

September 04, 2019

Mr. Andrew Drury
Senior Engineer Specialist
EGLE, Air Quality Division
Constitution Hall, 2nd Floor South Tower
525 West Allegan Street
Lansing, MI 48933-1502

RE: Response to AQD Questions – Permit to Install Application No. 50-06D

Dear Mr. Drury,

On August 21, 2019, the Michigan Department of Environment, Great Lakes and Energy, Air Quality Division (AQD) sent via e-mail six questions pertaining to Permit to Install Application No. 50-06D. This submittal provides a written response to those questions.

1. Q. For the request to change the ore truck limit from a 12-month rolling limit to a calendar year limit, please discuss how this change fits in with guidance on practical enforceability.

A. In reviewing and accepting previous applications relative to PTI 50-06 and its modifications, the AQD has accepted emissions inventories for the facility reflecting that annualized potential emissions from the facility are well below applicable potential to emit (PTE) thresholds for PSD and Title V major source thresholds. For fugitive emissions of PM, PM10 and PM 2.5 estimated emissions are effectively de minimus, and fugitive emissions from vehicle travel are a fraction of the facility fugitive emission total. Moreover, for mining operations potential fugitive emissions are not to be included relative for determining major source status. (See guidance provided by the acting director of the EPA Region V Air and Radiation Division to the Indiana Department of Environmental Management, attached for reference.)

EPA guidance relative to practicable enforceability was developed following the decisions in US v Louisiana-Pacific Corporation to address appropriate permit conditions for limiting potential to emit to avoid PSD requirements. The guidance was subsequently expanded to apply to limiting potential to emit to avoid Title V requirements. However, in the context of this facility given the limited fugitive dust emissions contributions from the trucks and the irrelevance of the fugitive emissions for PSD and Title V purposes, altering the method of accounting from a 12-month rolling to annual basis is immaterial and EPA's guidance on practical enforceability is not directly relevant.

2. Q. For application 50-06B, do the vehicle travel emission calculations address hauling development rock from the TDRSA to the backfill plant? Development rock is not listed in the materials hauled. I think this may be addressed through the aggregate calculations assuming that all rock used in the backfill plant would be aggregate, rather than development rock, since the travel distance for aggregate appears to be longer than the travel distance for development rock.

A. *Your assumptions are correct. The submitted vehicle travel emissions were calculated based on the conservative assumption that backfill will be made with aggregate only, rather than a combination of development rock and aggregate. Because the hauling of development rock from the TDRSA to the aggregate building occurs over a much shorter distance than the overall hauling of aggregate (approx. 0.54 miles versus 2.72 miles round trip), the submitted emission estimates provide an upper bound of potential hauling emissions associated with the support of backfill production.*

3. Q. *The aggregate building emissions in the modeling for application 50-06B appear to be lower than the emissions in the modeling for the previous permit review, and the aggregate throughput also appears to be lower. Please address these apparent differences.*

A. *The current aggregate building emissions estimate is indeed lower than what was projected in support of application 50-06B. The revised estimate is based on the expected maximum future rate of aggregate and/or development rock throughput. Note that the calculation methodology has not changed. Considering the level of control and resultant emissions associated with the aggregate building (0.0012 tons PM₁₀/year and 0.00023 tons PM_{2.5}/year), any future variation in throughput will result in only a minimal change in emissions.*

4. Q. *Similar to item 3, the COSA building emissions appear to be lower in application 50-06B than in the previous review. Please address this apparent difference.*

A. *There is no projected change in throughput/emissions at the COSA due to the proposed aggregate storage operation. The COSA emission rates included in the dispersion modeling inventory (Table 1, Attachment E of the application) are inadvertently incorrect. Modeled emission rates for the COSA should be consistent with those projected in support of application 50-06B. Our consultant, Barr Engineering Co., will coordinate with the AQD modeler to ensure that the inventory is updated in the modeling files. Note that the change in emissions is not expected to result in an increase in maximum modeled impacts from the mine.*

5. Q. *For application 50-06B, the calculations assume 440,920 tons per year of development rock is screened, but only 286,298 tons per year of development rock are used in the backfill plant. Please address this difference.*

A. *Only some of the screened development rock can be used in cemented backfill. The purpose of screening is to separate out the correct size for making cemented backfill; the oversize and fines are not suitable for that purpose, but are destined for use as backfill in secondary stopes. Also, some screened material could be stockpiled for later use. The 286,298 tons per year of development rock is based on the projected amount that will be needed to make the required amount of cemented rockfill.*

6. Q. *For application 50-06B, it appears that the emissions for vehicle travel from the mine gate to the pavement edge are lower than in the previous permit review. Please address this apparent difference.*

A. *These calculations are not directly comparable because certain road segment distances have changed as a result of the proposed aggregate hauling route. For example, the north end of the road segment was at "pavement end", but is now at the east end of the product haul loop. This change made better sense given the need to incorporate the road to the outdoor aggregate storage area. In the Vehicle Travel tab (Attachment C of the application), the label in Column A, Row 171 inadvertently did not reflect this change. Other road segment lengths were changed consistent with this. Note that*

the emission estimates also account for changes to cement and aggregate delivery truck weights, as well as a change in the estimated maximum amount of cement and aggregate.

If you require any additional information, or should you have any questions regarding this response, please do not hesitate to contact me at 906-339-7029 or Brian Leahy at 616-512-7018. If helpful, we'd be happy to participate in a conference call to walk through the responses and to provide any further information.

Sincerely,



Jennifer Nutini, P.E.

Sr. Environmental & Permitting Engineer

c: Lydia Salmon
Brian Leahy, Barr Engineering Co.
Steve Kohl, WN&J

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

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

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.

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).

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>)