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## SENATE BILL NO. 386

## AMENDMENT IN THE NATURE OF A SUBSTITUTE

(Proposed by the Senate Committee on Agriculture, Conservation and Natural Resources  
on February 10, 2026)

(Patron Prior to Substitute—Senator Stuart)

*A BILL to amend and reenact § 62.1-44.19:3 of the Code of Virginia, relating to owners of sewage treatment works; land application, marketing, or distribution of sewage sludge; perfluoroalkyl and polyfluoroalkyl substances; testing requirements.*

**Be it enacted by the General Assembly of Virginia:**

**1. That § 62.1-44.19:3 of the Code of Virginia is amended and reenacted as follows:**

**§ 62.1-44.19:3. Prohibition on land application, marketing, and distribution of sewage sludge without permit; ordinances; notice requirement; fees.**

A. 1. No owner of a sewage treatment works shall land apply, market, or distribute sewage sludge from such treatment works except in compliance with a valid Virginia Pollutant Discharge Elimination System Permit or valid Virginia Pollution Abatement Permit.

2. Sewage sludge shall be treated to meet standards for land application as required by Board regulation prior to delivery at the land application site. No person shall alter the composition of sewage sludge at a site approved for land application of sewage sludge under a Virginia Pollution Abatement Permit or a Virginia Pollutant Discharge Elimination System. Any person who engages in the alteration of such sewage sludge shall be subject to the penalties provided in Article 6 (§ 62.1-44.31 et seq.). The addition of lime or deodorants to sewage sludge that has been treated to meet land application standards shall not constitute alteration of the composition of sewage sludge. The Department may authorize public institutions of higher education to conduct scientific research on the composition of sewage sludge that may be applied to land.

3. No person shall contract or propose to contract, with the owner of a sewage treatment works, to land apply, market, or distribute sewage sludge in the Commonwealth, nor shall any person land apply, market, or distribute sewage sludge in the Commonwealth without a current Virginia Pollution Abatement Permit authorizing land application, marketing, or distribution of sewage sludge and specifying the location or locations, and the terms and conditions of such land application, marketing, or distribution. The permit application shall not be complete unless it includes the landowner's written consent to apply sewage sludge on his property.

4. The land disposal of lime-stabilized septage and unstabilized septage is prohibited.

5. Beginning July 1, 2007, no application for a permit or variance to authorize the storage of sewage sludge shall be complete unless it contains certification from the governing body of the locality in which the sewage sludge is to be stored that the storage site is consistent with all applicable ordinances. The governing body shall confirm or deny consistency within 30 days of receiving a request for certification. If the governing body does not so respond, the site shall be deemed consistent.

B. The Board, with the assistance of the Department of Conservation and Recreation and the Department of Health, shall adopt regulations to ensure that (i) sewage sludge permitted for land application, marketing, or distribution is properly treated or stabilized; (ii) land application, marketing, and distribution of sewage sludge is performed in a manner that will protect public health and the environment; and (iii) the escape, flow, or discharge of sewage sludge into state waters in a manner that would cause pollution of state waters, as those terms are defined in § 62.1-44.3, shall be prevented.

C. Regulations adopted by the Board, with the assistance of the Department of Conservation and Recreation and the Department of Health pursuant to subsection B, shall include:

1. Requirements and procedures for the issuance and amendment of permits, including general permits, authorizing the land application, marketing, or distribution of sewage sludge;

2. Procedures for amending land application permits to include additional application sites and sewage sludge types;

3. Standards for treatment or stabilization of sewage sludge prior to land application, marketing, or distribution;

4. Requirements for determining the suitability of land application sites and facilities used in land application, marketing, or distribution of sewage sludge;

5. Required procedures for land application, marketing, and distribution of sewage sludge;

6. Requirements for sampling, analysis, recordkeeping, and reporting in connection with land application, marketing, and distribution of sewage sludge;

7. Provisions for notification of local governing bodies to ensure compliance with §§ 62.1-44.15:3 and 62.1-44.19:3.4;

8. Requirements for site-specific nutrient management plans, which shall be developed by persons certified in accordance with § 10.1-104.2 prior to land application for all sites where sewage sludge is land

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applied, and approved by the Department of Conservation and Recreation prior to permit issuance under specific conditions, including but not limited to sites operated by an owner or lessee of a Confined Animal Feeding Operation, as defined in subsection A of § 62.1-44.17:1, or Confined Poultry Feeding Operation, as defined in § 62.1-44.17:1.1, sites where the permit authorizes land application more frequently than once every three years at greater than 50 percent of the annual agronomic rate, and other sites based on site-specific conditions that increase the risk that land application may adversely impact state waters;

9. Procedures for the prompt investigation and disposition of complaints concerning land application of sewage sludge, including the requirements that (i) holders of permits issued under this section shall report all complaints received by them to the Department and to the local governing body of the jurisdiction in which the complaint originates and (ii) localities receiving complaints concerning land application of sewage sludge shall notify the Department and the permit holder. The Department shall maintain a searchable electronic database of complaints received during the current and preceding calendar year, which shall include information detailing each complaint and how it was resolved;

10. Procedures for receiving and responding to public comments on applications for permits and for permit amendments authorizing land application at additional sites. Such procedures shall provide that an application for any permit amendments to increase the acreage authorized by the initial permit by 50 percent or more shall be treated as a new application for purposes of public notice and public hearings; and

11. Procedures for addressing administrative, staging, signage, and additional on-site and alternative storage site requirements when routine and on-site storage facility capacity and holding times are anticipated to be exceeded for the purpose of protecting against the release of sewage sludge into state waters, and to account for increased intensity, frequency, and duration of storm events.

D. Prior to issuance of a permit authorizing the land application, marketing, or distribution of sewage sludge, the Department shall consult with and give full consideration to the written recommendations of the Department of Health and the Department of Conservation and Recreation. Such consultation shall include any public health risks or water quality impacts associated with the permitted activity. The Department of Health and the Department of Conservation and Recreation may submit written comments on proposed permits within 30 days after notification by the Department.

E. Where, because of site-specific conditions, including soil type, identified during the permit application review process, the Department determines that special requirements are necessary to protect the environment or the health, safety, or welfare of persons residing in the vicinity of a proposed land application site, the Department may incorporate in the permit at the time it is issued reasonable special conditions regarding buffering, transportation routes, slope, material source, methods of handling and application, and time of day restrictions exceeding those required by the regulations adopted under this section. Before incorporating any such conditions into the permit, the Department shall provide written notice to the permit applicant, specifying the reasons therefor and identifying the site-specific conditions justifying the additional requirements. The Department shall incorporate into the notice any written requests or recommendations concerning such site-specific conditions submitted by the local governing body where the land application is to take place. The permit applicant shall have at least 14 days in which to review and respond to the proposed conditions.

F. The Board shall adopt regulations prescribing a fee to be charged to all permit holders and persons applying for permits and permit modifications pursuant to this section. All fees collected pursuant to this subsection shall be deposited into the Sludge Management Fund. The fee for the initial issuance of a permit shall be \$5,000. The fee for the reissuance, amendment, or modification of a permit for an existing site shall not exceed \$1,000 and shall be charged only for permit actions initiated by the permit holder. Fees collected under this section shall be exempt from statewide indirect costs charged and collected by the Department of Accounts and shall not supplant or reduce the general fund appropriation to the Department.

G. There is hereby established in the treasury a special fund to be known as the Sludge Management Fund, hereinafter referred to as the Fund. The fees required by this section and by subsection E of § 62.1-44.16 shall be transmitted to the Comptroller to be deposited into the Fund. The income and principal of the Fund shall be used only and exclusively (i) for the Department's direct and indirect costs associated with the processing of an application to issue, reissue, amend, or modify any permit to land apply, distribute, or market sewage sludge or industrial wastes, the administration and management of the Department's sewage sludge and industrial wastes land application programs, including monitoring and inspecting, and the Department of Conservation and Recreation's costs for implementation of the sewage sludge application program and (ii) to reimburse localities with duly adopted ordinances providing for the testing and monitoring of the land application of sewage sludge or solid or semisolid industrial wastes. The State Treasurer shall be the custodian of the moneys deposited in the Fund. No part of the Fund, either principal or interest earned thereon, shall revert to the general fund of the state treasury.

H. All persons holding or applying for a permit authorizing the land application of sewage sludge shall provide to the Board written evidence of financial responsibility, which shall be available to pay claims for cleanup costs, personal injury, and property damages resulting from the transportation, storage, or land application of sewage sludge. The Board shall, by regulation, establish and prescribe mechanisms for meeting

the financial responsibility requirements of this section.

I. Any ~~county, city, or town~~ locality may adopt an ordinance that provides for the testing and monitoring of the land application of sewage sludge within its political boundaries to ensure compliance with applicable laws and regulations.

J. The Department, upon the timely request of any individual to test the sewage sludge at a specific site, shall collect samples of the sewage sludge at the site prior to the land application and submit such samples to a laboratory. The testing shall include an analysis of the (i) concentration of trace elements, (ii) coliform count, and (iii) pH level. The results of the laboratory analysis shall be (a) furnished to the individual requesting that the test be conducted and (b) reviewed by the Department. The person requesting the test and analysis of the sewage sludge shall pay the costs of sampling, testing, and analysis.

K. At least 100 days prior to commencing land application of sewage sludge at a permitted site, the permit holder shall deliver or cause to be delivered written notification to the chief executive officer or his designee for the local government where the site is located. The notice shall identify the location of the permitted site and the expected sources of the sewage sludge to be applied to the site. This requirement may be satisfied by providing a list of all available permitted sites in the locality at least 100 days prior to commencing the application at any site on the list. This requirement shall not apply to any application commenced prior to October 10, 2005. If the site is located in more than one county, the notice shall be provided to all jurisdictions where the site is located.

L. The permit holder shall deliver or cause to be delivered written notification to the Department at least 14 days prior to commencing land application of sewage sludge at a permitted site. The notice shall identify the location of the permitted site and the expected sources of the sewage sludge to be applied to the site.

M. The Department shall randomly conduct unannounced site inspections while land application of sewage sludge is in progress at a sufficient frequency to determine compliance with the requirements of this section, § 62.1-44.19:3.1, or regulations adopted under those sections.

N. Surface incorporation into the soil of sewage sludge applied to cropland may be required when practicable and compatible with a soil conservation plan meeting the standards and specifications of the U.S. Department of Agriculture Natural Resources Conservation Service.

O. The Board shall develop regulations specifying and providing for extended buffers to be employed for application of sewage sludge (i) to hay, pasture, and forestlands or (ii) to croplands where surface incorporation is not practicable or is incompatible with a soil conservation plan meeting the standards and specifications of the U.S. Department of Agriculture Natural Resources Conservation Service. Such extended buffers may be included by the Department as site specific permit conditions pursuant to subsection E, as an alternative to surface incorporation when necessary to protect odor sensitive receptors as determined by the Department or the local monitor.

P. The Board shall adopt regulations requiring the payment of a fee for the land application of sewage sludge, pursuant to permits issued under this section. The person land applying sewage sludge shall (i) provide advance notice of the estimated fee to the generator of the sewage sludge unless notification is waived, (ii) collect the fee from the generator, and (iii) remit the fee to the Department as provided for by regulation. The fee shall be imposed on each dry ton of sewage sludge that is land applied in the Commonwealth. The regulations shall include requirements and procedures for:

1. Collection of fees by the Department;
2. Deposit of the fees into the Fund; and
3. Disbursement of proceeds by the Department pursuant to subsection G.

Q. The Department, in consultation with the Department of Health, the Department of Conservation and Recreation, the Department of Agriculture and Consumer Services, and the Virginia Cooperative Extension Service, shall establish and implement a program to train persons employed by those local governments that have adopted ordinances, pursuant to this section, to test and monitor the land application of sewage sludge. The program shall include, at a minimum, instruction in: (i) the provisions of the Virginia Biosolids Use Regulations; (ii) land application methods and equipment, including methods and processes for preparation and stabilization of sewage sludge that is land applied; (iii) sampling and chain of custody control; (iv) preparation and implementation of nutrient management plans for land application sites; (v) complaint response and preparation of complaint and inspection reports; (vi) enforcement authority and procedures; (vii) interaction and communication with the public; and (viii) preparation of applications for reimbursement of local monitoring costs disbursed pursuant to subsection G. To the extent feasible, the program shall emphasize in-field instruction and practical training. Persons employed by local governments shall successfully complete such training before the local government may request reimbursement from the Board for testing and monitoring of land application of sewage sludge performed by the person. The completion of training shall not be a prerequisite to the exercise of authority granted to local governments by any applicable provision of law.

The Department may:

1. Charge attendees a reasonable fee to recover the actual costs of preparing course materials and

providing facilities and instructors for the program. The fee shall be reimbursable from the Fund established pursuant to this section; and

2. Request and accept the assistance and participation of other state agencies and institutions in preparing and presenting the course of training established by this subsection.

R. Localities, as part of their zoning ordinances, may designate or reasonably restrict the storage of sewage sludge based on criteria directly related to the public health, safety, and welfare of its citizens and the environment. Notwithstanding any contrary provision of law, a locality may by ordinance require that a special exception or a special use permit be obtained to begin the storage of sewage sludge on any property in its jurisdiction, including any area that is zoned as an agricultural district or classification. Such ordinances shall not restrict the storage of sewage sludge on a farm as long as such sludge is being stored (i) solely for land application on that farm and (ii) for a period no longer than 45 days. No person shall apply to the State Health Commissioner or the Department of Environmental Quality for a permit, a variance, or a permit modification authorizing such storage without first complying with all requirements adopted pursuant to this subsection.

S. (Expires July 1, 2030) The permitting requirements of this article shall not apply to any land application of sewage sludge for a research project when such land is owned and operated by an institution of higher education in the Commonwealth. At least 30 days prior to commencing any land application of sewage sludge, the institution of higher education shall notify the Department and the owner of every adjoining property of its intent to land apply such sewage sludge. The institution of higher education shall comply with setback and recordkeeping requirements as outlined in the Virginia Pollution Abatement Permit Regulation (9VAC25-32). As used in this subsection, "institution of higher education" means a public institution of higher education, as that term is defined in § 23.1-100.

*T. Beginning January 1, 2027, any owner of a sewage treatment works land applying, marketing, or distributing sewage sludge in the Commonwealth shall collect representative samples of the finished sewage sludge product and have such samples analyzed by an accredited laboratory for PFAS, as that term is defined in § 62.1-44.34:29, using U.S. Environmental Protection Agency (EPA) Method 1633, an applicable EPA revision, or another method approved by the EPA that may be allowed by the Department. The minimum frequency of such sampling shall be monthly for the initial sampling period from January 1, 2027, through December 31, 2027, and thereafter may be reduced to not less frequently than quarterly upon the approval of the Department. Such owner shall provide the concentration results for PFOS and PFOA, as those terms are defined § 62.1-44.34:29, and all other target analytes from the analysis to the Department and any person land applying sewage sludge from the sewage treatment works within 10 days of receipt of such results.*

*U. Before January 1, 2029, if the analysis required under subsection T finds:*

*1. A combined PFOS and PFOA concentration in the sewage sludge of greater than or equal to 50 micrograms per kilogram, such sewage sludge shall not be land applied. The owner of the sewage treatment works shall arrange for alternative treatment, use, or disposal of such sewage sludge until a subsequent sample test result demonstrates a concentration of less than 50 micrograms per kilogram;*

*2. A combined PFOS and PFOA concentration in the sewage sludge of greater than or equal to 25 but less than 50 micrograms per kilogram, the permit holder shall reduce the application rate to 1.5 dry tons per acre, not to exceed the application rate required by the nutrient management plan, or submit to the Department for approval an alternative risk management strategy at least two weeks prior to land application in lieu of the reduced land application rate. Such permit holder shall reduce the application rate required in this subdivision until a subsequent sample test result demonstrates a concentration of less than 25 micrograms per kilogram. The permit holder shall send the concentrations for PFOS and PFOA demonstrating compliance with this subsection and the concentrations for all other target analytes required under subsection T in a reader-friendly format by email or mail to the landowner at every property at which the permit holder intends to land apply such sewage sludge at least two weeks prior to land application; or*

*3. A combined PFOS and PFOA concentration in the sewage sludge of less than 25 micrograms per kilogram, the permit holder may land apply such sewage sludge in accordance with its permit with no additional requirements. The permit holder shall send the concentrations for PFOS and PFOA demonstrating compliance with this subdivision and the concentrations for all other target analytes required under subsection T in a reader-friendly format by email or mail to the landowner at every property at which the permit holder intends to land apply such sewage sludge at least two weeks prior to land application.*

*When sewage sludge from two or more sewage sludge treatment works is blended prior to land application, the requirements of subdivisions 1, 2, and 3 shall be applied to the blended sewage sludge taking into account the concentrations and amounts of sewage sludge contributed by each sewage sludge treatment works.*

*V. On or after January 1, 2029, if the analysis required under subsection T finds:*

*1. A combined PFOS and PFOA concentration in the sewage sludge of greater than or equal to 25 micrograms per kilogram, such sewage sludge shall not be land applied. The owner of the sewage treatment works shall arrange for alternative treatment, use, or disposal of such sewage sludge until a subsequent sample test result demonstrates a concentration of less than 25 micrograms per kilogram;*

2. A combined PFOS and PFOA concentration in the sewage sludge of greater than or equal to 15 but less than 25 micrograms per kilogram, the permit holder shall reduce the application rate to 1.5 dry tons per acre, not to exceed the application rate required by the nutrient management plan, or submit to the Department for approval an alternative risk management strategy at least two weeks prior to land application in lieu of the reduced land application rate. Such permit holder shall reduce the application rate required in this subdivision until a subsequent sample test result demonstrates a concentration of less than 15 micrograms per kilogram. The permit holder shall send the concentrations for PFOS and PFOA demonstrating compliance with this subsection and the concentrations for all other target analytes required under subsection T in a reader-friendly format by email or mail to the landowner at every property at which the permit holder intends to land apply such sewage sludge at least two weeks prior to land application; or

3. A combined PFOS and PFOA concentration in the sewage sludge of less than 15 micrograms, the permit holder may land apply such sewage sludge in accordance with its permit with no additional requirements. The permit holder shall send the concentrations for PFOS and PFOA demonstrating compliance with this subdivision and the concentrations for all other target analytes required under subsection T in a reader-friendly format by email or mail to the landowner at every property at which the permit holder intends to land apply such sewage sludge at least two weeks prior to land application.

When sewage sludge from two or more sewage sludge treatment works is blended prior to land application, the requirements of subdivisions 1, 2, and 3 shall be applied to the blended sewage sludge taking into account the concentrations and amounts of sewage sludge contributed by each sewage sludge treatment works.

W. Any locality within the Eastern Virginia Groundwater Management Area or the Eastern Shore Groundwater Management Area may adopt by ordinance combined thresholds for PFOS and PFOA, as those terms are defined in § 62.1-44.34:29, above which land application of sewage sludge is prohibited that are more stringent than those provided in subdivisions U1 and V1.

2. That the Department of Environmental Quality shall modify all Virginia Pollution Abatement permits for the land application of sewage sludge and Virginia Pollutant Discharge Elimination System permits for sewage treatment works that include sewage sludge prepared for land application, marketing, or distribution as soon as practicable consistent with the provisions of § 62.1-44.19:3 of the Code of Virginia, as amended by this act. Such modification shall be deemed a minor modification and processed consistent with the procedures for a minor modification.

3. That the Department of Environmental Quality (the Department) shall convene a work group to study the occurrence of perfluoroalkyl and polyfluoroalkyl substances (PFAS) in sewage sludge intended for land application within the Commonwealth. Such work group shall consist of owners of sewage sludge treatment works, private companies that land apply, market, or distribute sewage sludge, relevant nonprofit organizations, and any other stakeholder the Department deems appropriate. The work group shall develop recommendations for (i) a PFAS sampling program for industrial residuals and industrial by-products that are land applied; (ii) a source reduction strategy for non-domestic dischargers when sewage sludge is found to contain PFOS and PFOA, as those terms are defined in § 62.1-44.34:29 of the Code of Virginia, in excess of 25 micrograms per kilogram; (iii) opportunities to expand biosolids management and disposal options in the Commonwealth; (iv) additional studies regarding PFAS in soils and groundwater; (v) any appropriate revisions to the concentration-based biosolids management tiers established by this act; (vi) additional studies or appropriate PFAS sampling programs for sewage sludge at Virginia Pollution Abatement permitted routine storage facilities and on farms; (vii) sharing sampling results with the public; and (viii) potential programs to assist farmers with increased fertilizer costs and to assist localities with biosolids disposal costs that result from this act. Such recommendations shall include the anticipated implementation date for any proposed program or action listed in clauses (i) through (viii). The Department shall report the recommendations of the work group to the Governor and the Chairs of the Senate Committee on Agriculture, Conservation and Natural Resources and House Committee on Agriculture, Chesapeake and Natural Resources by November 1, 2027. The work group shall also recommend a reader-friendly format for presenting the compliance data for PFOS and PFOA and other target analyte concentrations to landowners. The Department shall publish such recommendation by October 1, 2026.

4. That the provisions of the first enactment of this act shall become effective January 1, 2027.