

MICHIGAN STATE UNIVERSITY

May 18, 2020

The Honorable Andrew Wheeler
Administrator
Ms. Anne Idsal
Assistant Administrator
U.S. Environmental Protection Agency
William Jefferson Clinton Federal Building
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Dear Administrator Wheeler and Assistant Administrator Idsal:

The undersigned researchers and members of the scientific community appreciate the opportunity to contact you about an issue that is a topmost priority for the American bioeconomy and rural communities. We understand your Agency is proposing a rule addressing biogenic CO₂ emissions from woody biomass. We support EPA's position that woody biomass is an insignificant contributor to atmospheric carbon, however we are concerned that the rule does not likewise address agricultural feedstocks. There is no scientific reason to exclude agricultural feedstocks from the same determination.

Prior EPA policy has treated biogenic carbon emissions as if they were the same as fossil-carbon emissions. But they are not the same. Carbon atoms emitted by burning fossil fuels are, in effect, on a one-way trip from the ground to the atmosphere, where they will stay for hundreds of millions of years. In contrast, carbon atoms taken from the atmosphere to make woody and agricultural products are on a round trip from the atmosphere to farms then back to the atmosphere within a very few years. Thus, there is little or no net new carbon in the atmosphere resulting from the carbon in agricultural products.

EPA's decision addresses emissions from trees that release 40 years of sequestered carbon but excludes emissions from annual crops that release carbon sequestered during the prior growing season. This disconnect fails to account for the fact that the underlying carbon cycle is the same for both types of biomass, only with different time scales for resequestration. Like woody biomass, biogenic emissions from agricultural feedstocks are also insignificant additions to atmospheric greenhouse gases and should be recognized as such. Maintaining the regulatory status quo for these emissions will continue to impose onerous permitting delays, costs, and uncertainty to a large and growing sector of the economy. Further, these regulatory burdens are without scientific justification.

When determining what emissions at stationary source facilities are subject to regulation under the Clean Air Act, EPA must acknowledge this basic



College of Engineering

Department of
Chemical
Engineering &
Materials Science

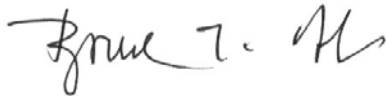
Engineering Building
Michigan State University
428 S. Shaw Lane Room 2100
East Lansing, MI 48824

517-355-5135
Fax: 517-432-1105
chems.msu.edu

characteristic of carbon cycles and regulate only those emissions that add net greenhouse gases to the atmosphere. This approach is supported by extensive scientific literature and by the positions of other government agencies that treat biogenic emissions from crop-based feedstocks as carbon neutral, de minimis or insignificant from a carbon accounting and regulatory perspective. *Even after taking this action on woody biomass, EPA will remain the only government agency in the world that regulates biogenic emissions without recognizing the applicable lifecycle science.*

There is a growing world-wide effort to establish the “bioeconomy,” an economy based on use of renewable raw materials to make products that humans need, and to reduce and eventually eliminate dependence on fossil carbon. This effort is critical – the world will eventually exhaust its fossil carbon resources, to say nothing of the accelerating greenhouse gas buildup due to continued fossil carbon use. But sound policy must be informed by sound science. We are encouraged that EPA has taken appropriate steps to address emissions from woody biomass, and we ask that you proceed as quickly as possible with a similar action addressing agricultural biomass.

Respectfully,



Bruce E. Dale, Ph. D.
University Distinguished Professor
Department of Chemical Engineering and Materials Science
Michigan State University

Dr. Venkataraman Bringi
Michigan State University

Dr. Robert Brown
Iowa State University

Dr. Bruce Dale
Michigan State University

Dr. David Hodge
University of Montana

Dr. George Huber
University of Wisconsin

Dr. Douglas Karlen
DLKarlen Consulting LLC

Dr. Seungdo Kim
Michigan State University

Dr. Paul Meier
University of Wisconsin-Madison

Dr. Dale Monceaux
AdvanceBIO LLC

Dr. Rebecca Ong
Michigan Tech University

Dr. John Ralph
University of Wisconsin

Dr. Cory Sarks
POET Research

Dr. Margaret Slupska
Researcher

Dr. Farzaneh Teymouri
Michigan State University

Dr. Berkley Walker
Michigan State University

Dr. May Wu
Researcher

Dr. Christopher Saffron
Michigan State University

Dr. Elizabeth Sendich
Researcher

Dr. Leonardo da Costa Sousa
Trucent, Inc.

Dr. Jaya Shankar Tumuluru
Researcher

Dr. Mark Worden
Michigan State University