KCBX TERMINALS COMPANY

July 16, 2010
CERTIFIED MAIL

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

Re: Comments Regarding Proposed Renewal of
Federally Enforceable State Operating Permit
KCBX Terminals Co., Chicago, IL
I.D. Number 031600AHI
Application Number 95050167

Dear Mr. Frost:

On August 7, 2009, KCBX Terminals Company ("KCBX") provided a response to the preliminary draft Federally Enforceable State Operating Permit ("FESOP") ("Draft Permit") for the KCBX facility located at 3259 East 100th Street, Chicago, Illinois, 60617 ("Facility"), which was included with correspondence from the Illinois Environmental Protection Agency ("Illinois EPA" or "Agency"), dated June 24, 2009 ("August 7, 2009 Letter"). Please see KCBX's August 7, 2009 Letter, enclosed herewith as Attachment A. After KCBX submitted the August 7, 2009 Letter, the Agency posted online a revised Draft Permit for public review and comment on June 16, 2010 ("Revised Draft Permit"). The purpose of this correspondence is to provide KCBX's comments on the Revised Draft Permit. All references herein to "Draft Permit Condition" refer to the draft permit conditions as numbered in the Revised Draft Permit. The numbering of some conditions, as reflected in the enclosed markup, enclosed herewith as Attachment B (a clean version of the same is also attached hereto for your review), is reflected by a reference to "KCBX Renumbered Condition," where applicable.

Opening Paragraph

Revision of the opening paragraph source description, which is similar to KCBX's comments in the August 7, 2009 Letter, is requested to correctly identify and portray the equipment subject to permitting. It is understood by this introductory paragraph that all non-mobile material handling equipment not named is included under the general term "bulk solid materials terminal," and that such equipment, unless otherwise indicated in the permit, is subject to Title 35 Illinois Administrative Code ("35 IAC") 212.123, having been installed prior to April 14, 1972.

Draft Permit Condition 1

Revision of Draft Permit Condition 1a is requested to identify the pollutants for which KCBX accepts limits in order to avoid classification as a major source. The revisions to the list of pollutants for which a limit is required are based on the Potential To Emit ("PTE") for the

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equipment installed at KCBX and the exclusion of fugitive emissions for purposes of determining source status, as discussed in the August 7, 2009 Letter.

The principal difference between the August 7, 2009 Letter and the comments herein is the demonstration that limits for Carbon Monoxide ("CO"), Sulfur Dioxide "SO2"), particulate matter with an aerodynamic diameter less than or equal to 10 micrometers ("PM_{10}"), and Volatile Organic Material ("VOM") are not necessary. Please recall that in the August 7, 2009 Letter, KCBX included information regarding the fact that a Particulate Matter ("PM") limit was not necessary.

KCBX requests limitations on Nitrogen Oxides ("NOx") only. Limitations on emissions of PM and PM_{10} are not necessary because of the referenced exclusion of fugitive emissions. Limitations on emissions of CO, SO2, and VOM are not necessary because the source is genuinely minor for these pollutants. Please see Attachment C (PTE from fuel combustion) and Attachment D (PTE from fugitive sources of particulates) to these comments.

Revision to Attachment A – Emissions Summary is requested to identify the pollutants for which KCBX accepts limits in order to avoid classification as a major source. The revision to the list of pollutants for which a limit is required is based on the PTE for the equipment installed at the Facility and the exclusion of fugitive PM and PM_{10} emissions for purposes of determining source status.

Revision of Draft Permit Condition 1c is requested to clarify that the operating authority granted in all construction permits for the Facility is superseded by the FESOP.

Draft Permit Condition 2

Revision of Draft Permit Condition 2c is requested to make the language of the Condition consistent with the Illinois Pollution Control Board ("Board") regulation that the Agency is quoting.

Deletion of Draft Permit Conditions 2d, 2e and 2f is requested since KCBX does not have, and could not add, storage piles to the Facility that would result in 50 tons per year of fugitive PM. To substantiate this assertion, please consider that for a storage pile to be covered or sprayed, such a storage pile would be considered inactive (i.e., it is not routine practice to cover piles that are actively being created, reclaimed or otherwise manipulated, such as pile shaping, compacting or peak reduction). Many times in the past, the Agency has accepted the following equation from AP-42 Table 11.9-4 for calculating fugitive PM emissions from inactive storage piles:

$$PM = 0.38 \text{ tons/(acre-year)}$$

Using the 50 ton per year threshold of 35 IAC 212.304(a) and solving the above equation for acreage:

$$50 \text{ ton/year} * (1 \text{ year}/0.38 \text{ ton}) = 131.6 \text{ acres}$$

The Facility is approximately 53 acres and, even if all available space were utilized for bulk material storage (i.e., all buildings, roads, rail lines, conveyors, etc.) were removed, KCBX could not possibly emit 50 tons per year of fugitive PM from inactive storage piles.

Deletion of Draft Permit Condition 2g is requested because KCBX does not have pollution control equipment that collects such materials, and the addition of such equipment would require a construction permit, at which time appropriate permit conditions would be developed.

Renumbering of Condition 2, beginning with Draft Permit Condition 2h/KCBX Renumbered Condition 2d is requested because of the other revisions to Draft Permit Condition 2.

Revision of Draft Permit Condition 2h/KCBX Renumbered Condition 2d is requested to make the language of the Condition consistent with the Board regulation that the Agency is quoting.

Deletion of Draft Permit Conditions 2h.i and 2h.ii is requested because these provisions apply to fine product load out operations. KCBX does not segregate materials to produce a "fine product," and, therefore, does not engage in loading out fine products.

Addition of KCBX Renumbered Condition 2e is requested to cover the emission of PM from fuel combustion units.

Revision of Draft Permit Condition 2i/KCBX Renumbered Condition 2f is requested because the inclusion of the reference to 35 IAC 212.316 is relevant, as KCBX has emission units covered under 35 IAC 212.316(a).

Deletion of Draft Permit Condition 2l is requested because KCBX does not have particulate collection equipment that controls bucket elevators, conveyor transfer points, conveyors, storage bins or fine product truck and railcar loading operations and the addition of such equipment would require a construction permit, at which time appropriate permit conditions would be developed.

Revision of Draft Permit Condition 2m/KCBX Renumbered Condition 2i is requested to make the language of the Condition consistent with the Board regulation that the Agency is quoting.

Revision of Draft Permit Condition 2p/KCBX Renumbered Condition 2l is requested to define PM_{10} as this is the first instance in the permit where this term is used.

Revision of Draft Permit Condition 2q/KCBX Renumbered Condition 2m is requested to clearly define the emission units subject to the process emission rate limits of 35 IAC 212.321(b).

Addition of KCBX Renumbered Conditions 2o and 2p is requested to cover the emission units not named in Draft Permit Condition 2q/KCBX Renumbered Condition 2m.

Deletion of Draft Permit Condition 2t is requested because KCBX does not have process emission units that emit PM in configurations where airflow is contained in pipes, vents or stacks with PM loading in the form of grains per standard cubic foot of air (i.e., all PM emissions from process emission units are fugitive in nature).

Draft Permit Condition 4/KCBX Renumbered Condition 3

Renumbering of remaining conditions beginning with Draft Permit Condition 4a is requested because there is no Condition 3 in the Revised Draft Permit.

Deletion of Draft Permit Condition 4b is requested because KCBX does not have process emission sources, as that term is defined in 35 IAC 211.5185, that emit SO_2. Addition of such process emission sources would require a construction permit, at which time appropriate permit conditions would be developed.

KCBX is unsure how to interpret Draft Permit Condition 4c/KCBX Renumbered Condition 3c, which cites 35 IAC 214.304, because the cited regulation refers to burning of fuel at "process emission sources." However, by definition at 35 IAC 211.5185, fuel is not burned in "process emission sources" where "process emission source" is defined in 35 IAC 211.5190 as any stationary emission source *other than a fuel combustion emission unit* or an incinerator." If it is determined that Draft Permit Condition 4c/KCBX Renumbered Condition 3c is not conflicted in its supporting definitions, then KCBX requests revision of Draft Permit Condition 4c/KCBX Renumbered Condition 3c to cover the existing combustion emission sources at KCBX that exclusively burn liquid fuel (i.e., add a reference to 35 IAC 214.161 following the reference to 214.122(b)).

Draft Permit Condition 5/KCBX Renumbered Condition 4

Revision of Draft Permit Condition 5/KCBX Renumbered Condition 4 is requested to clarify that NSPS Subpart Y (Coal Preparation Plants) applicability is not based on the most recent construction permit, but rather the basis for inclusion of NSPS Subpart Y in the FESOP is the presence and use of the coal screener. This condition also clarifies that addition of screened coal to, and reclamation of screened coal from, existing stockpiles or stockpile areas does not make the stockpile or stockpile area subject to the NSPS. See Attachment A for details.

Draft Permit Condition 6/KCBX Renumbered Condition 5

Revision of Draft Permit Condition 6a/KCBX Renumbered Condition 5a is requested to make the language consistent with the rest of the FESOP.

Deletion of Draft Permit Conditions 6b and 6c/KCBX Renumbered Conditions 5b and 5c is requested because the VOM PTE at KCBX, including insignificant activities, is 18.4 tons per year. See Attachment C. As the seasonal emissions baseline period covers May 1 through September 30 or 5/12 of a year, the seasonal emissions VOM PTE cannot exceed 7.7 tons. Therefore, KCBX is excluded from the Emission Reduction Market System ("ERMS") and would not be subject to the ERMS unless undergoing a substantial modification or emission

unit(s) addition. Because such changes require a construction permit, the appropriate time to address them would be during the construction permit process.

Draft Permit Condition 7/KCBX Renumbered Condition 6

Revision of Draft Permit Condition 7b/KCBX Renumbered Condition 6b is requested to make the language consistent with the Board regulation that the Agency is quoting.

Addition of KCBX Renumbered Condition 6c is requested to clarify the applicability of KCBX Renumbered Conditions 2m through 2p.

Draft Permit Condition 8/KCBX Renumbered Condition 7

Revision of Draft Permit Condition 8e/KCBX Renumbered Condition 7e is requested to make the language consistent with the Board language that the Agency is quoting.

Deletion of Draft Permit Condition 8f/KCBX Renumbered Condition 7f is requested because the regulation quoted in the Condition, 35 IAC 212.704(e), addresses actions required of the Agency, not the Permittee, and thus, its inclusion in the FESOP is unnecessary. Responsibilities of the Permittee are covered in KCBX Renumbered Condition 7c.

Draft Permit Condition 9/KCBX Renumbered Condition 8

Revision to Draft Permit Condition/KCBX Renumbered Condition 8 is proposed to: 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 site will be used in calculating emissions; and 5) clarify the fugitive emissions that count toward Title V and Prevention of Significant Deterioration applicability.

Draft Permit Condition 10/KCBX Renumbered Condition 9

Revision of Draft Permit Condition 10a/KCBX Renumbered Condition 9a is requested because there is no rule basis for limiting PM emissions (see August 7, 2009 Letter). KCBX understands that PM emissions from fugitive sources will be quantified for annual emission reporting, but believes any mass-based limit on PM emissions to be a state-only requirement and not federally enforceable. If mass-based limits are included, they should be quantified annually for emissions reporting and not weekly, because there is no rule-based mass limit for these pollutants and obtaining information used in the calculations on a weekly basis will be difficult. In addition, revisions are requested for the equation and parameter descriptions for consistency, to preserve the sequence of variables and to include emissions from the generators. Alternatively, Draft Permit Condition 10a/KCBX Renumbered Condition 9a could be deleted entirely because it is not needed to set a federally enforceable limit or show compliance with a federally enforceable permit condition.

Revision of Draft Permit Condition 10b/KCBX Renumbered Condition 9b is requested to: 1) clarify the fuel combustion units included in the calculation for maintaining synthetic minor source status; 2) remove CO, SO_2 and VOM as pollutants requiring monitoring because the PTE of these pollutants is genuinely minor and does not and cannot exceed major source thresholds; 3) require monthly (not weekly) quantification of NOx emissions (we understand from the conversations referenced in the August 7, 2009 Letter that an annual limit of 92 tons per year will allow the Facility to use monthly calculations); 4) clarify the AP-42 source of data for calculating NOx; and 5) correct the emission calculation formula.

Revision of Draft Permit Condition 10c/KCBX Renumbered Condition 9c is requested to make fuel combustion emission calculations monthly (see Point 3 in discussion of Draft Permit Condition 10b/KCBX Renumbered Condition 9b, above).

Renumbering of the remaining conditions in KCBX Renumbered Condition 9 is requested because of the other revisions to the Revised Draft Permit.

Draft Permit Condition 13/KCBX Renumbered Condition 12

Revision of Draft Permit Condition 13b.ii/KCBX Renumbered Condition 12b.ii to make the language of the Condition consistent with the Board regulation that the Agency is quoting.

Revision of Draft Permit Condition 13b.iii/KCBX Renumbered Condition 12b.iii is requested to correct citation inconsistencies.

Draft Permit Condition 14/KCBX Renumbered Condition 13

Revision of Draft Permit Condition 14a/KCBX Renumbered Condition 13a is requested for consistency with changes to KCBX Renumbered Condition 9 concerning moisture data and KCBX Renumbered Condition 10 for calculation frequencies.

Deletion of Draft Permit Condition 14b is requested because the Facility is not an ERMS source (see discussion of VOM PTE in Draft Permit Condition 6/KCBX Renumbered Condition 5 above).

Revision of Draft Permit Condition14c/KCBX Renumbered Condition 13b is requested to clarify that 5 year retention of records and logs is required where no other retention period is specified (as in KCBX Renumbered Conditions 12a, 12b.iii and 12c.iv).

Draft Permit Condition 15/KCBX Renumbered Condition 13 and Draft Permit Condition 20/KCBX Renumbered Condition 15

Revision is requested to correct numbering of conditions only.

Pagination

Page numbers have been added to the bottom of the pages of the Revised Draft Permit.

Summary

KCBX appreciates the opportunity to offer these comments and hereby requests a meeting with air permitting Staff to discuss the same. If you have any questions concerning these comments and/or requested revisions, please contact Mr. Terry Steinert, Environmental Compliance Manager at (316) 828-7847.

Thank You,

Jim Simmons
Terminal Manager

Cc: Edwin C. Bakowski, P.E.
Kathy Hodge, Esq.

Attachment A

KCBX TERMINALS COMPANY

August 7, 2009

By Electronic Mail and Overnight Mail

Edwin C. Bakowski, P.E.
Manager, Permit Section
Division of Air Pollution Control
Illinois Environmental Protection Agency – Bureau of Air
1021 North Grand Avenue East
P.O. Box 19506
Springfield, Illinois 62794-9506

Re: Preliminary Draft Federally Enforceable State Operating Permit

I.D. Number: 031600AHI
Application Number: 95050167

Dear Mr. Bakowski,

This letter is sent on behalf of KCBX Terminals Co. ("KCBX") in response to your correspondence dated June 24, 2009. By that correspondence, you forwarded us an informal draft ("Draft Permit") Federally Enforceable State Operating Permit ("FESOP") for the KCBX facility located at 3259 E. 100th Street, Chicago, Illinois 60617 ("Facility"). KCBX appreciates the opportunity to review this Draft Permit, and also appreciates the Illinois Environmental Protection Agency ("Illinois EPA" or "Agency") speaking with us on July 23, 2009 regarding the Draft Permit language, and extending the timeframe for KCBX to provide a written response regarding the Draft Permit to August 7, 2009.

As you know, KCBX currently operates the Facility under a FESOP issued by Illinois EPA on April 8, 2004 (Expiration Date: June 22, 2005, Application No: 95050167). KCBX submitted its timely application for renewal of that FESOP on January 27, 2005, and has provided supplemental written information in support of its renewal application since that date. Most recently on January 19, 2009, KCBX transmitted proposed permit language to Illinois EPA. KCBX incorporates its January 27, 2005 renewal application and subsequent written communications relating to the FESOP renewal into this letter by reference.

During our July 23, 2009 telephone conference, KCBX and Illinois EPA discussed four main issues relating to the Draft Permit. KCBX addresses those discussions below, and – per our discussion during the telephone conference – raises additional substantive comments and questions on the Draft Permit language for the Agency's consideration. KCBX has included with this letter a markup of the Draft Permit proposing language

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changes that address all of these issues, as well as other documents that are referenced below. The enclosed markup also includes self-explanatory proposed changes to correct typographical errors in references to regulatory provisions, numbering of permit conditions, etc.

As you will see from the following, in response to our discussion with Illinois EPA on July 23, KCBX proposes to modify the permit conditions addressing emissions of particulate matter ("PM"), and we would like the opportunity to walk through with the Agency our revised proposal. In addition, as indicated by proposed changes in the enclosed draft markup, it appears to us that the Agency may be utilizing information regarding the facility's VOM and SO_2 emissions which is not current, which we also would like to discuss with the Agency. We will contact you in the near future to arrange a telephone conference, and look forward to speaking with you.

Issues Discussed during July 23, 2009, Telephone Conference

Permit Reference to Applicability of NSPS Subpart Y – Proposed Condition 3 in KCBX's January 19, 2009, draft permit language referenced the applicability of the federal New Source Performance Standard ("NSPS") for coal preparation plants, 40 CFR 60, Subpart Y, to a portion of the operations at the Facility which involve screening of coal. (*See also* further discussion of Subpart Y applicability below.) This proposed language was not included in the Agency's Draft Permit. Based on our July 23, 2009 conversation, KCBX understands that the Agency agrees this language should be included in the permit. Therefore, KCBX has included Subpart Y applicability language in the enclosed markup of the Agency's Draft Permit. KCBX also has struck the Agency's proposed Condition 5 regarding the issuance of a construction permit by the Agency for two conveyors that are not subject to NSPS Subpart Y, as this language does not appear relevant to the FESOP, and does not appear necessary in light of the re-inclusion of KCBX's proposed Condition 3 language.

Limit for Emissions of Particulate Matter ("PM") – Various Conditions of the Agency's Draft Permit reference an emissions limit of 95 tons per year ("tpy") for PM, in addition to a separate limit of 95 tpy for PM less than or equal to 10 micrometers in aerodynamic diameter ("PM_{10}"). *See, e.g.*, Draft Permit Section 10a; Draft Permit Attachment A. Based on our July 23, 2009 conversation, KCBX understands that Illinois EPA included this separate 95 ton PM limit only for purposes of establishing the permit fee for the Facility, and not to establish a synthetic limit on PM emissions for purposes of Title V applicability. This is consistent with U.S. Environmental Protection Agency ("USEPA") guidance which makes clear that "[t]he 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." October 16, 1995 Memorandum from Lydia N. Wegman, USEPA, enclosed, at 1. (Emphasis added.) Accord, *id.*, at enclosure "Regulated Air Pollutant: Particulate Matter," p. 1 ("[U]nder 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.")

Notwithstanding that a synthetic limit on PM is not necessary for Title V purposes, KCBX requests a synthetic limit to control potential PM emissions for purposes of the Federal Prevention of Significant Deterioration ("PSD") program, 40 CFR 52.21. As the Agency is aware, the Facility does not have any operations within the source categories listed in 40 CFR 52.21(b)(1)(i)(a) (defining "Major stationary source" for purposes of the PSD rule to include, in part, sources of air pollutants in certain categories, such as "portland cement plants, primary zinc smelters," etc.). Thus, the Facility could only be a Major Stationary Source of PM emissions for PSD purposes if relevant emissions of PM exceeded 250 tpy. See 40 CFR 52.21(b)(1)(i)(b).

For purposes of the PSD program, the relevant emissions of PM only include PM emissions from the Facility's coal screening operation. This is made clear by guidance issued by USEPA on March 6, 2003, by Letter from Cheryl L. Newton, USEPA, to the Indiana Department of Environmental Management, a copy of which is enclosed. By this guidance, USEPA "clarify[s] to what extent, and from which emission units, ... fugitive emissions [are] counted towards major source applicability for Title V, nonattainment new source review (NSR), and prevention of significant deterioration (PSD)." *Id.* at 1.

First, USEPA finds that: "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" for purposes of determining applicability with regard to these programs. *Id.* at "Analysis," p. 2. (Emphasis added.) In contrast, however, USEPA further finds that:

> 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.

Id. at "Analysis," p. 3. (Emphasis added.)

As an example, USEPA's guidance discusses "[a] coal mine with an onsite coal cleaning plant with a thermal dryer." *Id.* USEPA notes that "[t]he primary activity of the source, in this example, is the mining of coal, and coal mines are not a listed source category," but that "[t]he coal cleaning plant ... does fall within a listed source category." *Id.* In this case, USEPA concludes: "You include fugitive emissions only from the coal cleaning plant to determine if the source is a major stationary source." *Id.* (Emphasis added.)

In the case of the KCBX Chicago Facility, the primary activity of the Facility is unloading, storing, and loading of bulk solids. The Facility also operates a small screening operation that is subject to NSPS Subpart Y when it is used to screen coal. However, the great majority of material at the Facility is either not coal or is coal that is never introduced into the screening operation. That material, which is not screened, arrives at the Facility by train, barge or truck and is either directly transloaded to another mode of transportation,

such as a lake vessel, or is placed in piles on the Facility storage pad. Material from the storage pad is later loaded onto ships, barges, or trucks for transportation elsewhere.

Only the incidental coal screening operation at the Facility falls within a listed source category under PSD, specifically "[a]ny other stationary source category which, as of August 7, 1980, is being regulated under section 111 or 112 of the Act." 40 CFR 52.21(b)(1)(iii)(aa). Thus, pursuant to USEPA's March 6, 2003 guidance, only PM emissions associated with the screening operation are relevant "to determine if the source is a major stationary source" of PM emissions for purposes of PSD. Therefore, only PM emissions associated with the coal screening operation (that is, PM emissions from the screening plant when processing coal and directly-connected appurtenances such as conveyors) need be limited to render the Facility a "synthetic minor" stationary source for purposes of PSD. As discussed below, KCBX proposes a 88 tpy limit on PM10 emissions from the Subpart Y regulated coal screening operation at the Facility. This limit will serve to limit emissions of PM from the Subpart Y regulated coal screening operation to less than 250 tpy, ensuring that the potential PM emissions from the source would be capped below the threshold for a Major Stationary Source under the PSD program. See enclosed calculations.

During the July 23, 2009 telephone conference, we also discussed the issue of permit fees. In 2008, Illinois EPA assessed a permit fee of $3,500 for the Facility, presumably pursuant to 415 ILCS 5/9.6(b)(3), as the Facility's current FESOP allows the Facility to emit "at least 100 tons per year of any combination of regulated air pollutants." It is KCBX's understanding that PM (as opposed to PM10) is not a "regulated air pollutant" as that term is defined in 415 ILCS 5/39.5(1) and, accordingly, that emissions of PM are not counted for purposes of determining permit fees. Regardless, the Facility's permit fees would not change under this proposal, because even without emissions of PM, the Draft Permit allows the Facility to emit at least 100 tpy of "any combination of regulated air pollutants" (the combination of CO at 92 tpy, NOx at 92 tpy, PM10 at 88 tpy, SO2 at 21.9 tpy, and VOM at 40.1 tpy is greater than 100 tpy").

Weekly vs. Monthly Emission Limits – The Facility's current FESOP sets both yearly and monthly limits on emissions of certain pollutants, with associated recordkeeping requirements. *See, e.g.,* April 8, 2004, FESOP, §§ 10, 11. The Agency's Draft Permit, on the other hand, sets yearly and weekly limits on such emissions. *See, e.g.*, Draft Permit, §§ 10, 14a. As discussed during our July 23, 2009 telephone conference, setting limits on a weekly basis presents operational difficulties for KCBX. The Agency stated that it would be comfortable with monthly rather than weekly limits if the final FESOP contained numeric limits of 92 tpy rather than 95 tpy for pollutants for which the Title V major source threshold is 100 tpy. As discussed further below, KCBX proposes a PM10 limit of 88 tpy from the screening operation at the Facility, accepts the lower 92 tpy limits for other pollutants, and requests that the Agency include such lower limits with corresponding monthly rather than weekly compliance and recordkeeping requirements in the final FESOP. KCBX has proposed language addressing this issue in conditions 9.a., b. and c., and 13.a.ii. and iii. of the enclosed markup of the Draft Permit.

Limits on Facility PM10 Emissions – During our July 23, 2009 telephone conference, we also discussed what emissions of PM_{10} at the Facility are relevant for purposes of determining whether the Facility would be considered a "major source" of PM_{10} emissions for purposes of Title V. As we explained to the Agency, this issue arose in our internal discussions in preparation for the telephone conference, and at that time, we had not fully developed our analysis of this issue.

Like the federal Clean Air Act, Section 39.5(c)(ii) of the Illinois Environmental Protection Act provides that "[t]he fugitive emissions of a stationary source shall not be considered in determining whether it is a major stationary source for the purposes of Section 302(j) of the Clean Air Act, unless the source belongs to one of" certain specified "categories of stationary source." 415 ILCS § 5/39.5(c)(ii). The screening operation discussed above constitutes a "stationary source categor[y], which as of August 7, 1980 [was] being regulated by a standard promulgated under Section 111 or 112 of the Clean Air Act," that is, NSPS Subpart Y. Therefore, the screening operation does fit into the category of stationary source identified in 415 ILCS 5/39.5(c)(AA). No other operation at the Facility fits in to any source category listed in Section 39.5(c).

As with the PSD analysis discussed above, USEPA has made clear that for Title V applicability purposes, where "the primary activity of a stationary source falls within a source category that is not listed, ... [but] 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." March 6, 2003 USEPA Guidance, "Analysis," at 3. Thus, as with the PSD program, only PM10 emissions associated with the screening operations are relevant for determining Title V applicability, and only PM10 emissions associated with the screening operations need be limited for purposes of avoiding Title V applicability. Therefore, KCBX proposes a 88 tpy limit on PM10 emissions from the screening operations. This limit will serve to cap PM-10 emissions under both the Title V and PSD thresholds, to ensure that the potential PM-10 emissions from the Facility are capped below the threshold for a major stationary source under both programs.

Related to the issue of the limits on emissions of PM and PM10 at the Facility is the question of how the facility monitors the level of moisture in the bulk products at the Facility. In order to ensure the most accurate moisture information for all material that it screens, KCBX proposes to sample this material directly, on a weekly basis, rather than rely on moisture information from suppliers. *See* Proposed Condition 8a. in the enclosed markup of the Agency's Draft Permit. With regard to the moisture of other bulk materials at the Facility, KCBX proposes to rely on moisture information from suppliers or on moisture testing of the material once it is present at the Facility. *See* KCBX's proposed Condition 8b.

Finally, of course, while limits on emissions of PM and PM_{10} from locations or activities at the Facility not associated with the coal screening operation are not necessary under Title V or PSD, such emissions will be subject to state opacity rules and the Facility's Fugitive Particulate Operating Program.

Additional Substantive Comments/Clarifications/Additions

In addition to the changes discussed above, KCBX proposes further substantive changes to the FESOP, as explained in more detail below. All references below to "Draft Permit Condition #" refer to the draft permit conditions as numbered in the Draft Permit dated June 24, 2009, without regard to any typographical errors in the numbering of such conditions. The renumbering of some conditions, as reflected in the enclosed markup, is reflected by the additional language "KCBX Renumbered Condition #" where applicable.

Draft Permit Opening Paragraph -- Changes proposed to the opening paragraph of the draft permit are intended to clarify that:

1. the Facility handles only bulk solid materials, not bulk liquids (see also proposed revision to Draft Permit Condition 9.a.);

2. the two diesel generators at the Facility are slightly different in size; and,

3. combustion units other than the two diesel generators are small in size (i.e., less than 600 horsepower) and may individually run on a variety of fuels (e.g., gasoline, diesel or kerosene).

Draft Permit Condition 1.a. – The change proposed to Draft Permit Condition 1.a is intended to clarify that emission caps are only needed for NOx, CO and PM10 for the facility to be a non-major source with respect to Title V.

Draft Permit Condition 1.d. – The change proposed to Draft Permit Condition 1.c is intended to clarify that any operating authority granted by the Construction Permit for Two Conveyors issued on October 17, 2008 (Application No. 07100090), or any other Construction Permit issued to the Facility, is superseded by this new FESOP, and that the two conveyors, if added, will operate under the conditions of this FESOP and not those of the Construction Permit.

Draft Permit Condition 2.b. – The change proposed to Draft Permit Condition 2.b is intended to clarify the applicability of 35 Ill. Admin. Code § 212.123(b) by noting the emission units to which the condition applies as previously agreed during issuance of the Construction Permit for Two Conveyors on October 17, 2008 (Application No. 07100090).

Draft Permit Condition 2.c. – The change to Draft Permit Condition 2.c is proposed to make the language of the Condition consistent with the Illinois Pollution Control Board ("Illinois PCB") regulation that the Agency is quoting, 35 Ill. Admin. Code § 212.301.

Draft Permit Conditions 2.d through 2.f. – Deletion of Draft Permit Conditions 2.d, e, and f is proposed because no individual storage pile at the facility has the potential to emit 50 tpy of PM as is needed for these Conditions to be applicable.[1]

Draft Permit Conditions 2.g and 2.l. – Deletion of Draft Permit Conditions 2.g and 2.l. is proposed because the facility does not have pollution control equipment that collects materials. The addition of such equipment would require a construction permit that would govern the operation of such equipment until such time as the FESOP would be amended or renewed. Therefore, inclusion of these Conditions in the FESOP at this time is not necessary.

Draft Permit Condition 2.h./KCBX Renumbered Condition 2.d. – Changes proposed to Draft Permit Condition 2.h are intended to:

1. make the language of the Condition consistent with the Illinois PCB regulation that the Agency is quoting, 35 Ill. Admin. Code § 212.308, even though the facility does not have bagging operations; and,

2. remove sub-Conditions i. and ii. relating to conveyor loadout sleeves for loading trucks and railcars, as Section 212.308 specifies that it applies to "fine product truck and railcar loading operations," and the Facility does not segregate materials

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[1] See 35 IAC 212.304 and Illinois EPA approved calculations for emissions from storage piles using Fifth Edition AP-42 Chapter 11.9 "Western Surface Coal Mining," Table 11.9-1 for active storage piles and Table 11.9-4 for inactive, exposed areas) Using the equation for inactive storage piles of:

PM Emission = 0.38 ton per acre per year

and assuming the entire 53.26 acre site is one large storage pile and no emission controls such as watering are applied, the potential emissions from this hypothetical inactive pile would be:

PM Emissions = 53.26 acres * 0.38 ton/acre-year = 20.239 tons PM/year

Using the Equation for active piles of:

PM Emission = 3.1536*u = ton per acre per year

Where u is the long-term average annual wind speed of 10.4 miles per hour and assuming the 26.5 acre storage pad is one large storage pile where 10% can be actively worked on any day, and 50% control is achieved from adding water, the potential emissions from this hypothetical pile would be:

PM Emission = 3.1536*10.4 * 26.5 * 0.1 * 0.5 = 43.457 ton per acre per year

The above illustrations are hypothetical because the site actually consists of a minimum of 10 (and more likely 15 to 20) separate storage piles and the Agency has previously agreed that 75 percent control from watering is acceptable for emissions calculations. Additionally, the 26.5 acre storage pad is not wholly consumed by storage piles because space is occupied by roadways, railroad tracks and conveying systems.

to produce a "fine product," and therefore does not engage in "fine product truck and railcar loading operations."

Draft Permit Condition 2.i./KCBX Renumbered Condition 2.e. – The change to Draft Permit Condition 2.i is proposed to make the language of the Condition consistent with the Illinois PCB regulation that the Agency is quoting, 35 Ill. Admin. Code § 212.309(a).

Draft Permit Conditions 2.m., 2.n., and 2.o./KCBX Renumbered Conditions 2.h., 2.i., and 2.j. – No changes are proposed to Draft Permit Conditions 2.m, 2.n, and 2.o, but KCBX notes that 35 Ill. Admin. Code 212.316(a), 212.302(b) and 212.324(a)(1)(B) also require conformance to these permit Conditions.

Second Draft Permit Condition 2.n. (Draft Permit Page 5)/KCBX Renumbered Condition 2.o. – The revision of the second Draft Permit Condition numbered "2.n." (Draft Permit Page 5) is proposed because all "process emission units" at the Facility, defined in 35 Ill. Admin. Code 211.5190 as non-fuel combusting emission units only, have only fugitive emissions which are exempted from regulation under 35 Ill. Admin. Code 212.324 by 35 Ill. Admin. Code 212.324(d).

Draft Permit Condition 4.b. – The deletion of Draft Permit Condition 4.b is proposed because the facility does not have process emission sources, as that term is defined in 35 Ill. Admin. Code 211.5190, that emit sulfur dioxide.

Proposed New Condition 3.b. – The addition of a new Condition 3.b is proposed because the Facility believes it may have comfort-heating emission sources that qualify as existing fuel combustion emission sources.

Draft Permit Condition 4.c./KCBX Renumbered Condition 3.c. – The change proposed to Draft Permit Condition 4.e makes this Condition consistent with the proposed addition of new Condition 3.b to the extent that "existing" equipment is or is not defined. KCBX has furnaces / water heaters that predate the acquisition of the Facility in 1993.

KCBX further notes that it is unsure how to interpret Draft Permit Condition 4.c., which quotes Illinois PCB regulation 35 Ill. Admin. Code § 214.304, because Section 214.304 refers to "burning of fuel at process emission sources." However, by definition, fuel is not burned in "process emission sources" -- "process emission source" is defined as "any stationary emission source other than a fuel combustion emission unit or an incinerator." 35 Ill. Admin. Code § 211.5185. Accord, 35 Ill. Admin. Code § 211.5190 (defining "process emission unit"). KCBX would appreciate guidance from the Agency on this issue.

Draft Permit Condition 8.e./KCBX Renumbered Condition 7.e. – The change to Draft Permit Condition 8.e. is proposed to make the language of the Condition consistent with the regulation that the Agency is quoting, 35 Ill. Admin. Code § 212.704(b).

Draft Permit Condition 8.f. – The deletion of Draft Permit Condition 8.f is proposed because the regulation quoted in this draft Condition, 35 Ill. Admin. Code Section 212.704(e), addresses actions required of the Agency, not permit holders, and thus its inclusion in the FESOP is unnecessary.

Draft Permit Condition 9.b.ii./KCBX Renumbered Condition 8.a. – The changes to this Draft Permit Condition are proposed to clarify that the purpose of the 1.5% moisture content for coal to be processed through the coal preparation plant is to designate that the emission factor for controlled emissions may be used in the calculation of particulate emissions. The proposed changes also set out the conditions whereby water must be applied in order to utilize the emission factor for controlled emissions.

Proposed Draft Permit Condition 8.b. – Draft Permit Condition 8.b is proposed to establish the source of moisture data for other particulate emissions calculations.

Draft Permit Condition 9.e. – The deletion of Draft Permit Condition 9.e is proposed because KCBX believes this Condition is unnecessary in light of the proposed revisions to Draft Permit Conditions 4.a., b. and c. discussed above.

Draft Permit Condition 10.a./KCBX Renumbered Condition 9.a. – As discussed in more detail above, KCBX proposes revisions to Draft Permit Condition 10.a. intended to limit certain emissions for PM_{10} to 88 tpy, with a corresponding change from weekly to monthly emissions limits. KCBX proposes additional revisions to this Draft Permit Condition to clarify that the PM10 limit is based on the combination of capacity of the screening equipment taken together with the number of material transfers these materials' pass through.

Draft Permit Condition 10.b./KCBX Renumbered Condition 9.c. – As discussed in more detail above, KCBX proposes revisions to Draft Permit Condition 10.b. intended to lower the draft limits on emissions for CO and NOx to 92 tpy, SO2 to 21.9 tpy, and VOM to 40.1, with a corresponding change from weekly to monthly emissions limits. Additional changes to Draft Permit Condition 10.b are proposed in order to:

1. make the Condition consistent with monthly calculations as described above;

2. clarify that the emissions calculations cover all non-mobile fuel combustion emissions not excluded as insignificant sources;

3. clarify that emission factors come only from Table 3.4-1 in AP-42 for large diesel engines 600 Hp or greater;

4. add the horsepower to the calculation formula because the two generators are of different horsepower;

5. change the emission factor for VOM to the value stated in the cited reference – Table 3.4-1 in AP-42; and

6. add emission calculations for small (< 600 Hp) combustion units.

KCBX notes that the Agency did not include calculations for emissions of CO, NO_x, SO_2, and VOM from the other, small gasoline, kerosene and diesel combustion units at the Facility. KCBX has included calculated emissions from all combustion units, regardless of size or function, but understands that the Agency may have determined the emissions from some or all of these units to be insignificant.

Proposed New Condition 12.b.ii.D. – New Condition 12.b.ii.D. is proposed to reflect the rule requirement of 35 Ill. Admin. Code § 212.316(g)(2)(D).

***Second Draft Permit Condition 14.a.i. (Draft Permit Page 14/)/KCBX Renumbered Condition 13.a.iv.*.** – The changes to the second Draft Permit Condition numbered "14.a.i" (Draft Permit Page 14) are proposed to:

1. distinguish "processing" from "handling" (i.e., transferring a material from one location at the Facility to another location is not processing the material);

2. maintain consistency of naming;

3. change the recording frequency from weekly to monthly, consistent with the comments above.

Draft Permit Condition 14./KCBX Renumbered Condition 13. – The changes to Draft Permit Condition 14 are proposed to be consistent with the moisture data required in Renumbered Condition 8 and to change the recording frequency from weekly to monthly, consistent with the comments above.

Draft Permit Condition 14.c./KCBX Renumbered Condition 13.c. – The change to Draft Permit Condition 14.c., which as drafted requires retention of all records for a period of five years, is proposed to make this Condition consistent with Draft Permit Conditions 13.b.iii and 13.c.iv, which require retention of certain specified records for only three years.

Additional Permit Conditions Needed. – KCBX continues to believe the following regulations are applicable to the Facility, and requests the Agency address these regulations in the FESOP:

1. 35 Ill. Admin. Code § 212.107
2. 35 Ill. Admin. Code § 212.109
3. 35 Ill. Admin. Code § 212.206
4. 35 Ill. Admin. Code § 212.315
5. 35 Ill. Admin. Code § 212.316(g)(3)
6. 35 Ill. Admin. Code § 212.323
7. 35 Ill. Admin. Code § 212.324(g)(4)

8. 35 Ill. Admin. Code § 212.701(c)
9. 35 Ill. Admin. Code § 212.701(d)
10. 35 Ill. Admin. Code § 212.704(c)
11. 35 Ill. Admin. Code § 214.161

KCBX proposed permit conditions addressing these regulations in its draft FESOP language forwarded to the Agency on January 19, 2009.

Typographical Errors

Finally, KCBX's enclosed markup of the Draft Permit includes proposed changes to correct typographical errors, e.g., in references to regulatory provisions, numbering of permit conditions, etc. that are self explanatory

Again, KCBX appreciates the opportunity to communicate with Illinois EPA regarding the Draft Permit, both during our July 23 telephone conference, and through this correspondence. We hope the Agency finds this correspondence useful. If the Agency has any questions - regarding this correspondence, or any other aspect of the Facility or the Draft Permit – please do not hesitate to contact Terry Steinert, Environmental Compliance Manger, Koch Minerals, LLC, at 316-828-7847.

Thank You,

Jim Simmons
Terminal Manmager

xxx/xxx-xxxx

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT

PERMITTEE

KCBX Terminals Co.
Attn: Chris Bailey
3259 East 100th Street
Chicago, Illinois 60617

Application No.: 95050167 I.D. No.: 031600AHI
Applicant's Designation: REV10/07 Date Received: January 31, 2005
Subject: Bulk Solid Materials Terminal
Date Issued: DRAFT 07-02-2009
Location: 3259 East 100th Street, Chicago, Cook County, 60617

This permit is hereby granted to the above-designated Permittee to OPERATE emission sources(s) and/or air pollution control equipment consisting of a bulk solid materials trans-shipment terminal, one (1) coal preparation (screening) plant, one (1) 425 kW (750 Hp) diesel generator, one (1) 450 kW (760 Hp) diesel generator, and miscellaneous small (less than 600 Hp) gasoline, kerosene and diesel fuel combustion units 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 the Clean Air Act Title V major source threshold (i.e., 100 tons/year for Carbon Monoxide (CO) and Nitrogen Oxides (NOx)). In addition, this federally enforceable state operating permit is issued to limit the emissions of Particulate Matter (PM) with an aerodynamic diameter less than or equal to 10 micrometers (PM_{10}) from the coal preparation plant, while this plant is processing coal, to less than the Title V major source threshold. As a result, the source is 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. This federally enforceable state operating permit also is issued to limit the emissions of PM from the source to less than the major stationary source threshold for the Federal Prevention of Significant Deterioration program (i.e., 250 tons/year from the coal preparation plant, while this plant is processing coal). As a result, the source is excluded from the requirements of the PSD program set forth in 40 C.F.R 52.21.

c. Prior to issuance, a draft of this permit has undergone a public notice and comment period.

d. This permit supersedes all operating permit(s) and operating authority granted in construction permits for this location.

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2a. 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 (i.e., any emission unit other than a fuel combustion emission unit greater of 600 Hp or larger) 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 m (1000 feet) 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.

d. Pursuant to 35 Ill. Adm. Code 212.308, crushers, grinding mills, screening operations, bucket elevators, conveyor transfer points, conveyors, bagging operations, 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.

e. Pursuant to 35 Ill. Adm. Code 212.309(a), the emission units described in Ill. Adm. Code 212.304 through 212.308 and 212.316 shall be operated under the provisions of an operating program, consistent with the requirements set forth in Ill Adm. Code 212.310 and 212.312, and prepared by the owner or operator and submitted to the Agency for its review. Such operating program shall be designed to significantly reduce fugitive particulate matter emissions.

f. 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;

iv. Location of unloading and transporting operations with pollution control equipment;

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¶
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 other equivalent methods in accordance with the operating program required by Sections 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 ... [1]

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ii. Conveyor loadout sl ... [2]

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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 Agency's review of the operating program

g. 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 Agency for its review.

h. 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.

i. 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 T/yr of aggregate.

j. 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.

k. 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 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.

l. 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).

m. 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:

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

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1. Pursuant to 35 Ill. Adm. Code 212.313, if particulate collection equipment is operated pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 212.312 (i.e., to control bucket elevators, conveyor transfer points, conveyors, storage bins and fine product truck and railcar loading operations,), emissions from such equipment shall not exceed 68 mg/dscm (0.03 gr/dscf).
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where

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

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

	Metric	English
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/hr (450 T/hr):

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

n. 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 PM_{10} of at least fifteen (15) tons per year.

o. Pursuant to 35 Ill. Adm. Code 212.324(b), except as otherwise provided in 35 Ill. Adm. Code 212.324, no person shall cause or allow the emission into the atmosphere of PM_{10} from any process emission unit to exceed 68.7 mg/scm (0.03 gr/scf) during any one hour period.

3a. 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/hr), burning liquid fuel exclusively to exceed 0.46 kg of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned (0.3 lbs/mmbtu).

b. Pursuant to 35 Ill. Adm. Code 214.161, no person shall cause or allow the emission of sulfur dioxide into the atmosphere in any one hour period from any existing fuel combustion emission source, burning liquid fuel exclusively to exceed 0.46 kg of sulfur dioxide per MW-hr of actual heat input when distillate fuel oil is burned (0.3 lbs/mmbtu).

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 the applicable Subparts B through F (i.e., 35 Ill. Adm. Code 214.122(b) and 214.161).

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Deleted: b. Pursuant to 35 Ill. Adm. Code 214.301, no person shall cuase or allow the emission of sulfur dioxide into the atmosphere from any process emission source to excess 2000 ppm.¶ ¶

4. Pursuant to the federal New Source Performance Standard (NSPS) for coal preparation plants, 40 CFR 60, Subpart A and Y, crushing and screening of coal at the source constitutes coal preparation and crushers, screeners and all conveyors directly connected to these emission units are subject to NSPS for coal preparation plants while processing coal.

5a. This permit is issued based on this source not being a participating source in the Emissions Reduction Market System (ERMS), 35 Ill. Adm. Code Part 205, pursuant to 35 Ill. Adm. Code 205.200. This is based on the source's actual VOM emissions during the seasonal allotment period from May 1 through September 30 of each year being less than 10 tons and the source's baseline emissions also being less than 10 tons.

b. In the event that the source's VOM emissions during the seasonal allotment period equal or exceed 10 tons, the source shall become a participating source in the ERMS and shall comply with 35 Ill. Adm. Code Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period, unless the source obtains exemption from the ERMS by operating with seasonal VOM emissions of no more than 15 tons pursuant to a limitation applied for and established in a Clean Air Act Permit Program (CAAPP) permit or a Federally Enforceable State Operating Permit (FESOP).

c. Pursuant to 35 Ill. Adm. Code 205.316(a), any participating or new participating source shall not operate without a CAAPP permit or FESOP. Pursuant to 35 Ill. Adm. Code 205.316(a)(2), if a participating or new participating source does not have a CAAPP permit containing ERMS provisions and the source elects to obtain a permit other than a CAAPP permit, the source shall apply for and obtain a FESOP that contains, in addition to other necessary provisions, federally enforceable ERMS provisions, including baseline emissions, allotment for each seasonal allotment period, identification of any units deemed to be insignificant activities for purposes of the ERMS, emissions calculation methodologies, and provisions addressing all other applicable requirements of 35 Ill. Adm. Code Part 205.

6a. 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.

b. Pursuant to 35 Ill. Adm. Code 212.324(d), the mass emission limits contained in 35 Ill. Adm. Code 212.324(b) 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 finding of a violation of the mass emission limits contained in 35 Ill. Adm. Code 212.324(b).

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7.a. 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:

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i. Visual inspections of air pollution control equipment;

ii. Maintenance of an adequate inventory of spare parts; and

iii. Expeditious 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 PM_{10} 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 PM_{10} 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 PM_{10} 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 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 PM_{10} 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 PM_{10} 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 any non-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 PM_{10} 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.

8a. The moisture content of coal processed through the coal preparation plant shall be at least 1.5% by weight. The Permittee shall show compliance with this requirement by measuring the moisture content of the coal to be processed at the coal preparation plant using ASTM Procedure D 3302 once each week that coal is processed. If the moisture content of coal to be processed at the coal preparation plant is less than 1.5% by weight, the Permittee shall utilize water sprays on the coal and re-test the moisture content using ASTM Procedure D 3302.

8b. The moisture content of other bulk solid materials handled at the facility shall be recorded from the supplier(s) of the bulk solid materials and used to calculate fugitive PM and PM_{10} emissions for annual emissions reporting. The facility may utilize water sprays on the material storage and handling operations (e.g., stockpiles and material transfers) to reduce PM and PM_{10} emissions and to maintain compliance with the applicable visible emissions standards for each affected material handling operation. Following the use of water sprays the Permittee may, but is not required to, re-test the moisture content of bulk solid materials using ASTM Procedure D 3302 for coal and ASTM Procedure D 4931 for petroleum coke. If moisture re-testing is conducted, the results of the re-test will be used in lieu of the analyses from the bulk material supplier.

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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 to 35 Ill. Adm. Code 212.704(b), as follows:¶
¶
1). 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/m(3).¶
¶
2). 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/m(3).¶

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c. The diesel-powered generators shall only be operated with distillate fuel oil as the fuel. The use of any other fuel in the diesel-powered generators 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.

d. Organic liquid by-products or waste materials shall not be used in any emission unit at this source without written approval from the Illinois EQP.

e. The Illinois EPA shall be allowed to sample all fuels stored at the above location.

9a. The PM_{10} emissions from the processing of coal in the coal preparation plant shall not exceed 8.8 tons per month and 88 tons per year. These limits are based on the maximum throughput of the coal preparation plant per the manufacturer and standard emission factors (Table 11.19.2-2, AP-42, Volume I, Fifth Edition, Update August 2004 and Section 13.2.4, AP-42, Volume I Fifth Edition, November 2006). PM_{10} emissions shall be calculated and recorded using the equation:

$$E_C = [(T \times F_m) + (S \times F_s) + (C \times F_c)] / 2000$$

Where:

E_C = Total PM_{10} emissions from the coal preparation plant, (tons);

T = Amount of coal transferred by conveyances directly connected to the coal preparation plant, (tons);

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

Where:

k = 0.35 for PM_{10};

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

M = material moisture content, (%);

N = Number of coal transfers (i.e., drop points);

S = Amount of bulk coal screened, (tons);

F_s = 0.00074 lb PM_{10}/ton;

C = Amount of coal crushed, (tons);

F_c = 0.00054 lb PM_{10}/ton.

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b. A limit on PM emissions is established by the limit on PM_{10} emissions because the calculation of PM and PM_{10} use the same formulae and same data inputs, with the only difference being in emission factors, which are constants. Therefore, a limit on PM_{10} sets a direct cap on PM and when calculated PM_{10} emissions remain below the limits of this permit, the calculated emissions of PM will be below the thresholds of Condition 1b.

c. Emissions from the operation of non-mobile, fuel combustion sources not excluded as insignificant sources in 35 Ill. Adm. Code 201.146 shall not exceed the following limits:

Pollutant	Emissions Ton/Month	Ton/Year
Carbon Monoxide (CO)	9.2	92.0
Nitrogen Oxides (NO_x)	9.2	92.0
Sulfur Dioxide (SO_2)	2.196	21.9
Volatile Organic Material (VOM)	4.01	40.1
PM_{10}	2.35	23.5

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) and are calculated as follows:

$$E = H \times F \times D / 2,000$$

Where:

E = Total emissions of pollutant

D = Engine Duty (in horsepower)

H = Hours of operation of unit (hours)

F = Emission Factor as follows:

Pollutant	Large ≥ 600 Hp Stationary Diesel Engines lbs/Hp-Hr
Carbon Monoxide (CO)	0.0055
Nitrogen Oxides (NO_x)	0.024
Sulfur Dioxide (SO_2)	0.00809 * S
Volatile Organic Material (VOM)	0.000705

S = Wt. % sulfur in fuel

Emissions from the operation of non-mobile, small (less than 600 Hp) fuel combustion sources not excluded as insignificant sources in 35 Ill. Adm. Code 201.146 are based on standard emission factors (Table 3.3-1, AP-42, Fifth Edition, Volume I, Supplement B, October 1996) and are calculated as follows:

$$E = V \times F / 2,000$$

Where:

E = Total emissions of pollutant;

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V = Volume of fuel used, (gallons);

R = Heat content of fuel, (mmbtu/gallon) where
R = 0.13 mmbtu/gallon of gasoline (AP-42 Appendix A)
R = 0.137 mmbtu/gallon of diesel (AP-42 Appendix A);

F = Emission Factor as follows:

	Emission Factors <600 Hp Stationary Engines	
Pollutant	Gasoline lbs/mmBtu	Diesel/Kerosene* lbs/mmbtu
Carbon Monoxide (CO)	62.7	0.95
Nitrogen Oxides (NO_x)	1.63	4.41
Sulfur Dioxide (SO_2)	0.084	0.29
Volatile Organic Material (VOM)	3.03	0.36

* The conversion from gallons into mmbtu for diesel conservatively includes kerosene since the heat content of kerosene is slightly lower than diesel.

9. Compliance with the annual limits of this permit shall be determined once each month from the data for the current month plus the preceding 11 months (running 12 month total).

10a. 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 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.

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b. Testing required by Condition 12 shall be performed upon a written request from the Illinois EPA by a qualified individual or independent testing service.

11. 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.

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12a. 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.

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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.

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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;

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 identify of the chemical;

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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

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E. 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)(3), 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.

13a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:

i. all moisture content tests performed on coal processed through the coal preparation plant, including date, time, and individual or laboratory performing test, in accordance with Condition 8(a).

ii. all moisture contents of bulk solid materials provided by the suppliers of the bulk solid materials in accordance with Condition 8(b).

iii. all re-tests of the moisture content of bulk solid materials in accordance with Condition 8(b), including date, time, individual or laboratory performing test, and location of sample (e.g., prior to crushing, stockpiles, etc.); and

iv. the name and total amount of each bulk solid material (e.g., coal, petroleum coke, etc.) processed (i.e., crushed or screened) or transferred in tons/month and tons/year;

v. the operating hours of each generator, hours/month and hours/year; and

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vi. the monthly and annual emissions of CO, NO_x, PM, SO_2, and VOM from the source with supporting calculations (tons/month and tons/year) and the monthly and annual emissions of PM_{10} from the processing of coal in the coal preparation plant with supporting calculations (tons/month and tons/year).

b. The Permittee shall maintain the following records to allow the confirmation of actual VOM emissions during the seasonal allotment period:

i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as appropriate, to determine actual VOM emissions during the seasonal allotment period;

ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures that my be specified in this permit; and

iii. Total VOM emissions from the source, in tons, during each seasonal allotment period, which shall be compiled by November 30 of each year.

c. Unless otherwise specified in this permit, all records and logs required by this permit 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.

14a. 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.

15a. 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.

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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 George Kennedy at 217/782-2113.

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

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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 at which this source would be considered a major source for purposes of the Clean Air Act Permit Program (e.g., 100 tons/year for CO, NO_x, and PM_{10}) and below the levels at which this source would be considered a significant major source for purposes of the Federal PSD program (i.e., 250 tons/year for PM). Actual emissions from this source will be less than calculated in this summary to the extent that control measures are more effective than required in this permit and the amounts of materials handled and fuel consumed are less than the theoretical maximums.

E M I S S I O N S (Tons/Year)

Emission Unit	CO	NOx	PM	PM_{10}	SO_2	VOM
Coal Preparation Plant			250.0	88.0		
Fuel Combustion	92.0	92.0	--	--	21.9	40.1
Totals	92.0	92.0	250.0	88.0	21.9	40.1

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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 50 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 Sections 212.309, 212.310 and 212.312 of this Subpart.

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 other equivalent methods in accordance with the operating program required by Sections 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 212.307, all unloading and transporting operations of materials collected by pollution control equipment shall be enclosed or shall utilize spraying, pelletizing, screw conveying or other equivalent methods.

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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.

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source as provided by the supplier of the bulk material. If moisture content falls below 3.0% by weight as documented by the supplier, then the Permittee shall:

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; or

ii. Follow the testing requirements of Condition 9(c).

b. If the Permittee relies on Condition 9(a)(i) to demonstrate compliance with Condition 9(a), the Permittee shall monitor the water spray equipment as follows during non-freezing conditions:

i. The water supply to the spray equipment shall be equipped with a master metering device used to determine water usage for the control of particulate matter emissions.

ii. Inspections of water spray equipment and operation (such as leaking, maintaining adequate flow, clogging of flow lines, etc.) shall be performed at least once per week when the material handling operations are in operation

c. If the Permittee relies on Condition 89(a)(ii) to demonstrate compliance with Condition 9(a), the Permittee shall measure the moisture content of a representative sample of the bulk material having a moisture content below 3.0% as provided by the supplier, at least once per week, when water spray is not being utilized,

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Should three consecutive tests at the source show moisture contents of 3.0% or greater by weight, this testing shall no longer be required for the subject bulk material.

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e. 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 wt. percent given by the formula: Maximum wt. percent sulfur = (0.00015) x (Gross heating value of oil, Btu/lb).

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operation of all activities at the source

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the following limits:

PM_{10} Emission Tons/Week		PM emissions Tons/Year Tons/Week Tons/Year
2.38	95	2.38

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+ (0.10 x H) + (0.31 x F1 x V1) +(4.41 x F2 x V2))

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0.0022 lb PM/ton;

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0.0012 lb PM/ton; and

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F_1 = gallons of gasoline use

F_2 = gallons of diesel plus kerosene use

V_1 = 0.13 mmbtu/gallon of gasoline (AP-42 Appendix A)

V_2 = 0.137 mmbtu/gallon of diesel (AP-42 Appendix A)*

* The conversion from gallons into mmbtu for diesel conservatively includes kerosene since the heat content of kerosene is slightly lower than diesel.

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the two diesel-powered generators small non-mobile engines and portable heaters at the

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. Emissions from generators shall be

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Emission Factors

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A. If the Permittee is relying on Condition 9(a)(i) and 9(b) to demonstrate compliance with Condition 9(a), the Permittee shall maintain operating logs for the water spray equipment, including dates and hours of usage, total amount of water applied each month, malfunctions (type, date, and measures to correct), dates of rainfall during the preceding 24 hours, and daily observations of bulk material conditions (wet or dry) and/or other controls as may be present (e.g., coverage by snow or ice);

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is relying on the requirements of Conditions 9(a)(ii) and 9(c) to demonstrate compliance with

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the Permittee shall maintain records of all moisture content tests performed

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C. The Permittee shall keep records of the moisture content of bulk materials as provided by the suppliers of the bulk materials in accordance with Condition 9(a).

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March 6, 2003

(A-18J)

Janet McCabe, Assistant Commissioner
Office of Air Quality
Indiana Department of Environmental Management
100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015

Dear Ms. McCabe:

In discussions with United States Environmental Protection Agency (EPA) Region 5, State permitting authorities have requested clarification on our fugitive emissions policy. Specifically, the States have asked EPA to clarify to what extent, and from which emission units, are fugitive emissions counted towards major source applicability for Title V, nonattainment new source review (NSR), and prevention of significant deterioration (PSD). Various EPA letters and memoranda provide guidance on when you count fugitive emissions to determine whether a source is a major stationary source subject to Title V, NSR, or PSD, but there is no one guidance document which addresses the various scenarios which arise.

In the enclosed analysis, we are providing some examples that should help you understand when to include fugitive emissions in determining whether a source is major for purposes of Title V, NSR, or PSD. However, no part of this document, including the following examples, create any new legally binding obligations. Rather, the purpose of this document 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.

This response has been coordinated with staff in EPA's Office of Air Quality Planning and Standards, Office of Enforcement and Compliance Assurance, and Office of General Counsel in order to help assure completeness and accuracy.

If you have any questions regarding this letter, please contact Sam Portanova, of my staff, at (312) 886-3189.

Sincerely yours,

/s/ (Stephen Rothblatt for)

Cheryl L. Newton, Acting Director
Air and Radiation Division

Enclosure

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

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[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

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

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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.

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

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.

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[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

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[1] 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, 11/200

$EF = k(0.0032)[(U/5)^{1.3}]/[(M/2)^{1.4}]$ 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 transfe		
	11	maximum drop points in ship load system plus 2 drops for pad transfers		

Emissions = Amount Transfered * 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 PM_{10} & $PM_{2.5}$, 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 PM_{30}/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

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)

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

2,628,000 tons/yr maximum screener throughput

$W = \frac{\sum (VMT * avg\ vehicle\ wt)}{Total\ VMT}$ 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**

[1] round trip

[2] 50 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	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, 11/200

$EF = k(0.0032)[(U/5)^{1.3}]/[(M/2)^{1.4}]$ 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 =	**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 transfe		
	11	maximum drop points in ship load system plus 2 drops for pad transfers		

Emissions = Amount Transfered * 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 PM_{10} & $PM_{2.5}$, 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 PM_{30}/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

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)

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

2,628,000 tons/yr maximum screener throughput

$W = \frac{\sum (VMT * avg\ vehicle\ wt)}{Total\ VMT}$ 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**

[1] round trip

[2] 50 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	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:

	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 =	**2.75**			
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 transfe		
	11	maximum drop points in ship load system plus 2 drops for pad transfers		

Emissions = Amount Transfered * 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}	$PM_{2.5}$	
3.9	1.9	0.3	lb/hr
17	8.2	1.2	ton/yr

Potential Emissions - loading assumes blend of 25% reclaim & 75% virgin

PM_{30}	PM_{10}	$PM_{2.5}$	
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	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 PM_{10} & $PM_{2.5}$, 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 PM_{30}/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

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)

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

2,628,000 tons/yr maximum screener throughput

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

					Operating			VMT	
		Weight (tons)			Distance[1]	Speed	Time	Unpaved	Paved
Vehicle Type	Number	Loaded	Empty	Average	(mi)	(mi/hr)	(hrs/yr)	(mi/yr)	(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**

[1]round trip

[2]50 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

Attachment B

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KCBX Requested Revisions (7.16.10) - Markup

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217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - RENEWAL

PERMITTEE

KCBX Terminals Co.
Attn: Chris Bailey
3259 East 100th Street
Chicago, Illinois 60617

Application No.: 95050167 I.D. No.: 031600AHI
Applicant's Designation: REV10/07 Date Received: January 31, 2005
Subject: Bulk Materials Terminal
Date Issued: Expiration Date:
Location: 3259 East 100th Street, Chicago, Cook County, 60617

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit~~source~~(s) and/or air pollution control equipment ~~at this source~~ consisting of a bulk solid materials terminal, ~~(~~including one (1) bulk material screener~~two (2) portable conveyers)~~, one (1) 425 kW (750 hp) ~~two (2) 560 Hp~~ diesel-powered generator, one (1) 450 kW (760 hp) diesel-powered generator,~~s~~ and miscellaneous gasoline, kerosene and diesel fuel combustion units, each less than 600 hp pursuant to the above-referenced application. This Permit is subject to standard conditions attached hereto and the following special condition(s):

1a. This ~~f~~Federally ~~e~~Enforceable ~~s~~State ~~o~~Operating ~~p~~Permit (FESOP) is issued to limit the emissions of air pollutants from this~~e~~ source to less than major source thresholds (i.e., 100 tons/year for ~~Carbon Monoxide (CO),~~ Nitrogen Oxides (NO_x)~~, Particulate Matter with an aerodynamic diameter less than or equal to 10 micrometers (PM_{10}), and 100 tons/year for Sulfur Dioxide (SO_2)~~). As a result, this~~e~~ source is 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) and operating authority granted in all construction permit(s) for this location.

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2a. 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 m (1000 ft) 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 ~~emission~~ source.

~~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 50 tons/year 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 212.307, all unloading and transporting operations of materials collected by pollution control equipment shall be enclosed or shall utilize spraying, pelletizing, screw conveying or other equivalent methods.~~

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~~d~~h. Pursuant to 35 Ill. Adm. Code 212.308, crushers, grinding mills, screening operations, bucket elevators, conveyor transfer points, conveyors, bagging operations, 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.

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~~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.~~

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~~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.~~

e. Pursuant to 35 Ill. Adm. Code 212.206, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period to exceed 0.15 kg of particulate matter per MW-hr of actual heat input from any fuel combustion emission unit using liquid fuel exclusively (0.10 lbs/mmbtu).

~~f.~~ Pursuant to 35 Ill. Adm. Code 212.309(a), the emission units described in 35 Ill. Adm. Code 212.304 through 212.308 and 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.

~~g.~~ 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;

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.

~~h.~~ 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.

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~~l. Pursuant to 35 Ill. Adm. Code 212.313, if particulate collection equipment is operated pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 212.312 (i.e., to control bucket elevators, conveyor transfer points, conveyors, storage bins and fine product truck and railcar loading operations), emissions from such equipment shall not exceed 68 mg/dscm (0.03 gr/dscf).~~

im. Pursuant to 35 Ill. Adm. Code 212.316(b), no person shall cause or allow fugitive particulate matter emissions generated by the ~~from~~ crushing or~~,~~ screening of slag, stone, coke or coal to exceed an opacity of 10 percent.

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jn. 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 T/year of aggregate.

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ko. 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.

lp. Pursuant to 35 Ill. Adm. Code 212.316(f), unless an emission unit has been assigned a particulate matter, particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (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.

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mq. 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. Adm. Code 212.321(c). For this source, the emission units subject to the process emission rates of 35 Ill. Adm. Code 212.321(b) are one (1) conveyor added under Construction Permit issued May 28, 2008 and revised October 17, 2008 and May 25, 2010, one (1) Box Hopper added under Construction Permit issued May 28, 2004, and one (1) conveyor added under Construction Permit issued March 2, 2000.

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nr. 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):

	Metric	English
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):

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

o. 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 212.322(b) are those emission units that are not named in Condition 2m.

p. 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):

	Metric	English
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):

	Metric	English
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

gs. 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 PM_{10} of at least fifteen (15) tons per year.

~~t. Pursuant to 35 Ill. Adm. Code 212.324(b), emissions of particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (PM_{10}) from any process emission unit shall not exceed 0.03 gr/scf during any one hour period.~~

34a. 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.~~

be. 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) and 214.161).[1]

45. Pursuant to the federal New Source Performance Standard (NSPS) for coal preparation plants, 40 CFR 60, Subparts A and Y, screening of coal at this source constitutes coal preparation and screeners and all conveyors and stackers directly connected to screeners and new or modified coal piles constructed after May 27, 2009 are subject to NSPS requirements for coal preparation plants while processing coal. For purposes of applicability, adding screened coal to an existing stockpile or stockpile area or reclaiming screened coal from an existing stockpile or stockpile area does not constitute construction or modification of a stockpile~~This permit is issued based on the two electric conveyors constructed pursuant to permit 07100090 not being subject to the New Source Performance Standards (NSPS) for Coal Preparation Plants, 40 CFR 60 Subpart Y because the conveyors will not be used to convey coal to machinery at the coal preparation plant~~.

[1] See discussion of fuel burning at process emission sources in the cover letter from KCBX that is associated with this version of the draft permit.

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56a. This permit is issued based on this source not being a participating source in the Emissions Reduction Market System (ERMS), 35 Ill. Adm. Code Part 205, pursuant to 35 Ill. Adm. Code 205.200. This is based on thise source's actual VOM emissions during the seasonal allotment period from May 1 through September 30 of each year being less than 10 tons and thise source's baseline emissions also being less than 10 tons.

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~~b. In the event that the source's VOM emissions during the seasonal allotment period equal or exceed 10 tons, the source shall become a participating source in the ERMS and shall comply with 35 Ill. Adm. Code Part 205, by holding allotment trading units (ATUs) for its VOM emissions during each seasonal allotment period, unless the source obtains exemption from the ERMS by operating with seasonal VOM emissions of no more than 15 tons pursuant to a limitation applied for and established in a Clean Air Act Permit Program (CAAPP) permit or a Federally Enforceable State Operating Permit (FESOP).~~

~~c. Pursuant to 35 Ill. Adm. Code 205.316(a), any participating or new participating source shall not operate without a CAAPP permit or FESOP. Pursuant to 35 Ill. Adm. Code 205.316(a)(2), if a participating or new participating source does not have a CAAPP permit containing ERMS provisions and the source elects to obtain a permit other than a CAAPP permit, the source shall apply for and obtain a FESOP that contains, in addition to other neeessary provisions, federally enforceable ERMS provisions, including baseline emissions, allotment for each seasonal allotment period, identification of any units deemed to be insignificant activities for purposes of the ERMS, emissions calculation methodologies, and provisions addressing all other applicable requirements of 35 Ill. Adm. Code Part 205.~~

67a. 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.

b. Pursuant to 35 Ill. Adm. Code 212.324(d), the mass emission limits contained in 35 Ill. Adm. Code 212.324(b) and 212.324(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 finding of a violation of the mass emission limits contained in 35 Ill. Adm. Code 212.324(b).

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 stock piles of particulate matter, to which, because of the disperse nature of such emission units, such rules cannot reasonably be applied.

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78a. 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. Expeditious repairs, unless the emission unit is shutdown.

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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 PM_{10} 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 PM_{10} 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 PM_{10} 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 25%.

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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 PM_{10} 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 PM_{10} 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 such~~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 PM_{10} 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.~~

8~~9~~a. ~~The moisture content of the bulk material handled by the source shall be at least 1.3% by weight.~~ The Permittee may receive bulk solid materials at this source with any moisture content. The Permittee shall record ~~show compliance with this requirement by recording~~ the moisture content of the bulk solid material that is ~~received at the source as~~ provided by the supplier for the "as received" moisture content of the bulk solid material. ~~of the feed material.~~ If the "as received" moisture content of a bulk solid material provided by the bulk solid material supplier is less than ~~falls below~~ 3.0% by weight,

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~~as documented by the supplier,~~ then the Permittee shall increase the moisture content of the subject bulk solid material by~~Permittee shall~~:

i. Moistening the bulk solid material with water or applying chemical before the material is stockpiled or discharges from the first conveyor, whichever comes first; or

ii. Blending with a higher-moisture material before the material is stockpiled or discharges from the first conveyor, whichever comes first.

~~i. Utilize water sprays on the material handling operations (e.g., material transfer, screening and crushing) associated with bulk materials having a moisture content below 3.0% by weight to reduce particulate matter emissions and to maintain compliance with the applicable visible emissions standards for each affected material handling operation; or~~

~~ii. Follow the testing requirements of Condition 9(c).~~

b. ~~If t~~The Permittee shall show ~~relies on Condition 9(a)(i) to demonstrate~~ compliance with Condition ~~9~~8(a)(i) and 8(a)(ii) by measuring the moisture content of a representative sample of bulk solid materials having a moisture content below 3.0% as provided by the supplier, after water application or blending, at least once per week using ASTM Procedure D 3302 for coal and ASTM Procedure D 3172 and D 4931 for petroleum coke. If the results of a moisture test are below 3.0%, water shall be applied to the stockpile of bulk material and the bulk material shall be re-tested. Should three consecutive tests of a bulk solid material show moisture content of 3.0% or greater by weight, this testing shall no longer be required for the subject bulk solid material.

c. Bulk solid materials with moisture content of 3.0% or higher as provided by the bulk solid material supplier are not required to have the moisture content analyzed, but the Permittee may test the moisture content of bulk solid materials at any time. For particulate emission calculations purposes, the most recent moisture analyses for a bulk solid material shall supersede all previous moisture analyses for that bulk solid material, including the moisture analyses provided by the bulk solid materials suppliers.

d. For purposes of quantifying emissions from bulk solid material with moisture content less than 3.0% as provided by the bulk material suppler, the Permittee shall use the weighted average of such moisture contents to calculate emissions for the initial material transfer (i.e., material drop) and all subsequent material transfers upstream and before the addition of water or the blending with a higher-moisture bulk solid material. ~~, the Permittee shall monitor the water spray equipment as follows during non-freezing conditions:~~

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~~i. The water supply to the spray equipment shall be equipped with a master metering device used to determine water usage for the control of particulate matter emissions.~~

~~ii. Inspections of water spray equipment and operation (such as leaking, maintaining adequate flow, clogging of flow lines, etc.) shall be performed at least once per week when the material handling operations are in operation.~~

e. For purposes of quantifying emissions of bulk solid materials received with moisture content of 3.0% or greater as documented by the supplier of the bulk solid material, the Permittee shall use the weighted average moisture content, as provided by the bulk material supplier or as otherwise superseded by moisture contents obtained from samples collected by the Permittee.

f. Only fugitive emissions of PM_{10} and PM from the screener, equipment used to convey coal to or remove coal and refuse from the screener, and stockpiles of screened coal constructed after May 27, 2009 are included in the determination of major source status. Quantification of other fugitive emissions is not federally enforceable.

~~e. If the Permittee relies on Condition 9(a)(ii) to demonstrate compliance with Condition 9(a), the Permittee shall measure the moisture content of a representative sample of the bulk material having a moisture content below 3.0% as provided by the supplier, at least once per week, when water spray is not being utilized, using ASTM Procedure D 3302 for coal and ASTM Procedure D 3172 and D 4931 for petroleum coke. Should three consecutive tests at the source show moisture contents of 3.0% or greater by weight, this testing shall no longer be required for the subject bulk material.~~

~~d. The diesel-powered generators shall only be operated with distillate fuel oil as the fuel. The use of any other fuel in the diesel-powered generators 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.~~

~~e. 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 wt. percent given by the formula: Maximum wt. percent sulfur = (0.00015) x (Gross heating value of oil, Btu/lb).~~

~~f. 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.~~

~~g. The Illinois EPA shall be allowed to sample all fuels stored at the above location.~~

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~~910~~a. ~~The emissions from and the operation of all activities at source shall not exceed the following limits:~~

~~PM10 Emission~~		~~PM emissions~~	
~~Tons/Week~~	~~Tons/Year~~	~~Tons/Week~~	~~Tons/Year~~
~~2.38~~	~~95~~	~~2.38~~	~~95~~

~~These limits are based on the maximum amount of material handled and standard emission factors (Table 11.19.2-2, AP-42, Volume I, Fifth Edition, Update 2004, August 2004 and Section 13.2.4, AP-42, Volume I, Fifth Edition, November 2006).~~ PM_{10} and PM emissions shall be calculated ~~and recorded~~ for annual reporting to the Illinois EPA using standard emission factors (Section 13.2.4, AP-42, Volume I, Fifth Edition, November 2006, Table 11.19.2-2, AP-42, Volume I, Fifth Edition, August 2004, Table 3.3-1, AP-42, Volume I, Fifth Edition, October 1996, Table 3.4-1, AP-42, Volume I, Fifth Edition, October 1996, and Table 1.3-2, AP-42, Volume I, Fifth Edition, September 1998). PM_{10} and PM are calculated using the equation:

$$E = [(T \times F_m) + (S \times F_s) + (C \times F_c) + (H \times Z \times F_F)\ \text{~~(F1 x V1 x F3)~~} + (U/1000\ \text{~~F2~~} \times \text{~~V2 x~~} F1\text{~~4~~})]/2000$$

Where:

E = Total PM_{10} 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 PM_{10};
= 0.74 for PM;

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

~~M = material moisture content, (%);~~

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 lb PM/ton;
= 0.00074 lb PM_{10}/ton;

C = Amount~~tons~~ of bulk material Crushed, (tons);

F_c = 0.0012 lb PM/ton;
= 0.00054 lb PM_{10}/ton;

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H = Cumulative operations of engines in each size class (hours);

Z = Cumulative size of engines in each size class (horsepower)

F~~,1~~ = 0.000721 lb/(hp-hr) for gasoline engines ≤250 hp~~Gallons of gasoline used (gal)~~;
= 0.00220 lb/(hp-hr) for diesel engines ≤600 hp;
= 0.0007 lb/(hp-hr) for diesel engines > 600 hp;

~~F2~~U = Gallons of ~~diesel plus~~ kerosene use;

~~F3 = 0.1 lb/mmBtu for gasoline;~~

F14 = 1.3~~0.31~~ lb/1000 gallons~~mmBtu~~ for diesel~~/kerosene~~;

~~V1 = 0.13 mmBtu/gallon of gasoline; and~~

~~V2 = 0.137 mmBtu/gallon of diesel*.~~

*The use of ~~conversion for gallons in mmBtu for~~ diesel emission factors conservatively includes kerosene since the heat content of kerosene is slightly lower than diesel.

Only fugitive emissions of PM_{10} and PM from the screener, equipment used to convey coal to or remove coal and refuse from the screener, and stockpiles of screened coal constructed after May 27, 2009 are included in the determination of major source status. Quantification of other fugitive emissions is not federally enforceable.

b. NO_x Emissions from the~~and~~ operation of non-mobile, fuel combustion units~~the two diesel-powered generators, small non-mobile engines and portable heaters~~ at this source, not excluded as insignificant activities or emissions in 35 Ill. Adm. Code 201.146 and 201.210, shall not exceed 9.2 tons per month and 92.0 tons per year.~~the following limits:~~

~~Emissions~~

~~Pollutant~~	~~Ton/Week~~	~~Ton/Year~~
~~Carbon Monoxide (CO)~~	~~2.38~~	~~95.0~~
~~Nitrogen Oxides (NO_x)~~	~~2.38~~	~~95.0~~
~~Sulfur Dioxide (SO_2)~~	~~1.67~~	~~66.8~~
~~Volatile Organic Material (VOM)~~	~~0.63~~	~~25.0~~

~~The e~~Emissions from fuel combustion equipment~~the diesel-powered generators~~ are based on standard emission factors (Tables 3.3-1 and 3.4-1, AP-42, Fifth Edition, Volume I, Supplement B, October 1996) and are~~. Emissions from the generators shall be~~ calculated as follows:

$$E = H \times Z \times F / 2{,}000$$

Where:
E = Total emissions of pollutant;

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H = Hours of operation of unit (hours);

Z = Engine size (horsepower)

F = Emission Factor as follows:

	Emission Factors		
	Gasoline Engines	Diesel Engines	
	≤250 hp	≤600 hp	>600 hp
Pollutant	lbs/Hp-Hr	lbs/Hp-Hr	lbs/Hp-Hr
~~Carbon Monoxide (CO)~~	~~0.00696~~		~~0.0055~~
Nitrogen Oxides (NO_x)	0.011	0.031	0.024
~~Sulfur Dioxide (SO_2)~~	~~0.000591~~	~~0.00809 x S*~~	
~~Volatile Organic Material (VOM)~~	~~0.0216~~		~~0.00064~~

~~*S = Wt. % sulfur in fuel~~

c. Compliance with the annual limits for fuel combustion units~~of this permit~~ shall be determined ~~on each~~ month~~weekly basis~~ from the sum of the data for the current month~~week~~ plus the preceding ~~5~~11 months~~weeks~~ (running ~~5~~12 month~~week~~ total).

~~9a. The moisture content of the bulk material handled by the source shall be at least 1.3% by weight.the Permittee shall show compliance with recording the moisture content of the bulk material received at the source as provided by the supplier of the feed material. If moisture content falls below 3.0% by weight as documented by the supplier, then the Permittee shall:~~

~~i. Utilize water sprays on the material handling operations (e.g., material transfer, screening and crushing) associated with bulk materials having a moisture content below 3.0% by weight to reduce particulate matter emissions and to maintain compliance with the applicable visible emissions standards for each affected material handling operation; or~~

~~ii. Follow the testing requirements of Condition 9(c).~~

~~b. If the Permittee relies on Condition 9(a)(i) to demonstrate compliance with Condition 9(a), the Permittee shall monitor the water spray equipment as follows during non-freezing conditions:~~

~~i. The water supply to the spray equipment shall be equipped with a master metering device used to determine water usage for the control of particulate matter emissions.~~

~~ii. Inspections of water spray equipment and operation (such as leaking, maintaining adequate flow, clogging of flow lines, etc.) shall be performed at least once per week when the material handling operations are in operation.~~

~~c. If the Permittee relies on Condition 9(a)(ii) to demonstrate compliance with Condition 9(a), the Permittee shall measure the moisture content of a representative sample of the bulk material having a moisture~~

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~~content below 3.0% as provided by the supplier, at least once per week, when water spray is not being utilized, using ASTM Procedure D 3302 for coal and ASTM Procedure D 3172 and D 4931 for petroleum coke. Should three consecutive tests at the source show moisture contents of 3.0% or greater by weight, this testing shall no longer be required for the subject bulk material.~~

~~f~~d~~d~~. The diesel-powered generators shall only be operated with distillate fuel oil as the fuel. The use of any other fuel in the diesel-powered generators 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.

~~g~~ee. 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 wt. percent given by the formula: Maximum wt. percent sulfur = (0.00015) x (Gross heating value of oil, Btu/lb).

~~h~~f~~f~~. Organic liquid by-products or waste materials shall not be used in any combustion unit at this source without written approval from the Illinois EPA.

~~i~~g~~g~~. The Illinois EPA shall be allowed to sample all fuels stored at this source~~the above location~~.

10~~i~~a. 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

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emission source or air pollution 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 12 shall be performed upon a written request from the Illinois EPA by a qualified individual or independent testing service.

11~~2~~. 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.

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12~~3~~a. 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;

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;

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ED. 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

FE. 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)(43), 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)(3), 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.

134a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:

~~i. Records addressing use of good operating practices for the material handling operations at this source:~~

~~A. If the Permittee is relying on Conditions 9(a)(i) and 9(b) to demonstrate compliance with Condition 9(a), the Permittee shall maintain operating logs for the water spray equipment, including dates and hours of usage, total amount of water applied each month, malfunctions (type, dates, and measures to correct), dates of rainfall during the preceding 24 hours, and daily observations of bulk material conditions (wet or dry) and/or other controls as may be present (e.g., coverage by snow or ice);~~

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~~B. If the Permittee is relying on the requirements of Conditions 9(a)(ii) and 9(c) to demonstrate compliance with Condition 9(a), the Permittee shall maintain records of all moisture content tests performed including date, time, individual or laboratory performing test, and location of sample (e.g., prior to crushing, stockpiles, etc.); and~~

~~C. The Permittee shall keep records of the moisture content of bulk materials as provided by the source of the feed material in accordance with Condition 9(c).~~

i. Total amount of each bulk material handled (i.e., crushed, screened or transferred) (tons/month and tons/year);

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 thise source;

iii. Records of moisture analysis from samples collected at thise source;

~~iv. Name and total amount of each bulk material (e.g., coal, petroleum coke, etc.) processed (i.e., crushed, screened and transferred), tons/week and tons/year;~~

iv. Operating hours of each generator, hours/month~~week~~ and hours/year; and

v~~i~~. Monthly~~Weekly~~ and annual emissions of ~~CO, NOx, PM, PM10, SO2, and VOM~~ from thise source with supporting calculations (tons/month~~week~~ and tons/year).

~~b. The Permittee shall maintain the following records to allow the confirmation of actual VOM emissions during the seasonal allotment period:~~

~~i. Records of operating data and other information for each individual emission unit or group of related emission units at the source, as appropriate, to determine actual VOM emissions during the seasonal allotment period;~~

~~ii. Records of the VOM emissions, in tons, during the seasonal allotment period, with supporting calculations, for each individual emission unit or group of related emission units at the source, determined in accordance with the procedures that may be specified in this permit; and~~

~~iii. Total VOM emissions from the source, in tons, during each seasonal allotment period, which shall be compiled by November 30 of each year.~~

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be. Unless otherwise specified in this permit, Aall records and logs required by this permit shall be retained at a readily accessible location at thise 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.

145a. 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.

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.

1520a. 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, a description of the exceedances or deviation, and efforts to reduce emissions and future occurrences.

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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 George Kennedy at 17/782-2113.

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

Signed: _____

ECB:GMK:jws

cc: Ilinois EPA, FOS Region 1
Lotus Notes

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Attachment A- Emission Summary

This attachment provides a summary of the maximum emissions from thise 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 thise source. The resulting maximum emissions are below the levels, (e.g., 100 tons/year for ~~CO, NOx, PM10, and SO2~~) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than calculated~~predicted~~ in this summary to the extent that control measures are more effective than required in this permit and the amounts of materials handled and fuel consumed are less than the operating scenario used.

—E M I S S I O N S (Tons/Year)

Emission Unit	~~CO~~	NOx	~~PM~~	~~PM10~~	~~SO2~~	~~VOM~~
~~Material Handling Activities~~			~~95.0~~	~~95.0~~		
Fuel Combustion	~~95.0~~	925.0	--	--	~~66.8~~	
~~25.0~~						
Totals ~~95.0~~		925.0	~~95.0~~	~~95.0~~	~~66.8~~	~~25.0~~

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Attachment B

KCBX Requested Revisions (7.16.10) - Markup

217/782-2113

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT - RENEWAL

PERMITTEE

KCBX Terminals Co.
Attn: Chris Bailey
3259 East 100th Street
Chicago, Illinois 60617

Application No.: 95050167 I.D. No.: 031600AHI
Applicant's Designation: REV10/07 Date Received: January 31, 2005
Subject: Bulk Materials Terminal
Date Issued: Expiration Date:
Location: 3259 East 100th Street, Chicago, Cook County, 60617

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment at this source consisting of a bulk solid materials terminal, including one (1) bulk material screener, one (1) 425 kW (750 hp) diesel-powered generator, one (1) 450 kW (760 hp) diesel-powered generator, and miscellaneous gasoline, kerosene and diesel fuel combustion units, each less than 600 hp 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 (FESOP) is issued to limit the emissions of air pollutants from this source to less than major source thresholds (i.e., 100 tons/year for Nitrogen Oxides (NO_x)). As a result, this source is 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) and operating authority granted in all construction permit(s) for this location.

2a. 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 m (1000 ft) 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.

d. Pursuant to 35 Ill. Adm. Code 212.308, crushers, grinding mills, screening operations, bucket elevators, conveyor transfer points, conveyors, bagging operations, 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.

e. Pursuant to 35 Ill. Adm. Code 212.206, no person shall cause or allow the emission of particulate matter into the atmosphere in any one hour period to exceed 0.15 kg of particulate matter per MW-hr of actual heat input from any fuel combustion emission unit using liquid fuel exclusively (0.10 lbs/mmbtu).

f. Pursuant to 35 Ill. Adm. Code 212.309(a), the emission units described in 35 Ill. Adm. Code 212.304 through 212.308 and 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.

g. 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;

   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.

h. 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.

i. 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.

j. 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 T/year of aggregate.

k. 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.

l. Pursuant to 35 Ill. Adm. Code 212.316(f), unless an emission unit has been assigned a particulate matter, particulate matter with an aerodynamic diameter less than or equal to 10 micrometers (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.

m. 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. Adm. Code 212.321(c). For this source, the emission units subject to the process emission rates of 35 Ill. Adm. Code 212.321(b) are one (1) conveyor added under Construction Permit issued May 28, 2008 and revised October 17, 2008 and May 25,

2010, one (1) Box Hopper added under Construction Permit issued May 28, 2004, and one (1) conveyor added under Construction Permit issued March 2, 2000.

n. 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:

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

where

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

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

	Metric	English
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):

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

o. 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 212.322(b) are those emission units that are not named in Condition 2m.

p. 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):

	Metric	English
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 rates in excess of 27.2 Mg/hour (30 T/hour):

	Metric	English
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

q. 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 PM_{10} of at least fifteen (15) tons per year.

3a. 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 214.304, 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) and 214.161).[1]

4. Pursuant to the federal New Source Performance Standard (NSPS) for coal preparation plants, 40 CFR 60, Subparts A and Y, screening of coal at this source constitutes coal preparation and screeners and all conveyors and stackers directly connected to screeners and new or modified coal piles constructed after May 27, 2009 are subject to NSPS requirements for coal preparation plants while processing coal. For purposes of applicability, adding screened coal to an existing stockpile or stockpile area or reclaiming screened coal from an existing stockpile or stockpile area does not constitute construction or modification of a stockpile.

[1] See discussion of fuel burning at process emission sources in the cover letter from KCBX that is associated with this version of the draft permit.

5a. This permit is issued based on this source not being a participating source in the Emissions Reduction Market System (ERMS), 35 Ill. Adm. Code Part 205, pursuant to 35 Ill. Adm. Code 205.200. This is based on this source's actual VOM emissions during the seasonal allotment period from May 1 through September 30 of each year being less than 10 tons and this source's baseline emissions also being less than 10 tons.

6a. 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.

b. Pursuant to 35 Ill. Adm. Code 212.324(d), the mass emission limits contained in 35 Ill. Adm. Code 212.324(b) and 212.324(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 finding of a violation of the mass emission limits contained in 35 Ill. Adm. Code 212.324(b).

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 stock piles of particulate matter, to which, because of the disperse nature of such emission units, such rules cannot reasonably be applied.

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. Expeditious 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 PM_{10} 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 PM_{10} 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 PM_{10} 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 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 PM_{10} 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 PM_{10} 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 such 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 PM_{10} 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.

8a. The Permittee may receive bulk solid materials at this source with any moisture content. The Permittee shall record the moisture content of the bulk solid material that is provided by the supplier for the "as received" moisture content of the bulk solid material. If the "as received" moisture content of a bulk solid material provided by the bulk solid material supplier is less than 3.0% by weight, then the Permittee shall increase the moisture content of the subject bulk solid material by:

i. Moistening the bulk solid material with water or applying chemical before the material is stockpiled or discharges from the first conveyor, whichever comes first; or

ii. Blending with a higher-moisture material before the material is stockpiled or discharges from the first conveyor, whichever comes first.

b. The Permittee shall show compliance with Condition 8(a)(i) and 8(a)(ii) by measuring the moisture content of a representative sample of bulk solid materials having a moisture content below 3.0% as provided by the supplier, after water application or blending, at least once per week using ASTM Procedure D 3302 for coal and ASTM Procedure D 3172 and D 4931 for petroleum coke. If the results of a moisture test are below 3.0%, water shall be applied to the stockpile of bulk material and the bulk material shall be re-tested. Should three consecutive tests of a bulk solid material show moisture content of 3.0% or greater by weight, this testing shall no longer be required for the subject bulk solid material.

c. Bulk solid materials with moisture content of 3.0% or higher as provided by the bulk solid material supplier are not required to have the moisture content analyzed, but the Permittee may test the moisture content of bulk solid materials at any time. For particulate emission calculations purposes, the most recent moisture analyses for a bulk solid material shall supersede all previous moisture analyses for that bulk solid material, including the moisture analyses provided by the bulk solid materials suppliers.

d. For purposes of quantifying emissions from bulk solid material with moisture content less than 3.0% as provided by the bulk material suppler, the Permittee shall use the weighted average of such moisture contents to calculate emissions for the initial material transfer (i.e., material drop) and all subsequent material transfers upstream and before the addition of water or the blending with a higher-moisture bulk solid material.

e. For purposes of quantifying emissions of bulk solid materials received with moisture content of 3.0% or greater as documented by the supplier of the bulk solid material, the Permittee shall use the weighted average moisture content, as provided by the bulk material supplier or as otherwise superseded by moisture contents obtained from samples collected by the Permittee.

f. Only fugitive emissions of PM_{10} and PM from the screener, equipment used to convey coal to or remove coal and refuse from the screener, and stockpiles of screened coal constructed after May 27, 2009 are included in the determination of major source status. Quantification of other fugitive emissions is not federally enforceable.

9a. PM_{10} and PM emissions shall be calculated for annual reporting to the Illinois EPA using standard emission factors (Section 13.2.4, AP-42, Volume I, Fifth Edition, November 2006, Table 11.19.2-2, AP-42, Volume I, Fifth Edition, August 2004, Table 3.3-1, AP-42, Volume I, Fifth Edition, October 1996, Table 3.4-1, AP-42, Volume I, Fifth Edition, October 1996, and Table 1.3-2, AP-42, Volume I, Fifth Edition, September 1998). PM_{10} and PM are calculated using the equation:

$$E = [(T \times F_m) + (S \times F_s) + (C \times F_c) + (H \times Z \times F_F) + (U/1000 \times F1)]/2000$$

Where:

E = Total PM_{10} 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 PM_{10};
= 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 lb PM/ton;
= 0.00074 lb PM_{10}/ton;

C = Amount of bulk material Crushed, (tons);

F_c = 0.0012 lb PM/ton;
= 0.00054 lb PM_{10}/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;

U = Gallons of kerosene use;
F1 = 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.

Only fugitive emissions of PM_{10} and PM from the screener, equipment used to convey coal to or remove coal and refuse from the screener, and stockpiles of screened coal constructed after May 27, 2009 are included in the determination of major source status. Quantification of other fugitive emissions is not federally enforceable.

b. NO_x Emissions from the operation of non-mobile, fuel combustion units at this source, not excluded as insignificant activities or emissions in 35 Ill. Adm. Code 201.146 and 201.210, shall not exceed 9.2 tons per month and 92.0 tons per year.

Emissions from fuel combustion equipment are based on standard emission factors (Tables 3.3-1 and 3.4-1, AP-42, Fifth Edition, Volume I, Supplement B, October 1996) and are calculated as follows:

$$E = H \times Z \times F / 2{,}000$$

Where:
E = Total emissions of pollutant;

H = Hours of operation of unit (hours);

Z = Engine size (horsepower)

F = Emission Factor as follows:

	Emission Factors		
	Gasoline Engines	Diesel Engines	
	≤250 hp	≤600 hp	>600 hp
Pollutant	lbs/Hp-Hr	lbs/Hp-Hr	lbs/Hp-Hr
Nitrogen Oxides (NO_x)	0.011	0.031	0.024

c. Compliance with the annual limits for fuel combustion units shall be determined each month from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

d. The diesel-powered generators shall only be operated with distillate fuel oil as the fuel. The use of any other fuel in the diesel-powered generators 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.

e. 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 wt. percent given by the formula: Maximum wt. percent sulfur = (0.00015) x (Gross heating value of oil, Btu/lb).

f. Organic liquid by-products or waste materials shall not be used in any combustion unit at this source without written approval from the Illinois EPA.

g. The Illinois EPA shall be allowed to sample all fuels stored at this source.

10a. 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 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 12 shall be performed upon a written request from the Illinois EPA by a qualified individual or independent testing service.

11. 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.

12a. 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;

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)(3), 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.

13a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:

i. Total amount of each bulk material handled (i.e., crushed, screened or transferred) (tons/month and tons/year);

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;

iv. Operating hours of each generator, hours/month and hours/year; and

v. Monthly and annual emissions of NO_x from this source with supporting calculations (tons/month and tons/year).

b. Unless otherwise specified in this permit, all records and logs required by this permit shall be retained at a readily accessible location at this 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.

14a. 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.

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.

15a. 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, a description of the exceedances 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 George Kennedy at 17/782-2113.

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

Signed: _____

ECB:GMK:jws

cc: Ilinois EPA, FOS Region 1
Lotus Notes

Attachment A- Emission Summary

This attachment provides a summary of the maximum emissions from this 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 this source. The resulting maximum emissions are below the levels, (e.g., 100 tons/year for NO_x) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than calculated in this summary to the extent that control measures are more effective than required in this permit and the amounts of materials handled and fuel consumed are less than the operating scenario used.

E M I S S I O N S (Tons/Year)

Emission Unit	NOx
Fuel Combustion	92.0
Totals	92.0

GMK:jws

Attachment C
Emission Calculations (Fuel Combustion) – KCBX Terminals Co. Chicago, IL

Equipment			Engine			Capacity				Date of			
ID	Name / Description	Power	Type*	Duty	Units	Hourly	Annual	Units	Applicability	Manufacture	Installation	Start Up	Modification
Internal / External Stationary Combustion Equipment													
	Lunch Room Furnace, Armstrong	diesel				0.450	3942	MMBtu	35 IAC 201.146(d)	Pre 1993	Pre 1993	Pre 1993	
	Diesel Shop Furnace, Armstrong	diesel				0.284	2488	MMBtu	35 IAC 201.146(d)	Pre 1993	Pre 1993	Pre 1993	
	Wash House Furnace, Weil McLain	diesel				0.298	2610	MMBtu	35 IAC 201.146(d)	Pre 1993	Pre 1993	Pre 1993	
	Water Heater, Boch SN91063029MC Model 71E	diesel				0.138	1205	MMBtu	35 IAC 201.146(c)	2006	2006	2006	
	Water Heater, Bock SN91063029MC Model 71E	diesel				0.138	1205	MMBtu	35 IAC 201.146(c)	2006	2006	2006	
Internal / External Portable Combustion Equipment													
04822	567 kw Generator	diesel	CI	750	hp				35 IAC 201.146(i)	1996	May-96	May-96	
04823	560 kw Generator	diesel	CI	760	hp				35 IAC 201.146(i)	1998	Oct-98	Oct-98	
4826	Welder/Generator, Electric Truck	gasoline	4SRB	9	hp				35 IAC 201.146(i)	2006	2006	2006	
4826	Mechanics Welder/Generator	diesel	CI	9	hp				35 IAC 201.146(i)	2005	2005	2005	
4826	WD-5 Welder, Miller	gasoline	4SRB	34	hp				35 IAC 201.146(y)	1990	1990	1990	
	Battery Starter/Generator, Multiquip	gasoline	4SRB	10	hp				35 IAC 201.146(nn)	1995	1995	1995	
4831	Power Washer, Landa	kerosene/ electric	N/A	0.5	hp	0.33	2891	MMBtu	35 IAC 201.146(nn)	2000	2000	2000	
5034	Power Washer, MTM	gasoline	N/A	16	hp	0.54	4730	MMBtu	35 IAC 201.146(nn)	2000	2000	2000	
	Spare generator/welder	gasoline	4SRB	9	hp				35 IAC 201.146(y)	2003	2003	2003	
	Mechanics Air Compressor, Kohler	gasoline	4SRB	16	hp				35 IAC 201.146(i)	2001	2001	2001	
4824	Water Pump, Cambardini 6"	diesel	CI	32.5	hp				35 IAC 201.146(i)	2007	2007	2007	
4824	Honda 3" Trash Pump Teal	gasoline	4SRB	9	hp				35 IAC 201.146(i)	1994	1994	1994	
4824	Honda 3" Water Pump on Trailer	gasoline	4SRB	9	hp				35 IAC 201.146(i)	2002	2002	2002	
4824	Briggs & Stratton 4" Trash Pump	gasoline	4SRB	16	hp				35 IAC 201.146(i)	1996	1996	1996	
4824	Briggs & Stratton 4" Trash Pump	gasoline	4SRB	16	hp				35 IAC 201.146(i)	2007	2007	2007	
1	Air Heater, Dayton	kerosene				0.6	5256	MMBtu	35 IAC 201.146(c), (d)	2005	2005	2005	
2	Air Heater, Dayton	kerosene				0.6	5256	MMBtu	35 IAC 201.146(c), (d)	2005	2005	2005	
3	Air Heater, Master	kerosene				0.6	5256	MMBtu	35 IAC 201.146(c), (d)	2006	2006	2006	
4	Air Heater, Master	kerosene				0.35	3066	MMBtu	35 IAC 201.146(c), (d)	2006	2006	2006	
5	Air Heater, Dayton	kerosene				0.35	3066	MMBtu	35 IAC 201.146(c), (d)	2006	2006	2006	
6	Air Heater, Dayton	kerosene				0.15	1314	MMBtu	35 IAC 201.146(c), (d)	2006	2006	2006	
7	Air Heater, Master	kerosene				0.15	1314	MMBtu	35 IAC 201.146(c), (d)	2006	2006	2006	
8	Air Heater, Master	kerosene				0.15	1314	MMBtu	35 IAC 201.146(c), (d)	2006	2006	2006	
9	Air Heater, Master	kerosene				0.15	1314	MMBtu	35 IAC 201.146(c), (d)	2007	2007	2007	
10	Air Heater, Master	kerosene				0.15	1314	MMBtu	35 IAC 201.146(c), (d)	2007	2007	2007	
11	Air Heater, Master	kerosene				0.15	1314	MMBtu	35 IAC 201.146(c), (d)	2007	2007	2007	
12	Air Heater, Master	kerosene				0.15	1314	MMBtu	35 IAC 201.146(c), (d)	2007	2007	2007	
13	Air Heater, Master	kerosene				0.60	5256	MMBtu	35 IAC 201.146(c), (d)	2007	2007	2007	

Potential to Emit													
lb/hr							ton/yr						
NOx	CO	SOx	PM	PM_{10}	$PM_{2.5}$	VOC	NOx	CO	SOx	PM	PM_{10}	$PM_{2.5}$	VOC
0.066	0.016	0.023	0.0066	0.0066	0.0066	0.00112	0.29	0.07	0.10	0.029	0.029	0.029	0.0049
0.041	0.010	0.015	0.0041	0.0041	0.0041	0.00070	0.18	0.05	0.06	0.018	0.018	0.018	0.0031
0.044	0.011	0.015	0.0044	0.0044	0.0044	0.00074	0.19	0.05	0.07	0.019	0.019	0.019	0.0032
0.020	0.0050	0.0071	0.0020	0.0020	0.0020	0.00034	0.088	0.022	0.031	0.0088	0.0088	0.0088	0.0015
0.020	0.0050	0.0071	0.0020	0.0020	0.0020	0.00034	0.088	0.022	0.031	0.0088	0.0088	0.0088	0.0015
18	4.1	1.7	0.53	0.53	0.53	0.48	79	18	7.4	2.3	2.3	2.3	2.1
18	4.2	1.7	0.53	0.53	0.53	0.49	80	18	7.5	2.3	2.3	2.3	2.1
0.10	0.0626	0.0053	0.0065	0.0065	0.0065	0.19	0.43	0.274	0.023	0.028	0.028	0.028	0.85
0.28	0.060	0.018	0.020	0.020	0.020	0.023	1.2	0.26	0.081	0.087	0.087	0.087	0.10
0.37	0.237	0.020	0.025	0.025	0.025	0.73	1.6	1.04	0.088	0.11	0.11	0.11	3.2
0.11	0.0696	0.0059	0.0072	0.0072	0.0072	0.22	0.48	0.305	0.026	0.032	0.032	0.032	0.95
0.0056	0.0012	0.00037	0.00039	0.00039	0.00039	0.00046	0.025	0.0053	0.0016	0.0017	0.0017	0.0017	0.0020
0.18	0.111	0.0095	0.012	0.012	0.012	0.35	0.77	0.488	0.041	0.051	0.051	0.051	1.5
0.10	0.0626	0.0053	0.0065	0.0065	0.0065	0.19	0.43	0.274	0.023	0.028	0.028	0.028	0.85
0.18	0.111	0.0095	0.012	0.012	0.012	0.35	0.77	0.488	0.041	0.051	0.051	0.051	1.5
1.0	0.22	0.067	0.072	0.072	0.072	0.082	4.41	0.95	0.29	0.31	0.31	0.31	0.36
0.10	0.0626	0.0053	0.0065	0.0065	0.0065	0.19	0.43	0.274	0.023	0.028	0.028	0.028	0.85
0.10	0.0626	0.0053	0.0065	0.0065	0.0065	0.19	0.43	0.274	0.023	0.028	0.028	0.028	0.85
0.18	0.111	0.0095	0.012	0.012	0.012	0.35	0.77	0.488	0.041	0.051	0.051	0.051	1.5
0.18	0.111	0.0095	0.012	0.012	0.012	0.35	0.77	0.488	0.041	0.051	0.051	0.051	1.5
0.088	0.022	0.031	0.0088	0.0088	0.0088	0.0015	0.38	0.096	0.14	0.038	0.038	0.038	0.0065
0.088	0.022	0.031	0.0088	0.0088	0.0088	0.0015	0.38	0.096	0.14	0.038	0.038	0.038	0.0065
0.088	0.022	0.031	0.0088	0.0088	0.0088	0.0015	0.38	0.096	0.14	0.038	0.038	0.038	0.0065
0.051	0.013	0.018	0.0051	0.0051	0.0051	0.00087	0.22	0.056	0.079	0.022	0.022	0.022	0.0038
0.051	0.013	0.018	0.0051	0.0051	0.0051	0.00087	0.22	0.056	0.079	0.022	0.022	0.022	0.0038
0.022	0.0055	0.0078	0.0022	0.0022	0.0022	0.00037	0.096	0.024	0.034	0.0096	0.0096	0.0096	0.0016
0.022	0.0055	0.0078	0.0022	0.0022	0.0022	0.00037	0.096	0.024	0.034	0.0096	0.0096	0.0096	0.0016
0.022	0.0055	0.0078	0.0022	0.0022	0.0022	0.00037	0.096	0.024	0.034	0.0096	0.0096	0.0096	0.0016
0.022	0.0055	0.0078	0.0022	0.0022	0.0022	0.00037	0.096	0.024	0.034	0.0096	0.0096	0.0096	0.0016
0.022	0.0055	0.0078	0.0022	0.0022	0.0022	0.00037	0.096	0.024	0.034	0.0096	0.0096	0.0096	0.0016
0.022	0.0055	0.0078	0.0022	0.0022	0.0022	0.00037	0.096	0.024	0.034	0.0096	0.0096	0.0096	0.0016
0.022	0.0055	0.0078	0.0022	0.0022	0.0022	0.00037	0.096	0.024	0.034	0.0096	0.0096	0.0096	0.0016
0.088	0.022	0.031	0.0088	0.0088	0.0088	0.0015	0.38	0.096	0.14	0.038	0.038	0.038	0.0065
40	9.8	3.9	1.3	1.3	1.3	4.2	175	43	17	5.8	5.8	5.8	18.4

Attachment D
Emission Calculations (Material Handling) - KCBX Terminals Co. Chicago,
Emission Equations @ 7.5% moisture (current FESOP)

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 equipment spec sheet)		
	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 Transfered * Material Handling EF * No. of Drop Points
Control is by watering to maintain moisture at or above the value of M

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}	$PM_{2.5}$	
4.7	2.2	0.3	lb/hr
21	10	1.5	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)
	112.8	ton/hr screening rated capacity (from equipment spec sheet)		

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}	$PM_{2.5}$	
0.2	0.1	0.01	lb/hr
1.1	0.4	0.02	ton/yr

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

Note: k factors not available for PM_{10} & $PM_{2.5}$, 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 PM_{30}/acre/hr (disturbed area)

U =	**10.3**	mph (average wind speed for O'Hare through 2001 - 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

Assume Pile remains active (no emissions from an inactive pile) because screening occurs 8760 hrs/yr

4. Vehicle Traffic

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

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

988,128 tons/yr maximum screener throughput

Assume All screened material is moved by truck and loader (worst case)

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

Vehicle Type	Number	Weight (tons)			Operating			VMT (mi/yr)	
		Loaded	Empty	Average	Distance[1] (mi)	Speed (mi/hr)	Time (hrs/yr)	Unpaved	Paved
End loader/dozer	1	20.0	10.0	**15.0**	0.03			**2,807**	**0**
Water truck[2]	1	20.0	5.0	**12.5**		5.0	100	**500**	**0**
Haul truck	**39,525**	40.0	15.0	**27.5**	0.8			**31,620**	**0**
							Total =	**34,927**	**0**

[1] round trip
[2] 100 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 =	**26.3**	**26.3**	**26.3**	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}	$PM_{2.5}$	
12	3.0	0.3	lb/hr
51	13	1.3	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	49,872	23,588	3,572	25	12	1.8
Screening	2,174	731	49	1.1	0.4	0.0
Storage Piles	64,964	30,726	4,653	32	15	2.3
Vehicle Traffic	102,604	26,469	2,647	51	13	1.3
Site Totals	219,613	81,514	10,921	110	41	5.5