In response to a question from the regulated community, EPA is taking this opportunity to issue this question and answer document (Q&A) which explains the requirements of EPA regulations, describes EPA policies, and recommends procedures for permitting authorities to use to ensure that permitting decisions are consistent with applicable regulations. This Q&A is not a rule or regulation, and the guidance it contains may not apply to a particular situation based upon the individual facts and circumstances. This Q&A does not change or substitute for any law, regulation, or any other legally binding requirement and is not legally enforceable. The use of non-mandatory language such as "guidance," "recommend," "may," "should," and "can," is intended to describe EPA policies and recommendations. Mandatory terminology such as "must" and "required" are intended to describe controlling requirements under the terms of the Clean Air Act and EPA regulations, but the Q&A does not establish legally binding requirements in and of itself.

Counting GHG Fugitive Emissions in Permitting Applicability

Question: How are fugitive emissions counted in determining whether greenhouse gases (GHGs) are "subject to regulation" for determining whether requirements are triggered for new major stationary sources and major modifications under the Prevention of Significant Deterioration (PSD) program and for major sources under the title V program?

Background: For any pollutant, Section 302(j) of the Clean Air Act (CAA) and the regulatory provisions that implement the PSD and title V programs explain how fugitive emissions are evaluated in determining the applicability of PSD and title V.

- For determining whether a source is a major source, the definitions of "major stationary source" and "major source" in the PSD and title V regulations, respectively, provide that fugitive emissions shall not be included unless the source belongs to one of the categories of sources specifically listed in the regulations. *See*, for example, 40 CFR § 52.21(b)(1)(iii) (definition of "major stationary source") and § 70.2 (definition of "major source"). Examples of those source categories include petroleum refineries, Portland cement plants, and iron and steel mills. This approach is consistent with CAA § 302(j), which sets out the definition of "major stationary source" and "major emitting facility" and specifies that fugitive emissions are included in major source determinations only for source categories that EPA specifies through rulemaking.

- For modifications, under the PSD regulations, fugitive emissions are included in determining whether a physical or operational change is a major modification, regardless of source category.[1] However, for source categories not specifically listed in the regulations (known as "non-listed source categories" or "non-listed source"), a major modification may qualify for an exemption from the substantive requirements of PSD (*i.e.,* § 52.21(j) – (r)) in accordance

[1] On December 19, 2008, EPA issued a final rule revising the requirements of the major New Source Review programs regarding the treatment of fugitive emissions (73 FR 77882). That rule required fugitive emissions to be included in determining major modification applicability only for listed sources. EPA granted a petition for reconsideration of the 2008 rule in April 2009 and subsequently issued an interim rule that stayed the provisions of the 2008 rule until EPA completes the reconsideration (76 FR 17548, March 30, 2011).

with § 52.21(i)(1)(vii) if the modification would be major only if fugitive emissions are considered in the applicability calculations.[2]

It is important to note that the provisions for fugitive emissions accounting for non-listed source categories apply only to the respective threshold applicability determinations – *i.e.,* whether the source is major for purposes of PSD or title V, and whether a modification qualifies for an exemption pursuant to § 52.21(i)(1)(vii). For PSD, once it is determined that the non-listed source is major for at least one regulated New Source Review (NSR) pollutant based on non-fugitive emissions, fugitive emissions are then included in all subsequent analyses, including PSD applicability for other individual pollutants (*i.e.,* comparing emissions to the significant emission rates), BACT analyses, and air quality impact analyses.[3] Similarly, once it is determined that a modification is major for at least one regulated NSR pollutant and therefore does not qualify for an exemption under § 52.21(i)(1)(vii), fugitive emissions are included in all subsequent analyses.

Answer: The GHG Tailoring Rule (75 FR 31514, June 3, 2010) established provisions for determining whether GHGs are "subject to regulation," that, in conjunction with statutory and regulatory mass-based thresholds, are used in determining major stationary source status (under the PSD and title V programs) and major modification applicability (under the PSD program) for GHGs. The rule provisions did not explicitly address whether fugitive GHG emissions are required to be counted towards the CO_2e-based "subject to regulation" thresholds set forth by the Tailoring Rule. However, in the preamble to the Tailoring Rule, EPA clarified that, although the Tailoring Rule thresholds on their face apply to only the term "subject to regulation," the thresholds should be interpreted to apply to other terms in the definition of "major stationary source" and "major modification." 75 FR 31582. In the same preamble EPA stated that "... we are applying our existing rules and policies for fugitive emissions for GHG as we would any other pollutant." 75 FR 31591. Read in combination, these statements indicate that the fugitive emissions accounting provisions for listed and non-listed source categories apply to the Tailoring Rule "subject to regulation" thresholds for GHGs in the same manner as they do to the statutory and regulatory mass-based thresholds for any regulated NSR pollutant. For additional guidance on PSD and title V applicability for GHGs, see pp. 12-15 of *PSD and Title V Permitting Guidance for Greenhouse Gases* (March 2011, EPA Document Number EPA-457/B-11-001).

New Major Stationary Source Determinations: Determining whether a source is a "major stationary source" for its GHG emissions is a two step process (*i.e.,* the first step being whether GHGs are "subject to regulation" and the second step being the mass-based applicability thresholds for PSD and title V). Thus, for determining major source status for a new source for PSD purposes (and determining whether a modification at an existing non-major source constitutes a major stationary source by itself for purposes of § 52.21(b)(1)(i)(*c*)), you count fugitive GHG emissions in both the subject to regulation (CO_2e-based) and the major source

[2] While the text of § 52.21(i)(1)(vii) appears to extend the exemption to new major stationary sources, as a practical matter we do not believe that new sources (including newly major stationary sources as defined under § 52.21(b)(1)(i)(*c*)) would use the exemption, since the exemption only applies to non-listed source categories and fugitive emissions are not included in determining major source status for non-listed new sources.
[3] For title V sources, fugitive emissions should be included in title V permit applications and permits in the same manner as stack emissions, regardless of whether the source category is listed or not. 40 CFR § 70.3(d).

(mass-based) potential to emit (PTE) calculations for each of the listed source categories, and you do not count fugitive GHG emissions for any non-listed source.[4] Similarly, for determining major source status for title V purposes, you count fugitive GHG emissions in both the subject to regulation (CO_2e-based) and the major source (mass-based) PTE calculations for each of the listed source categories, and you do not count fugitive GHG emissions for any non-listed source.

Major Modification Determinations: As described previously, fugitive emissions are included in determining whether a physical or operational change is a major modification under the PSD program, regardless of source category or pollutant. This concept is applied in the following two modification scenarios for GHGs:

- For major modification applicability for GHGs at an existing major stationary source for a regulated NSR pollutant that is not GHGs, if the modification will result in an emissions increase[5] of a regulated NSR pollutant that is not GHGs, then fugitive GHG emissions are included in the calculations used to compare with the applicable "subject to regulation" threshold (*i.e.,* 75,000 TPY CO_2e emissions increase) and the applicable significant emission rate for GHGs on a mass basis (*i.e.,* any increase above zero TPY) for all source categories. § 52.21(b)(49)(iv)(*b*).

- For all other situations, major modification applicability for GHGs is defined under § 52.21(b)(49)(v)(*b*), which requires that two criteria be met for GHG emissions to be subject to regulation: (1) that the existing source's GHG PTE is equal to or greater than 100,000 TPY of CO_2e, and (2) the increase of GHG emissions associated with the project is equal to or greater than 75,000 TPY of CO_2e. In this case, while you count fugitive emissions for all source categories in examining Condition (2), which reflects the emissions increase resulting from the modification, you only count fugitive emissions for listed source categories in examining Condition (1), consistent with the approach described in the above paragraph for determining GHG major source status. Similarly, in evaluating the mass-based emissions as part of this major modification applicability analysis, fugitive GHG emissions are counted for listed source categories (*i.e.,* having a 100 TPY major source threshold) but not for the non-listed source categories (having a 250 TPY major source threshold) in determining the existing source's emissions, and fugitives are always counted, regardless of source category, in determining whether the increase of GHG emissions associated with the project is greater than the applicable significant emission rate for GHGs on a mass basis (any increase above zero TPY).

In addition, as explained previously, a modification at a non-listed source may qualify for an exemption from the substantive requirements of PSD pursuant to § 52.21(i)(1)(vii) if it would be major only if fugitive emissions are included in its PSD applicability analysis. In applying this exemption to GHGs, both the subject to regulation threshold and the mass-based threshold are to

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[4] In the case of new sources that are a PSD major source for a non-GHG pollutant (*i.e.,* "anyway sources"), fugitive emissions are included when comparing GHG emissions to the 75,000 TPY subject to regulation threshold, regardless of the source category. This is because, once there is a determination that the source is a PSD major source for another regulated NSR pollutant, the evaluation of the GHG emissions (or emissions of any other pollutant) is no longer part of the threshold applicability determination for the source.

[5] See § 52.21(b)(49)(iii).

be considered. For example, a modification at a non-listed source that is not subject to PSD for a non-GHG pollutant could qualify for this exemption if the PTE of the existing source is equal to or greater than 100,000 TPY of CO_2e and equal to or greater than 250 TPY mass (both not counting fugitives), and its GHG emissions increase resulting from the modification is (1) under 75,000 TPY CO_2e when not counting the fugitive emissions and at least 75,000 TPY CO_2e when including fugitive emissions, and/or (2) no more than zero TPY mass when not counting the fugitive emissions and more than zero TPY mass when including fugitive emissions.[6]

[6] Consistent with the explanation in the Background section of this document, if a modification is subject to PSD for any non-GHG pollutant, fugitive emissions would be included in all subsequent analyses, including PSD applicability for GHGs. Thus, such a modification would not be able to use the § 52.21(i)(1)(vii) exemption for its GHG emissions increase. Thus, the § 52.21(i)(1)(vii) exemption would not be of use for modifications that are subject to PSD by way of § 52.21(b)(49)(iv)(*b*).