ASSEMBLY, No. 5484

STATE OF NEW JERSEY

222nd LEGISLATURE

INTRODUCED SEPTEMBER 14, 2026

Sponsored by:
Assemblyman DAVID BAILEY, JR.
District 3 (Cumberland, Gloucester and Salem)

SYNOPSIS

Establishes biochar processing permit.

CURRENT VERSION OF TEXT

As introduced.

AN ACT establishing biochar processing permit and supplementing Title 13 of the Revised Statutes.

BE IT ENACTED *by the Senate and General Assembly of the State of New Jersey:*

1. The Legislature finds and declares:

a. Biochar is a carbon-dense porous solid produced through pyrolysis, a thermochemical conversion of organic matter in an oxygen-limited environment.

b. Biochar can be converted from many forms of organic matter, including whole trees, residual forest materials, wood chips, wheat straw, spoiled hay, food processing waste, demolition waste, sewage sludge, invasive species, and many other forms of agricultural and municipal waste.

c. The production and use of biochar can have a significant, positive impact in the areas of energy, agriculture, and the environment.

d. Biochar offers diverse physiochemical characteristics such as high porosity, large surface area, and slow degradation timelines, making it an effective strategy for soil fertilization, water treatment, and carbon sequestration.

e. Biochar application has been shown to improve soil fertility, increase crop yields between 10 and 42 percent, improve water quality, and reduce soil erosion, as a result of enhanced nutrient and water retention, increased microbial activity, and reduced organic matter density.

f. Soil, contaminated with high levels of per- and polyfluoroalkyl substances (PFAS), and treated through pyrolysis to become biochar, may be reapplied as fertilizer, thus limiting contaminant leaching into groundwaters, reducing PFAS bioavailability through competitive absorption, and supplementing standard phytoremediation strategies.

g. This soil retreatment method may accelerate soil restoration timelines by over a decade, decreasing land remediation costs by an order of magnitude compared to conventional approaches.

h. In forest ecosystems, biochar contributes to healthier and more resilient forests and soils, better air quality, reduced incidence of air-pollution-driven health problems, reduced runoff and soil erosion, reduced risk of catastrophic wildfires, and enhanced carbon sequestration.

i. The production of biochar could enhance agricultural economic development and employment, including by providing a market for unused cellulosic biomass, contributing to agricultural resource reuse, and cultivating a circular energy economy.

j. Therefore, to fully realize the soil health, energy generation, and economic benefits of the use of biochar in agriculture, it is in the best interest of the State to establish a biochar permit process.

2. As used in this act:

"Air pollution" means the presence in the outdoor atmosphere of one or more air contaminants in such quantities and durations as are, or tend to be, injurious to the human health or welfare, animal or plant life, or property, or would unreasonably interfere with the enjoyment of life or property anywhere in the State as may be affected thereby, but excludes all aspects of employer-employee relationships with respect to health and safety hazards within the confines of a place of employment.

"Biochar" means material derived from the thermochemical conversion of biomass in an oxygen-limited environment, containing at least 60 percent carbon, which sequesters carbon and which is capable of being used as a soil amendment.

"Clean cellulosic biomass" means those residuals that are akin to traditional cellulosic biomass, including, but not limited to: agricultural and forest-derived biomass; urban wood; corn stover and other biomass crops used specifically for the production of cellulosic biofuels; bagasse and other crop residues; wood collected from forest fire clearance activities, trees and clean wood found in disaster debris, clean biomass from land clearing operations, and clean construction and demolition wood. The term "clean cellulosic biomass" shall not include biomass that contains contaminants at concentrations greater than those normally associated with organic biomass materials.

"Commissioner" means the Commissioner of Environmental Protection.

"Department" means the Department of Environmental Protection.

"Solid waste" means garbage, refuse, and other discarded materials resulting from industrial, commercial and agricultural operations, and from domestic and community activities, and includes all other waste materials including liquids disposed of incident thereto.

"Volatile organic compound" means the same as defined at section 2 of the "Air Pollution Control Act (1954)," P.L.1954, c.212 (C.26:2C-1 et seq.).

3. a. Beginning 180 days after the date of enactment of this act, no person or facility shall engage in biochar processing unless the person or facility obtains a permit, as established by the department pursuant to the provisions of this section.

b. The department, in consultation with the Department of Agriculture, shall adopt rules and regulations establishing a biochar processing permit. The biochar processing permit shall allow the holder of the permit to process biochar only from clean cellulosic biomass. The department shall issue a biochar processing permit to any person or facility that qualifies for the permit, pursuant to the

provisions of this section, and meets any additional requirements established by the departments pursuant to this act.

c. The department shall require an applicant for a biochar processing permit to provide the following information, at a minimum:

(1) the applicant's name, business location, and mailing address;

(2) the geographical area to be serviced for the term of the permit, including a map and a list of zip codes in that area;

(3) an identification of clean cellulosic biomass sources to be used in biomass processing; and

(4) any additional requirements as determined appropriate by the department.

d. The department shall issue a biochar processing permit to an applicant after the department, in consultation with the Department of Agriculture, has received, independently reviewed, and approved of an application for a biochar processing permit from the applicant. The department shall review and issue a decision on any biochar processing permit application within six months of receipt of the application. The department may deny an application for a permit or permit renewal if, based upon a review of application material, the applicant does not meet the requirements established pursuant to this act.

e. A holder of a biochar processing permit shall:

(1) comply and, once a permit has been issued, maintain compliance, with any air contaminant and emissions requirements established by the department;

(2) comply with any inspection or audit requirement established by the department;

(3) comply with any reporting requirements established by the department; and

(4) maintain financial assurance, in the amount of no less than $150,000 per facility, to ensure that adequate funds are available for organic waste disposal and potential environmental mitigation. The financial assurance shall be in a form approved by the department, including, but not limited to, insurance, bonds, or other financial instruments. The department may assess the financial qualifications of a permitted biochar processing facility based on its financial statements and operational history and may determine an alternative amount of financial assurance that meets the same level of protection.

f. The department, in consultation with the Department of Agriculture, shall establish, through the biochar processing permit program, requirements for air pollution and solid waste control, which take into consideration the unique air contamination, soil toxicity, and emissions potentials of processed biochar, and which are distinct from:

(1) the air contaminant, fuel capacity, and facility class requirements of the "Air Pollution Control Act (1954)" (C.26:2C-2 et seq.);

(2) the matter composition and toxicity requirements of existing solid waste control rules; and

(3) existing volatile organic compound rules.

g. An application for a biochar processing permit or biochar processing permit renewal shall be accompanied by an application fee, to be established by the department, which shall be sufficient to cover all costs of processing the application and issuing the permit or permit renewal. The department may also determine an annual renewal fee, which shall be charged to a person or facility that qualifies for a biochar processing permit. The revenue from the annual fees shall be sufficient to cover all costs of administering and enforcing the biochar processing permit.

h. Any facility found processing biochar in a manner incongruous with the requirements of this act shall be subject to the penalties enumerated in section 4 of this act, as well as the suspension or revocation of their biochar processing permit.

4. a. Whenever the Commissioner of Environmental Protection finds that a person or facility has violated this act, or any rule or regulation adopted pursuant thereto, the commissioner may:

(1) issue an order requiring the person found to be in violation to comply in accordance with subsection b. of this section;

(2) bring a civil action in accordance with subsection c. of this section;

(3) levy a civil administrative penalty in accordance with subsection d. of this section; or

(4) bring an action for a civil penalty in accordance with subsection e. of this section.

b. Whenever the commissioner finds that a person or facility has violated any rule or regulation adopted pursuant to this act, the commissioner may issue an order specifying the rule or regulation adopted pursuant to this act, of which the person or facility is in violation, citing the action that constituted the violation, ordering abatement of the violation, and giving notice to the person or the facility of the right to a hearing on the matters contained in the order. The ordered person or facility shall have 20 calendar days from receipt of the order within which to deliver to the commissioner a written request for a hearing. After the hearing and upon finding that a violation has occurred, the commissioner may issue a final order. If no hearing is requested, the order shall become final after the expiration of the 20-day period. A request for hearing shall not automatically stay the effect of the order.

c. The commissioner may institute an action or proceeding in the Superior Court for injunctive and other relief to enforce the provisions of this act, and to prohibit and prevent a violation of any

rule or regulation adopted pursuant to this act, and the court may proceed in the action in a summary manner. In any such proceeding the court may grant temporary or interlocutory relief.

Such relief may include, singly or in combination:

(1) a temporary or permanent injunction;

(2) assessment of the violator for the reasonable costs of any inspection that led to the establishment of the violation, and for the reasonable costs of preparing and litigating the case under this subsection.

d. The commissioner may assess a civil administrative penalty of not more than $7,500 for a first offense, not more than $10,000 for a second offense, and not more than $15,000 for a third and every subsequent offense. Each day that a violation continues shall constitute an additional, separate, and distinct offense. No assessment may be levied pursuant to this section until after the violator has been notified by certified mail or personal service. The notice shall include a reference to the section of the statute, rule, regulation, or order violated, a concise statement of the facts alleged to constitute a violation, a statement of the amount of the civil administrative penalties to be imposed, and a statement of the person's right to a hearing. The ordered person or facility shall have 20 calendar days from receipt of the notice within which to deliver to the commissioner a written request for a hearing. After the hearing and upon finding that a violation has occurred, the commissioner may issue a final order, after assessing the amount of the fine specified in the notice. If no hearing is requested, the notice shall become a final order after the expiration of the 20-day period. Payment of the assessment is due when a final order is issued or the notice becomes a final order. The authority to levy a civil administrative penalty is in addition to all other enforcement provisions in this act, and the payment of any assessment shall not be deemed to affect the availability of any other enforcement provisions in connection with the violation for which the assessment is levied. The commissioner may compromise any civil administrative penalty assessed under this subsection in an amount the commissioner determines appropriate.

e. A person or facility that violates any rule or regulation adopted pursuant to this act shall be liable for a penalty of not more than $7,500 per day, to be collected in a civil action commenced by the commissioner. A person or facility that violates an administrative order issued pursuant to subsection b. of this section, or a court order issued pursuant to subsection c. of this section, or who fails to pay an administrative assessment in full pursuant to subsection d. of this section is subject upon order of a court to a civil penalty not to exceed $25,000 per day of each violation. Any penalty imposed pursuant to this subsection may be collected, with costs, in a summary proceeding pursuant to the “Penalty Enforcement Law of 1999,” P.L.1999, c.274 (C.2A:58-10 et seq.).

The Superior Court and the municipal court shall have jurisdiction to enforce the provisions of the "Penalty Enforcement Law of 1999" in connection with this act.

f. Pursuit of any of the remedies specified under this section shall not preclude the seeking of any other remedy specified.

5. The Commissioner of Environmental Protection, in consultation with the Secretary of Agriculture, shall in accordance with the "Administrative Procedure Act," P.L.1968, c.410 (C.52:14B-1 et seq.), adopt rules and regulations as necessary to implement this act.

6. This act shall take effect immediately.

STATEMENT

This bill would require, beginning 180 days of the date of enactment of the bill, any person or facility engaged in biochar processing to obtain a biochar processing permit.

The Department of Environmental Protection (department), in consultation with the Department of Agriculture, would be directed to adopt rules and regulations establishing a biochar processing permit. The biochar processing permit would allow the holder of a biochar permit to process biochar from clean cellulosic biomass. The Department of Environmental Protection would issue a biochar permit to any person or facility that qualifies for the permit, pursuant to the provisions of this bill, and that is compliant with any requirements established pursuant to this act.

An applicant for a permit would be required to provide the applicant's name, business location, and mailing address; the geographical area to be serviced for the term of the license, including a map and a list of zip codes in that area; an identification of clean cellulosic biomass sources to be used in biochar processing, and any additional requirements as determined appropriate by the department.

The Department of Environmental Protection would be directed to issue a biochar processing permit to an applicant after it, in consultation with the Department of Agriculture, has received, reviewed, and approved of an application for a biochar processing permit from the applicant. The department would review and approve of any application for a biochar processing permit within six months of receipt. The department would be authorized to deny an application for a permit or permit renewal if, based upon a review of application material, the processing facility would not meet the requirements established pursuant to this act.

The biochar processing permit, established by the bill, would require compliance with any air contaminant and emissions

regulations established by the departments; compliance with any inspection or audit requirements established by the departments; compliance with any reporting requirements established by the departments; and maintenance of financial assurance, to be made available for organic waste disposal and potential environmental mitigation.

The department, in consultation with the Department of Agriculture, would establish, through the biochar permit program, requirements for air pollution and solid waste control, which take into consideration the unique air contamination, soil toxicity, and emissions potentials of processed biochar, and which are distinct from: (1) the air contaminant, fuel capacity, and facility class requirements of the "Air Pollution Control Act (1954)"; (2) the matter composition and toxicity requirements of existing solid waste control rules; and (3) existing volatile organic compound rules.

Any person or facility found processing biochar in a manner incongruous with the requirements of this act would be subject to the penalties enumerated in section 4 of the act, as well as a permit suspension or revocation.

The bill includes penalty and enforcement provisions, authorizing the departments to establish legal recourses and financial penalties necessary to enforce compliance with any adopted rules and regulations. The bill would also authorize the department to establish an application fee and a renewal fee, sufficient to cover all costs of administering and enforcing the program.

The permitting process established in this bill is necessary to fully realize the soil health, energy generation, and economic benefits of the use of biochar in agriculture. Biochar application has been shown to improve soil fertility, increase crop yields between 10 and 42 percent, improve water quality, reduce soil erosion, and increase microbial activity. The production of biochar could enhance agricultural economic development and employment by providing a market for unused cellulosic biomass, contributing to agricultural resource reuse, and cultivating a circular energy economy.