



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

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OFFICE OF  
AIR AND RADIATION

**MEMORANDUM**

**SUBJECT:** Addressing Biogenic Carbon Dioxide Emissions from Stationary Sources

**FROM:** Janet G. McCabe, <sup>JGR</sup> Acting Assistant Administrator  
Office of Air and Radiation

**TO:** Air Division Directors, Regions 1-10

The President's Climate Action Plan (2013) highlights the critical role that America's forests play in addressing carbon pollution in the United States by removing nearly 12 percent of total U.S. greenhouse gas (GHG) emissions each year from the atmosphere. Conservation and sustainable management can help to ensure our forests and other lands continue to remove carbon from the atmosphere while also improving soil and water quality, reducing wildfire risk, and otherwise managing forests to be more resilient in the face of climate change. In many cases, the generation of sustainably sourced bioenergy products can be an integral part of regimes that promote conservation and sustainable forest management. The Environmental Protection Agency's (EPA) work on assessing biogenic carbon dioxide (CO<sub>2</sub>) emissions from stationary sources is part of this broad climate strategy.

Accordingly, the Agency is taking the next step in the development of ongoing technical work it has been doing in support of this assessment. To continue advancing our understanding of the role biomass can play in reducing overall greenhouse gas emissions, the EPA has developed a second draft of the *Framework for Assessing Biogenic CO<sub>2</sub> Emissions from Stationary Sources*, and is preparing to release it for further review. As you know, the EPA also anticipates near-term decision-making pertaining to biogenic CO<sub>2</sub> emissions in the context of both the Clean Power Plan (CPP) and the Prevention of Significant Deterioration (PSD) program. As a result, we expect that many states and stakeholders will look to the second draft of the Framework for indications of how the Agency will treat biogenic CO<sub>2</sub> emissions under both the CPP and the PSD program going forward. In addition to advising you of the release of the revised Framework, this memo also describes below OAR's current thinking with respect to those two programs and their treatment of biogenic CO<sub>2</sub> emissions. Please share this memorandum with our co-regulators and stakeholders as appropriate.

In 2011, the EPA developed the first draft of the Framework and submitted it to a Science Advisory Board (SAB) for peer review.<sup>1</sup> With that draft, the Agency continued an extensive stakeholder process that began with a Call for Information related to biogenic carbon accounting and assessment in 2010 and included public comment on the first draft Framework. Information considered in preparing the second draft of the Framework, including the SAB peer review and stakeholder input, supports the finding that use of waste-derived feedstocks and certain forest-derived industrial byproducts are likely to have minimal or no net atmospheric contributions of biogenic CO<sub>2</sub> emissions, or even reduce such impacts, when compared with an alternate fate of disposal. The EPA intends to apply this preliminary finding further within the policy contexts and regulatory actions described below.

The EPA worked to produce the second draft of the Framework to reflect the SAB peer review, stakeholder feedback and latest scientific analyses to develop it as a tool for assessing biogenic CO<sub>2</sub> emissions from stationary sources. The EPA will continue to refine its accounting work by initiating a second round of targeted peer review through its SAB later this month, which includes public comment. As part of this technical process, we will continue to assess and closely monitor overall bioenergy demand and landscape conditions for changes that might have negative impacts on public health or the environment.

While we continue the development of the Framework to reflect ongoing technical and scientific work, we believe that our approach to the treatment of biomass in the CPP and PSD program should be determined by policy and programmatic objectives, goals and considerations, based on and supported by technical information – an outlook that the SAB peer reviewers acknowledged in their review of the initial draft Framework. In light of those considerations, we believe that it is appropriate for the EPA to take additional actions to implement the policies described below in the CPP and the PSD program in parallel with our intended further work on the Framework.

In the implementation of the CPP, the EPA anticipates that some states will wish to include the use of biogenic feedstocks in their compliance plans. When considering state compliance plans, the Agency expects to recognize the biogenic CO<sub>2</sub> emissions and climate policy benefits of waste-derived and certain forest-derived industrial byproduct feedstocks, based on the conclusions supported by a variety of technical studies, including the revised Framework. In addition, given the importance of sustainable land management in achieving the carbon reduction goals of the President's Climate Action Plan, the EPA expects that states' reliance specifically on sustainably-derived agricultural- and forest-derived feedstocks may also be an approvable element of their compliance plans. This approach is consistent with the EPA's recognition in the proposal that every state has different energy systems and available fuel mixes. Many states already recognize the importance of forests and other lands for climate resilience and mitigation, and have developed a variety of sustainable forestry and land use management

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<sup>1</sup> In September 2011, the Agency released the *Draft Accounting Framework for Biogenic CO<sub>2</sub> Emissions from Stationary Sources* (<http://www.epa.gov/climatechange/ghgemissions/biogenic-emissions.html>). This draft report examined the science associated with biogenic CO<sub>2</sub> emissions from stationary sources and presented an accounting framework for these emissions. EPA's Science Advisory Board (SAB) conducted a peer review of this report and released its conclusions in 2012.

(<http://yosemite.epa.gov/sab/sabproduct.nsf/0/2F9B572C712AC52E8525783100704886>).

policies and programs to address these concerns. Some states also encourage participation in sustainable forest management programs developed by third-party forestry and/or environmental entities.

The EPA will evaluate the biogenic feedstock components of proposed state plans – along with all other aspects of each plan – as part of the compliance plan review and approval process and will provide clarification as needed on the basis on which it will make such biomass-related evaluations. As in the case of many other aspects of the CPP, we expect to consult other experts, such as our colleagues at USDA, states and stakeholders to provide information and examples of existing state and third-party programs already recognized as meeting sustainability goals as articulated by the President’s Climate Action Plan.

In addition, the EPA plans to propose revisions to the PSD rules to include an exemption from the Best Available Control Technology (BACT) requirement for GHGs from waste-derived feedstocks and from non-waste biogenic feedstocks derived from sustainable forest or agricultural practices, consistent with the technical information described above. For waste-derived feedstocks, the EPA intends to propose exempting biogenic CO<sub>2</sub> emissions from GHG BACT analyses and anticipates basing that proposal on the rationale that those emissions are likely to have minimal or no net atmospheric contributions of biogenic CO<sub>2</sub> emissions, or even reduce such impacts, when compared with an alternate fate of disposal. For sustainable non-waste feedstocks, the EPA intends to propose exempting biogenic CO<sub>2</sub> emissions from GHG BACT analyses if the applicant can demonstrate that these feedstocks in fact come from sustainably managed lands. The rationale above will be presented in the record for any future rulemaking and subject to public review and comment. For all other biogenic feedstocks, the EPA intends to propose that biogenic CO<sub>2</sub> emissions would remain subject to the GHG BACT requirement at this time. The EPA also anticipates providing additional guidance to sources undergoing BACT analyses involving biogenic feedstocks.

Relatedly, the EPA is working through the legal process to respond to the Supreme Court’s decision in *Utility Air Regulatory Group v. EPA* and the proceedings currently before the United States Court of Appeals for the District of Columbia Circuit. When developing the PSD regulations described above, the EPA intends to consider the outcome of this process and coordinate its PSD regulations specific to biogenic CO<sub>2</sub> emissions with other rule revisions that may be necessary to address application of PSD permitting requirements to GHGs. Our goal would also be to enable permitting authorities and sources to implement the permitting requirements in a practical manner that is consistent with the policy objectives articulated above for the CPP.

I trust this information will be helpful. We will provide additional updates as we move forward on the following website <http://epa.gov/climatechange/ghgemissions/biogenic-emissions.html>.