Deferral for CO\textsubscript{2} Emissions From Bioenergy and Other Biogenic Sources Under the Prevention of Significant Deterioration (PSD) and Title V Programs; Final Rule
ENVIRONMENTAL PROTECTION AGENCY

40 CFR Parts 51, 52, 70, and 71

RIN 2060–AQ79

Deferral for CO₂ Emissions From Bioenergy and Other Biogenic Sources Under the Prevention of Significant Deterioration (PSD) and Title V Programs

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: This action defers for a period of three (3) years the application of the Prevention of Significant Deterioration (PSD) and Title V permitting requirements to biogenic carbon dioxide (CO₂) emissions from bioenergy and other biogenic stationary sources. This action is being taken as part of the process of granting the Petition for Reconsideration filed by the National Alliance of Forest Owners (NAFO) on August 3, 2010, related to the PSD and Title V Greenhouse Gas Tailoring Rule.

The result of this action is that during this three year period biogenic CO₂ emissions are not required to be counted for applicability purposes under the PSD and Title V permitting programs. State, local, and tribal permitting authorities may adopt the deferral at their option but the deferral is effective upon publication for the PSD and Title V permit programs that are implemented by EPA.

DATES: This action is effective on July 20, 2011.

ADDRESSES: EPA has established a docket for this rulemaking under Docket ID No. EPA–HQ–OAR–2011–0083. All documents in the docket are listed in the index available docket materials are available electronically at www.regulations.gov or in hard copy at the Air Docket, Room 3334, 1301 Constitution Ave., NW., Washington, DC 20460; telephone number: (202) 343–9334; fax number: (202) 343–2342; e-mail address: biodeferralPSD@epa.gov.

SUPPLEMENTARY INFORMATION: Regulated Entities. The Administrator determined that this action is subject to the provisions of Clean Air Act (CAA) section 307(d). See CAA section 307(d)(1)(V) (the provisions of section 307(d) apply to “such other actions as the Administrator may determine”). These are final amendments to existing regulations. This action applies to stationary sources that emit biogenic CO₂.

Table 1 of this preamble lists the types of entities that potentially could be affected by the deferral covered by this action. This list is not intended to be exhaustive, but rather provides a guide for readers regarding facilities likely to be affected by this action. Note that this rule does not make or infer any policy determination on the part of EPA whether any emissions from any of these sources may be determined “fugitive” emissions for the purposes of accounting and applicability under air permitting requirements. Such determinations are not within the scope of this rule and are part of the case-by-case application and review process established under the regulations covering these permitting requirements. If you have questions regarding the applicability of this action to a particular facility, consult the person listed in the FOR FURTHER INFORMATION CONTACT section of this preamble.

What is the effective date? The final rule is effective on July 20, 2011. Section 553(d) of the Administrative Procedure Act (APA), 5 U.S.C. Chapter 5, generally provides that rules may not take effect earlier than 30 days after they are published in the Federal Register. EPA is issuing this final rule under section 307(d)(1) of the Clean Air Act, which states: “The provisions of section 553 through 557 *** of Title 5 shall not, except as expressly provided in this section, apply to actions to which this subsection applies.” Thus, section 553(d) of the APA does not apply to this rule. EPA is nevertheless acting consistently with the purposes of the underlying APA section 553(d) in making this rule effective on July 20, 2011. Section 5 U.S.C. 553(d)(3) allows an effective date less than 30 days after publication “as otherwise provided by the agency for good cause found and published with the rule.” As explained below, EPA finds that there is good cause for this rule to become effective on July 20, 2011, even through this results in fewer than 30 days from the date of publication in the Federal Register.

EPA announced its intent to undertake this rulemaking on January 12, 2011, in order to provide the Agency time to conduct a detailed examination of the science and technical issues associated with biogenic CO₂ emissions.
from stationary sources. The Agency intended to complete the rulemaking before sources would be subject to the PSD and Title V programs for GHG emissions because at that time it was possible that a source could be subject to those requirements based on biogenic CO₂ emissions. The Agency determined it could be burdensome for both permitting authorities and sources to assess those emissions until our detailed examination was complete. In a January 12, 2011, letter to several members of Congress, the Administrator wrote, “No source will be subject to the pre-construction permitting requirement solely because of its greenhouse gas emissions until after July 1, 2011. With the approach of July 1 in mind, I am announcing today that, by that date, EPA will complete a rulemaking to defer for three years the application of the pre-construction permitting requirement to biomass and other biogenic CO₂ emissions.”

One purpose of the 30-day waiting period prescribed in 5 U.S.C. 553(d) is to give affected parties a reasonable time to adjust their behavior and prepare before the final rule takes effect. Whereas here, the affected parties are anticipating this rule and requesting the flexibility it provides, and any delay in its effectiveness will result in uncertainty in the permitting process. In order to ensure that the final rule is available to the public by July 1, 2011, the final rule will be signed and made available on the EPA Web site. Publication may follow one to two weeks after that date. A shorter effective date is also consistent with the purposes of APA section 553(d)(1), which provides an exception for any action that grants or recognizes an exemption or relieves a restriction. Here, this action relieves a burden because it defers the applicability of the PSD and Title V permitting requirements for biogenic stationary sources for a period of three years. Accordingly, we find good cause exists to make this rule effective on July 20, 2011, consistent with the purposes of 5 U.S.C. 553(d)(1) and (3).

Judicial Review. Under section 307(b)(1) of the CAA, judicial review of this final rule is available only after filing a petition for review in the U.S. Court of Appeals for the District of Columbia Circuit (the Court) by September 19, 2011. Under CAA section 307(d)(7)(B), only an objection to this final rule that was raised with reasonable specificity during the period for public comment can be raised during judicial review. CAA section 307(d)(7)(B) also provides a mechanism for EPA to convene a proceeding for reconsideration, “[i]f the person raising an objection can demonstrate to EPA that it was impracticable to raise such objection within [the period for public comment] or if the grounds for such objection arose after the period for public comment (but within the time specified for judicial review) and if such objection is of central relevance to the outcome of the rule.” Any person seeking to make such a demonstration to us should submit a Petition for Reconsideration to the Office of the Administrator, Environmental Protection Agency, Room 3000, Ariel Rios Building, 1200 Pennsylvania Ave., NW., Washington, DC 20460, with a copy to the person listed in the preceding FOR FURTHER INFORMATION CONTACT section, and the Associate General Counsel for the Air and Radiation Law Office, Office of General Counsel (Mail Code 2344A), Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20004. Note, under CAA section 307(b)(2), the requirements established by this final rule may not be challenged separately in any civil or criminal proceedings brought by EPA to enforce these requirements.

Acronyms and Abbreviations. The following are acronyms and abbreviations of terms used in this preamble.

- BACT: best available control technology
- BAU: business as usual
- CAA: Clean Air Act
- CBI: confidential business information
- CFR: Code of Federal Regulations
- CH₄: methane
- CO₂: carbon dioxide
- CO₂e: carbon dioxide equivalents
- EO: Executive Order
- EPA: U.S. Environmental Protection Agency
- FR: Federal Register
- GHG/GHGs: greenhouse gas/greenhouse gases
- GWP: global warming potential
- LULUCF: Land-Use, Land-Use Change and Forestry
- MSW: municipal solid waste
- NAFO: National Alliance of Forest Owners
- NAAQS: National Ambient Air Quality Standards
- NOx: nitrogen oxides
- NSPS: New Source Performance Standards
- NR: New Source Review
- NTTAA: National Technology Transfer and Advancement Act of 1995
- PSD: Prevention of Significant Deterioration
- PTE: potential to emit
- RFA: Regulatory Flexibility Act
- SAB: Science Advisory Board
- SCLs: significant cumulative effects
- SIP: State Implementation Plan
- SMCs: significant monitoring concentrations
- tpy: tons per year
- U.S.: United States
- UMRA: Unfunded Mandates Reform Act
- UNFCCC: United Nations Framework Convention on Climate Change

Outline. The information presented in this preamble is organized as follows:

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H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use
I. National Technology Transfer and Advancement Act
J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations
K. Congressional Review Act

I. Background

On June 3, 2010, EPA published the final Prevention of Significant Deterioration (PSD) and Title V Greenhouse Gas Tailoring Rule (herein referred to as the Tailoring Rule; 75 FR 31514), setting thresholds for GHG emissions that define when permits under these programs are required for new and existing industrial facilities. Beginning January 2, 2011, sources currently subject to PSD or Title V permitting programs were required to determine the best available control technology (BACT) for their GHG emissions, but only for GHG increases of 75,000 short tons per year (tpy) or more of total GHGs, on a carbon dioxide equivalents (CO₂e) basis and any increase on a mass basis. At that time, no sources would be subject to CAA permitting requirements due solely to GHG emissions.

Beginning July 1, 2011, the PSD permitting requirements will for the first time cover new construction projects that will emit GHGs of at least 100,000 tpy on a CO₂e basis even if they do not exceed the permitting thresholds for any...
other pollutant. Modifications at existing facilities that increase GHG emissions by at least 75,000 tpy, and any amount on a mass basis, will be subject to permitting requirements, even if they do not significantly increase emissions of any other pollutant. Operating permit requirements will, for the first time, apply to sources based on their GHG emissions even if they would not apply based on emissions of any other pollutant. Facilities that emit at least 100,000 tpy CO₂ will be subject to Title V permitting requirements.

As discussed in the final Tailoring Rule, EPA decided not to provide exemptions from applicability determinations (major source and major modification) under PSD and Title V for certain GHG emission sources, including biogenic emissions. EPA decided instead to address the need for tailoring through a uniform threshold-based approach, rather than through a collection of various specific exclusions. At that time, EPA also noted that it planned to seek further comment on how it might address biogenic CO₂ emissions under the PSD and Title V programs through a future action.

On July 15, 2010, EPA published a Call for Information (CFI) to solicit information and viewpoints from interested parties on approaches to accounting for GHG emissions from bioenergy and other biogenic sources (75 FR 41173). The purpose of this CFI was to request comment on possible accounting approaches for biogenic CO₂ emissions under the PSD and Title V programs, as well as to encourage the SAB to provide information and viewpoints from experts on biogenic CO₂ emissions and their impact on GHG regulation. EPA concluded that the issue of accounting for the net atmospheric impact of biogenic CO₂ emissions is complex enough that further consideration of this important issue is warranted. Therefore, EPA granted the NAFO petition on January 12, 2011.¹

On January 12, 2011, EPA also announced in letters to Members of Congress and NAFO its intent to take a number of steps to address the issue of biogenic CO₂ emissions from stationary sources. Pursuant to this announcement, on March 21, 2011, EPA published a notice of proposed rulemaking to defer for three years the application of the PSD and Title V permitting requirements to biogenic CO₂ emissions from stationary sources (76 FR 15249). Concurrent with this rulemaking, EPA also issued interim guidance entitled, “Guidance for Determining Best Available Control Technology for Reducing Carbon Dioxide Emissions from Bioenergy Production” to help permitting authorities establish a basis for concluding that under the PSD Program the combustion of biomass fuels can be considered BACT for biogenic CO₂ emissions at stationary sources until such time as the deferral becomes effective. During the three-year deferral period, EPA will conduct a detailed examination of the science associated with biogenic CO₂ emissions from stationary sources, including engaging with Federal partners, technical experts, and an independent scientific panel to consider technical issues. Based on the feedback from the scientific and technical review, EPA will then undertake a rulemaking to determine how biogenic CO₂ emissions should be treated and accounted for in PSD and Title V permitting.

On April 27, 2011, EPA’s Science Advisory Board (SAB) published a notice soliciting experts for a peer review of EPA’s science and technical work on biogenic CO₂ emissions. 76 FR 23587. EPA intends to provide its study that examines the science and technical issues associated with biogenic CO₂ emissions from stationary sources and accompanying accounting framework to the SAB for peer review later in 2011.

II. Summary of Final Action

A. Overview of the Final Rule

This action defers for a period of three (3) years the consideration of CO₂ emissions from bioenergy and other biogenic sources (hereinafter referred to as “biogenic CO₂ emissions”) when determining whether a stationary source meets the PSD and Title V applicability thresholds, including those for the application of BACT. Stationary sources that combust biomass (or otherwise emit biogenic CO₂ emissions) and construct or modify during the deferral period will avoid the application of PSD to the biogenic CO₂ emissions resulting from those actions. This deferral applies only to biogenic CO₂ emissions and does not affect non-GHG pollutants or other GHGs (e.g., methane (CH₄) and nitrous oxide (N₂O)) emitted from the combustion of biomass fuel. Also, this deferral only pertains to biogenic CO₂ emissions in the PSD and Title V programs and does not pertain to any other EPA programs such as the GHG Reporting Program.

EPA recognizes that use of certain types of biomass can be part of the national strategy to reduce dependence on fossil fuels, efforts are underway at the Federal, State and regional level to foster the expansion of renewable resources and promote bioenergy projects when they are a way to address climate change, increasing domestic alternative energy production, enhancing forest management and creating related employment opportunities. We believe part of fostering this development is to ensure that those feedstocks with negligible net atmospheric impact not be subject to unnecessary regulation. At the same time, it is important that EPA have time to conduct its detailed examination of the science and technical issues related to accounting for biogenic CO₂ emissions and therefore have finalized this deferral.

This deferral is intended to be a temporary measure, in effect for no more than three years, to allow the Agency time to complete its work and

¹ http://www.epa.gov/NSR/actions.html#mar11.
determine what, if any, treatment of biogenic CO₂ emissions should be in the PSD and Title V programs. This is not EPA’s final determination on the treatment of biogenic CO₂ emissions in those programs. The Agency plans to complete its science and technical review and any follow-on rulemakings within the three-year deferral period and further believes that three years is ample time to complete these tasks. It is possible that the subsequent rulemaking, depending on the nature of EPA’s determinations, would supersede this rulemaking and become effective in fewer than three years.

Biogenic CO₂ emissions are defined as emissions of CO₂ from a stationary source directly resulting from the combustion or decomposition of biologically-based materials other than fossil fuels and mineral sources of carbon. Examples of “biogenic CO₂ emissions” include, but are not limited to:

- CO₂ generated from the biological decomposition of waste in landfills, wastewater treatment or manure management processes;
- CO₂ from the combustion of biogas collected from biological decomposition of waste in landfills, wastewater treatment or manure management processes;
- CO₂ from fermentation during ethanol production or other industrial fermentation processes;
- CO₂ from combustion of the biological fraction of municipal solid waste or biosolids;
- CO₂ from combustion of the biological fraction of tire-derived fuel; and
- CO₂ derived from combustion of biological material, including all types of wood and wood waste, forest residue, and agricultural material.

For stationary sources co-firing fossil fuel and biologically-based fuel, and/or combusting mixed fuels (e.g., tire-derived fuels, municipal solid waste (MSW)), the biogenic CO₂ emissions from that combustion are included in this deferral. However, the fossil CO₂ emissions are not. Emissions of CO₂ from processing of mineral feedstocks (e.g., calcium carbonate) are also not included in this deferral. Various methods are available to calculate both the biogenic and fossil portions of CO₂ emissions, including those methods contained in the GHG Reporting Program (40 CFR Part 98). Consistent with the other pollutants in PSD and Title V, there are no requirements to use a particular method in determining your biogenic and fossil CO₂ emissions.

B. Legal Authority

1. Applicability of PSD and Title V to Biogenic CO₂ Emissions From Major Stationary Sources

As currently written, the PSD and Title V regulations apply to biogenic CO₂ emissions from major sources or major modifications at such sources according to the limitation included under the definition of “subject to regulation” in the State Implementation Plan (SIP) regulations at 40 CFR 51.166 and the Title V state program regulations at 40 CFR 70.2, as well as the Federal Implementation Plan requirements at 40 CFR 52.21 and the Title V Federal program regulations at 40 CFR 71.2. Thus, revisions to these regulations are necessary to defer application of the PSD and Title V programs to such sources of biogenic CO₂.

Stationary sources of air pollutants, including sources of biogenic CO₂ emissions, are currently subject to PSD requirements if they emit more than 100 or 250 tpy of a regulated NSR pollutant other than GHGs and have triggered PSD as a result of these emissions, subject to the permitting thresholds established in the Final Tailoring Rule described below. The 100/250 tpy thresholds previously described originate from section 169 of the CAA, which applies PSD to any “major emitting facility” and defines the term to include any source with a potential to emit (PTE) “any air pollutant” in an amount over 100 or 250 tpy, depending on source category.

EPA’s long-standing regulations limit the PSD applicability provision that refers to “any air pollutant” to refer to any “regulated NSR pollutant,” which in turn includes any air pollutant “subject to regulation” under the CAA. Similarly, under sections 165(a)(4) and 169(3) of the CAA, the BACT requirement applies to “each pollutant subject to regulation” under the CAA. As noted in other recent EPA actions, GHGs are currently “subject to regulation” under the CAA; subject, for PSD purposes, to specific limitations reflected in the definition of that term that EPA adopted in the Tailoring Rule. Thus, emissions of GHGs (including CO₂ must be considered in determining whether a source is a major emitting facility subject to PSD, as a result of construction or modification, and whether the BACT requirement applies to GHGs (including CO₂ as a component of GHGs). In light of the way these regulations are currently written, EPA is unable to exclude biogenic CO₂ emissions from PSD review without amending the regulations.

With respect to Title V, as noted previously, Title V applies to sources, among others, that emit 100 tons per year of specified quantities of “any air pollutant,” see CAA section 502(a), 501(2)(B) and 302(g).

2. Tailoring Rule

a. Rationale and Requirements

In the Tailoring Rule, EPA codified its interpretation that “subject to regulation” only extends to major sources of air pollutants subject to a requirement for actual control of the quantity of emissions of that pollutant, and that such a control requirement has taken effect and is operative to control, limit or restrict the quantity of emissions of that pollutant released from the regulated activity, see 75 FR at 31606-07, and further defined “subject to regulation” such that GHGs are only “subject to regulation” under certain circumstances defined in the Tailoring Rule.

In the Tailoring Rule, EPA recognized that if the applicability provisions of the PSD and Title V programs were applied literally so that PSD and Title V requirements be applied literally to all sources emitting GHGs over the major source thresholds as of January 2, 2011, the date by which EPA determined that GHGs become subject to regulation under the CAA as a result of the motor vehicle rule. Instead, EPA concluded that it is authorized to tailor those applicability requirements to apply PSD and Title V to such sources in a phased-in manner, starting with the largest sources first.

Specifically, in the Tailoring Rule, EPA has implemented these PSD and Title V applicability provisions by applying the familiar two-step framework for interpreting administrative statutes recognized by the Supreme Court in Chevron U.S.A. Inc. v. NRDC, 467 U.S. 837 (1984), taking into account certain legal doctrines. Those doctrines, insofar as relevant to the Tailoring Rule, are (1) the “absurd results” doctrine, which authorizes agencies to apply statutory requirements differently than a literal reading would indicate, as necessary to effectuate congressional intent and
avoid absurd results; (2) the "administrative necessity" doctrine, which authorizes agencies to apply statutory requirements in a way that avoids impossible administrative burdens; and (3) the "one-step-at-a-time" doctrine, which authorizes agencies to implement a regulatory scheme in a deliberate, step-wise fashion. See 75 FR 31541–31579.

Under *Chevron*, the agency must, at step 1, determine whether Congress’ intent as to the specific matter at issue is clear, and, if so, the agency must give effect to that intent. 467 U.S. at 842. If congressional intent is not clear, then, at step 2, the agency has discretion to fashion an interpretation that is a reasonable construction of the statute. 467 U.S. at 865. To determine congressional intent, the agency must first consider the words of the statutory requirements, and if their literal meaning answers the question at hand, then, in most cases, the agency must implement those requirements by those terms.

However, under the "absurd results" doctrine, the literal meaning of statutory requirements should not be considered to indicate congressional intent if that literal meaning would produce a result that is senseless or that is otherwise inconsistent with — and especially one that undermines — underlying congressional purpose. In these cases, if congressional intent for how the requirements apply to the question at hand is clear, the agency should implement the statutory requirements not in a literal or their literal meaning, but rather in a manner that most closely effectuates congressional intent. If congressional intent is not clear, then an agency may select an interpretation that is reasonable under the statute.

Under the "administrative necessity" doctrine, Congress is presumed, at *Chevron* step 1, to intend that its statutory directives to agencies be administrable, and not to have intended to have written statutory requirements that are impossible to administer. Therefore, under this doctrine, an agency may depart from statutory requirements that, by their terms, are impossible to administer, but the agency may depart no more than necessary to render the requirements administrable.

In addition to the "absurd results" and "administrative necessity" doctrines, another judicial doctrine supports at least part of EPA’s Tailoring Rule, and that is the doctrine that agencies may implement statutory mandates one step at a time, which we will call the "one-step-at-a-time" doctrine. The U.S. Supreme Court recently described the doctrine in *Massachusetts v. EPA*, 549 U.S. 497, 524 (2007), as follows: "Agencies, like legislatures, do not generally resolve massive problems in one fell regulatory swoop;" and instead they may permissibly implement such regulatory programs over time, "refining their preferred approach as circumstances change and as they develop a more nuanced understanding of how best to proceed."

In the Tailoring Rule, EPA closely considered the burdens to the permitting authorities of applying PSD and Title V to GHG-emitting sources. For example, EPA calculated, on a national basis, the workload that GHG permit applications would entail, and compared that to the existing workload of permitting authorities. EPA concluded that permitting authorities would be overwhelmed by permit applications if the PSD and Title V applicability thresholds were applied literally as of January 2, 2011, to the GHG emissions from stationary sources. In addition, EPA calculated the cost to the sources of permitting requirements and concluded that many small sources would become subject to unduly high expenses.

Accordingly, in applying the *Chevron* analytical framework, in conjunction with the absurd results and administrative necessity doctrines, EPA concluded that Congress intended that PSD and Title V apply to the GHG emissions from stationary sources, but that, in light of the burdens to the permitting authority and the costs to the sources of determining applicability of permitting requirements by applying the statutory thresholds to GHG emissions, the application of the permitting programs should be phased in, starting with the largest sources of GHG emissions first. EPA also concluded that the calculation for determining which sources emit the "largest" amount of GHG emissions should be based on the amount of GHG pollutant emitted in tons per year, weighted by the global warming potential (GWP) of the particular GHG pollutant.

Accordingly, in the Tailoring Rule, EPA established two steps to implement PSD and Title V. At step 1, beginning January 2, 2011, sources currently subject to PSD or Title V permitting programs were required to determine the BACT for their GHG emissions, but only for GHG increases of 75,000 short tons per year (tpy) or more of total GHGs, on a CO₂e basis and any increase on a mass basis. At that time, no sources would be subject to CAA permitting requirements due solely to GHG emissions. At step 2, beginning July 1, 2011, the PSD permitting requirements will for the first time cover new construction projects that will emit GHG emissions of at least 100,000 tpy on a CO₂e basis (and 250 tons on a mass basis) even if they do not exceed the permitting thresholds for any other pollutant. Modifications at existing facilities that emit at that level and increase GHG emissions by at least 75,000 tpy CO₂e and by any amount on a mass basis will be subject to permitting requirements, even if they do not significantly increase emissions of any other pollutant.

In addition, EPA committed to promulgate by July 1, 2012, another rulemaking—in effect, step 3 of the Tailoring Rule—that would consider whether to reduce the thresholds further. EPA also committed to promulgate another rulemaking after that, by April 1, 2016, that would consider still further action. As EPA stated in the Tailoring Rule, part of the purpose of the phase-in approach embodied in the Tailoring Rule is to allow permitting authorities time to acquire additional resources and to allow EPA time to develop streamlining methods and thereby enable the application of PSD and Title V to more sources in subsequent rulemakings.

As noted previously, in the Tailoring Rule, EPA determined that the amount of each GHG emitted by a facility should be calculated by reference to the weight of the GHG emissions, in tons of CO₂e per year for determining if GHGs were "subject to regulation" for a particular facility and project. EPA Proposal referenced EPA’s Inventory of U.S. Greenhouse Gas Emissions and Sinks (Inventory) 2 submitted annually to the United Nations Framework Convention on Climate Change (UNFCCC), for the applicable GWP values and guidance on how to calculate a source’s GHG emissions in tpy CO₂e. 75 FR 31514–31608. The Inventory includes emissions of the six GHGs in terms of CO₂e units. By linking the calculation of CO₂e for GHGs to GWP values, a facility could evaluate its total GHG emissions contribution based on a single metric. We solicited comment on the benefits and limitations of this proposed metric.

While we referred to the Inventory for GWP identification purposes only, several commenters appeared to misunderstand our intent, claiming that the Inventory excludes CO₂ emitted from biomass. These commenters

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requested that, in calculations of emissions for determining applicability of PSD and Title V, EPA exempt emissions from biogenic activities or biomass combustion or oxidation activities, including solid waste landfills, waste-to-energy projects, fermentation processes, combustion of renewable fuels, ethanol manufacturing, biodiesel production, and other alternative energy production that uses biomass feedstocks (e.g., crops or trees). In particular, these commenters urged that EPA exclude emissions from biomass combustion in determining the applicability of PSD to such sources based on the notion that such combustion is “carbon neutral” (i.e., that combustion or oxidation of such materials would cause no net increase in GHG emissions on a lifecycle basis).

b. Treatment of Biogenic Emissions

In response, when finalizing the Tailoring Rule, we acknowledged the role that biomass or biogenic fuels and feedstocks play in reducing anthropogenic GHG emissions, and did not dispute the commenters’ observations that many state, Federal, and international rules and policies treat biogenic and fossil sources of CO₂ emissions differently (75 FR 31514).

Regarding commenters’ claims that the Inventory excludes CO₂ emissions from biomass, EPA noted that the Inventory does not exclude these emissions (see section II.A.2 of the preamble to the proposed deferral rule). Rather, they are included in the Land-Use, Land-Use Change and Forestry (LULUCF) Sector rather than the Energy Sector to avoid double-counting at the national scale. The narrow reference to the use of the Inventory’s GWP values for estimating GHG emissions was provided to offer consistent guidance on how to calculate these emissions and not as an indication, direct or implied, that biomass emissions would be excluded from permitting applicability merely by association with the national inventory, see 74 FR 55351, under the definition for “carbon dioxide equivalent.”

We determined that our application of the “absurd results,” “administrative necessity,” and one-step-at-a-time legal rationales supporting the Tailoring Rule, based on the expected overwhelming permitting burdens in its absence, did not provide sufficient basis to exclude emissions of CO₂ from biogenic sources in determining permitting applicability provisions at that time. We reasoned that such an exclusion alone, while reducing burdens for some sources, would not address the overwhelming permitting burdens, and a threshold-based approach would still be needed.

At that time, we had not examined burdens with respect to specific source categories impacted by the rule and thus had not analyzed the administrative burden of permitting projects that specifically involve biogenic CO₂ emissions taking account of the threshold-based approach. Commenters also did not provide information to demonstrate that an overwhelming permitting burden would still exist, justifying a temporary exclusion for biomass sources.

In the final Tailoring Rule, we indicated that the decision not to provide this type of an exclusion at that time did not foreclose EPA’s ability to either (1) provide this type of exclusion at a later time with additional information about overwhelming permitting burdens due to biomass sources, or (2) provide another type of exclusion or other treatment based on some other rationale. Although we did not take a final position, we noted that some commenters’ observations about a different treatment of biomass combustion warranted further exploration as a possible rationale.

Therefore, although we did not establish a permanent exclusion from PSD or Title V applicability based on specific characteristics of biogenic CO₂, we indicated our intent to seek further comment on how we might address emissions of biogenic CO₂ under the PSD and Title V programs through a future action.

We further noted that, while not promulgating an applicability exclusion for biogenic emissions and biomass fuels or feedstocks in the final Tailoring Rule, flexibility exists to apply the existing regulations and policies regarding BACT in ways that take into account their net effects on atmospheric GHG concentrations. Without prejudging the outcome of our process to seek comment on whether and how we might address emissions of biogenic carbon under the PSD and Title V programs through a future action, we indicated that this issue warranted further exploration.

As mentioned earlier in the preamble, in order to explore the issue further following the promulgation of the Tailoring Rule, on July 15, 2010, EPA solicited views from the public through a CFI on approaches to accounting for biogenic CO₂ emissions, on the means to estimate and measure CO₂ emissions from a variety of biogenic CO₂ sources and other information on biogenic sources that may be affected but not identified in the CFI. As a result of the Tailoring Rule we committed to issue technical and policy guidance for permitting of GHGs. Subsequently, the information gathered from stakeholders in response to the CFI provided diverse perspectives on treatment of biogenic CO₂ emissions in pre-construction and operating permit reviews, including many requests to exclude, either partially or wholly, biogenic CO₂ sources from PSD applicability determinations and BACT analyses on the basis of Inventory results and other considerations. On November 10, 2010, EPA issued the draft “PSD and Title V Permitting Guidance for Greenhouse Gases” which provides the basic information that permit writers and applicants need to address GHG emissions in permits.

Within the November guidance, EPA acknowledged the numerous stakeholder comments on biogenic CO₂ BACT analyses and provided general guidance to permitting authorities to consider environmental, energy, and economic benefits that may accrue from the use of certain types of biomass (e.g., biogas from landfills for energy generation), consistent with existing air quality standards. We also committed to provide more detailed technical and policy guidance early in 2011 for completing step 4 of a “top-down” BACT analysis for GHG emissions from certain types of biomass sources to enable permitting authorities to simplify and streamline BACT determinations for such sources. EPA provided interim guidance on this topic in March 2011, concurrent with the proposal of this rule to assist permitting authorities before the deferral becomes effective.

Noting that a variety of Federal and state policies have recognized that some types of biomass can be part of a national strategy to reduce dependence on fossil fuels and to reduce emissions of GHGs, EPA has determined that it is appropriate for permitting authorities to account for both existing Federal and state policies and their underlying objectives in evaluating the environmental, energy and economic benefits of biomass fuel. Based on these considerations, permitting authorities might determine that the use of certain types of biomass alone meets the BACT requirement for GHGs.

As described in the Background section of this preamble, NAFO petitioned the EPA on August 3, 2010 to reconsider and stay the implementation of the PSD and Title V GHG Tailoring Rule. Pending reconsideration, petitioners requested that the application of the PSD and Title V
permitting programs to emissions of CO\textsubscript{2} from biomass be stayed. Based on consideration of the petitioners’ arguments, together with the weight of the comments received on the CFI, EPA concluded that the issue of accounting for the net atmospheric impact of biogenic CO\textsubscript{2} emissions is complex enough that further consideration of this important issue is warranted. Therefore, EPA granted the petition on January 12, 2011. However, EPA did not grant the request for an administrative stay of the Tailoring Rule, because the rule is critical for making overall implementation of the PSD program feasible. Furthermore, an administrative stay of the statements in the preamble of the Tailoring Rule that describe EPA’s initial determination not to exempt emissions of CO\textsubscript{2} from biomass would not provide the requested relief of excluding emissions of CO\textsubscript{2} from biomass from the PSD and Title V permitting programs. The effect of a stay of this or any other aspect of the Tailoring Rule would be to return to the legal regime that existed before EPA’s issuance of a final Tailoring Rule. As no exemption for emissions of CO\textsubscript{2} from biomass existed prior to the final rule, an administrative stay would not result in an exemption from the requirements of PSD and Title V.

3. Rationale in Support of Interim Biomass Deferral

a. Regulation at This Time Is Not Justified

Since finalizing the Tailoring Rule, EPA has gathered additional information concerning biomass through the CFI and in response to the proposal for this rule. The information collected to this point underscores the complexity and uncertainty associated with accounting for biogenic emissions of CO\textsubscript{2} and indicates that at present attempting to determine the net carbon cycle impact of particular facilities combusting particular types of biomass feedstocks would require extensive analysis and would therefore entail extensive workload requirements by many of the permitting authorities. In contrast to other sources of GHG emissions, these uncertainties and complexities are exacerbated because of the unique role and impact biogenic sources of CO\textsubscript{2} have in the carbon cycle. Further, methodologies are not sufficiently developed to assure that various permitting authorities would be able to perform the necessary calculations consistently and to determine the net atmospheric impact in many, if not all, instances.

The extensive workload requirements required to understand the net biogenic CO\textsubscript{2} emissions from bioenergy facilities and other sources of biogenic CO\textsubscript{2} emissions, as part of the PSD and Title V permit process, including specifically how to measure and account for biogenic CO\textsubscript{2} emissions, would unnecessarily strain the resources of the affected permitting authorities and result in delays in processing permits for other applicants. Moreover, at present, devoting these limited permitting authority resources to biogenic sources would not be productive in light of the possibility that EPA may ultimately determine that the utilization of some or all biomass feedstocks for bioenergy has a negligible (or de minimis), negative, or positive net impact on the carbon cycle.

Therefore, the information EPA has collected since promulgating the Tailoring Rule indicates that it is consistent with the rationale of the Tailoring Rule for affected permitting authorities to defer on a temporary basis biogenic CO\textsubscript{2} emissions from PSD and Title V applicability. During this deferral, EPA will conduct a detailed examination of the science associated with biogenic CO\textsubscript{2} emissions from stationary sources, which will include a peer review by the SAB, and resolve technical issues in order to account for biogenic CO\textsubscript{2} emissions in ways that are scientifically sound and also manageable in practice.

As noted previously, EPA based the Tailoring Rule on the extensive and robust regulatory burden to sources, and undue costs to sources, that would result from a literal application of the PSD and Title V 100/250 tpy statutory thresholds, as of January 2, 2011, when those requirements first applied to GHGs. EPA reasoned that, in accordance with the Chevron analytical framework for statutory construction, taking into account the “absurd results” and “administrative necessity” lines of cases, Congress did not intend that the PSD and Title V requirements apply at the 100/250 tpy statutory thresholds to GHG-emitting sources as of January 2, 2011, but rather that those requirements could be limited, at least initially, through a phase-in approach, to higher-emitting sources. Just as the extensive workload of processing permit applications from sources below the Tailoring Rule thresholds justified exempting those sources at least from the initial steps in the Tailoring Rule phase-in program, so too the extensive workload associated with analyzing and accounting for biogenic CO\textsubscript{2} emissions as part of processing permit applications from biomass facilities justifies exempting those sources for a period of time, in the affected states, pending EPA’s development of a consistent and practical framework for determining net carbon cycle impacts. The three-year deferral EPA is finalizing in this action is reasonable to allow time for the development of the accounting framework and subsequent rulemaking.

In effect, this deferral is a step back from the Tailoring Rule’s approach but the decision to defer the applicability of PSD and Title V to biogenic CO\textsubscript{2} emissions is nonetheless supported, in part, on the same rationale as EPA used to justify the Tailoring Rule’s phase-in approach. This action constitutes a refinement of the approach EPA has taken to regulate GHG emissions from stationary sources through a phased-in approach, based on an evolving understanding of the complexities, uncertainties, and nuances associated with biogenic emissions.

An alternative way to reduce the permitting burden would be to apply PSD and Title V to all facilities with biogenic CO\textsubscript{2} emissions that emit at or above the Tailoring Rule thresholds, but without making any effort to take into account net carbon cycle impacts. However, we believe that it is conceivable that as a result of the scientific examination of biogenic CO\textsubscript{2} emissions, we could conclude that the net carbon cycle impact for some biomass feedstocks is trivial, negative, or positive. Accordingly, this could result in regulation of sources with trivial or positive impacts on the net carbon cycle, as previously discussed. To avoid this outcome, given our current state of knowledge, we believe a case-by-case net carbon cycle impact analysis would be required in the course of reviewing each permit application. This burden would be in addition to the currently existing burden associated with obtaining a PSD or Title V permit. In light of the permitting burdens assessed in the Tailoring Rule, adding to that burden in many states would frustrate the goals we sought to accomplish in the Tailoring Rule to ensure that the PSD and Title V programs can be administered in each state.

Furthermore, given the potential that the utilization of at least some biomass feedstocks may have a negligible impact on the net carbon cycle, engaging in this type of burdensome analysis may not be an optimal use of the limited resources of PSD and Title V permitting authorities. The additional scientific examination being undertaken by the EPA could ultimately conclude that...
such resources could have been more effectively utilized to target CO₂ emissions that clearly have a detrimental impact on the net carbon cycle. Establishing a three-year deferral period for biogenic CO₂ emissions will enable EPA to consider the results of the detailed examination of the science of these emissions and undertake a rulemaking to determine the best way to account for biogenic CO₂ emissions when determining PSD applicability.

Another important reason for the three-year deferral period is to allow sufficient time to consider the unique characteristics and attributes of biogenic CO₂ feedstocks, as opposed to other sources of GHG, using the results from the detailed examination mentioned previously, within both the state permitting agencies and affected facilities. While the interim BACT guidance described previously will help alleviate some of this burden before the deferral becomes effective, we expect that more and more diverse users of biomass combustion or other biogenic CO₂ sources are likely to be affected under step 2 of the Tailoring Rule because, under step 2, these sources can trigger permitting requirements based solely on their GHG emissions with no prerequisite requirement that they otherwise trigger PSD or Title V permitting requirements for a non-GHG pollutant. We believe, absent the deferral period and the completion of EPA’s full analysis of the unique technical issues associated with these diverse facilities emitting biogenic CO₂, that it would be particularly challenging for many of the permitting authorities and facilities to process permits involving these emissions. Also, as described elsewhere in this preamble, this interim deferral is intended to temporarily exclude biogenic CO₂ emissions from the definition of “subject to regulation,” as that term was defined for purposes of the Tailoring Rule, for a period of three years, while EPA further considers, through notice and comment rulemaking, the approach to accounting for these emissions on a permanent basis.

b. One-Step-at-a-Time Doctrine

EPA relied, in part, on the “one-step-at-a-time” doctrine, which authorizes agencies to implement statutory requirements a step at a time, in finalizing the Tailoring Rule. 75 FR 31514, 31578 (June 3, 2010). As described in the Tailoring Rule and earlier in the preamble, the case law recognizing the “one-step-at-a-time” doctrine, within the Chevron framework, justifies an agency’s step-by-step approach under the following circumstances or conditions: (1) The agency’s ability to comply with a statutory directive depends on facts, policies, or future events that are uncertain; (2) the agency has estimated the extent of its remaining obligation; (3) the agency’s incremental actions are structured in a manner that is reasonable in light of the uncertainties; and (4) the agency is on track to full compliance with the statutory requirements.

In the proposed rule, EPA stated in footnote 13 that the “one-step-at-a-time” doctrine was not relevant to this rulemaking. This statement was made without explanation. One commenter (EPA–HQ–OAR–2011–0001–0004) stated “[b]ased on EPA’s statements in the Tailoring Rule, which does rely on the ‘one-step-at-a-time’ doctrine, it appears that the doctrine would apply equally well to EPA’s decision to delay regulation of biogenic CO₂ emissions under the PSD and Title V programs.” For the reasons stated below, EPA now agrees that, because of the complexity and uncertainty of the science associated with accounting for biogenic sources of CO₂, the interim deferral of the PSD and Title V program for such emissions would be a reasonable exercise of the “one-step-at-a-time” doctrine.

First, as the DC Circuit stated in National Association of Broadcasters v. FCC, 740 F.2d 1190, 1210 (DC Cir. 1984) (“National Association of Broadcasters”), incremental agency action is most readily justifiable “against a shifting background in which facts, predictions, and policies are in flux and in which an agency would be paralyzed if all the necessary answers had to be in before any action at all could be taken.” Those circumstances are present here, and so is the fact that the task at hand is extraordinarily demanding. As discussed previously, EPA is in the process of conducting a detailed examination of the science associated with biogenic CO₂ emissions from stationary sources to better understand their role on the carbon cycle and to develop an accounting framework for use by permitting authorities and sources. This examination will include discussion with partners and scientists both inside and outside the Federal government, as well as engagement with the Science Advisory Board, to consider technical issues that the Agency must resolve in order to account for biogenic CO₂ emissions in ways that are scientifically sound and also manageable in practice.

Second, the Court stated in National Association of Broadcasters, “the agency [should] mak[e] some estimation, based upon evolving economic and technological conditions, as to the nature and magnitude of the problem it will have to confront when it comes to [undertake the remaining steps]” and that estimation must be “plausible and flow from the factual record compiled.” Id. at 1210. Here, EPA has done this by deferring the applicability of PSD and Title V to biogenic emissions of CO₂ from stationary sources for only as long as necessary for EPA to complete the needed scientific study of these emissions, develop an accounting framework, and as appropriate conduct rulemaking specific to the unique nature and characteristics of these emission sources.

In order to explore the issues further following the promulgation of the Tailoring Rule, on July 15, 2010, EPA solicited views from the public through the CFI on approaches to accounting for biogenic CO₂ emissions, including whether some or all of a source’s biogenic CO₂ emissions could be discounted based on a determination that they are canceled out by the CO₂ absorption associated with growing the fuel (75 FR 41173). Also, we solicited information on the means to estimate and measure CO₂ emissions from a variety of biogenic CO₂ sources that typically have not been part of emission inventories (e.g., CO₂ from landfills, livestock management, and fermentation processes), as well as information on other biogenic sources that may be affected but which were not identified specifically in the CFI.

With promulgation of the Tailoring Rule, we committed to issue technical and policy guidance for permitting of GHGs. Subsequently, the information gathered from stakeholders in response to the CFI provided diverse perspectives on treatment of biogenic CO₂ emissions in pre-construction and operating permit reviews, including many requests to exclude, either partially or wholly, biogenic CO₂ sources from PSD applicability determinations and BACT analyses on the basis of Inventory results and other considerations.

Third, again as the Court stated in National Association of Broadcasters, it must be “reasonable, in the context of the decisions made in the proceeding under review, for the agency to have deferred the issue to the future. With respect to that question, postponement will be most easily justified when an agency acts against a background of rapid technical and social change and when the agency’s initial decision as a practical matter is reversible should the future proceedings yield drastically unexpected results.” Id. at 1211. Here,
our deferral is reasonable in light of the technical and scientific questions that are raised by biogenic emissions from stationary sources, which will be addressed by EPA’s ongoing study, development of an accounting framework, and any subsequent rulemaking. As explained in the proposal and elsewhere in the preamble to this final rule, EPA believes it has the authority to exclude biogenic CO₂ emissions from the PSD and Title V requirements for the proposed three-year deferral period and will be exploring whether a permanent exemption is appropriate for at least some and perhaps all types of feedstocks.

However, the possibility also remains that more detailed examination of the science of biogenic CO₂ will demonstrate that the utilization of some biomass feedstocks for bioenergy production will have a significant impact on the net carbon cycle, making literal application of the PSD program requirements to such emissions, consistent with the Tailoring Rule, necessary to fulfill congressional intent. Thus, EPA is finalizing only a temporary, rather than a permanent, deferral of PSD requirements for such sources at this time. EPA notes that the issue of subsequent applicability of the PSD and Title V programs to facilities that may be permitted during the deferral period is discussed in more detail in section II.C.

Finally, as the DC Circuit stated in Grand Canyon Air Tour Coalition v. F.A.A., 157 F.3d 453, 477–78 (DC Cir. 1998), the Courts will accept an initial step towards full compliance with a statutory mandate, as long as the agency is headed towards full compliance, and we now believe that the doctrine is applicable here.

As we have described in the CFI, the preamble to the proposed deferral and elsewhere in the preamble for this final rule, there is little question as to the authority to exclude biogenic CO₂ emissions from the PSD and Title V requirements for the proposed three-year deferral period and will be exploring whether a permanent exemption is appropriate for at least some and perhaps all types of feedstocks.

c. EPA Not Required to Regulate Where Benefits of Regulation Would Be Trivial

EPA believes it has the authority to exclude biogenic CO₂ emissions from the PSD and Title V requirements, if scientific analysis supports conclusions about the nature of biogenic CO₂ in question that in turn support such an exclusion; the agency will be using the three-year deferral period to better understand the science associated with biogenic CO₂ emissions and to explore whether or not a permanent exemption is permissible for at least some and perhaps all types of feedstocks.

 Courts have recognized that administrative agencies have the implied authority to establish exemptions “when the burdens of regulation yield a gain of trivial or no value.” Alabama Power Co. v. Costle, 636 F.2d 323, 360 (DC Cir. 1980). In this decision that specifically addressed the requirements of the PSD program, the DC Circuit described this principle as follows:

Categorical exemptions may also be permissible as an exercise of agency power, inherent in most statutory schemes, to overlook circumstances in context may fairly be considered de minimis. It is commonplace, of course, that the law does not concern itself with trifling matters, and this principle has often found application in the administrative context. Courts should be reluctant to apply the literal terms of a statute to mandate pointless expenditures of effort. Id. (internal citations omitted).

In an earlier case cited by the court in Alabama Power, the court described the doctrine as follows:

The ‘de minimis’ doctrine was developed to prevent trivial items from draining the time of the courts has room for sound application to administration by the Government of its regulatory programs.

* * * The ability, which we describe here, to exempt de minimis situations from a statutory command is not an ability to depart from the statute, but rather a tool to be used in implementing the legislative design.


In this respect, the Alabama Power opinion observed in a footnote that the de minimis principle “is a cousin of the doctrine that, notwithstanding the plain meaning of a statute, a court must look beyond the words to the purpose of the act where its literal terms lead to ‘absurd or futile results.’” Id. at 360 n. 89 (citations omitted).

To apply an exclusion based on the de minimis doctrine, “the agency will bear the burden of making the required showing” that a matter is truly de minimis which naturally will turn on the assessment of particular circumstances, Id. The Alabama Power opinion concluded that “most regulatory statutes, including the CAA, permit such agency showings in appropriate cases.” Id.

A notable limitation on the de minimis doctrine is that it does not authorize the agency to exclude something on the basis of a cost-benefit analysis. As the court explained, this “implied authority is not available for a situation where the regulatory function does provide benefits, in the sense of furthering the regulatory objectives, but the agency concludes that the acknowledged benefits are exceeded by the costs.” Id. The court held that any “implied authority to make cost-benefit decisions must be based not on a general doctrine but on a fair reading of the specific statute, its aims and legislative history.” Id.

Since Chevron, several courts have recognized de minimis exceptions (1) so long as they are not contrary to the express terms of the statute and (2) the agency’s interpretation of the exception is a permissible reading of the statute. See e.g., Ober v. Whitman, 243 F.3d 1190 (9th Cir. 2001); see also Ohio v. EPA, 997 F.2d 1520 (D.C. Cir. 1993). The CAA is not so rigid as to preclude a de minimis exception. Since the early years of the PSD program, EPA has applied this de minimis principle to establish various types of values in the PSD regulations that may be used to exempt categories of source from all or part of the PSD program requirements.

EPA also relied on the de minimis doctrine to establish values that permitting authorities can use to show that a source that requires a PSD permit meets the necessary criteria to obtain a permit. Significant impact levels may be used in particular ways identified in prior EPA rules and guidance as part of an assessment of whether a source causes or contributes to a violation of air quality standards. Significant monitoring concentrations may be used to exempt sources from pre-construction monitoring requirements. See 75 FR 64864, 64890–97 (October 20, 2010).

Due to the complexity and uncertainty of the science associated with accounting for biogenic CO₂ emissions and their impact on the carbon cycle and net atmospheric CO₂...
levels, requiring regulation of biogenic sources of CO₂ at this time may lead to only trivial environmental benefits while exacerbating the regulatory burdens and absurd results the Tailoring Rule was intended to avoid because the subsequent scientific study may show that certain biogenic feedstocks have a trivial or even positive impact on net atmospheric CO₂ levels.

d. Potential for Some Biomass Feedstocks To Have a de minimis, Neutral or Positive Impact on Net CO₂ Levels in the Atmosphere

As discussed previously in this preamble, EPA believes based on information currently before the Agency that at least some biomass feedstocks that may be utilized to produce energy or other products have a negligible impact on the net carbon cycle, or possibly even a positive net effect. Within the context of the PSD and Title V programs, the argument for treating CO₂ emissions from biogenic and biogenic sources differently from fossil-based CO₂ emissions at the facility relies on the premise that sequestration occurs offsite, outside the boundaries of the facility. Such a negligible or positive impact on the carbon cycle and net atmospheric CO₂ levels should not count towards the PSD and Title V applicability requirements. It appears that the potential may exist for EPA to determine that other types of biomass feedstocks would have a negligible impact on the net carbon cycle impact after further detailed examination of the science associated with biogenic CO₂ emissions.

Thus, if EPA were to require all bioenergy facilities or other sources of biogenic CO₂ emissions to limit emissions of CO₂ before this assessment is complete, it may later determine that such actions have required regulation of a trivial amount of emissions or even potentially of emissions that are associated with a net CO₂ emissions benefit. To avoid this outcome, and because of the scientific uncertainty and administrative burdens associated with accounting for net biogenic CO₂ emissions relative to the carbon cycle, EPA believes an initial deferral of the PSD requirements for bioenergy and other biogenic sources is justified at this time to conduct the detailed scientific evaluation described elsewhere in this preamble. However, the possibility also remains that EPA’s detailed examination of the science of biogenic CO₂ will demonstrate that the utilization of some biomass feedstocks for bioenergy production will have a significant impact on the net carbon cycle, making application of the PSD program requirements to such emissions necessary to fulfill congressional intent. Thus, EPA is finalizing only a temporary, rather than a permanent, deferral of PSD requirements at this time in order for EPA to conduct a study of the science surrounding biogenic CO₂ emissions and their role in the carbon cycle and to develop an accounting framework to help further relieve the burdens faced by permitting authorities. EPA is also seeking an independent peer review of the science and accounting framework by the Science Advisory Board to resolve the uncertainties that have been highlighted by commenters in response to the CFI and the proposal to this action.

C. Facilities Permitted During Deferral

The final rule is an interim deferral for biogenic CO₂ emissions only and does not relieve sources of the obligation to meet the PSD and Title V permitting requirements for other pollutant emissions that are otherwise applicable to the source during the deferral period or that may be applicable to the source at a future date pending the results of EPA’s study and subsequent rulemaking action.

This means, for example, that if the deferral is applicable to biogenic CO₂ emissions from a particular source during the three-year effective period and the study and future rulemaking do not provide for a permanent exemption from PSD and Title V permitting requirements for the biogenic CO₂ emissions from a source with particular characteristics, then the deferral would end for that type of source and its biogenic CO₂ emissions would have to be appropriately considered in any applicability determinations that the source may need to conduct for future stationary source permitting purposes, consistent with that subsequent rulemaking and the Final Tailoring Rule (e.g., a major source determination for Title V purposes or a major modification determination for PSD purposes). EPA also wishes to clarify that we did not propose and this rule does not require that a PSD permit issued during the deferral period be amended or that any PSD requirements in a PSD permit existing at the time the deferral takes effect, such as BACT limitations, be revised or removed from an effective PSD permit for any reason related to the deferral or when the deferral period expires.

Section 52.21(w) requires that any PSD permit shall remain in effect, unless and until it expires or it is rescinded. To avoid repetition of conditions specified in that provision. Also note that we did not specifically propose or make final any change to these rescission provisions, nor were they addressed to any extent in the proposal. Thus, a PSD permit that is issued to a source while the deferral was effective need not be reopened or amended if the source is no longer eligible to exclude its biogenic CO₂ emissions from PSD applicability after the deferral expires. However, if such a source undertakes a modification that could potentially require a PSD permit and the source is not eligible to continue excluding its biogenic CO₂ emissions after the deferral expires, the source will need to consider its biogenic CO₂ emissions in assessing whether it needs a PSD permit to authorize the modification. With respect to Title V, a source that becomes a major source subject to an approved Title V permit program as a result of biogenic emissions after the deferral expires would generally have one year from the date the source became subject to Title V to apply for an operating permit.

Any future actions to modify, shorten, or make permanent the deferral for biogenic sources are beyond the scope of this action and will be addressed through subsequent rulemaking, based on the scientific study and development of an accounting framework described elsewhere in this preamble. At this time, the results of EPA’s review of the science related to net atmospheric impacts of biogenic CO₂ and the framework to properly account for such emissions in Title V and PSD permitting programs based on the study are prospective and unknown. Therefore, we are unable to predict which biogenic CO₂ sources, if any, currently subject to the deferral would be subject to any permanent exemptions or which currently deferred sources would be potentially required to account for their emissions in the future rulemaking EPA has committed to undertake for such purposes in three or fewer years. Only in that rulemaking can EPA address the question of extending the deferral or putting in place requirements that would have the equivalent effect on sources covered by the deferral.

To the extent the deferral is not effective in a particular state at the time a PSD permit is issued, then the permit would need to include BACT limitations for GHGs if the source emits above levels that make GHGs subject to regulation under applicable rules. EPA issued interim guidance entitled, “Guidance for Determining Best Available Control Technology for Reducing Carbon Dioxide Emissions from Bioenergy Production to help permitting authorities, during the interim period before the deferral is
effective, establish a basis for concluding that under PSD Programs the combustion of biomass fuels can be considered BACT for biogenic CO\(_2\) emissions at stationary sources. To be clear, this guidance would apply during the deferral period for those permitting authorities where the deferral was not effective until EPA revises it or it is superseded by future guidance or rules.

**D. Mechanism for Deferral and State Implementation**

Consistent with the proposed rule, EPA is implementing the deferral by amending the definition of “subject to regulation” in its PSD and Title V regulations. The adoption of the deferral for biogenic CO\(_2\) emissions from Title V and PSD permitting programs under 40 CFR part 70 and 40 CFR 51.166 is optional for any state, local, or tribal (state) permitting authority, but is effective immediately upon publication for Title V and PSD permitting programs under 40 CFR part 71 and 40 CFR 52.21 that EPA implements.

The proposal did not specifically require each state to revise its PSD and Title V permitting programs (required under parts 51.166 and 70) to impose the deferral for three years, although it was clear that the proposal was intended to revise the permitting programs that EPA implements (required under parts 52.21 and part 71) for this purpose, and it was clear that EPA intended to implement the deferral by changing its implementing regulations. Many state commenters on the proposal seemed to assume that the deferral was mandatory for the states and questioned how they would revise their SIPs and Title V programs by July 1, 2011, as they read EPA’s proposal to require.

For the purposes of this final rule, EPA is clarifying that each state may decide if it wishes to adopt the deferral and proceed accordingly, with appropriate program changes, if needed. Also, EPA suggests that each state communicate with its stationary sources its intent in this regard. Because the deferral is not required, states that do not wish to revise their current permit programs do not need to make any program changes in response to this final rule. Also, states that do wish to adopt the deferral do not need to make any changes that would otherwise be necessary by July 1, 2011, the start of step 2 under the Tailoring Rule.

Although the preamble for the proposal did discuss the beginning of step 2 of the Tailoring Rule as a time when more sources would be subject to permitting, because sources could be subject to Title V without a prerequisite that they also be subject to PSD and because they could be subject to PSD for GHGs without being subject first for another regulated NSR pollutant, it did not discuss any requirement for any state deferral to be effective by July 1, 2011, and we are not requiring this in this final rule.

However, although state program changes are not required under today’s final rule, EPA sees several reasons that a state should adopt the deferral in its state programs and, based on comments received, EPA expects that many states will adopt the deferral. Many of these reasons are the same reasons prompting EPA to adopt the deferral for the permit programs we implement. That is, states that expect to receive permit applications from a number of biomass facilities, and, in particular, a number of different types of biomass facilities, are likely to need more time to determine how best to address technical, scientific, and practical issues related to biogenic CO\(_2\) without disrupting the proper functioning and timeliness of the permitting programs. Of course, it is at least in theory possible that such a state may, on its own, be able to address those issues, or may for other reasons have adequate resources to address those issues. Even so, we expect that many states will need to, and therefore should, adopt the deferral, and therefore, like the proposal, this final rule strongly encourages states that wish to adopt the three-year deferral to submit SIP revisions or Title V program revisions. However, like the proposal, this final rule does not mandate that states submit submittals, recognizing that some states may not have any (or may have only a few) sources that combust biomass, and may have adequate information and resources regarding the nature of biogenic emissions from those sources, or may for other reasons be able to conduct permitting of bioenergy sources without straining their permitting resources.

Furthermore, the justification that supports this deferral for including biogenic CO\(_2\) in PSD applicability determinations is not applicable in the case of a PSD permit that was issued before completion of this rule during step 1 of the phase in of GHG requirements under the Tailoring Rule. If a permit has been issued, then the burden described above has already been experienced and overcome by the permitting authority. Furthermore, this burden will have been experienced in the context of step 1 of the GHG permitting phase under the Tailoring Rule, but EPA has accommodated as part of the more limited increase in workload that permitting authorities have faced in addressing GHG requirements during step 1. In the context of step 2 where permitting authorities will have to process a greater number of permit applications, the incremental burden of evaluating the net atmospheric impacts of biogenic CO\(_2\) has a more significant impact on the ability of permitting authorities to administer the permitting programs. This analysis adds a burden that EPA had not considered when it completed the Tailoring Rule.

EPA also issued interim guidance entitled, “Guidance for Determining Best Available Control Technology for Reducing Carbon Dioxide Emissions from Bioenergy Production” to help permitting authorities establish a basis for concluding that under the PSD Program the combustion of biomass fuels can be considered BACT for biogenic CO\(_2\) emissions at stationary sources until such time as the deferral becomes effective. EPA wishes to clarify that the guidance is non-binding and case-by-case BACT determinations made in accordance with the guidance may nonetheless be subject to challenge in each permitting action. Accordingly, the interim guidance does not provide the same level of certainty to sources and decrease in administrative burdens to permitting authorities and sources that the deferral does.

EPA developed the interim BACT guidance primarily for application during step 1 of the phase of GHG permitting requirements under the Tailoring Rule. While the guidance suggests reasoning that may serve to reduce the resource demands of conducting a net carbon cycle analysis in the context of permitting, it does not eliminate the need for permitting authorities to conduct some evaluation of energy, environmental, and economic impacts in step 4 of the BACT analysis.

The guidance discusses the complexities of conducting a net carbon cycle analysis, but places the emphasis on showing the economic and energy benefits of utilizing biomass. Permitting authorities that apply this approach still need to identify the specific energy and economic benefits of utilizing particular biomass feedstocks to apply this rationale. To the extent these benefits cannot be identified or shown to override other considerations, a permitting authority may need to explore the net carbon cycle impact in more depth to justify the conclusion that utilization of a biomass feedstock is BACT by itself. In states that do not elect to adopt the deferral, the incremental burden of conducting the analysis described in the guidance will have a more significant impact on the
overall ability to administer the permitting program in the context of step 2 of the GHG permitting than it did in step 1, in which the overall increase in workload from incorporating GHG requirements into PSD permit reviews was less than it will be in step 2.

This deferral may not be effective in any jurisdiction before EPA publishes a final rule and it takes effect. Also, for any state that found it necessary to revise its permitting programs to implement the Final Tailoring Rule, EPA believes it unlikely that such a state would be able to implement the deferral under its state rules without making additional changes to its program consistent with the regulatory changes in this final rule. For any state that was able to implement the Final Tailoring Rule through interpretation of the term “subject to regulation”, consistent with the Final Tailoring Rule, without making any changes to state regulations, EPA believes it is likely they would be able to implement the deferral under their state rules without making additional revisions. In either of these cases, EPA recommends that states communicate with the stationary sources under their jurisdiction regarding whether they intend to adopt the deferral, and if they do, when it will become effective.

III. Response to Public Comments

A. Overview of Public Comments

We received a significant number of public comments on the proposed deferral. Some of these comments covered issues such as:

- Content of the Deferral (e.g., pollutants and sources covered, start and end date, terminology);
- Implementation of the Deferral; and
- Legal Authority.

While those comments addressed the deferral itself, a large number of the comments actually raised issues outside the scope of this rulemaking and covered topics such as:

- Science, accounting, and economic issues related to biogenic CO₂ emissions (e.g., carbon cycle dynamics, accounting methodologies, forest economics and sustainability);
- PSD, Title V and the Tailoring Rule; and

EPA acknowledges those comments that are outside the scope of this rulemaking and notes that many of the issues are necessary. We also received comments on pollutants covered by the deferral, particularly methane (CH₄) and nitrous oxide (N₂O). A few comments requested that CH₄ and N₂O also be included in the deferral as they result when biomass is combusted. While CH₄ and N₂O are produced when biomass is combusted, the level of emissions and resulting impact on atmospheric concentrations of these gases are primarily related to the feedstock handling and combustion conditions at the specific plant rather than the source of the feedstocks. We finalized this rule as proposed and included only biogenic CO₂ emissions for this reason, and note that emissions of non-CO₂ GHGs are typically a small proportion of the total GHG emissions from combustion of biologically based material. Since the non-CO₂ GHGs are so small relative to CO₂, the deferral of biogenic CO₂ emissions will ensure the biomass combustion projects will likely not meet the applicability thresholds based on their CH₄ and N₂O emissions alone.

B. Comments on the Deferral

We received comments on different aspects of the deferral. They fit into several broad categories as discussed below.

Terminology. We received several comments requesting clarity on the terminology in the deferral, including the terms biogenic CO₂ emissions, biologically-based material and examples of the types of sources that these emissions can come from. As discussed in section II, we finalized the terms biogenic CO₂ emissions (described as, emissions of CO₂ from a stationary source directly resulting from the combustion or decomposition of biologically-based materials other than fossil fuels and mineral sources of carbon (e.g. calcium carbonate)) and biologically-based material (non-fossilized and biodegradable organic material originating from plants, animals or micro-organisms [including products, by-products, residues and waste from agriculture, forestry and related industries as well as the non-fossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and liquids recovered from the decomposition of non-fossilized and biodegradable organic material]) with very little change. We added the clause about “mineral sources” of carbon to biogenic CO₂ emissions in response to requests for additional clarification on which sources of CO₂ were not included in the deferral. We also clarified that in the examples of sources of biogenic CO₂ emissions, CO₂ from fermentation includes CO₂ from ethanol production as well as other industrial processes.

Sources covered by and permitted during the deferral. We received several comments requesting clarity on which sources of biogenic CO₂ emissions were covered by the deferral. This is related to the comments on definitions described above, and we provided clarity on those sources, where necessary.
deferral, including the availability of grandfathering or a permitting moratorium for sources subject to the deferral and on the availability of authority to revise BACT.

The final rule is an interim deferral for biogenic CO\textsubscript{2} emissions only and does not relieve sources of the obligation to meet the PSD and Title V permitting requirements for other pollutant emissions that are otherwise applicable to the source during the deferral period or that may be applicable to the source at a future date pending the results of EPA’s study and subsequent rulemaking action. At this time, we are unable to predict which biogenic CO\textsubscript{2} sources, if any, currently subject to the deferral would be subject to any permanent exemptions or which currently deferred sources would be potentially required to account for their emissions in relation to future permitting actions as a result of the future rulemaking EPA has committed to undertake for such purposes in three or fewer years. Only in that rulemaking can EPA address the question of extending the deferral or putting in place requirements that would have the equivalent effect on sources covered by this deferral.

This means, for example, that if the deferral is applicable to biogenic CO\textsubscript{2} emissions from a particular source during the three-year effective period and the study and future rulemaking do not provide for a permanent exemption from the PSD and Title V permitting requirements for the biogenic CO\textsubscript{2} emissions from a source with particular characteristics, then the deferral would end for that source and those biogenic CO\textsubscript{2} emissions would have to be appropriately considered in any applicability determinations that the source may need to conduct for future stationary source permitting purposes, consistent with that subsequent rulemaking and the Final Tailoring Rule (e.g., a major source determination for Title V purposes or a major modification determination for PSD purposes).

Many commenters on the proposed deferral asked EPA to provide grandfathering from permitting requirements for sources that are currently not subject to permitting requirements but that in the future may be covered by the deferral. In addition, some commenters asked for the deferral to be made retroactively effective (e.g., during step 1 of the Tailoring Rule or January 1, 2011 through June 30, 2011) in states prior to state adoption of any SIP revisions or Title V program change that may be necessary to revise the programs to incorporate the deferral, or that the deferral permanently apply to any source subject to it at any time. As explained in section II.C of this preamble, EPA has decided to not offer any kind of grandfathering or moratorium on future Title V and PSD permitting for biogenic CO\textsubscript{2} sources subject to the three-year deferral.

EPA wishes to clarify that we did not propose and this rule does not require that a PSD permit issued during the deferral period be amended or that any PSD requirements in a PSD permit existing at the time the deferral takes effect, such as BACT limitations, be revised or removed from an effective PSD permit for any reason related to the deferral or when the deferral period expires.

Section 52.21(w) requires that any PSD permit shall remain in effect, unless and until it expires or it is rescinded, under the limited conditions specified in that provision. To the extent the deferral is not effective in a particular state a PSD permit is issued, then the permit would need to include BACT limitations for GHGs if the source emits above levels that make GHGs subject to regulation under applicable rules.

Thus, a PSD permit that is issued to a source while the deferral was effective need not be reopened or amended if the source is no longer eligible to exclude its biogenic CO\textsubscript{2} emissions from PSD applicability after the deferral expires. However, if such a source undertakes a modification that could potentially require a PSD permit and the source is not eligible to continue excluding its biogenic CO\textsubscript{2} emissions after the deferral expires, the source will need to consider its biogenic CO\textsubscript{2} emissions in assessing whether it needs a PSD permit to authorize the modification.

Any future actions to modify, shorten, or make permanent the deferral for biogenic sources are beyond the scope of this action and will be addressed through subsequent rulemaking, based on the scientific study and development of an accounting framework described elsewhere in this preamble.

Implementation of the Deferral. We received comments suggesting that adoption of the deferral must be mandatory for states, as well as comments saying that the states should have flexibility regarding adoption of the deferral. As explained in section II. D of this preamble, EPA is not making adoption of this deferral mandatory. Each state may decide if it wishes to adopt the deferral and proceed accordingly, with appropriate program changes. Based on the comments received, we recognize that some states may not have any, or may have only a few, sources that combust biomass, and may have adequate information and resources as to the nature of biogenic emissions from those sources. That said, EPA recommends that each state communicate with its stationary sources its intent in this regard and utilize the interim guidance document as appropriate.

Even though adoption of the deferral is not mandatory, EPA sees several reasons why a state might want to adopt the deferral in its state programs and many of these reasons are the same reasons why EPA is adopting the deferral for the permit programs we implement (e.g., the need for more time to determine how to address technical, scientific, and practical issues related to biogenic CO\textsubscript{2} without disrupting the proper functioning and timeliness of the permitting programs).

However, although state program changes are not required under today’s final rule, EPA sees several reasons that a state might want to adopt the deferral in its state programs. Those reasons are the same reasons prompting EPA to adopt the deferral for the permit programs we implement (e.g., the need for more time to determine how best to address technical, scientific, and practical issues related to biogenic CO\textsubscript{2} without disrupting the proper functioning and timeliness of the permitting programs). Also, like the proposal, this final rule strongly encourages states that wish to adopt the three-year deferral to submit SIP revisions or Title V program revisions, but does not mandate such submittals, recognizing that some states may not have any (or may have only a few) sources that combust biomass, and may have adequate information and resources regarding the nature of biogenic emissions from those sources.

Furthermore, the justification that supports this deferral for including biogenic CO\textsubscript{2} in PSD applicability determinations is not applicable in the case of a PSD permit that was issued before completion of this rule during step 1 of the phase-in of GHG requirements under the Tailoring Rule. If a permit has been issued, then the burden described above has already been experienced and overcome by the permitting authority. Furthermore, this burden will have been experienced in the context of step 1 of the GHG permitting phase in under the Tailoring Rule, and thus was easier to accommodate as part of the more limited increase in workload that permitting authorities have faced in addressing GHG controls during step 1. In the context of step 2 where permitting authorities will have to
process a greater number of permit applications, the incremental burden of evaluating the net atmospheric impacts of biogenic CO₂ has a more significant impact on the ability of permitting authorities to administer the permitting programs. This analysis adds a burden that EPA had not considered when it completed the Tailoring Rule.

As explained in section II.C of the preamble, EPA also issued interim guidance entitled, “Guidance for Determining Best Available Control Technology for Reducing Carbon Dioxide Emissions from Bioenergy Production” to help permitting authorities establish a basis for concluding that under PSD Program the combustion of biomass fuels can be considered BACT for biogenic CO₂ emissions at stationary sources until such time as the deferral becomes effective. This guidance may continue to assist permitting authorities where the deferral is not effective during the deferral period until EPA revises it or it is superseded by future guidance or rules. It should be noted that the guidance is non-binding, and case-by-case BACT determinations made in accordance with the guidance may nonetheless be subject to challenge in each permitting action. Accordingly, the interim guidance does not provide the same level of certainty to sources and decrease in administrative burdens to permitting authorities and sources that the deferral does.

EPA developed the interim BACT guidance primarily for application during analysis of the phase-in of GHG permitting requirements under the Tailoring Rule. While the guidance suggests reasoning that may serve to reduce the resource demands of conducting a net carbon cycle analysis in the context of permitting, it does not eliminate the need for permitting authorities to conduct some evaluation of energy, environmental, and economic impacts in step 4 of the BACT analysis. The guidance discusses the complexities of conducting a net carbon cycle analysis, but places the emphasis on showing the economic and energy benefits of utilizing biomass. Permitting authorities that apply this approach still need to identify the specific energy and economic benefits of utilizing particular biomass feedstocks to apply this rationale. To the extent these benefits cannot be identified or shown to override other considerations, a permitting authority may need to explore the net carbon cycle impact in more depth to justify the conclusion that utilization of a biomass feedstock is BACT by itself. In states that do not elect to adopt the deferral, the incremental burden of conducting the analysis described in the guidance will have a more significant impact on the overall ability to administrate the permitting program in the context of step 2 of the GHG permitting than it did in step 1, where the overall increase in workload from incorporating GHG requirements into PSD permit reviews was less than it will be in step 2.

Legal Authority. We received several comments on EPA’s legal authority to issue the deferral. A number of commenters expressed the view that EPA lacked the scientific basis to defer the applicability of PSD and Title V permitting requirements to biogenic emissions of CO₂.

A number of commenters argued that EPA had not demonstrated that the deferral was necessary to avoid administrative burden or impossibility, and that the science surrounding CO₂ emissions from biogenic sources and their role in the carbon cycle is settled enough to show that use of some or all biogenic feedstocks have an impact on net atmospheric concentrations of CO₂, or are not de minimis; therefore, these commenters argued that such emissions should be regulated under the PSD and Title V permitting programs.

EPA disagrees with the commenters’ characterization of the state of the science and administrative burdens facing permitting agencies and sources to account for biogenic sources of CO₂ emissions as part of permitting actions. EPA notes that it also received a number of comments expressing the opposing view that a permanent deferral or exclusion was necessary because biogenic emissions of CO₂ do not have an impact on atmospheric concentrations of CO₂, or that use of certain categories of feedstock do not have such an impact. EPA also received comments from a number of permitting authorities and sources expressing the view that the science surrounding the accounting of net atmospheric CO₂ emissions from biogenic sources, given the carbon cycle, warranted further study and development of an accounting framework to assist them with their permitting actions.

EPA believes this diversity of views reflects the complexity of the science associated with accounting for biogenic CO₂ emissions as part of the PSD and Title V permitting programs. EPA agrees, based on information currently before the Agency, including information provided in response to the CFI and the proposal for this rule, that emissions from certain biomass feedstocks may have a negligible effect on atmospheric concentrations of CO₂, but also believes based on the complexity of this evidence that the deferral to allow for further study is warranted. In addition, EPA is conducting an independent peer review by the Science Advisory Board of the science and accounting framework associated with biogenic CO₂ emissions, which will benefit permitting authorities.

While the interim BACT guidance described elsewhere in the preamble may help alleviate some of this uncertainty and burden for permitting authorities where the deferral is not effective, we expect that more and more diverse users of biomass combustion or other biogenic CO₂ sources are likely to be affected under step 2 of the Tailoring Rule because, under step 2, these sources can trigger permitting requirements based solely on their GHG emissions with no prerequisite requirement that they otherwise trigger PSD or Title V permitting requirements for a non-GHG pollutant. We believe, absent the deferral period and the completion of EPA’s full analysis of the unique technical issues associated with these diverse facilities emitting biogenic CO₂, it would be particularly challenging for permitting authorities and facilities to process permits involving these emissions.

A number of commenters challenged EPA’s authority to amend the regulatory definition of “subject to regulation” to exclude biogenic sources of CO₂ from regulation for three years under the administrative law doctrines and rationale articulated in the Tailoring Rule and elsewhere in this preamble. A number of commenters also expressed the view that the deferral would lead to significant development of the biomass industry during the deferral period and a permanent exclusion for these sources, in contradiction to the CAA’s goal of protecting air quality.

EPA disagrees with these commenters’ characterization of the legal authority and rationale in support of this interim deferral. As described in Section II.B. of this preamble, this interim deferral is intended only to temporarily exclude biogenic CO₂ emissions from the definition of “subject to regulation,” as that term was defined for purposes of the Tailoring Rule, for a period of three years, while EPA further considers, through notice and comment rulemaking, the approach to accounting for these emissions on a permanent basis. In response to commenters who speculate about the likelihood of significant development of the biomass industry increases in the number of sources emitting biogenic CO₂ during the deferral period, EPA
notes that a decision to move forward with development of a facility is based on many economic and business factors, not just permitting requirements, that are beyond the scope of this final action.

This interim deferral represents a permissible application of well-established administrative law doctrines, necessitated by the scientific uncertainty surrounding the accounting of biogenic CO₂ emissions, to develop a regulatory scheme that implements the CAA consistent with congressional intent in a step-wise fashion designed to minimize administrative burdens and avoid premature regulation of sources of air pollution whose biogenic CO₂ emissions could be shown to have de minimis impacts on a net carbon cycle basis after EPA completes further analysis. EPA notes that the issue of subsequent applicability of the PSD and Title V programs to facilities that may be permitted during the deferral period is addressed in sections II.C.

EPA’s establishment of this deferral is premised upon the information currently before the Agency, narrowly tailored to effectuate congressional intent. It appears that the potential may exist for EPA to determine that some other types of biomass feedstocks would have a negligible impact on the net carbon cycle impact after further detailed examination of the science associated with biogenic CO₂ emissions. Thus, if EPA were to require all bioenergy facilities to limit emissions of biogenic CO₂ before this assessment is complete, it may later determine that such emissions have trivial impact on the net carbon cycle. To avoid this outcome, and because of the administrative burdens associated with accounting for net biogenic CO₂ emissions relative to the carbon cycle, EPA believes an initial deferral of the PSD requirements for bioenergy and other biogenic sources to allow for subsequent, phased-in regulations is justified at this time. However, the possibility also remains that EPA’s detailed examination of the science of biogenic CO₂ will demonstrate that the utilization of some biomass feedstocks for bioenergy production will have a significant impact on the net carbon cycle, making application of the PSD program requirements to such emissions necessary to fulfill congressional intent.

The extensive workload requirements required to understand the net biogenic CO₂ emissions from bioenergy facilities and other sources of biogenic CO₂ emissions, as part of the PSD and Title V permitting processes, including specifying specifically how to measure and account for biogenic CO₂ emissions, would unnecessarily strain the resources of many permitting authorities and result in delays in processing permits for other applicants. Moreover, at present, devoting these limited permitting authority resources to biomass would not be productive in light of the previously described possibility that EPA may ultimately determine that the utilization of some or all biomass feedstocks for bioenergy has a negligible or de minimis impact on the net carbon cycle.

EPA received a comment arguing that the deferral was also supported under the “one-step-at-a-time” doctrine, which authorizes agencies to implement statutory requirements at a step at a time. EPA also relied, in part, on this doctrine in finalizing the Tailoring Rule. 75 FR 31514, 31578 (June 3, 2010).

In the proposed rule, EPA stated in footnote 13 that the “one-step-at-a-time” doctrine was not relevant to this rulemaking. This statement was made without explanation. The commenter stated “(b)ased on EPA’s statements in the Tailoring Rule, which does rely on the ‘one-step-at-a-time’ doctrine, it appears that the doctrine would apply equally well to EPA’s decision to delay regulation of biogenic CO₂ emissions under the PSD and Title V programs.” As explained in more detail elsewhere in the preamble, EPA now agrees that because of the complexity and uncertainty of the science associated with accounting for biogenic sources of CO₂ that the interim deferral of the PSD and Title V program for such emissions would be a reasonable exercise of the “one-step-at-a-time” doctrine. This rulemaking constitutes an initial step toward full compliance, and, in that light, is supported by the “one-step-at-a-time” doctrine. Even if the doctrine were found to apply only when an agency is committed to fully implementing statutory requirements according to their literal terms, we believe that the interim deferral promulgated in this final rule would be considered valid under the one-step-at-a-time doctrine.

EPA received a number of comments in favor of expanding the deferral to CO₂e or other GHGs, not just CO₂. EPA disagrees with the comments seeking expansion of the deferral to CO₂e. As explained elsewhere in the preamble, while CH₄ and N₂O are produced when biomass is combusted, the level of emissions and resulting impact on atmospheric concentrations of these gases are primarily related to the feedstock handling and combustion stage of the plant rather than the source of the feedstocks. We finalized this rule as proposed and included only biogenic CO₂ emissions for this reason, and note that emissions of non-CO₂ GHG are typically a small proportion of the total GHG emissions from combustion of biologically based material. Since the non-CO₂ GHG are so small relative to CO₂, the deferral of biogenic CO₂ emissions will ensure the biomass combustion projects will likely not meet the applicability thresholds on their CH₄ and N₂O emissions alone. Subsequent regulations to establish treatment of specific sources of biogenic emissions under the PSD and Title V programs are beyond the scope of this action.

C. Comments on Science, Accounting, and Economic Issues

As noted above, we received a large number of comments that provided the same or similar information to the comments received through the CFI last year. Those comments are summarized briefly below and also contained in the response to comments document. While we did not respond to these comments as they are outside the scope of this rulemaking, we will consider many of them during our ongoing work on biogenic CO₂ emissions.

Carbon cycle dynamics. We received several comments on the net atmospheric impact of biomass. Some commenters supported the conclusion that biomass has zero net atmospheric impact based on the premise that biomass is part of the natural carbon cycle and does not add additional carbon to the atmosphere. Conversely, other commenters supported the conclusion that biomass combustion increases the atmospheric carbon load. Issues raised by commenters, including the time delays between sequestration and release to the atmosphere, differences between feedstocks, influences of different spatial scale, and differences in combustion efficiencies, are important in the development of accounting methodologies and will be considered during the scientific review that will take place during the three-year deferral period. EPA will consider such issues in order to account for biogenic CO₂ emissions from stationary sources in ways that are scientifically sound and manageable in practice.

Accounting methodologies used by other programs. We received several comments discussing the accounting methodologies used in international, U.S. government (including U.S. EPA) and state regulatory and policy programs. The accounting approaches taken by other programs, including other EPA programs, will be considered in EPA’s detailed examination of the scientific and technical issues related to

 GHG are typically a small proportion of the total GHG emissions from combustion of biologically based material. Since the non-CO₂ GHG are so small relative to CO₂, the deferral of biogenic CO₂ emissions will ensure the biomass combustion projects will likely not meet the applicability thresholds on their CH₄ and N₂O emissions alone. Subsequent regulations to establish treatment of specific sources of biogenic emissions under the PSD and Title V programs are beyond the scope of this action.
biogenic CO\textsubscript{2} emissions and any subsequent rulemakings we undertake during the deferral period.

**D. Comments on PSD, Title V and the Tailoring Rule**

We received some comments on the PSD and Title V programs and how they relate to the Tailoring Rule, including comments about the need to adjust the thresholds for GHG applicability, facilities that should or should not be covered, and the ultimate treatment of biogenic CO\textsubscript{2} in these programs. These comments are contained in the response to comments document. The dates, thresholds and other requirements established in the Tailoring Rule are not a subject of this rulemaking and thus these comments are outside the scope of this action.

**E. Comments on the Interim Guidance**

We received some comments on the interim guidance document released in March 2011 designed to help permitting authorities establish a basis for concluding that under PSD and Title V Programs the combustion of biomass fuels can be considered BACT for biogenic CO\textsubscript{2} emissions at stationary sources before the deferral becomes effective. These comments are contained in the response to comments document and are briefly summarized below. While these comments are outside the scope of this rulemaking, we will likely be considering many of them during our ongoing work on biogenic CO\textsubscript{2} emissions.

Some commenters asserted that biogenic fuels should not be considered BACT for controlling biogenic CO\textsubscript{2} emissions at energy projects, while others supported the inclusion of biogenic fuels as BACT in the interim guidance. As stated in the March 2011 interim guidance document, EPA has not provided a final determination of BACT for any particular source, since such determinations can only be made by individual permitting authorities on a case-by-case basis after consideration of the record in each case. Upon consideration of the record in an individual case, if a permitting authority has a reasoned basis to address particular issues in a different manner than EPA recommends in the bioenergy BACT guidance, they have the discretion to do so. EPA is granting the deferral of biogenic CO\textsubscript{2} emissions from stationary source permitting requirements because the issue of accounting for the net atmospheric impact of biogenic CO\textsubscript{2} emissions is complex enough that further consideration of this important issue is warranted.

**IV. Statutory and Executive Order Review**

**A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review**

This action is not a “significant regulatory action” under the terms of Executive Order 12866 (58 FR 51735, October 4, 1993) and is therefore not subject to review under Executive Orders 12866 and 13563 (76 FR 3821, January 21, 2011).

**B. Paperwork Reduction Act**

This action does not impose any new information collection burden. Instead, this action will reduce costs incurred by any facility with biogenic CO\textsubscript{2} emissions, as well as permitting authorities, relative to the costs that would be incurred if EPA did not revise the rule.

An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The OMB has previously approved the information collection requirements contained in the existing regulations for PSD (see, e.g., 40 CFR 52.21) and Title V (see 40 CFR parts 70 and 71) under the provisions of the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. and has assigned OMB control number 2060-0003 and OMB control number 2060-0336. The OMB control numbers for EPA’s regulations in 40 CFR are listed in 40 CFR part 9.

**C. Regulatory Flexibility Act**

The Regulatory Flexibility Act (RFA) generally requires an agency to prepare a regulatory flexibility analysis of any rule subject to notice and comment rulemaking requirements under the Administrative Procedure Act or any other statute, unless the agency certifies that the rule will not have a significant economic impact on a substantial number of small entities. Small entities include small businesses, small organizations, and small governmental jurisdictions.

For purposes of assessing the impacts of this action on small entities, small entity is defined as: (1) A small business as defined by the Small Business Administration’s regulations at 13 CFR 121.201; (2) a small governmental jurisdiction that is a government of a city, county, town, school district or special district with a population of less than 50,000; and (3) a small organization that is any not-for-profit enterprise that is independently owned and operated and is not dominant in its field.

After considering the economic impacts of this final action on small entities, I certify that this action will not have a significant economic impact on a substantial number of small entities. In determining whether a rule has a significant economic impact on a substantial number of small entities, the impact of concern is any significant adverse economic impact on small entities, since the primary purpose of the regulatory flexibility analyses is to identify and address regulatory alternatives “which minimize any significant economic impact of the rule on small entities.” 5 U.S.C. 603 and 604. Thus, an agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, or otherwise has a positive economic effect on all of the small entities subject to the rule.

We believe that this final rule will relieve the necessary analysis and corresponding workload requirements for most affected facilities, including small businesses, subject to the PSD and Title V programs. As a result, the program changes provided in this rule are not expected to result in a significant economic impact on a substantial number of small entities. In addition, EPA determined that the final rulemaking would not have a significant impact on small governmental jurisdictions. The EPA has therefore concluded that this final action will not have a significant economic impact on a substantial number of small entities.
D. Unfunded Mandates Reform Act (UMRA)

This final rule does not contain a Federal mandate that may result in expenditures of $100 million or more for state, local, and tribal governments, in the aggregate, or the private sector in any one year. Only those few states whose permitting authorities do not implement the Federal PSD and Title V rules by reference in their SIPs will have a small increase in burden. If those states choose to adopt this deferral, they will have to amend their corresponding SIPs to incorporate the amendments from today’s action, as the deferral that we finalized will not otherwise apply to the PSD and Title V programs. Thus, this rule is not subject to the requirements of sections 202 or 205 of the UMRA.

This rule is also not subject to the requirements of section 203 of UMRA because it contains no regulatory requirements that might significantly or uniquely affect small governments. As discussed earlier, this rule is expected to result in an administrative burden reduction for all affected permitting authorities and permittees, including small governments.

E. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government, as specified in EO 13132. These amendments will simplify and reduce the burden of implementing the PSD and Title V operating permit programs, by deferral of PSD and Title V application requirements to biogenic CO₂ emissions at a facility. Thus, EO 13132 does not apply to this action.

F. Executive Order 13175: Consultation and Coordination With Indian Tribal Governments

Executive Order 13175, entitled “Consultation and Coordination with Indian Tribal Governments” (59 FR 22951, November 6, 2000), requires EPA to develop an accountable process to ensure “meaningful and timely input by Tribal officials in the development of regulatory policies that have Tribal implications.”

The EPA has concluded that this final rule may have Tribal implications. However, it will neither impose substantial direct compliance costs on Tribal government, nor preempt Tribal law. There are no Tribal authorities currently issuing PSD and Title V permits; however, this may change in the future.

G. Executive Order 13045: Protection of Children From Environmental Health Risks and Safety Risks

The EPA interprets Executive Order 13045 (62 FR 19885, April 23, 1997) as applying only to those regulatory actions that concern health or safety risks, such that the analysis required under section 5–501 of EO has the potential to influence the regulation. This action is not subject to Executive Order 13045 because it does not establish an environmental standard intended to mitigate health or safety risks.

H. Executive Order 13211: Actions That Significantly Affect Energy Supply, Distribution, or Use

This action is not a “significant energy action” as defined in EO 13211 (66 FR 28355, May 22, 2001) because it is not likely to have a significant adverse effect on the supply, distribution, or use of energy. Further, we have concluded that this rule is not likely to have any adverse energy effects because this action would not create any new requirements for sources in the energy supply, distribution, or use sectors.

I. National Technology Transfer and Advancement Act

Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (NTTAA), Public Law 104–113 (15 U.S.C. 272 note) directs EPA to use voluntary consensus standards in its regulatory activities unless to do so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., materials specifications, test methods, sampling procedures, and business practices) that are developed or adopted by voluntary consensus standards bodies. The NTTAA directs EPA to provide Congress, through OMB, explanations when the Agency decides not to use available and applicable voluntary consensus standards.

This action does not involve technical standards. Therefore, EPA is not considering the use of any voluntary consensus standards.

J. Executive Order 12898: Federal Actions To Address Environmental Justice in Minority Populations and Low-Income Populations

Executive Order 12898 (59 FR 7629, February 16, 1994) establishes Federal executive policy on environmental justice. Its main provision directs Federal agencies, to the greatest extent practicable and permitted by law, to make environmental justice part of their mission by identifying and addressing, as appropriate, disproportionately high and adverse human health or environmental effects of their programs, policies, and activities on minority populations and low-income populations in the U.S.

The EPA has determined that this rule will not have disproportionately high and adverse human health or environmental effects on minority or low-income populations because it does not affect the level of protection provided to human health or the environment, as any impacts that it will have will be global in nature and will not affect local communities or populations in a manner that adversely affects the level of protection provided to human health or the environment.

K. Congressional Review Act

The Congressional Review Act, 5 U.S.C. 801 et seq., as added by the Small Business Regulatory Enforcement Fairness Act of 1996 (SBREFA), generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this rule and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the U.S. prior to publication of the rule in the Federal Register. A major rule cannot take effect until 60 days after it is published in the Federal Register. This action is not a “major rule” as defined by 5 U.S.C. 804(2). This rule will be effective on July 20, 2011.

List of Subjects

40 CFR Part 51


40 CFR Part 52


40 CFR Part 70

Environmental protection, Administrative practice and procedure,
Air pollution control, Carbon dioxide, Carbon dioxide equivalents, Greenhouse gases, Intergovernmental relations, Methane, Nitrous oxide.

40 CFR Part 71

Environmental protection, Administrative practice and procedure, Air pollution control, Carbon dioxide, Carbon dioxide equivalents, Greenhouse gases, Intergovernmental relations, Methane, Nitrous oxide.

Dated: July 1, 2011.

Lisa P. Jackson,
Administrator.

For the reasons stated in the preamble, Title 40, chapter I, of the Code of Federal Regulations is amended as follows:

PART 51—[AMENDED]

1. The authority citation for part 51 continues to read as follows:


Subpart I—[Amended]

2. Section 51.166 is amended by revising paragraph (b)(48)(ii)(a) to read as follows:

§ 51.166 Prevention of significant deterioration of air quality.

(b) * * *

(48) * * *

(ii) * * *

(a) Multiplying the mass amount of emissions (tpy), for each of the six greenhouse gases in the pollutant GHGs, by the gas’s associated global warming potential published at Table A–1 to subject part A of part 98 of this chapter—Global Warming Potentials. For purposes of this paragraph, prior to July 21, 2014, the mass of the greenhouse gas carbon dioxide shall not include carbon dioxide emissions resulting from the combustion or decomposition of non-fossilized and biodegradable organic material originating from plants, animals, or micro-organisms (including products, by-products, residues and waste from agriculture, forestry and related industries as well as the non-fossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and liquids recovered from the decomposition of non-fossilized and biodegradable organic material).

PART 52—[AMENDED]

3. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401, et seq.

Subpart A—[Amended]

4. Section 52.21 is amended by revising paragraph (b)(49)(ii)(a) to read as follows:

§ 52.21 Prevention of significant deterioration of air quality.

(b) * * *

(49) * * *

(ii) * * *

(a) Multiplying the mass amount of emissions (tpy), for each of the six greenhouse gases in the pollutant GHGs, by the gas’s associated global warming potential published at Table A–1 to subject part A of part 98 of this chapter—Global Warming Potentials. For purposes of this paragraph, prior to July 21, 2014, the mass of the greenhouse gas carbon dioxide shall not include carbon dioxide emissions resulting from the combustion or decomposition of non-fossilized and biodegradable organic material originating from plants, animals, or micro-organisms (including products, by-products, residues and waste from agriculture, forestry and related industries as well as the non-fossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and liquids recovered from the decomposition of non-fossilized and biodegradable organic material).

PART 71—[AMENDED]

7. The authority citation for part 71 continues to read as follows:

Authority: 42 U.S.C. 7401, et seq.

Subpart A—[Amended]

8. Section 71.2 is amended by revising paragraph (2) of the definition of “Subject to regulation” to read as follows:

§ 71.2 Definitions.

Subject to Regulation

(2) The term \( tpy \) CO\(_2\) equivalent emissions (CO\(_2\)e) shall represent an amount of GHGs emitted, and shall be computed by multiplying the mass amount of emissions (tpy), for each of the six greenhouse gases in the pollutant GHGs, by the gas’s associated global warming potential published at Table A–1 to subject part A of part 98 of this chapter—Global Warming Potentials, and summing the resultant value for each to compute a tpy CO\(_2\)e. For purposes of this paragraph, prior to July 21, 2014, the mass of the greenhouse gas carbon dioxide shall not include carbon dioxide emissions resulting from the combustion or decomposition of non-fossilized and biodegradable organic material originating from plants, animals, or micro-organisms (including products, by-products, residues and waste from agriculture, forestry and related industries as well as the non-fossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and liquids recovered from the decomposition of non-fossilized and biodegradable organic material).
non-fossilized and biodegradable organic material).