

This question and answer document (Q&A) 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.

Triggering PSD at Non-Anyway Sources and Modifications

Question: When does PSD apply to GHG and non-GHG pollutants at non-anyway sources and modifications?

Answer: The first step in determining whether PSD applies under the Tailoring Rule is to determine whether the proposed project’s GHG emissions are “subject to regulation.” During Tailoring Rule Step 1, sources can only be subject to regulation if they are an “anyway source” or “anyway modification” (*i.e.*, a source or modification, respectively, that is subject to PSD “anyway” due to its emissions of non-GHG pollutants). During Tailoring Rule Step 2 (*i.e.*, on or after July 1, 2011), however, sources and modifications can become subject to PSD based solely on their GHG emissions. These are referred to as non-anyway sources and non-anyway modifications. For a new non-anyway source, GHGs are subject to regulation if the potential to emit (PTE) of the source is at least 100,000 TPY CO₂e. In the case of non-anyway modifications, GHG emissions are subject to regulation at an existing stationary source (that is not an “anyway source”) if the source: (1) has a PTE of 100,000 TPY CO₂e, and (2) undertakes a modification that is projected to increase emissions by at least 75,000 TPY CO₂e. See 40 CFR 52.21(b)(49)(v).

The second step is to determine whether the source also has a PTE that is at or above the Clean Air Act *mass-based* major source threshold (*i.e.*, either 100 or 250 TPY) for GHGs. If it does, then both the source and the modification are treated as “major” for GHGs and must go through PSD review for GHGs. The non-GHG pollutant(s) at the source will also become subject to PSD if the modification results in an emissions increase at or above the significance level for that non-GHG pollutant. Thus, EPA’s longstanding “major for one, major for all” PSD policy also applies to GHG-only major sources, but only after GHGs are determined to be subject to regulation for the modification.

Example Scenario A

July 2011: A new source (Source A) is proposed with the following PTE:

$$\text{CO}_2 = 120,000 \text{ TPY (thus, CO}_2\text{e} = 120,000 \text{ TPY)}$$

$$\text{NO}_x = 90 \text{ TPY}$$

$$\text{SO}_2 = 15 \text{ TPY}$$

Does PSD apply?

YES. The proposed source is a PSD major source because the GHG PTE is above the 100,000 TPY CO₂e threshold and above the 100 or 250 TPY mass-based threshold. Therefore, PSD applies to GHG emissions and any other regulated NSR pollutant with significant emissions. In this case, PSD also applies to NO_x emissions, which exceed the 40 TPY significance level. PSD does not apply to SO₂ because emissions are below the 40 TPY significance level for SO₂.

July 2012: Source A is now an existing stationary source and undertakes a modification. It currently emits 120,000 TPY of CO₂e. The modification will increase GHG emissions by 50,000 TPY of CO₂e. There will also be an SO₂ increase of 50 TPY.

Does PSD apply?

NO. Even though the PTE of the source for GHGs is 120,000 TPY CO₂e, GHG emissions will not increase by an amount equal to or greater than 75,000 TPY CO₂e, and as a result, GHGs are not “subject to regulation” at the time of the modification. Hence, PSD does not apply to GHGs, and PSD also does not apply to SO₂ because, while the increase in SO₂ is above its 40 TPY significance level, the modification is not subject to PSD for GHGs and the SO₂ emissions are below the “major” level of 100 or 250 TPY (depending on the source category). Therefore, Source A is not a major source of any regulated NSR pollutant.

July 2013: Existing Source A undertakes another modification. It currently emits 170,000 TPY of CO₂e. The modification will increase its GHG emissions by 80,000 TPY of CO₂e. There are also emissions increases of 90 TPY of NO_x and 25 TPY of SO₂.

Does PSD apply?

YES. Source A is a major stationary source because the PTE of the source for GHGs is 170,000 TPY CO₂e and the increase in GHGs is over the 75,000 TPY CO₂e threshold, meaning GHGs are subject to regulation at the time of this modification, and the GHG emissions from the source are over the 100/250 TPY major source threshold. Since the mass increase in GHGs from the modification is above the applicable 0 TPY significance level, it is a major modification. Thus, PSD applies to GHGs. PSD also applies to NO_x, since the 90 TPY increase in NO_x exceeds the 40 TPY significance level for NO_x. PSD

does not apply to SO₂, since the SO₂ emissions increase does not equal or exceed the 40 TPY significance level for SO₂.

Example Scenario B

February 2011: A new source (Source B) is proposed with the following PTE:

CO₂ = 150,000 TPY (thus, CO₂e = 150,000 TPY)

NO_x = 90 TPY

SO₂ = 15 TPY

Does PSD apply?

NO. Since permit issuance is during Tailoring Rule Step 1 and Source B is not an anyway source, PSD does not apply.

NOTE: Prior to July 1, 2011, Source B is a minor source for all PSD pollutants. However, if Source B does not begin actual construction until on or after July 1, 2011, then they are a “major emitting facility” and therefore cannot construct without a PSD permit. Thus, Source B would need to either get a PSD permit for GHGs – as well as for NO_x, since the NO_x emissions are significant – or get an enforceable limit on its GHG emissions to remain beneath the subject to regulation threshold of 100,000 TPY CO₂e (or the mass-based major source threshold of 100 or 250 TPY, depending on the source category).

October 2011: Existing Source B undertakes a modification. It currently emits 150,000 TPY of CO₂e. The modification will increase emissions by 50,000 TPY of CO₂e. There will also be an SO₂ increase of 40 TPY.

Does PSD apply?

NO. While the PTE of Source B is 150,000 TPY CO₂e, the GHG emissions did not increase by at least 75,000 TPY CO₂e, so GHGs are not subject to regulation for this modification. Accordingly, because the source does not emit any regulated pollutant above the major source thresholds PSD does not apply.

August 2012: Source B undertakes another modification. It currently emits 200,000 TPY of CO₂e. The modification will increase GHG emissions by 75,000 TPY of CO₂e. There will also be an SO₂ increase of 40 TPY.

Does PSD apply?

YES. Since the GHG emissions of Source B are 200,000 TPY CO₂e, and the modification will increase GHG emissions by at least 75,000 TPY CO₂e, GHGs are subject to regulation for this modification, and PSD applies to GHGs as well as to SO₂, since the SO₂ emissions equal the significance level of 40 TPY.

Example Scenario C

February 2011: A new source (Source C) is proposed with the following PTE:

CO₂ = 50,000 TPY (thus, CO₂e = 50,000 TPY)

NO_x = 90 TPY

SO₂ = 15 TPY

Does PSD apply?

NO. Since permit issuance is during Tailoring Rule Step 1 and Source C is not an anyway source, PSD does not apply.

(In contrast to Source B, Source C would still be a minor source on July 1, 2011, so they can begin actual construction after July 1, 2011 without a PSD permit.)

October 2011: Existing Source C undertakes a modification. It currently emits 50,000 TPY of CO₂e. The modification will increase GHG emissions by 100,000 TPY of CO₂e. There will also be an SO₂ increase of 40 TPY.

Does PSD apply?

YES. Even though the GHG PTE of the existing Source C is 50,000 TPY CO₂e, the modification alone has GHG emissions of 100,000 TPY CO₂e, which makes them subject to regulation for this modification. Thus, under the Tailoring Rule Step 2 applicability procedures, this modification is considered a “new major stationary source.” This mirrors the traditional PSD program approach, whereby PSD would apply to an existing minor source if it is making a modification that increases emissions of a regulated NSR pollutant in an amount that is equal to or in excess of the applicable major source threshold (i.e., 100 or 250 TPY). For this modification, PSD also applies to SO₂, since the SO₂ emissions equal the significance level of 40 TPY.