Accounting Framework for Biogenic CO_2 Emissions from Stationary Sources

FACT SHEET

ACTION

- This study explores the scientific and technical issues associated with biogenic CO_2 emitted from stationary sources and presents an accounting framework for estimating biogenic CO_2 emissions on the basis of information about the carbon cycle.

- The study presents the factors related to the carbon cycle that are necessary for developing a technically sound accounting of these emissions. It has been submitted to the Science Advisory Board (SAB) for formal peer review later this fall.

- This is only one of a series of steps in a process that the Agency is undertaking to address the issues associated with biogenic CO_2 emissions from stationary sources.

- Biogenic CO_2 is emitted during the storage, processing, and consumption of biologically-based feedstocks, other than fossil fuels, through combustion, digestion, fermentation or decomposition processes.

BACKGROUND

- EPA is taking a series of steps to address biogenic CO_2 emissions from stationary sources:
    - In January 2011, EPA decided to reconsider Clean Air Act permitting requirements for biogenic sources of CO_2, in response to a petition from the National Alliance of Forest Owners.
    - As a first step in the reconsideration process, EPA decided to defer for three years the CAA permitting requirements for biogenic CO_2 emissions from stationary sources (July 20, 2011, 76 FR 43490).
    - EPA has conducted a detailed examination of the science associated with biogenic CO_2 emissions. This study, released today, considers technical issues that the Agency must resolve in order to account for these emissions in ways that are scientifically sound and also manageable in practice. This study will be peer reviewed by the independent SAB.
    - Based on the feedback from the scientific and technical review, EPA intends to follow notice-and-comment rulemaking procedures in determining how biogenic CO_2 emissions should be accounted for in Clean Air Act permitting. This rule will be completed by the end of the three-year permit deferral period.
- Biogenic CO_2 emissions from stationary sources are emitted during the storage, processing, and consumption of biologically-based feedstocks, other than fossil fuels, through combustion, digestion, fermentation or decomposition processes. Examples include, but are not limited to:

- CO_2 generated from the biological decomposition of waste in landfills, wastewater treatment or manure management processes;
- CO_2 from the combustion of biogas collected from biological decomposition of waste in landfills, wastewater treatment or manure management processes;
- CO_2 from fermentation during ethanol production;
- CO_2 from combustion of the biological fraction of municipal solid waste or biosolids;
- CO_2 from combustion of the biological fraction of tire-derived fuel; and
- CO_2 derived from combustion of biological material, including all types of wood and wood waste, forest residue, and agricultural material.

NEXT STEPS AND IMPLEMENTATION

- This report is posted on EPA's website in advance of the SAB peer review: http://www.epa.gov/climatechange/emissions/biogenic_emissions.html
- The SAB peer review is expected later this fall: http://yosemite.epa.gov/sab/sabpeople.nsf/WebCommittees/BOARD

MORE INFORMATION

- For more information CO_2 emissions associated with bioenergy and other biogenic sources, please visit EPA's website: http://www.epa.gov/climatechange/emissions/biogenic_emissions.html

- For more information about the SAB and peer review process, please visit the SAB's website: http://yosemite.epa.gov/sab/sabproduct.nsf/0/2f9b572c712ac52e8525783100704886!OpenDocument&TableRow=2.0#2.

- For more information about the Prevention of Significant Deterioration (PSD) and Title V permitting programs and the final deferral please visit EPA's website: http://www.epa.gov/nsr