to the NSPS for Coal Preparation and Processing Plants because they were created prior to May 27, 2009. The Illinois EPA is administering the NSPS in Illinois on behalf of the United States EPA under a delegation agreement. Pursuant to 40 CFR 60.250(b), the provisions in 40 CFR 60.251, 40 CFR 60.252(a), 40 CFR 60.253(a), 40 CFR 60.254(a), 40 CFR 60.255(a), and 40 CFR 60.256(a) are applicable to any of the following affected facilities that commenced construction, reconstruction or modification after October 27, 1974, and on or before April 28, 2008: Thermal dryers, pneumatic coal-cleaning equipment (air tables), coal processing and conveying equipment (including breakers and crushers), and coal storage systems, transfer and loading systems.
- b. Pursuant to 40 CFR 60.254(a), on and after the date on which the performance test is conducted or required to be completed under 40 CFR 60.8, whichever date comes first, an owner or operator shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal constructed, reconstructed, or modified on or before April 28, 2008, gases which exhibit 20 percent opacity or greater.
- 3a. Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 Ill. Adm. Code 212.122.
- b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 meter (1000 foot) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.
 - c. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

SETTLEMENT DRAFT (7/14/11)

- d. Pursuant to 35 Ill. Adm. Code 212.304(a), all storage piles of materials with uncontrolled emissions of fugitive particulate matter in excess of 45.4 Mg per year (50 T/yr) which are located within a source whose potential particulate emissions from all emission units exceeds 90.8 Mg/yr (100 T/yr) shall be protected by a cover or sprayed with a surfactant solution or water on a regular basis, as needed, or treated by an equivalent method, in accordance with the operating program required by 35 Ill. Adm. Code 212.309, 212.310, and 212.312.
- e. Pursuant to 35 Ill. Adm. Code 212.305, all conveyor loading operations to storage piles specified in 35 Ill. Adm. Code 212.304 shall utilize spray systems, telescopic chutes, stone ladders or equivalent methods in accordance with the operating program required by 35 Ill. Adm. Code 212.309, 212.310, and 212.312.
- f. Pursuant to 35 Ill. Adm. Code 212.306, all normal traffic pattern access areas surrounding storage piles specified in 35 Ill. Adm. Code 212.304 shall be paved or treated with water, oils or chemical dust suppressants. All paved areas shall be cleaned on a regular basis. All areas treated with water, oils or chemical dust suppressants shall have the treatment applied on a regular basis, as needed, in accordance with the operating program required by 35 Ill. Adm. Code 212.309, 212.310, and 212.312.
- g. Pursuant to 35 Ill. Adm. Code 212.308, crushers, grinding mills, screening operations, bagging operations, bucket elevators, conveyor transfer points, conveyors, storage bins and fine product truck and railcar loading operations shall be sprayed with water or a surfactant solution, utilize choke-feeding or be treated by an equivalent method in accordance with an operating program.
 - i. Conveyor loadout to trucks and railcars shall be conducted with sleeves extending to at least 6 inches below the sides and the receiving vehicle, except for topping off.
 - ii. Conveyor loadout sleeves shall be inspected for proper operation while such loadout to trucks or railcars is occurring, at least once each week when such loadout to trucks or railcars is performed.
- h. Pursuant to 35 Ill. Adm. Code 212.309(a), the emission units described in 35 Ill. Adm. Code 212.304 through 212.308 and 35 Ill. Adm. Code 212.316 shall be operated under the provisions of an operating program, consistent with the requirements set forth in 35 Ill. Adm. Code 212.310 and 212.312, and prepared by the owner or operator and submitted to the Illinois EPA for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions.
- i. Pursuant to 35 Ill. Adm. Code 212.310, as a minimum the operating program shall include the following:
 - i. The name and address of the source;
 - ii. The name and address of the owner or operator responsible for execution of the operating program;
 - iii. A map or diagram of the source showing approximate locations of storage piles, conveyor loading operations, normal traffic pattern access areas surrounding storage piles and all normal traffic patterns within the source;

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- iv. Location of unloading and transporting operations with pollution control equipment;
- v. A detailed description of the best management practices utilized to achieve compliance with 35 Ill. Adm. Code 212 Subpart K, including an engineering specification of particulate collection equipment, application systems for water, oil, chemicals and dust suppressants utilized and equivalent methods utilized;
- vi. Estimated frequency of application of dust suppressants by location of materials; and
- vii. Such other information as may be necessary to facilitate the Illinois EPA's review of the operating program.
- j. Pursuant to 35 Ill. Adm. Code 212.312, the operating program shall be amended from time to time by the owner or operator so that the operating program is current. Such amendments shall be consistent with 35 Ill. Adm. Code 212 Subpart K and shall be submitted to the Illinois EPA for its review.
- k. Pursuant to 35 Ill. Adm. Code 212.316(b), no person shall cause or allow fugitive particulate matter emissions generated by the crushing or screening of slag, stone, coke or coal to exceed an opacity of 10 percent.
- l. Pursuant to 35 Ill. Adm. Code 212.316(c), no person shall cause or allow fugitive particulate matter emissions from any roadway or parking area to exceed an opacity of 10 percent, except that the opacity shall not exceed 5 percent at quarries with a capacity to produce more than 1 million tons/year of aggregate.
- m. Pursuant to 35 Ill. Adm. Code 212.316(d), no person shall cause or allow fugitive particulate matter emissions from any storage pile to exceed an opacity of 10 percent, to be measured four feet from the pile surface.
- n. Pursuant to 35 Ill. Adm. Code 212.316(f), unless an emission unit has been assigned a particulate matter, PM_{10} , or fugitive particulate matter emissions limitation elsewhere in 35 Ill. Adm. Code 212.316 or in 35 Ill. Adm. Code Part 212 Subparts R or S, no person shall cause or allow fugitive particulate matter emissions from any emission unit to exceed an opacity of 20 percent.
- o. Pursuant to 35 Ill. Adm. Code 212.321(a), no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any new process emission unit which, either alone or in combination with the emission of particulate matter from all other similar process emission units for which construction or modification commenced on or after April 14, 1972, at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.321(c).
- p. Pursuant to 35 Ill. Adm. Code 212.321(b), interpolated and extrapolated values of the data in 35 Ill. Adm. Code 212.321(c) shall be determined by using the equation:

$$E = A(P)^B$$

where

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P = Process weight rate; and
E = Allowable emission rate; and,

i. Up to process weight rates of 408 MG/hour (450 T/hour):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.214	2.54
B	0.534	0.534

ii. For process weight rate greater than or equal to 408 Mg/hour (450 T/hour):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	11.42	24.8
B	0.16	0.16

q. The affected emission units subject 35 Ill. Adm. Code 212.322 include the Shaker Building with receiving hoppers for railcars and 300' conveyor; South Collector belt #1; South Incline belt #2; South Highline belt #3; South Shiploader tripper & belt #4; and South Shiploader pan, spout and trimmer. Pursuant to 35 Ill. Adm. Code 212.322(a) and except as further provided in 35 Ill. Adm. Code 212, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period from any process emission unit for which construction or modification commenced prior to April 14, 1972, which, either alone or in combination with the emission of particulate matter from all other similar process emission units at a source or premises, exceeds the allowable emission rates specified in 35 Ill. Adm. Code 212.322(c).

r. Pursuant to 35 Ill. Adm. Code 212.322(b), interpolated and extrapolated values of the data in 35 Ill. Adm. Code 212.322(c) shall be determined by using the equation:

$$E = C + A(P)^B$$

where

P = Process weight rate; and
E = Allowable emission rate; and,

i. Up to process weight rates of 27.2 MG/hour (30 T/hour):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr
E	kg/hr	lbs/hr
A	1.985	4.10
B	0.67	0.67
C	0	0

ii. For process weight rate greater than or equal to 27.2 Mg/hour (30 T/hour):

	<u>Metric</u>	<u>English</u>
P	Mg/hr	T/hr

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	kg/hr	lbs/hr
E		
A	25.21	55.0
B	0.11	0.11
C	-18.4	-40.0

- s. Pursuant to 35 Ill. Adm. Code 212.700(a), 35 Ill. Adm. Code 212 Subpart U (Additional Control Measures) shall apply to those sources in the areas designated in and subject to 35 Ill. Adm. Code 212.324(a)(1) or 212.423(a) and that have actual annual source-wide emissions of PM₁₀ of at least fifteen (15) tons per year.
- 4a. Pursuant to 35 Ill. Adm. Code 214.122(b)(2), no person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any new fuel combustion source with actual heat input smaller than, or equal to, 73.2 MW (250 mmBtu/hour), burning liquid fuel exclusively to exceed 0.46 kg of sulfur dioxide per MW-hour of actual heat input when distillate fuel oil is burned (0.3 lbs/mmBtu).
- b. Pursuant to 35 Ill. Adm. Code 214.301, no person shall cause or allow the emission of sulfur dioxide into the atmosphere from any process emission source to exceed 2000 ppm.
- c. Pursuant to 35 Ill. Adm. Code 214.304, the emissions from the burning of fuel at process emission sources located in the Chicago or St. Louis (Illinois) major metropolitan areas shall comply with applicable Subparts B through F (i.e., 35 Ill. Adm. Code 214.122(b)).
- 5a. Pursuant to 35 Ill. Adm. Code 212.304(b), 35 Ill. Adm. Code 212.304(a) shall not apply to a specific storage pile if the owner or operator of that pile proves to the Illinois EPA that fugitive particulate emissions from that pile do not cross the property line either by direct wind action or reentrainment.
- b. Pursuant to 35 Ill. Adm. Code 212.314, 35 Ill. Adm. Code 212.301 shall not apply and spraying pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 35 Ill. Adm. Code 212.312 shall not be required when the wind speed is greater than 40.2 km/hour (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.
- c. Pursuant to 35 Ill. Adm. Code 212.323, 35 Ill. Adm. Code 212.321 and 212.322 shall not apply to emission units, such as stockpiles of particulate matter, to which, because of the disperse nature of such emission units, such rules cannot reasonably be applied.
- d. Pursuant to 35 Ill. Adm. Code 212.324(d), the mass emission limits contained in 35 Ill. Adm. Code 212.324(b) and (c) shall not apply to those emission units with no visible emissions other than fugitive particulate matter; however, if a stack test is performed, 35 Ill. Adm. Code 212.324(d) is not a defense to a finding of a violation of the mass emission limits contained in 35 Ill. Adm. Code 212.324(b) and (c).

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- 6a. Pursuant to 40 CFR 60.11(c), the opacity standards set forth in 40 CFR Part 60 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
- b. Pursuant to 40 CFR 60.11(d), at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- 7a. Pursuant to 35 Ill. Adm. Code 212.324(f), for any process emission unit subject to 35 Ill. Adm. Code 212.324(a), the owner or operator shall maintain and repair all air pollution control equipment in a manner that assures that the emission limits and standards in 35 Ill. Adm. Code 212.324 shall be met at all times. 35 Ill. Adm. Code 212.324 shall not affect the applicability of 35 Ill. Adm. Code 201.149. Proper maintenance shall include the following minimum requirements:
- i. Visual inspections of air pollution control equipment;
 - ii. Maintenance of an adequate inventory of spare parts; and
 - iii. Expedient repairs, unless the emission unit is shutdown.
- b. Pursuant to 35 Ill. Adm. Code 212.701(a), those sources subject to 35 Ill. Adm. Code 212 Subpart U shall prepare contingency measure plans reflecting the PM₁₀ emission reductions set forth in 35 Ill. Adm. Code 212.703. These plans shall become federally enforceable permit conditions. Such plans shall be submitted to the Illinois EPA by November 15, 1994. Notwithstanding the foregoing, sources that become subject to the provisions of 35 Ill. Adm. Code 212 Subpart U after July 1, 1994, shall submit a contingency measure plan to the Illinois EPA for review and approval within ninety (90) days after the date such source or sources became subject to the provisions of 35 Ill. Adm. Code 212 Subpart U or by November 15, 1994, whichever is later. The Illinois EPA shall notify those sources requiring contingency measure plans, based on the Illinois EPA's current information; however, the Illinois EPA's failure to notify any source of its requirement to submit contingency measure plans shall not be a defense to a violation of 35 Ill. Adm. Code 212 Subpart U and shall not relieve the source of its obligation to timely submit a contingency measure plan.
- c. Pursuant to 35 Ill. Adm. Code 212.703(a), all sources subject to 35 Ill. Adm. Code 212 Subpart U shall submit a contingency measure plan. The contingency measure plan shall contain two levels of control measures:
- i. Level I measures are measures that will reduce total actual annual source-wide fugitive emissions of PM₁₀ subject to control under 35 Ill. Adm. Code 212.304, 212.305, 212.306, 212.308, 212.316(a) through (e), 212.424 or 212.464 by at least 15%.
 - ii. Level II measures are measures that will reduce total actual annual source-wide fugitive emissions of PM₁₀ subject to control under 35 Ill. Adm. Code

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212.304, 212.305, 212.306, 212.308, 212.316(a) through (e), 212.424 or 212.464 by at least 25%.

- d. Pursuant to 35 Ill. Adm. Code 212.703(b), a source may comply with 35 Ill. Adm. Code 212 Subpart U through an alternative compliance plan that provides for reductions in emissions equal to the level of reduction of fugitive emissions as required at 35 Ill. Adm. Code 212.703(a) and which has been approved by the Illinois EPA and USEPA as federally enforceable permit conditions. If a source elects to include controls on process emission units, fuel combustion emission units, or other fugitive emissions of PM₁₀ not subject to 35 Ill. Adm. Code 212.304, 212.305, 212.306, 212.308, 212.316(a) through (e), 212.424 or 212.464 at the source in its alternative control plan, the plan must include a reasonable schedule for implementation of such controls, not to exceed two (2) years. This implementation schedule is subject to Illinois EPA review and approval.
- e. Pursuant to 35 Ill. Adm. Code 212.704(b), if there is a violation of the ambient air quality standard for PM₁₀ as determined in accordance with 40 CFR Part 50, Appendix K, the Illinois EPA shall notify the source or sources the Illinois EPA has identified as likely to be causing or contributing to one or more of the exceedences leading to such violation, and such source or sources shall implement Level I or Level II measures, as determined pursuant to 35 Ill. Adm. Code 212.704(e). The source or sources so identified shall implement such measures corresponding to fugitive emissions within ninety (90) days after receipt of a notification and shall implement such measures corresponding to any nonfugitive emissions according to the approved schedule set forth in such source's alternative control plan. Any source identified as causing or contributing to a violation of the ambient air quality standard for PM₁₀ may appeal any finding of culpability by the Illinois EPA to the Illinois Pollution Control Board pursuant to 35 Ill. Adm. Code 106 Subpart J.
- f. Pursuant to 35 Ill. Adm. Code 212.704(e), the Illinois EPA shall require that sources comply with the Level I or Level II measures of their contingency measure plans, pursuant 35 Ill. Adm. Code 212.704(b), as follows:
- i. Level I measures shall be required when the design value of a violation of the 24-hour ambient air quality standard, as computed pursuant to 40 CFR 50, Appendix K, is less than or equal to 170 ug/m³.
 - ii. Level II measures shall be required when the design value of a violation of the 24-hour ambient air quality standard, as computed pursuant to 40 CFR 50, Appendix K, exceeds 170 ug/m³.
- 8a. Except as provided in Condition 8(b), the moisture content of the bulk solid material handled by the source shall be at least 1.3% by weight. The Permittee shall show compliance with this requirement by recording the moisture content of each lot of bulk solid material received at the source as provided by the supplier of the bulk solid material. If the moisture content of a bulk solid material received at the source is below 3.0% by weight as documented by the supplier, then the Permittee shall:
- i. Utilize wet suppression on the material handling operations (e.g., material transfer and screening) associated with bulk solid materials having a moisture content below 3.0% by weight to reduce particulate matter emissions

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and to maintain compliance with the applicable visible emissions standards for each affected material handling operation; or

- ii. Follow the testing requirements of Condition 8(d).
- b. Notwithstanding the requirements in Condition 8(a), the Permittee may receive and off-load bulk solid material with a moisture content of less than 1.3% by weight, i.e., low-moisture material), so long as the Permittee:
- i. Receives the low-moisture material by rail car and off-loads the low-moisture material in the Shaker Building;
 - ii. Applies water or dust suppressant to the low-moisture material during non-freezing conditions before the material is stockpiled or discharged from the initial receiving conveyor; and
 - iii. Blends the low-moisture material with a higher-moisture bulk solid material before the material is stockpiled or discharged from the initial receiving conveyor.
- c. If the Permittee relies on Condition 8(a)(i) to demonstrate compliance with Condition 8(a) with regard to bulk solid material with a moisture content below 3.0% by weight as documented by the supplier, the Permittee shall monitor the equipment used for wet suppression of such bulk solid material as follows during non-freezing conditions:
- i. The water supply to the equipment used for wet suppression shall be equipped with a master metering device to measure water usage for the control of particulate matter emissions.
 - ii. The equipment used for wet suppression shall be inspected at least once per week for proper operation (i.e., maintaining adequate flow, clogging of flow lines, etc.) when this equipment is being utilized.
- d. If the Permittee relies on Condition 8(a)(ii) to demonstrate compliance with Condition 8(a) with regard to bulk solid material with a moisture content below 3.0% by weight as documented by the supplier or by testing conducted by the Permittee, the Permittee shall measure the moisture content of a representative sample of such bulk solid material at least once per week using ASTM Procedure D 3302 for coal and ASTM Procedure D 3172 and D 4931 for petroleum coke. Samples shall be collected when wet suppression systems covering the affected bulk solid material are not active. The Permittee may utilize wet suppression on such bulk solid material as needed until three consecutive tests at the source, taken at least 24 hours apart, show moisture contents of 3.0% or greater by weight, after which this testing shall no longer be required for the subject bulk solid material.
- e. The Permittee may test the moisture content of any lot of bulk solid material at any time. For purposes of calculating monthly PM and PM₁₀ emissions using the formula in Condition 9(a)(i), the moisture content from the most recent analysis of each bulk solid material, either as documented by the supplier or as determined from testing by the Permittee, shall be used to calculate the monthly average moisture content, except as provided in Condition 8(f).

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- f. The Permittee shall separately calculate the PM and PM₁₀ emissions from receiving bulk solid material with a moisture content below 1.3 percent by weight as documented by the supplier, for the initial transfer (material drop) associated with off-loading. Such separately calculated emissions shall be added to the monthly PM and PM₁₀ emissions calculated using the formula of Condition 9(a)(i).
- g. The above limitations contain revisions to previously issued Construction Permit-Revised 07100090. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of the aforementioned permit.
- h. The engines, generators and heaters shall only be operated with distillate fuel oil, gasoline or kerosene as the fuel. The use of any other fuel in the engines, generators or heaters requires that the Permittee first obtain a construction permit from the Illinois EPA and then perform stack testing to verify compliance with all applicable requirements.
- i. The Permittee shall not keep, store or use distillate fuel oil (Grades No. 1 and 2) at this source with a sulfur content greater than the larger of the following two values:
 - i. 0.28 weight percent, or
 - ii. The weight percent given by the formula: Maximum wt. percent sulfur = (0.00015) x (Gross heating value of oil, Btu/lb).
- j. Organic liquid by-products or waste materials shall not be used in any emission unit at this source without written approval from the Illinois EPA.
- k. The Illinois EPA shall be allowed to sample all fuels stored at the source.
- 9a. The emissions from and the operation of all activities at source shall not exceed the following limits:

PM ₁₀ Emission		PM emissions	
<u>(Tons/Month)</u>	<u>(Tons/Year)</u>	<u>(Tons/Month)</u>	<u>(Tons/Year)</u>
9.2	92.0	22.5	225

These limits are based on the amounts of bulk solid materials transferred and screened; operation of generators, engines and heaters; and standard emission factors (Tables 1.3-1 and 1.3-3, AP-42, Volume I, Fifth Edition, May 2010; Table 3.3-1, AP-42, Volume I, Fifth Edition, October 1996; Table 3.4-1, AP-42, Volume I, Fifth Edition, October 1996; Table 11.19.2-2, AP-42, Volume I, Fifth Edition, August 2004; and Section 13.2.4, AP-42, Volume I, Fifth Edition, November 2006).

- i. PM₁₀ and PM emissions shall be calculated and recorded using the equation:

$$E = [(T_u \times F_u) + (T_e \times F_e) + (S \times F_s) + (H_d \times Z_d \times F_d) + (R \times F_r)]/2000$$

Where:

E = Total PM₁₀ or PM emissions, (tons);

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T_u = Amount of bulk solid material transferred in unenclosed areas, (tons);

$$F_u = (k * 0.0032 * N) * [((U/5)^{1.3}) / ((M/2)^{1.4})];$$

Where:

$$k = 0.35 \text{ for PM}_{10};$$

$$= 0.74 \text{ for PM};$$

N = Number of bulk solid material transfers (drop points);

U = mean wind speed, (miles/hour);

M = material moisture content, (%);

T_e = Amount of bulk solid material transferred in enclosed areas, (tons);

$$F_e = 0.00055 \text{ lb PM}_{10}/\text{ton for bulk solid material with } < 1.3\% \text{ moisture};$$

$$= 0.00023 \text{ lb PM}_{10}/\text{ton for bulk solid material with } \geq 1.3\% \text{ moisture};$$

$$= 0.0015 \text{ lb PM}/\text{ton for bulk solid material with } < 1.3\% \text{ moisture};$$

$$= 0.00007 \text{ lb PM}/\text{ton for bulk solid material with } \geq 1.3\% \text{ moisture};$$

S = Amount of bulk solid material Screened, (tons);

$$F_s = 0.0022 \text{ lb PM}/\text{ton};$$

$$= 0.00074 \text{ lb PM}_{10}/\text{ton};$$

H_d = Operation of each engine > 600 horsepower, (hours);

Z_d = Size of each engine > 600 horsepower operated, (horsepower).

F_d = 0.0007 lb/(hp-hour) for diesel engines > 600 hp

R = Diesel, gasoline or kerosene use in heaters and engines \leq 600 horsepower, (gallons); and

$$F_r = 0.002 \text{ lb PM or PM}_{10}/\text{gallon for diesel and kerosene}$$

$$= 0.013 \text{ lb PM or PM}_{10}/\text{gallon for gasoline.}$$

ii. The above limitations contain revisions to previously issued Construction Permit-Revised 07100090. The source has requested that the Illinois EPA establish conditions in this permit that allow various refinements from the conditions of the aforementioned permit. These limits are the primary enforcement mechanism for the equipment and activities permitted in this permit.

- b. Emissions from the operation of generators, engines and heaters at the source shall not exceed the following limits:

Pollutant	Emissions	
	(Tons/Month)	(Tons/Year)
Carbon Monoxide (CO)	4.29	42.9

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Nitrogen Oxides (NO _x)	9.20	92.0
Sulfur Dioxide (SO ₂)	1.71	17.1
Volatile Organic Material (VOM)	1.84	18.4

Emissions from the diesel-powered generators are based on standard emission factors (Table 3.4-1, AP-42, Fifth Edition, Volume I, Supplement B, October 1996).

Emissions for other engines and heaters are based on standard emission factors (Tables 1.3-1, 1.3-3, 3.3-1, AP-42, Fifth Edition, Volume I). PM and PM₁₀ emissions from generators, engines and heaters are included in Condition 9(a). Emissions from the generators, engines and heaters shall be calculated as follows:

$$E = [(H_i \times Z_i \times F) + (R \times F)] / 2,000$$

Where:

E = Total emissions of pollutant, (tons);

H_i = Operation of each generator > 600 horsepower, (hours);

Z_i = Size of each generator > 600 horsepower, (horsepower);

R = Diesel, gasoline or kerosene use in heaters and engines ≤ 600 horsepower, (gallons); and

F = Emission Factor as follows:

Pollutant	Emission Factors				
	Gasoline Engines < 250 Hp (lb/gal)	Kerosene Heaters (lb/gal)	Heaters (lb/gal)	Diesel Engines	
				< 600 Hp (lb/gal)	> 600 Hp (lb/Hp-Hr)
Carbon Monoxide (CO)	0.13	0.005	0.005	0.13	0.0055
Nitrogen Oxides (NO _x)	0.21	0.02	0.02	0.60	0.024
Sulfur Dioxide (SO ₂)	0.011	0.137 x S*	0.139 x S*	0.040	0.00809 x S*
Volatile Organic Material (VOM)	0.39	0.00033	0.00033	0.049	0.000642

*S = Wt. % sulfur in fuel

- c. Fuel use in heaters and engines ≤ 600 horsepower does not need to be measured directly, but can be taken from purchase invoices or other similar records.
- d. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).
- 10a. Pursuant to 40 CFR 60.8(a), at such other times as may be required by the Illinois EPA or USEPA under section 114 of the Clean Air Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Illinois EPA or USEPA a written report of the results of such performance test(s).

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- b. Pursuant to 40 CFR 60.8(b), performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart of 40 CFR Part 60 unless the Illinois EPA or USEPA:
- i. Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology;
 - ii. Approves the use of an equivalent method;
 - iii. Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance;
 - iv. Waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Illinois EPA's or USEPA's satisfaction that the affected facility is in compliance with the standard; or
 - v. Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Illinois EPA's or USEPA's authority to require testing under section 114 of the Clean Air Act.
- c. Pursuant to 40 CFR 60.8(c), performance tests shall be conducted under such conditions as the Illinois EPA or USEPA shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Illinois EPA or USEPA such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.
- d. Pursuant to 40 CFR 60.8(d), the owner or operator of an affected facility shall provide the Illinois EPA or USEPA at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Illinois EPA or USEPA the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Illinois EPA or USEPA as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Illinois EPA or USEPA by mutual agreement.
- e. Pursuant to 40 CFR 60.8(e), the owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:
- i. Sampling ports adequate for test methods applicable to such facility. This includes:
 - A. Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and

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- B. Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
 - ii. Safe sampling platform(s).
 - iii. Safe access to sampling platform(s).
 - iv. Utilities for sampling and testing equipment.
- f. Pursuant to 40 CFR 60.8(f), unless otherwise specified in the applicable subpart of 40 CFR Part 60, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard under 40 CFR Part 60. For the purpose of determining compliance with an applicable standard under 40 CFR Part 60, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Illinois EPA's or USEPA's approval, be determined using the arithmetic mean of the results of the two other runs.
- 11. Pursuant to 40 CFR 60.11(e)(2), except as provided in 40 CFR 60.11(e)(3), the owner or operator of an affected facility to which an opacity standard in 40 CFR Part 60 applies shall conduct opacity observations in accordance with 40 CFR 60.11(b), shall record the opacity of emissions, and shall report to the Illinois EPA or USEPA the opacity results along with the results of the initial performance test required under 40 CFR 60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.
- 12a. Pursuant to 40 CFR 60.255(a), an owner or operator of each affected facility that commenced construction, reconstruction, or modification on or before April 28, 2008, must conduct all performance tests required by 40 CFR 60.8 to demonstrate compliance with the applicable emission standards using the methods identified in 40 CFR 60.257.
- b. Pursuant to 40 CFR 60.257(a), the owner or operator must determine compliance with the applicable opacity standards as specified in 40 CFR 60.257(a)(1) through (3).
 - i. Method 9 of appendix A-4 of this part and the procedures in 40 CFR 60.11 must be used to determine opacity, with the exceptions specified in 40 CFR 60.257(a)(1)(i) and (ii).
 - A. The duration of the Method 9 of appendix A-4 of 40 CFR Part 60 performance test shall be 1 hour (ten 6-minute averages).
 - B. If, during the initial 30 minutes of the observation of a Method 9 of appendix A-4 of 40 CFR Part 60 performance test, all of the 6-minute average opacity readings are less than or equal to half the applicable opacity limit, then the observation period may be reduced from 1 hour to 30 minutes.

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- ii. To determine opacity for fugitive coal dust emissions sources, the additional requirements specified in 40 CFR 60.257(a)(2)(i) through (iii) must be used.
 - A. The minimum distance between the observer and the emission source shall be 5.0 meters (16 feet), and the sun shall be oriented in the 140-degree sector of the back.
 - B. The observer shall select a position that minimizes interference from other fugitive coal dust emissions sources and make observations such that the line of vision is approximately perpendicular to the plume and wind direction.
 - C. The observer shall make opacity observations at the point of greatest opacity in that portion of the plume where condensed water vapor is not present. Water vapor is not considered a visible emission.
- iii. A visible emissions observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions specified in 40 CFR 60.257(a)(3)(i) through (iii) are met.
 - A. No more than three emissions points may be read concurrently.
 - B. All three emissions points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.
 - C. If an opacity reading for any one of the three emissions points is within 5 percent opacity from the applicable standard (excluding readings of zero opacity), then the observer must stop taking readings for the other two points and continue reading just that single point.
- 13a. Pursuant to 35 Ill. Adm. Code 201.282, every emission source or air pollution control equipment shall be subject to the following testing requirements for the purpose of determining the nature and quantities of specified air contaminant emissions and for the purpose of determining ground level and ambient air concentrations of such air contaminants:
 - i. Testing by Owner or Operator. The Illinois EPA may require the owner or operator of the emission source or air pollution control equipment to conduct such tests in accordance with procedures adopted by the Illinois EPA, at such reasonable times as may be specified by the Illinois EPA and at the expense of the owner or operator of the emission source or air pollution control equipment. The Illinois EPA may adopt procedures detailing methods of testing and formats for reporting results of testing. Such procedures and revisions thereto, shall not become effective until filed with the Secretary of State, as required by the APA Act. All such tests shall be made by or under the direction of a person qualified by training and/or experience in the field of air pollution testing. The Illinois EPA shall have the right to observe all aspects of such tests.
 - ii. Testing by the Illinois EPA. The Illinois EPA shall have the right to conduct such tests at any time at its own expense. Upon request of the Illinois EPA, the owner or operator of the emission source or air pollution

SETTLEMENT DRAFT (7/14/11)

control equipment shall provide, without charge to the Illinois EPA, necessary holes in stacks or ducts and other safe and proper testing facilities, including scaffolding, but excluding instruments and sensing devices, as may be necessary.

- b. Testing required by Condition 13 shall be performed upon a written request from the Illinois EPA by a qualified individual or independent testing service.
- 14. Pursuant to 35 Ill. Adm. Code 212.110(c), upon a written notification by the Illinois EPA, the owner or operator of a particulate matter emission unit subject to 35 Ill. Adm. Code Part 212 shall conduct the applicable testing for particulate matter emissions, opacity, or visible emissions at such person's own expense, to demonstrate compliance. Such test results shall be submitted to the Illinois EPA within thirty (30) days after conducting the test unless an alternative time for submittal is agreed to by the Illinois EPA.
- 15a. Pursuant to 40 CFR 60.7(b), any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
 - b. Pursuant to 40 CFR 60.7(f), any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by 40 CFR Part 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records.
- 16a. Pursuant to 35 Ill. Adm. Code 212.110(e), the owner or operator of an emission unit subject to 35 Ill. Adm. Code Part 212 shall retain records of all tests which are performed. These records shall be retained for at least three (3) years after the date a test is performed.
 - b. i. Pursuant to 35 Ill. Adm. Code 212.316(g)(1), the owner or operator of any fugitive particulate matter emission unit subject to 35 Ill. Adm. Code 212.316 shall keep written records of the application of control measures as may be needed for compliance with the opacity limitations of 35 Ill. Adm. Code 212.316 and shall submit to the Illinois EPA an annual report containing a summary of such information.
 - ii. Pursuant to 35 Ill. Adm. Code 212.316(g)(2), the records required under 35 Ill. Adm. Code 212.316(g) shall include at least the following:
 - A. The name and address of the source;
 - B. The name and address of the owner and/or operator of the source;
 - C. A map or diagram showing the location of all emission units controlled, including the location, identification, length, and width of roadways;

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- D. For each application of water or chemical solution to roadways by truck: the name and location of the roadway controlled, application rate of each truck, frequency of each application, width of each application, identification of each truck used, total quantity of water or chemical used for each application and, for each application of chemical solution, the concentration and identity of the chemical;
 - E. For application of physical or chemical control agents: the name of the agent, application rate and frequency, and total quantity of agent and, if diluted, percent of concentration, used each day; and
 - F. A log recording incidents when control measures were not used and a statement of explanation.
- iii. Pursuant to 35 Ill. Adm. Code 212.316(g)(4), the records required under 35 Ill. Adm. Code 212.316(g) shall be kept and maintained for at least three (3) years and shall be available for inspection and copying by Illinois EPA representatives during working hours.
- c. i. Pursuant to 35 Ill. Adm. Code 212.324(g)(1), written records of inventory and documentation of inspections, maintenance, and repairs of all air pollution control equipment shall be kept in accordance with 35 Ill. Adm. Code 212.324(f).
 - ii. Pursuant to 35 Ill. Adm. Code 212.324(g)(2), the owner or operator shall document any period during which any process emission unit was in operation when the air pollution control equipment was not in operation or was malfunctioning so as to cause an emissions level in excess of the emissions limitation. These records shall include documentation of causes for pollution control equipment not operating or such malfunction and shall state what corrective actions were taken and what repairs were made.
 - iii. Pursuant to 35 Ill. Adm. Code 212.324(g)(4), a written record of the inventory of all spare parts not readily available from local suppliers shall be kept and updated.
 - iv. Pursuant to 35 Ill. Adm. Code 212.324(g)(5), the records required under 35 Ill. Adm. Code 212.324 shall be kept and maintained for at least three (3) years and shall be available for inspection and copying by Illinois EPA representatives during working hours.
- 17a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:
- i. If the Permittee is relying on Conditions 8(a)(i) and 8(c) to demonstrate compliance with Condition 8(a), records for the master metering device on the equipment used for wet suppression, including dates and hours of usage, total amount of water applied each month, malfunctions (type, dates, and measures to correct); records of each inspection conducted in accordance with Condition 8(c)(ii); dates of rainfall during the preceding 24 hours; and daily observations of bulk solid material conditions (wet or dry) or other controls as may be present (e.g., coverage by snow or ice);

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- ii. Records of the moisture content of bulk solid materials as provided by the suppliers of bulk solid materials, unless such records are superseded by moisture analysis from samples collected at this source;
 - iii. Records of moisture analysis from samples collected at this source, including date, time, individual or laboratory performing test, and location of sample (e.g., prior to screening, stockpiles, etc.);
 - iv. Name and total amount of each bulk solid material (e.g., coal, petroleum coke, etc.) processed (i.e., screened or transferred), tons/month and tons/year;
 - v. Operating hours of the 760 hp Diesel-Powered Generator and the 750 hp Diesel-Powered Generator, hours/month and hours/year;
 - vi. Fuel use for all engines, generators and heaters, except those generators identified in Condition 18(a)(v), gallons/month and gallons/year; and
 - vii. Monthly and annual emissions of CO, NO_x, PM, PM₁₀, SO₂, and VOM from this source with supporting calculations (tons/month and tons/year).
- b. All records and logs required by condition 17(a) shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA or USEPA request for records during the course of a source inspection.
18. Pursuant to 40 CFR 60.258(b), for the purpose of reports required under 40 CFR 60.7(c), any owner operator subject to the provisions of 40 CFR 60 Subpart Y also shall report semiannually periods of excess emissions as follow:
- All 6-minute average opacities that exceed the applicable standard.
- 19a. Pursuant to 35 Ill. Adm. Code 212.110(d), a person planning to conduct testing for particulate matter emissions to demonstrate compliance shall give written notice to the Illinois EPA of that intent. Such notification shall be given at least thirty (30) days prior to the initiation of the test unless a shorter period is agreed to by the Illinois EPA. Such notification shall state the specific test methods from 35 Ill. Adm. Code 212.110 that will be used.
- b. Pursuant to 35 Ill. Adm. Code 212.316(g)(5), a quarterly report shall be submitted to the Illinois EPA stating the following: the dates any necessary control measures were not implemented, a listing of those control measures, the reasons that the control measures were not implemented, and any corrective actions taken. This information includes, but is not limited to, those dates when controls were not applied based on a belief that application of such control measures would have been unreasonable given prevailing atmospheric conditions, which shall constitute a defense to the requirements of 35 Ill. Adm. Code 212.316. This report shall be submitted to the Illinois EPA thirty (30) calendar days from the end of a quarter. Quarters end March 31, June 30, September 30, and December 31.

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- c. i. Pursuant to 35 Ill. Adm. Code 212.324(g)(4), copies of all records required by 35 Ill. Adm. Code 212.324 shall be submitted to the Illinois EPA within ten (10) working days after a written request by the Illinois EPA.
- ii. Pursuant to 35 Ill. Adm. Code 212.324(g)(6), upon written request by the Illinois EPA, a report shall be submitted to the Illinois EPA for any period specified in the request stating the following: the dates during which any process emission unit was in operation when the air pollution control equipment was not in operation or was not operating properly, documentation of causes for pollution control equipment not operating or not operating properly, and a statement of what corrective actions were taken and what repairs were made.

20a. If there is an exceedance of or a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance or deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedance or deviation and efforts to reduce emissions and future occurrences.

b. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
9511 West Harrison
Des Plaines, Illinois 60016

If you have any questions on this permit, please call [REDACTED] at 217/782-2113.

Edwin C. Bakowski, P.E.
Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

ECB:GMK:jws

cc: Illinois EPA, FOS Region 1
Lotus Notes

Attachment A- Emission Summary

This attachment provides a summary of the maximum emissions from the source operating in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from the source. The resulting maximum emissions are below the levels, (e.g., 100 tons/year for NO_x and PM₁₀) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Fugitive PM₁₀ emissions from storage piles and vehicle traffic at the source are not considered for purposes of applicability of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that control measures are more effective than required in this permit.

<u>Emission Unit</u>	<u>E M I S S I O N S (Tons/Year)</u>					
	<u>CO</u>	<u>NO_x</u>	<u>PM</u>	<u>PM₁₀</u>	<u>SO₂</u>	<u>VOM</u>
Material Handling Activities and Screening Activities	----	----	225.0	92.0	----	----
Diesel-Powered Generators and Miscellaneous Engines and Heaters ¹	<u>42.9</u>	<u>92.0</u>	----	----	<u>17.1</u>	<u>18.4</u>
Totals	42.9	92.0	225.0	92.0	17.1	18.4

¹ PM and PM₁₀ emissions included with Material Handling Activities and Screening Activities.

**ATTACHMENT F –
CD OF ELECTRONIC COPIES OF
ATTACHMENTS A - E**

KCBX TERMINALS COMPANY

October 5, 2011

VIA CERTIFIED MAIL
(Return Receipt Requested)

Mr. Edwin C. Bakowski
Manager
Permit Section, Bureau of Air
Illinois Environmental Protection Agency
1021 North Grand Avenue East
Post Office Box 19276
Springfield, Illinois 67294-9276

RE: Comments Regarding Preliminary Draft Federally Enforceable
State Operating Permit
KCBX Terminals Company, Chicago, Illinois
Application No.: 95050167
Facility I.D. No.: 031600AHI

Dear Mr. Bakowski:

This letter is written in follow-up to your September 15, 2011 letter to Mr. Brandon Walker of KCBX Terminals Company ("KCBX") forwarding a Preliminary Draft Federally Enforceable State Operating Permit ("FESOP") for KCBX's review. (Please note that an incomplete copy of the Preliminary Draft FESOP was attached to your letter, but KCBX received a full electronic copy of the Preliminary Draft FESOP from Mr. Christopher Grant, counsel for the Illinois Environmental Protection Agency ("Illinois EPA") in the consolidated permit appeal before the Illinois Pollution Control Board, KCBX Terminals Company v. IEPA, PCB Nos. 10-110 and 11-43.) In your letter, you asked that KCBX review the Preliminary Draft FESOP, indicate corrections that need to be made to the same and provide comments no later than October 5, 2011.

The following discussion includes KCBX's comments on the Preliminary Draft FESOP. Please also see Attachment A hereto, which is a track changes version of the Preliminary Draft FESOP, showing KCBX's edits to the same.

Opening Paragraph/Equipment List

KCBX's July 14, 2011 FESOP Application Supplement ("Application Supplement") included "South Shiploader Tripper and Belt #4" and "South Shiploader Pan, Spout and Trimmer" in the Equipment List in the Opening Paragraph. Since KCBX's Application Supplement, Illinois EPA deleted "South" from the descriptions, edits which KCBX

believes are likely inadvertent on the part of Illinois EPA. These descriptions should include "South" to accurately reflect the equipment at the KCBX facility and to be consistent with the language in Condition 3q. Therefore, KCBX requests that the Equipment List be edited as reflected in Attachment A.

Condition 3q.

In the final sentence of the Condition, "for" should be deleted for the Condition to read clearly. Therefore, KCBX requests that the Condition be edited as reflected in Attachment A.

Condition 5e.

KCBX believes this provision is required for clarification in the FESOP. Mr. Christopher Pressnall indicated that Illinois EPA has no concern with including this provision as a new subsection to Condition 5 (the nonapplicability condition of the FESOP). Therefore, KCBX requests that the new Condition 5e be added to the FESOP as reflected in Attachment A.

Conditions 8c., 8c.i. and 8d.

Since KCBX's Application Supplement, Illinois EPA made revisions to these Conditions to change the phrase "equipment used for wet suppression" to the phrase "water spray equipment." Consistent with discussions between the parties during the settlement negotiations, KCBX believes that the term "equipment used for wet suppression" should be used throughout Condition 8, as "water spray equipment" could be read not to include certain types of equipment that are appropriate for use for wet suppression, e.g., misting equipment. Therefore, KCBX requests that the Conditions be edited as reflected in Attachment A.

Condition 9a.

Since KCBX's Application Supplement, Illinois EPA has added significant digits to the emissions limits included in this Condition. These added digits affect the way the numbers are rounded and are not mathematically supported by the number of significant digits in the emission factors. Therefore, KCBX requests the emissions limits be edited as reflected in Attachment A.

Additionally, since KCBX's Application Supplement, Illinois EPA has changed the first line of F_e in the formula definitions to state "0.0055 lb PM₁₀/Ton . . ." AP-42 Table 11.19.2-2, however, states that the PM₁₀ emission factor for uncontrolled transfers is 0.00110. Illinois EPA has granted KCBX a 0.5 factor for such transfers when they occur in enclosed areas. Thus, $0.00110 * 0.5 = 0.00055$. KCBX believes Illinois EPA's change in the Preliminary Draft FESOP was likely a typographic error, but the change has significant effects on the permit and KCBX's compliance with the same. Therefore, KCBX requests that the formula definitions be edited as reflected in Attachment A.

Condition 9b.

Since KCBX's Application Supplement, Illinois EPA has added significant digits to the emissions limits included in this Condition. These added digits affect the way the numbers are rounded and are not mathematically supported by the number of significant digits in the emission factors. KCBX requests the emissions limits be edited as reflected in Attachment A.

Additionally, since KCBX's Application Supplement, Illinois EPA omitted the "i" coefficient from the formula definition for the term "Z," but included it in the formula itself. KCBX believes Illinois EPA's change was likely a typographic error, but the change has significant effects on the permit and KCBX's compliance with the same. Therefore, KCBX requests the "i" coefficient be added to "Z" term in the formula definition as reflected in Attachment A.

Also since KCBX's Application Supplement, Illinois EPA edited the emission factor table and changed the units for engines less than or equal to 600 horsepower from "lbs/gal" to "lbs/Hp-Hr." KCBX believes the correct units are "lbs/gal" using the emission factors for diesel in AP-42 Table 3.3-1 and the heat content of diesel 0.137 mmBtu/gal from AP-42 Appendix A. Therefore, KCBX requests the units be edited as reflected in Attachment A.

Condition 17a.iii.

Since KCBX's Application Supplement, Illinois EPA has changed "screening" to "crushing" in the parenthetical in this Condition. KCBX believes this is likely inadvertent, as discussions during the settlement negotiations between the parties focused on the fact that KCBX does not have a crusher at its facility, while it does have a screener. "Screening" is the appropriate term to be included in the parenthetical. Therefore, KCBX requests the Condition be edited as reflected in Attachment A.

Attachment A to the Preliminary Draft FESOP

Since KCBX's Application Supplement, Illinois EPA has added significant digits to the limits included in this attachment to the FESOP. These added digits affect the way the numbers are rounded and are not mathematically supported by the number of significant digits in the emission factors. KCBX believes the limits should be edited as reflected in Attachment A hereto.

Conclusion

KCBX appreciates the opportunity to review and provide Illinois EPA with comments on the Preliminary Draft FESOP. KCBX believes the final comments discussed herein are minor and will not cause Illinois EPA concern, but if Illinois EPA disagrees with that characterization and wishes to discuss any particular comment, please contact Mr. Terry

Steinert, Environmental Compliance Manager, at 316.828.7847, to arrange a meeting to discuss the same. Additionally, KCBX requests that Illinois EPA provide it with a copy of the revised draft FESOP prior to public notice.

Sincerely,



Jim Simmons MICHAEL ESTADT FOR JIM SIMMONS
Terminal Manager
attachment

cc: Mr. Robert W. Bernoteit (via U.S. Mail; w/attachment)
Christopher R. Pressnall, Esq. (via U.S. Mail; w/attachment)
Christopher J. Grant, Esq. (via U.S. Mail; w/attachment)
Thomas G. Safley, Esq. (via U.S. Mail; w/attachment)
Mr. Terry Steinert (via U.S. Mail; w/attachment)
Katherine D. Hodge, Esq. (via U.S. Mail; w/attachment)

KCBX TERMINALS COMPANY

December 2, 2011

VIA CERTIFIED MAIL
(Return Receipt Requested)

Mr. Brad Frost
Division of Air Pollution Control
Illinois Environmental Protection Agency
Post Office Box 19506
Springfield, Illinois 62794-9506

RE: Comments Regarding Public Notice Draft of
Renewal Federally Enforceable State Operating Permit
KCBX Terminals Company
Chicago, Illinois
Site Identification No.: 031600AHI
Application No.: 95050167

Dear Mr. Frost:

The purpose of this letter is to provide the Illinois Environmental Protection Agency ("Illinois EPA") with KCBX Terminals Company's ("KCBX") comments regarding the public notice draft of the renewal Federally Enforceable State Operating Permit ("Public Notice Draft FESOP") for KCBX's bulk solids materials terminal located at 3259 East 100th Street, Chicago, Illinois ("Facility"). The public notice period for the Public Notice Draft FESOP began on November 22, 2011, and will close on December 21, 2011.

Permit Expiration Date

The Public Notice Draft FESOP includes an expiration date of December 29, 2015, meaning the permit, as proposed, would only be valid for approximately four (4) years. The recent amendments to 35 Ill. Admin. Code § 201.162, however, provide that operating permits can now be valid for up to ten years. 35 Ill. Admin. Code § 201.162(a). Additionally, Mr. Robert Bernoteit of Illinois EPA testified at hearing in the rulemaking in which the Illinois Pollution Control Board ("Board") adopted the amendments to Section 201.162. See Final Opinion and Order of the Board, In the Matter of: 10-Year Federally Enforceable State Operating Permits (FESOP): Amendments to 35 Ill. Adm. Code 201.162, R10-21 at 4 (Ill.Poll.Control.Bd. Nov. 18, 2010). Specifically, Mr. Bernoteit testified that while Illinois EPA retains discretion under Section 201.162 to issue permits for a term that is shorter than the maximum term, FESOPs that are issued for a term shorter than ten years may result from situations in which the source may have

Mr. Brad Frost
December 2, 2011
Page 2

been out of compliance with applicable requirements prior to issuance of the FESOP and where the source needs to conduct additional performance testing to demonstrate or confirm compliance with the applicable requirements. Id.

KCBX has not been out of compliance with applicable requirements prior to issuance of the FESOP, nor does it need to conduct additional performance testing to demonstrate or confirm compliance with the applicable requirements. Therefore, it is appropriate for Illinois EPA to exercise its discretion to allow the Public Notice Draft FESOP to be valid for ten years, or until December 29, 2021. This is consistent with Mr. Bernoteit's testimony and the Board's finding that a ten-year time period for permit validity will not affect KCBX's obligation to comply with applicable legal requirements, and will reduce administrative burdens on KCBX and on Illinois EPA. Id. Therefore, KCBX requests that the expiration date of the Public Notice Draft FESOP be revised to "December 29, 2021."

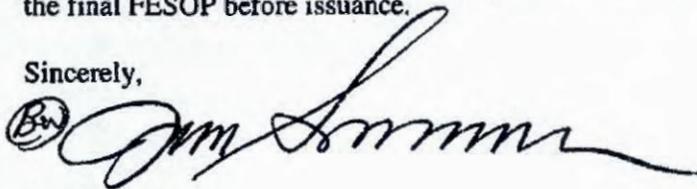
Draft Permit Condition 18(b)

The reference to "Condition 17(a)" in the first sentence of Draft Permit Condition 18(b) is incorrect. The reference should instead be to "Condition 18(a)." Draft Permit Condition 17(a) does not discuss "records and logs," but instead discusses test results. KCBX believes this mistaken reference is a holdover from prior drafts of the permit. Therefore, KCBX requests that the Public Notice Draft FESOP be revised to reflect this edit.

Conclusion

KCBX appreciates this opportunity to review and provide Illinois EPA with comments regarding the Public Notice Draft FESOP. If you have any questions concerning these comments, please contact Mr. Terry Steinert, Environmental Compliance Manager, at 316.828.7847. Additionally, KCBX requests that Illinois EPA provide it with a copy of the final FESOP before issuance.

Sincerely,

A handwritten signature in black ink, appearing to read "Jim Simmons". To the left of the signature is a circular stamp containing the letters "BW".

Jim Simmons
Terminal Manager

cc: Mr. Robert W. Bernoteit (via electronic mail)
Christopher R. Pressnall, Esq. (via electronic mail)
Christopher J. Grant, Esq. (via electronic mail)
Thomas G. Safley, Esq. (via electronic mail)
Mr. Terry Steinert (via electronic mail)
Katherine D. Hodge, Esq. (via electronic mail)