NOFA-NY
NORTHEAST ORGANIC FARMING ASSOCIATION OF NEW YORK

March 4, 2024

Erin Burns, Regional Permit Administrator
DEC Region 5
1115 State Route 86
Ray Brook, NY 12977

RE: Saratoga Biochar Solutions Facility Permit Applications

Dear Erin Burns,

Thank you for this opportunity to comment on Saratoga Biochar Solutions LLC's applications for a State Air Facility Permit, a "beneficial use" determination, and a Solid Waste Management Permit. Our comments focus on the "beneficial use" determination although we share concerns detailed by Earthjustice and others about environmental contamination, air pollution, and negative impacts on the community surrounding the facility. The Northeast Organic Farming Association of New York (NOFA-NY) urges the Department of Environmental Conservation to deny Saratoga Biochar Solutions's permits because of the ecosystem and public health risks of their proposed activities and because of the unproven and misleading claims implicit in marketing "carbon fertilizer." **The numerous risks associated with land application of sewage sludge and sewage sludge-derived fertilizers must not be passed on to farmers and gardeners through a misleading marketing campaign disguising sewage sludge-derived biochar as a climate solution.**

Ecosystem & Public Health Risks

An ever-growing body of research is identifying an alarming scale of per- and polyfluoroalkyl substances (PFAS) contamination in sewage sludge also called biosolids that continue to be applied to agricultural land as fertilizer. This practice – which has been criticized for decades due to heavy metal loads, and is not permitted for use in organic agriculture[1]– has proven to be catastrophic for farmers who identify contamination[2] in their soil, milk, produce, and even in their bodies.

[1] This prohibition includes biochar derived from sewage sludge: https://www.omri.org/charcoal
[2]The Guardian: 'I don't know how we'll survive': the farmers facing ruin in Maine's 'forever chemicals' crisis

There is a serious crisis emerging across the northeast. Recent testing in Maine and New Hampshire has revealed that soils where sewage sludge was spread, even decades ago, have unacceptably high levels of PFAS. Further, testing only accounted for two out of nearly 15,000 "forever chemical" compounds that contaminate water and soil posing risks to human, animal, and ecosystem health. While sufficient testing has not occurred in New York, the pervasiveness of PFAS in all sewage sludge and the practice of land application in New York means that contamination is certain. Now that information from Maine and New Hampshire is clear, we must not compound the contamination by adding even more contaminated sewage sludge-derived products to New York's farmland and gardens.

There is no scientific consensus[3] on the effectiveness of pyrolysis as a method for removing PFAS from sewage sludge. Using the false claim of PFAS remediation through pyrolysis must not be part of the DEC's decision-making. In the absence of significant research on this experimental practice, permitting the facility puts the livelihoods and well-being of farmers who use the product at risk. Polluting valuable farmland with PFAS from the application of contaminated biochar would have extremely dire and long-lasting economic and environmental impacts.

Testing is insufficient in directing contamination and evaluating risk. Even with periodic lab testing of the biochar, current technology only allows for the detection of a fraction of the approximately 15,000 different PFAS compounds. Furthermore, periodic testing would not be representative of the contamination which would vary from batch to batch due to the use of different feedstock and to differences in levels of contaminants sourced from different wastewater treatment plants.

Finally, even with testing data, there is no safe level of exposure to PFAS. Concentrations of PFAS in the soil and water build up over time with the continued use of PFAS-contaminated fertilizers and are not broken down hence the nickname "forever chemicals." These chemicals also bioaccumulate in plants and our bodies, increasing the risk of serious diseases and health disorders.[4] PFAS also bioaccumulate up the food chain, when livestock consume hay, grain, or other feed from PFAS-contaminated crops. As a result, the meat, eggs, and dairy products from these livestock would contain even greater PFAS concentrations.

Recognition of the risks of land application of sewage sludge, including sewage sludge-derived biochar, is evidenced by:

- The National Organic Program's prohibition of sewage sludge-derived inputs[5]: "To be sold or labeled as "100 percent organic," "organic," or "made with organic (specified ingredients or

[3]National Libarary of Medicine: Burning questions: Current practices and critical gaps in evaluating removal of per- and polyfluoroalkyl substances (PFAS) during pyrolysis treatments of biosolids
[4]National Institue of Environmental Health Sciences: Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS)
[5]7 CFR 1.205

food group(s)),” the product must be produced and handled without the use of…sewage sludge.”

- The state of Maine’s 2022 prohibition[6] on “land application of sludge and sale and distribution of compost and other agricultural products and materials containing sludge and septage”
- European Union’s European Commission’s 2021 decision to prohibit[7] pyrolysis materials made from sewage sludge from being sold as “EU Fertilizing Products.”

Unfounded Benefits of “Carbon Fertilizer”

Consumers, including farmers and gardeners, have a right to be adequately informed about the risks and benefits of the products they purchase and use. We urge the DEC to prioritize transparency and make the public aware of risks associated with “carbon fertilizer” use, including those caused by PFAS contamination.

Labeling sewage sludge-derived biochar “carbon fertilizer” misleads farmers and the public by insinuating the false premise that the product has a net positive impact on the environment. Instead, the “carbon fertilizer” product can contribute to the PFAS load in soils, countering soil health efforts and increasing exposure to harmful chemicals. In addition, the manufacturing facility itself puts the surrounding community at increased risk of PFAS exposure due to air and water contamination. These environmental harms, invalidate the unverified positive environmental claims including that this fertilizer will improve soil health and carbon storage capacity.

Misleading labeling also puts organic farmers at risk of jeopardizing their certification status if the source of the biochar is not clearly disclosed. As previously noted, sewage sludge-derived biochar is not permitted for use in organic agriculture. Organic farmers *must* be informed about all aspects of inputs they use on their farms to ensure that the products are allowed for use under the National Organic Program standards.

The numerous risks associated with land application of sewage sludge-derived biochar must not be passed on to farmers and gardeners and must not put at risk NY’s 8 billion dollar agriculture industry[8]. NOFA-NY urges the DEC to prioritize protecting farmland and community and environmental health over the unverifiable claims of an experimental pyrolysis facility and deny permit applications and beneficial use designation for Saratoga Biochar Solutions, LLC.

[6] State of Maine Public Law Chapter 641
[7] European Commission Draft delegated regulation - Ares(2021)44211
[8] USDA National Agricultural Statistics Service: 2022 Census of Agriculture