

**STATE WATER CONTROL BOARD**  
**Amendment of Regulations Pertaining to Biosolids After**  
**Transfer from the Department of Health**

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**CHAPTER 32  
VIRGINIA POLLUTION ABATEMENT (VPA) PERMIT REGULATION**

**Part I  
General**

**9VAC25-32-10. Definitions.**

A. The following words and terms, when used in this chapter and in VPA permits issued under this chapter shall have the meanings defined in the State Water Control Law, unless the context clearly indicates otherwise and as follows:

"Active sewage sludge unit" means a sewage sludge unit that has not closed.

"Aerobic digestion" means the biochemical decomposition of organic matter in sewage sludge into carbon dioxide and water by microorganisms in the presence of air.

"Agricultural land" means land on which a food crop, a feed crop, or a fiber crop is grown. This includes range land and land used as pasture.

"Agronomic rate" means, in regard to biosolids, the whole sludge application rate (dry weight basis) designed: (i) to provide the amount of nitrogen needed by the food crop, feed crop, fiber crop, cover crop, or vegetation grown on the land and (ii) to minimize the amount of nitrogen in the biosolids that passes below the root zone of the crop or vegetation grown on the land to the groundwater.

"Anaerobic digestion" means the biochemical decomposition of organic matter in sewage sludge or biosolids into methane gas and carbon dioxide by microorganisms in the absence of air.

"Annual pollutant loading rate" or "APLR" means the maximum amount of a pollutant that can be applied to a unit area of land during a 365-day period.

"Annual whole sludge application rate" or "AWSAR" means the maximum amount of biosolids (dry weight basis) that can be applied to a unit area of land during a 365-day period.

"Apply biosolids" or "biosolids applied to the land" means land application of biosolids.

"Best Management Practices (BMP)" means a schedule of activities, prohibition of practices, maintenance procedures and other management practices to prevent or reduce the pollution of state waters. BMP's include treatment requirements, operating and maintenance procedures, schedule of activities, prohibition of activities, and other management practices to control plant site runoff, spillage, leaks, sludge or waste disposal, or drainage from raw material storage.

"Biosolids" means a sewage sludge that has received an established treatment and is managed in a manner to meet the required pathogen control and vector attraction reduction, and contains concentrations of regulated pollutants below the ceiling limits established in 40 CFR Part 503 and 9VAC25-32-660, such that it meets the standards established for use of biosolids for land application, marketing, or distribution in accordance with this regulation. Liquid biosolids contains less than 15% dry residue by weight. Dewatered biosolids contains 15% or more dry residue by weight.

"Board" means the Virginia State Water Control Board or State Water Control Board.

"Bulk biosolids" means biosolids that are not sold or given away in a bag or other container for application to the land.

"Bypass" means intentional diversion of waste streams from any portion of a treatment works.

"Concentrated confined animal feeding operation" means an animal feeding operation at which:

1. At least the following number and types of animals are confined:
  - a. 300 slaughter and feeder cattle;
  - b. 200 mature dairy cattle (whether milked or dry cows);
  - c. 750 swine each weighing over 25 kilograms (approximately 55 pounds);
  - d. 150 horses;
  - e. 3,000 sheep or lambs;
  - f. 16,500 turkeys;
  - g. 30,000 laying hens or broilers; or
  - h. 300 animal units; and
2. Treatment works are required to store wastewater, or otherwise prevent a point source discharge of wastewater pollutants to state waters from the animal feeding operation except in the case of a storm event greater than the 25-year, 24-hour storm.

"Confined animal feeding operation" means a lot or facility together with any associated treatment works where the following conditions are met:

1. Animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period; and
2. Crops, vegetation forage growth, or post-harvest residues are not sustained over any portion of the operation of the lot or facility.

"Critical areas" and "critical waters" means areas and waters in proximity to shellfish waters, a public water supply, or recreation or other waters where health or water quality concerns are identified by the Department of Health.

"Cumulative pollutant loading rate" means the maximum amount of an inorganic pollutant that can be applied to an area of land.

"Density of microorganisms" means the number of microorganisms per unit mass of total solids (dry weight) in the sewage sludge.

"Department" means the Department of Environmental Quality.

"Director" means the Director of the Department of Environmental Quality, or an authorized representative.

"Discharge" means, when used without qualification, a discharge of a pollutant.

"Discharge of a pollutant" means any addition of any pollutant or combination of pollutants to state waters or waters of the contiguous zone or ocean other than discharge from a vessel or other floating craft when being used as a means of transportation.

"Domestic septage" means either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap at a restaurant.

"Domestic sewage" means waste and wastewater from humans or household operations that is discharged to or otherwise enters a treatment works.

"Draft VPA permit" means a document indicating the board's tentative decision to issue, deny, modify, revoke and reissue, terminate or reissue a VPA permit. A notice of intent to terminate a VPA permit and a notice of intent to deny a VPA permit are types of draft VPA permits. A denial of a request for modification, revocation and reissuance or termination is not a draft VPA permit.

"Dry tons" means dry weight established as representative of land applied biosolids and expressed in units of English tons.

"Dry weight" means the measured weight of a sample of sewage sludge or biosolids after all moisture has been removed in accordance with the standard methods of testing and often represented as percent solids.

"Dry weight basis" means calculated on the basis of having been dried at 105°C until reaching a constant mass (i.e., essentially 100% solids content).

"Exceptional quality biosolids" means biosolids that have received an established level of treatment for pathogen control and vector attraction reduction and contain known levels of pollutants, such that they may be marketed or distributed for public use in accordance with this regulation.

"Facilities" means, in regard to biosolids, processes, equipment, storage devices and dedicated sites, located or operated separately from a treatment works, utilized for sewage sludge management including, but not limited to, handling, treatment, transport, and storage of biosolids.

"Feed crops" means crops produced primarily for consumption by animals.

"Fiber crops" means crops produced primarily for the manufacture of textiles, such as flax and cotton.

"Field" means an area of land within a site where land application is proposed or permitted.

"Food crops" means crops produced primarily for consumption by humans. These include, but are not limited to, fruits, vegetables, and tobacco.

"Forest" means a tract of land thick with trees and underbrush.

"General VPA permit" means a VPA permit issued by the board authorizing a category of pollutant management activities.

"Generator" means the owner of a sewage treatment works that produces sewage sludge and biosolids.

"Groundwater" means water below the land surface in the saturated zone.

"Industrial wastes" means liquid or other wastes resulting from any process of industry, manufacture, trade, or business, or from the development of any natural resources.

"Land application" means, in regard to biosolids, the distribution of either treated wastewater, referred to as "effluent," or stabilized sewage sludge, referred to as "biosolids," by spreading or spraying on the surface of the land, injecting below the surface of the land, or incorporating into the soil with a uniform application rate for the purpose of fertilizing the crops and vegetation or conditioning the soil. Sites approved for land application of biosolids in accordance with this regulation are not to be considered to be treatment works. Bulk disposal of stabilized sludge in a confined area, such as in landfills, is not land application. For the purpose of this regulation, the use of biosolids in agricultural research and the distribution and marketing of exceptional quality biosolids are not land application.

"Land application area" means, in regard to biosolids, the area in the permitted field, excluding the setback areas, where biosolids may be applied.



"Land applier" means someone who land applies biosolids pursuant to a valid permit from the department as set forth in this regulation.

"Land with a high potential for public exposure" means land that the public uses frequently. This includes, but is not limited to, a public contact site and a reclamation site located in a populated area (e.g., a construction site located in a city).

"Land with a low potential for public exposure" means land that the public uses infrequently. This includes, but is not limited to, agricultural land, forest, and a reclamation site located in an unpopulated area (e.g., a strip mine located in a rural area).

"Limitation" means any restriction imposed on quantities, rates or concentration of pollutants which are managed by pollutant management activities.

"Liner" means soil or synthetic material that has a hydraulic conductivity of  $1 \times 10^{-7}$  centimeters per second or less.

"Local monitor" means a person or persons employed by a local government to perform the duties of monitoring the operations of land appliers pursuant to a local ordinance.

"Local ordinance" means an ordinance adopted by counties, cities, or towns in accordance with § 62.1-44.19:3 of the Code of Virginia.

"Malodor" means an unusually strong or offensive odor associated with biosolids or sewage sludge as distinguished from odors commonly associated with biosolids or sewage sludge.

"Monitoring report" means forms supplied by the department for use in reporting of self-monitoring results of the permittee.

"Monthly average" means the arithmetic mean of all measurements taken during the month.

"Municipality" means a city, county, town, district association, or other public body (including an intermunicipal agency of two or more of the foregoing entities) created by or under state law; an Indian tribe or an authorized Indian tribal organization having jurisdiction over sewage sludge or biosolids management; or a designated and approved management agency under § 208 of the federal Clean Water Act, as amended. The definition includes a special district created under state law, such as a water district, sewer district, sanitary district, utility district, drainage district, or similar entity; or an integrated waste management facility as defined in § 201(e) of the federal Clean Water Act, as amended, that has as one of its principal responsibilities the treatment, transport, use, or disposal of sewage sludge or biosolids.

"Nonpoint source" means a source of pollution, such as a farm or forest land runoff, urban storm water runoff or mine runoff that is not collected or discharged as a point source.

"Odor sensitive receptor" means, in the context of land application of biosolids, any health care facility, such as hospitals, convalescent homes, etc. or a building or outdoor facility regularly used to host or serve large groups of people such as schools, dormitories, or athletic and other recreational facilities.

"Operate" means the act of any person who may have an impact on either the finished water quality at a waterworks or the final effluent at a sewage treatment works, such as to (i) place into or take out of service a unit process or unit processes, (ii) make or cause adjustments in the operation of a unit process or unit processes at a treatment works, or (iii) manage sewage sludge or biosolids.

"Operator" means any individual employed or appointed by any owner, and who is designated by such owner to be the person in responsible charge, such as a supervisor, a shift operator, or a substitute in charge, and whose duties include testing or evaluation to control waterworks or wastewater works operations. Not included in this definition are superintendents or directors of public works, city engineers, or other municipal or industrial officials whose duties do not include the actual operation or direct supervision of waterworks or wastewater works.

"Other container" means either an open or closed receptacle. This includes, but is not limited to, a bucket, a box, a carton, and a vehicle or trailer with a load capacity of one metric ton or less.

"Overflow" means the unintentional discharge of wastes from any portion of a treatment works.

"Owner" means the Commonwealth or any of its political subdivisions including sanitary districts, sanitation district commissions and authorities; federal agencies; any individual; any group of individuals acting individually or as a group; or any public or private institution, corporation, company, partnership, firm, or association that owns or proposes to own a sewerage system or treatment works as defined in § 62.1-44.3 of the Code of Virginia.

"Pasture" means land on which animals feed directly on feed crops such as legumes, grasses, grain stubble, or stover.

"Pathogenic organisms" means disease-causing organisms. These include, but are not limited to, certain bacteria, protozoa, viruses, and viable helminth ova.

"Permittee" means an owner or operator who has a currently effective VPA permit issued by the board or the department.

"Person who prepares biosolids" means either the person who generates biosolids during the treatment of domestic sewage in a treatment works or the person who derives the material from sewage sludge.

"pH" means the logarithm of the reciprocal of the hydrogen ion concentration measured at 25°C or measured at another temperature and then converted to an equivalent value at 25°C.

"Place sewage sludge" or "sewage sludge placed" means disposal of sewage sludge on a surface disposal site.

"Point source" means any discernible, defined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, vessel or other floating craft, from which pollutants are or may be discharged. This term does not include return flows from irrigated agricultural land.

"Pollutant" means, in regard to wastewater, any substance, radioactive material, or heat which causes or contributes to, or may cause or contribute to, pollution. It does not mean (i) sewage from vessels; or (ii) water, gas, or other material which is injected into a well to facilitate production of oil or gas, or water derived in association with oil or gas production and disposed of in a well, if the well is used either to facilitate production or for disposal purposes if approved by Department of Mines Minerals and Energy unless the board determines that such injection or disposal will result in the degradation of ground or surface water resources.

"Pollutant" means, in regard to sewage sludge or biosolids, an organic substance, an inorganic substance, a combination of organic and inorganic substances, or a pathogenic organism that, after discharge and upon exposure, ingestion, inhalation, or assimilation into an organism either directly from the environment or indirectly by ingestion through the food chain, could, on the basis of information available to the board, cause death, disease, behavioral abnormalities, cancer, genetic mutations, physiological malfunctions (including malfunction in reproduction), or physical deformations in either organisms or offspring of the organisms.

"Pollutant limit" means a numerical value that describes the amount of a pollutant allowed per unit amount of biosolids (e.g., milligrams per kilogram of total solids), the amount of a pollutant that can be applied to a unit area of land (e.g., kilograms per hectare), or the volume of a material that can be applied to a unit area of land (e.g., gallons per acre).

"Pollutant management activity" means a treatment works with a potential or actual discharge to state waters, but which does not have a point source discharge to surface waters.

"Pollution" means such alteration of the physical, chemical, or biological properties of any state waters or soil as will, or is likely to, create a nuisance or render such waters or soil: (i) harmful or detrimental or injurious to the public health, safety, or welfare or to the health of animals, fish, or aquatic life; (ii) unsuitable despite reasonable treatment for use as present or possible future sources of public water supply; or (iii) unsuitable for recreational, commercial, industrial, agricultural, or other reasonable uses. Such alteration is also deemed to be pollution, if there occurs: (a) an alteration of the physical, chemical, or biological property of state waters or soil, or a discharge or a deposit of sewage, industrial wastes, or other wastes to state waters or soil by any owner which by itself is not sufficient to cause pollution, but which, in combination with such alteration of, or discharge, or deposit, to state waters or soil by other owners, is sufficient to cause pollution; (b) the discharge of untreated sewage by any owner into state waters or soil; or (c) the contravention of standards of air or water quality duly established by the board.

"Primary sludge" means sewage sludge removed from primary settling tanks that is readily thickened by gravity thickeners.

"Privately owned treatment works (PVOTW)" means any sewage treatment works not publicly owned.

"Process" means a system, or an arrangement of equipment or other devices that remove from waste materials pollutants including, but not limited to, a treatment works or portions thereof.

"Public contact site" means land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, and golf courses.

"Publicly owned treatment works (POTW)" means any sewage treatment works that is owned by a state or municipality. Sewers, pipes, or other conveyances are included in this definition only if they convey wastewater to a POTW providing treatment.

"Public hearing" means a fact-finding proceeding held to afford interested persons an opportunity to submit factual data, views, and arguments to the board.

"Reclamation site" means drastically disturbed land that is reclaimed using biosolids. This includes, but is not limited to, strip mines and construction sites.

"Reimbursement application" means forms approved by the department to be used to apply for reimbursement of local monitoring costs for land application of biosolids in accordance with a local ordinance.

"Run-off" means rainwater, leachate, or other liquid that drains overland on any part of a land surface and runs off of the land surface.

"Schedule of compliance" means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with the federal Clean Water Act (33 USC 1251 et seq.), the law, and board regulations, standards and policies.

"Setback area" means the area of land between the boundary of the land application area and adjacent features where biosolids or other managed pollutants may not be land applied.

"Sewage" means the water-carried and nonwater-carried human excrement, kitchen, laundry, shower, bath, or lavatory wastes, separately or together with such underground, surface, storm, and other water and liquid industrial wastes as may be present from residences, buildings, vehicles, industrial establishments, or other places.

"Sewage sludge" means any solid, semisolid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit

and screenings generated during preliminary treatment of domestic sewage in a treatment works.

"Sewage sludge unit" means land on which only sewage sludge is placed for final disposal. This does not include land on which sewage sludge is either stored or treated. Land does not include surface waters.

"Sewage sludge use or disposal" means the collection, storage, treatment, transportation, processing, monitoring, use, or disposal of sewage sludge.

"Site" means the area of land within a defined boundary where an activity is proposed or permitted.

"Sludge" means solids, residues, and precipitates separated from or created by the unit processes of a treatment works.

"Sludge management" means the treatment, handling, transportation, storage, use, distribution, or disposal of sewage sludge.

"Specific oxygen uptake rate" or "SOUR" means the mass of oxygen consumed per unit time per mass of total solids (dry weight basis) in the sewage sludge.

"State waters" means all water on the surface or under the ground wholly or partially within or bordering the state or within its jurisdiction.

"State Water Control Law (law)" means Chapter 3.1 (§ 62.1-44.2 et seq.) of Title 62.1 of the Code of Virginia.

"Store sewage sludge" or "storage of sewage sludge" means the placement of sewage sludge on land on which the sewage sludge remains for two years or less. This does not include the placement of sewage sludge on land for treatment.

"Substantial compliance" means designs and practices that do not exactly conform to the standards set forth in this chapter as contained in documents submitted pursuant to 9VAC25-32-340, but whose construction or implementation will not substantially affect health considerations or performance.

"Supernatant" is a liquid obtained from separation of suspended matter during sludge treatment or storage.

"Surface disposal site" means an area of land that contains one or more active sewage sludge units.

"Surface water" means:

1. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters, including interstate "wetlands";
3. All other waters such as inter/intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, "wetlands," sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
  - a. Which are or could be used by interstate or foreign travelers for recreational or other purposes;
  - b. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
  - c. Which are used or could be used for industrial purposes by industries in interstate commerce;

4. All impoundments of waters otherwise defined as surface waters of the United States under this definition;
5. Tributaries of waters identified in subdivisions 1 through 4 of this definition;
6. The territorial sea; and
7. "Wetlands" adjacent to waters, other than waters that are themselves wetlands, identified in subdivisions 1 through 6 of this definition.

"Total solids" means the materials in sewage sludge that remain as residue when the sewage sludge is dried to 103°C to 105°C.

"Toxic pollutant" means any pollutant listed as toxic under § 307 (a)(1) of the CWA or, in the case of "sludge use or disposal practices," any pollutant identified in regulations implementing § 405 (d) of the CWA.

"Toxicity" means the inherent potential or capacity of a material to cause adverse effects in a living organism, including acute or chronic effects to aquatic life, detrimental effects on human health, or other adverse environmental effects.

"Treatment facility" means only those mechanical power driven devices necessary for the transmission and treatment of pollutants (e.g., pump stations, unit treatment processes).

"Treat sewage sludge" or "treatment of sewage sludge" means the preparation of sewage sludge for final use or disposal. This includes, but is not limited to, thickening, stabilization, and dewatering of sewage sludge. This does not include storage of sewage sludge.

"Treatment works" means either a federally owned, publicly owned, or privately owned device or system used to treat (including recycle and reclaim) either domestic sewage or a combination of domestic sewage and industrial waste of a liquid nature. Treatment works may include but are not limited to pumping, power, and other equipment and their appurtenances; septic tanks; and any works, including land, that are or will be (i) an integral part of the treatment process or (ii) used for ultimate disposal of residues or effluents resulting from such treatment. "Treatment works" does not include biosolids use on privately owned agricultural land.

"Twenty-five-year, 24-hour storm event" means the maximum 24-hour precipitation event with a probable recurrence interval of once in 25 years as established by the National Weather Service or appropriate regional or state rainfall probability information.

"Unstabilized solids" means organic materials in sewage sludge that have not been treated in either an aerobic or anaerobic treatment process.

"Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology-based permit limitations because of factors beyond the permittee's reasonable control. An upset does not include noncompliance caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

"Use" means to manage or recycle a processed waste product in a manner so as to derive a measurable benefit as a result of such management.

"Variance" means a conditional approval based on a waiver of specific regulations to a specific owner relative to a specific situation under documented conditions for a specified period of time.

"Vector attraction" means the characteristic of biosolids or sewage sludge that attracts rodents, flies, mosquitoes, or other organisms capable of transporting infectious agents.

"Vegetated buffer" means a permanent strip of dense perennial vegetation established parallel to the contours of and perpendicular to the dominant slope of the field for the purposes of slowing water runoff, enhancing water infiltration, and minimizing the risk of any potential nutrients or pollutants from leaving the field and reaching surface waters.

"Virginia Pollution Abatement (VPA) permit" means a document issued by the board, pursuant to this chapter, authorizing pollutant management activities under prescribed conditions.

"Virginia Pollutant Discharge Elimination System (VPDES) permit" means a document issued by the board pursuant to 9VAC25-31-10 et seq., authorizing, under prescribed conditions, the potential or actual discharge of pollutants from a point source to surface waters.

"Volatile solids" means the amount of the total solids in sewage sludge lost when the sewage sludge is combusted at 550°C in the presence of excess air.

"VPA application" means the standard form or forms approved by the board for applying for a VPA permit.

"Water quality standards" means the narrative statements for general requirements and numeric limits for specific requirements that describe the water quality necessary to meet and maintain reasonable and beneficial uses. Such standards are established by the board under § 62.1-44.15 (3a) of the Code of Virginia.

B. Generally used technical terms not defined in subsection A of this section or the department's latest definitions of technical terms as used to implement § 62.1-44.15 of the Code of Virginia shall be defined in accordance with "Glossary-Water and Wastewater Control Engineering" published by the American Public Health Association (APHA), American Society of Civil Engineers (ASCE), American Water Works Association (AWWA), and the Water Environment Federation (WEF).

#### **9VAC25-32-20. Purpose.**

This regulation delineates the procedures and requirements to be followed in connection with VPA permits issued by the board pursuant to the State Water Control Law.

#### **9VAC25-32-30. Requirements and prohibitions.**

A. All pollutant management activities covered under a VPA permit shall maintain no point source discharge of pollutants to surface waters except in the case of a storm event greater than the 25-year, 24-hour storm.

B. Except in compliance with a VPA permit, or another permit issued by the board, it shall be unlawful for any person to:

1. Discharge into, or adjacent to, state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances; or
2. Otherwise alter the physical, chemical or biological properties of such state waters and make them detrimental to the public health, or to animal or aquatic life, or to the use of such waters for domestic or industrial consumption, or for recreation, or for other uses.

C. Any person required to obtain a permit pursuant to this chapter who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of subsection B of this section; or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of subsection B of this section shall notify the department of the discharge immediately upon discovery of the discharge and, in any event, no later than 24 hours after the discovery. A written report of the unauthorized discharge shall be submitted by the owner, to the department, within five days of discovery of the discharge.

1. The written report shall contain:
  - a. A description of the nature of the discharge;

- b. The cause of the discharge;
  - c. The date on which the discharge occurred;
  - d. The length of time that the discharge continued;
  - e. The volume of the discharge;
  - f. If the discharge is continuing, how long it is expected to continue;
  - g. If the discharge is continuing, what the expected total volume of the discharge will be; and
  - h. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by the permit.
2. Discharges reportable to the department under the immediate reporting requirements of other regulations are exempted from this requirement.
- D. VPA permits may be utilized to authorize pollutant management activities including, but not limited to, animal feeding operations, storage or land application of sewage, sludge, biosolids, industrial waste or other waste; or the complete reuse or recycle of wastewater. Point source discharges of pollutants to surface waters may be authorized by a VPDES permit (See 9VAC25-31, VPDES Permit Regulation).
- E. No VPA permit shall be issued in the following circumstances:
- 1. Where the terms or conditions of the VPA permit do not comply with the applicable regulations or requirements of the law;
  - 2. For the discharge of any radiological, chemical or biological warfare agent or high level radioactive material into state waters; or
  - 3. For any pollutant management activity that is in conflict with any area-wide or basin-wide water quality control and waste management plan or policy established by the board pursuant to the law.

**9VAC25-32-40. Exclusions.**

The following do not require a VPA permit:

- 1. The introduction of sewage, industrial waste or other pollutants into publicly owned treatment works by indirect dischargers. Plans or agreements to switch to this method of disposal in the future do not relieve dischargers of the obligation to have and comply with VPA permits until all discharges of pollutants to state waters are eliminated;
- 2. Any introduction of pollutants from nonpoint source agricultural or silvicultural activities, including runoff from orchards, cultivated crops, pastures, range lands, and forest lands, except that this exclusion shall not apply to concentrated confined animal feeding operations;
- 3. Return flows from irrigated agricultural land;
- 4. Land disposal activity, including biosolids use or sewage sludge disposal or onsite waste treatment, when this activity is otherwise authorized by the department;
- 5. Land disposal activity, including onsite waste treatment, when this activity is authorized by a Virginia Department of Health permit; and
- 6. Discharges authorized by EPA under the Safe Drinking Water Act Underground Injection Control Program (UIC), 40 CFR Part 144, and approved, in writing, by the board.

**9VAC25-32-50. Effect of a VPA permit.**

A. Compliance with a VPA permit constitutes compliance with the VPA permit requirements of the law.

B. The issuance of a VPA permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights or any infringement of federal, state or local law or regulation.

Part II

Permit Application and Issuance

**9VAC25-32-60. Application for a VPA permit.**

A. Duty to apply. Any owner of a pollutant management activity who does not have an effective VPA permit, except persons covered by general VPA permits or excluded under 9VAC25-32-40, shall submit a complete application to the department in accordance with this section.

B. Time to apply.

1. Any owner proposing a new pollutant management activity shall submit an application for a VPA permit 180 days prior to the date planned for commencing erection, construction or expansion or employment of new processes at any site. There shall be no operation of said facilities prior to the issuance of a VPA permit.

2. Any owner with an existing pollutant management activity that has not been permitted shall submit an application within 60 days upon being requested to by the board. The board, after determining there is pollution occurring, may allow the construction of treatment works prior to permit issuance. There shall be no operation of said treatment works prior to permit issuance.

3. Owners currently managing pollutants who have effective VPA permits shall submit a new application 180 days prior to proposed facility expansions, production increases, or process modification which will:

a. Result in significantly new or substantially increased amounts of pollutants being managed or a significant change in the nature of the pollutant management activity that was not anticipated and accounted for on the application for the effective VPA permit; or

b. Violate or lead to violation of the terms and conditions of the effective VPA permit.

C. Duty to reapply. Any permittee with an effective VPA permit shall submit a new application at least 180 days before the expiration date of the effective VPA permit unless permission for a later date has been granted by the board. Permission shall not be granted to submit an application later than the expiration date of the existing VPA permit.

D. Completeness.

1. A complete VPA permit application shall be submitted by the owner of the pollutant management activity before a VPA permit can be issued. The permit application may be submitted as a hard copy or electronically with a hard copy signature page. This item does not apply where general VPA permits are applicable.

2. The board may require the submission of additional information after an application has been filed, and may suspend processing of any application until such time as the owner has supplied missing or deficient information and the board considers the application complete. Further, when the owner becomes aware that he omitted one or more relevant facts from a VPA permit application, or submitted incorrect information in



a VPA permit application or in any report to the department, he shall promptly submit such facts or the correct information.

3. In accordance with § 62.1-44.19:3 A of the Code of Virginia, no application for a permit or variance to authorize the storage of biosolids shall be complete unless it contains certification from the governing body of the locality in which the biosolids 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.

4. No application for a permit to land apply biosolids in accordance with Part IX (9VAC25-32-303 et seq.) of this chapter shall be complete unless it includes the written consent of the landowner to apply biosolids on his property.

5. Pursuant to § 62.1-44.15:3 of the Code of Virginia, no application for a VPA permit from a privately owned treatment works serving, or designed to serve, 50 or more residences shall be considered complete unless the applicant has provided the department with notification from the State Corporation Commission that the applicant is incorporated in the Commonwealth and is in compliance with all regulations and relevant orders of the State Corporation Commission.

E. Information requirements. All applicants for VPA permits shall provide information to the department using the most current application forms provided by the board.

F. Application for the authorization to land apply biosolids. All persons applying to land apply biosolids must provide the information in this subsection to the department using an application form approved by the department. New applicants must submit all information available at the time of permit application. The information may be provided by referencing information previously submitted to the department. The board may waive any requirement of this subsection if it has access to substantially identical information. The board may also waive any requirement of this subsection that is not of material concern for a specific permit.

1. General information.

a. Legal name and address.

b. Owner contact information including:

(1) Name;

(2) Mailing address;

(3) Telephone number; and

(4) Email address.

c. A general description of the proposed activity including:

(1) Name and location of generators involved and their owners;

(2) Biosolids quality and the generator's biosolids treatment and handling processes;

(3) Generator's odor control plan, that contains at minimum:

(a) Methods used to minimize odor in producing biosolids;

(b) Methods used to identify malodorous biosolids before land application (at the generating facility);

(c) Methods used to identify and abate malodorous biosolids if delivered to the field, prior to land application; and

(d) Methods used to abate malodor from biosolids if land applied;

(4) Means of biosolids transport or conveyance;

(5) Location and volume of storage proposed;

- (6) A description of field staging methods;
- (7) General location of sites proposed for application, and
- (8) Methods of biosolids application proposed.

d. Written permission of landowners on the most current form approved by the board and pertinent lease agreements as may be necessary for operation of the treatment works.

e. Methods for notification of local government and obtaining compliance with local government zoning and applicable ordinances.

f. A copy of a letter of approval of the nutrient management plan for the operation from the Department of Conservation and Recreation if required in subdivision 3 b of this subsection.

## 2. Design information.

a. Biosolids characterization. For each source of biosolids that the applicant proposes to land apply, the applicant must submit biosolids monitoring data for the pollutants for which limits in biosolids have been established in Part IX (9VAC25-32-303 et seq.) of this chapter, for the applicant's use or disposal practices on the date of permit application with the following conditions:

(1) When applying for authorization to land apply a biosolids source not previously included in a VPDES or VPA permit, the biosolids shall be sampled and analyzed for PCBs. The sample results shall be submitted with the permit application or request to add the source;

(2) The board may require sampling for additional pollutants, as appropriate, on a case-by-case basis;

(3) Applicants must provide:

(a) Biosolids analytical data from a minimum of three samples taken within four and one-half years prior to the date of the permit application. Samples must be representative of the biosolids and should be taken at least one month apart. Existing data may be used in lieu of sampling done solely for the purpose of this application. The department may reduce the number of samples collected based on site specific conditions;

(b) The total dry tons per 365-day period of biosolids subject to this subsection that is applied to the land; and

(c) A statement that the biosolids is nonhazardous; a documentation statement for treatment and quality; and a description of how treated biosolids meets other standards in accordance with this regulation;

(4) Samples shall be collected and analyzed in accordance with analytical methods specified in 40 CFR Part 503 (March 26, 2007) and 40 CFR Part 136 (March 26, 2007); and

(5) The monitoring data provided must include at least the following information for each parameter:

(a) Average monthly concentration for all samples (mg/kg dry weight), based upon actual sample values;

(b) Analytical method used; and

(c) Method detection level.

b. Storage facilities. Plans and specifications for storage facilities of all biosolids to be handled, including routine and on-site storage, shall be submitted for the issuance

of a certificate to construct and a certificate to operate in accordance with the Sewage Collection and Treatment Regulations (9VAC25-790) and shall depict the following information:

- (1) Site layout on a recent 7.5 minute topographic quadrangle or other appropriate scaled map;
  - (2) Location of any required soil, geologic, and hydrologic test holes or borings;
  - (3) Location of the following field features within 0.25 miles of the site boundary (indicate on map) with the approximate distance from the site boundary:
    - (a) Water wells (operating or abandoned);
    - (b) Surface waters;
    - (c) Springs;
    - (d) Public water supplies;
    - (e) Sinkholes;
    - (f) Underground and surface mines;
    - (g) Mine pool (or other) surface water discharge points;
    - (h) Mining spoil piles and mine dumps;
    - (i) Quarries;
    - (j) Sand and gravel pits;
    - (k) Gas and oil wells;
    - (l) Diversion ditches;
    - (m) Occupied dwellings, including industrial and commercial establishments;
    - (n) Landfills and dumps;
    - (o) Other unlined impoundments;
    - (p) Septic tanks and drainfields; and
    - (q) Injection wells.
  - (4) Topographic map (10-foot contour preferred) of sufficient detail to clearly show the following information:
    - (a) Maximum and minimum percent slopes;
    - (b) Depressions on the site that may collect water;
    - (c) Drainage ways that may attribute to rainfall run-on to or runoff from the site; and
    - (d) Portions of the site (if any) that are located within the 100-year floodplain;
  - (5) Data and specifications for the liner proposed for seepage control;
  - (6) Scaled plan view and cross-sectional view of the facilities showing inside and outside slopes of all embankments and details of all appurtenances;
  - (7) Calculations justifying impoundment capacity; and
  - (8) Groundwater monitoring plans for facilities if required by the department. The groundwater monitoring plan shall include pertinent geohydrological data to justify upgradient and downgradient well location and depth.
- c. Staging. Generic plans for staging of biosolids.
- d. Land application sites:
- (1) DEQ control number, if previously assigned, identifying each land application field. If a DEQ control number has not been assigned, provide the site identification code used by the permit applicant to report activities and the site's location;

- (2) The site's latitude and longitude in decimal degrees to three decimal places and the method of determination;
- (3) A legible topographic map and aerial photograph, including legend, of proposed application areas to scale as needed to depict the following features:
  - (a) Property boundaries;
  - (b) Surface water courses;
  - (c) Water supply wells and springs;
  - (d) Roadways;
  - (e) Rock outcrops;
  - (f) Slopes;
  - (g) Frequently flooded areas (National Resources Conservation Service (NRCS) designation);
  - (h) Occupied dwellings within 400 feet of the property boundaries and all existing dwelling and property line setback distances;
  - (i) Publicly accessible properties and occupied buildings within 400 feet of the property boundaries and the associated extended setback distances; and
  - (j) The gross acreage of the fields where biosolids will be applied;
- (4) County map or other map of sufficient detail to show general location of the site and proposed transport vehicle haul routes to be utilized from the treatment plant;
- (5) County tax maps labeled with Tax Parcel ID or IDs for each farm to be included in the permit, which may include multiple fields to depict properties within 400 feet of the field boundaries;
- (6) A USDA soil survey map, if available, of proposed sites for land application of biosolids;
- (7) The name, mailing address, and telephone number of each site owner, if different from the applicant;
- (8) The name, mailing address, and telephone number of the person who applies biosolids to the site, if different from the applicant;
- (9) Whether the site is agricultural land, forest, a public contact site, or a reclamation site, as such site types are defined in 9VAC25-32-10;
- (10) Description of agricultural practices including a list of proposed crops to be grown;
- (11) The following information for each land application site that has been identified at the time of permit application, if the applicant intends to apply bulk biosolids subject to the cumulative pollutant loading rates in 9VAC25-32-356 Table 3 to the site:
  - (a) Whether the applicant has contacted the permitting authority in the state where the bulk biosolids subject to 9VAC25-32-356 Table 3 will be applied, to ascertain whether bulk biosolids subject to 9VAC25-32-356 Table 3 has been applied to the site on or since July 20, 1993, and if so, the name of the permitting authority and the name and phone number of a contact person at the permitting authority; and
  - (b) Identification of facilities other than the applicant's facility that have sent, or are sending, biosolids subject to the cumulative pollutant loading rates in 9VAC25-32-356 Table 3 to the site since July 20, 1993, if, based on the inquiry in subdivision 8 d (1) of this subsection, bulk biosolids subject to cumulative pollutant loading rates in 9VAC25-32-356 Table 3 has been applied to the site since July 20, 1993

3. A biosolids management plan shall be provided that includes the following minimum site specific information at the time of permit application.

a. Description of operation: A comprehensive, general description of the operation as required by 9VAC25-32-60.

b. A nutrient management plan approved by the Department of Conservation and Recreation as required for application sites prior to board authorization under the following conditions:

(1) Sites operated by an owner or lessee of a confined animal feeding operation, as defined in subsection A of § 62.1-44.17:1 of the Code of Virginia, or confined poultry feeding operation, as defined in subsection A of § 62.1-44.17:1.1 of the Code of Virginia;

(2) Sites where land application more frequently than once every three years at greater than 50% of the annual agronomic rate is proposed;

(3) Mined or disturbed land sites where land application is proposed at greater than agronomic rates ; or

(4) Other sites based on site-specific conditions that increase the risk that land application may adversely impact state waters.

4. Biosolids transport.

a. General description of transport vehicles to be used.

b. Procedures for biosolids offloading at the biosolids facilities and the land application site together with spill prevention, cleanup (including vehicle cleaning); field reclamation and emergency spill notification and cleanup measures.

c. Voucher system used for documentation and recordkeeping.

5. Field operations.

a. Storage.

(1) Routine storage - supernatant handling and disposal, biosolids handling and loading of transport vehicles, equipment cleaning, freeboard maintenance, and inspections for structural integrity.

(2) On-site storage - procedures for department or board approval and implementation.

(3) Staging - procedures to be followed including either designated site locations provided in the "Design Information" or the specific site criteria for such locations including the liner or cover requirements and the time limit assigned for such use.

(4) Reestablishment of offloading and staging areas.

b. Application methodology.

(1) Description and specifications on spreader vehicles.

(2) Procedures for calibrating equipment for various biosolids contents to ensure uniform distribution and appropriate loading rates on a day-to-day basis.

(3) Procedures used to ensure that operations address the following constraints: application of biosolids to frozen ground, pasture or hay fields, crops for direct human consumption and saturated or ice-covered or snow-covered ground; establishment of setback distances; slopes; prohibited access for beef and dairy animals, and soil pH requirements; and proper site specific biosolids loading rates on a field-by-field basis.

c. Odor control plan for land applier. Include at a minimum:

- (1) Methods used to identify and abate malodorous biosolids in the field prior to land application, and
  - (2) Methods used to abate malodorous biosolids if land applied.
6. An applicant for a permit authorizing the land application of biosolids shall provide to the department, and to each locality in which the applicant proposes to land apply biosolids, written evidence of financial responsibility. Evidence of financial responsibility shall be provided in accordance with the requirements specified under Article 6 (9VAC25-32-770 et seq.) of Part IX of this chapter.

**9VAC25-32-70. Signatory requirements.**

Any application, report, including monitoring reports, or certifications shall be signed as follows:

1. Application.
  - a. For a corporation: by a responsible corporate official. For purposes of this section, a responsible corporate official means (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25,000,000 (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
  - b. For a municipality, state, federal or other public agency by either a principal executive officer or ranking elected official. (A principal executive officer of a federal, municipal, or state agency includes the chief executive officer of the agency or head executive officer having responsibility for the overall operation of a principal geographic unit of the agency.)
  - c. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
2. Reports. All reports required by VPA permits and other information requested by the board shall be signed by:
  - a. One of the persons described in subdivision 1 of this section; or
  - b. A duly authorized representative of that person. A person is a duly authorized representative only if:
    - (1) The authorization is made in writing by a person described in subdivision 1 of this section; and
    - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.)
    - (3) If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization must be submitted to the department prior to or together with any separate information, or applications to be signed by an authorized representative.
3. Certification. Any person signing a document under subdivision 1 or 2 of this section shall make the following certification: "I certify under penalty of law that this document

and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations."

**9VAC25-32-80. Conditions applicable to all VPA permits.**

A. Duty to comply. The permittee shall comply with all conditions of the VPA permit. Any permit noncompliance is a violation of the law, and is grounds for enforcement action, permit termination, revocation, modification, or denial of a permit renewal application.

B. Duty to halt or reduce activity. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the VPA permit.

C. Duty to mitigate. The permittee shall take all reasonable steps to minimize, correct or prevent any pollutant management activity in violation of the VPA permit which has a reasonable likelihood of adversely affecting human health or the environment.

D. Proper operation and maintenance. The permittee shall be responsible for the proper operation and maintenance of all treatment works, systems and controls which are installed or used to achieve compliance with permit conditions. Proper operation and maintenance includes effective plant performance, adequate funding, adequate licensed operator staffing, and adequate laboratory and process controls, including appropriate quality assurance procedures.

E. Permit action.

1. A VPA permit may be modified, revoked and reissued, or terminated as set forth in this chapter.

2. If a permittee files a request for a permit modification, revocation, or termination, or files a notification of planned changes, or anticipated noncompliance, the permit terms and conditions shall remain effective until the request is acted upon by the board. This provision shall not be used to extend the expiration date of the effective VPA permit.

3. VPA permits may be modified, revoked and reissued or terminated upon the request of the permittee or interested persons, or upon the board's initiative, to reflect the requirements of any changes in the statutes or regulations.

4. VPA permits continued under 9VAC25-32-130 remain effective and enforceable.

F. Inspection and entry. Upon presentation of credentials, any duly authorized agent of the board may, at reasonable times and under reasonable circumstances:

1. Enter upon any permittee's property, public or private, and have access to records required by the VPA permit;

2. Have access to, inspect and copy any records that must be kept as part of VPA permit conditions;

3. Inspect any facility's equipment (including monitoring and control equipment) practices or operations regulated or required under the VPA permit; and

4. Sample or monitor any substances or parameters at any locations for the purpose of assuring VPA permit compliance or as otherwise authorized by law.

G. Duty to provide information.

1. The permittee shall furnish to the department, within a reasonable time, any information which the board may request to determine whether cause exists for modifying, revoking and reissuing, terminating the VPA permit, or to determine compliance with the VPA permit. The permittee shall also furnish to the department, upon request, copies of records required to be kept by the permittee.
2. Plans, specifications, maps, conceptual reports and other relevant information shall be submitted as requested by the board prior to commencing construction.

H. Monitoring and records.

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the VPA permit, and records of all data used to complete the application for the VPA permit, for a period of at least three years or in the case of activities regulated under Part IX (9VAC25-32-310 et seq.) of this chapter, at least five years from the date of the sample, measurement, report or application. This period may be extended by request of the board at any time.
3. Records of monitoring information shall include:
  - a. The date, exact place and time of sampling or measurements;
  - b. The name of the individual or individuals who performed the sampling or measurements;
  - c. The date or dates analyses were performed;
  - d. The name of the individual or individuals who performed the analyses;
  - e. The analytical techniques or methods supporting the information such as observations, readings, calculations and bench data used; and
  - f. The results of such analyses.
4. Monitoring shall be conducted according to analytical methods promulgated pursuant to § 304(h) of the Clean Water Act (33 USC § 1251 et seq.) and listed in the Code of Federal Regulations at 40 CFR Part 136 (1995). Any other acceptable test procedure not listed in 40 CFR Part 136 (1995) shall be specified in the VPA permit.
5. Records related to biosolids data and information specified in agreements between generator, owner, agents, landowners, and farmers shall be described and maintained for a minimum period of five years or the duration of the permit or subsequent revisions if longer than five years.

I. Reporting requirements.

1. The permittee shall give prompt notice to the department of any planned changes to the design or operation of the pollutant management activity.
2. If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the owner shall promptly notify, in no case later than 24 hours, the department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse effects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the department within five days of discovery of the discharge in accordance with subdivision 6 of this subsection. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:



- a. Unusual spillage of materials resulting directly or indirectly from processing operations;
  - b. Breakdown of processing or accessory equipment;
  - c. Failure or taking out of service of some or all of the treatment works; and
  - d. Flooding or other acts of nature.
3. The permittee shall give at least 10 days advance notice to the department of any planned changes to the facility or activity which may result in noncompliance.
4. Monitoring results shall be reported at the intervals specified in the applicable VPA permit.
  - a. Monitoring results shall be reported in a format acceptable to the board.
  - b. If a permittee monitors the pollutant management activity, at a sampling location specified in the VPA permit, for any pollutant more frequently than required by the VPA permit using approved analytical methods, the permittee shall report the results of this monitoring on the monitoring report.
  - c. If the permittee monitors the pollutant management activity, at a sampling location specified in the VPA permit, for any pollutant that is not required to be monitored by the VPA permit, and uses approved analytical methods the permittee shall report the results with the monitoring report.
  - d. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the VPA permit.
5. Reports of compliance or noncompliance with or any progress report on interim and final requirements contained in any compliance schedule in the VPA permit shall be submitted no later than 14 days following each scheduled date.
6. 24-hour reporting.
  - a. The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health. An oral report must be provided to the department as soon as possible, but in no case later than 24 hours from the time the permittee becomes aware of the circumstances. A written report shall be submitted within five days and shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and times, and, if the noncompliance has not been corrected, how long it is expected to continue, steps planned or taken to reduce, eliminate and prevent a recurrence of the noncompliance. The board may waive the written report requirements on a case-by-case basis if the oral report has been received within 24 hours and no adverse impact on state waters has been reported. All other noncompliance reports which may not adversely affect state waters shall be submitted with the monitoring report. Reports shall include overflows.
  - b. The following shall be included as information which must be reported within 24 hours under this subdivision:
    - (1) Any unanticipated bypass; and
    - (2) Any upset which causes a discharge to surface waters.

J. Bypass.

1. A bypass of the treatment works is prohibited except as provided herein.
2. If the permittee knows in advance of the need for a bypass, he shall notify the department promptly at least 10 days prior to the bypass. After considering its adverse effects, the board may approve an anticipated bypass if:

a. The bypass will be unavoidable to prevent loss of human life, personal injury, or severe property damage ("severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production); and

b. There are no feasible alternatives to bypass such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment downtime. However, if bypass occurs during normal periods of equipment downtime or preventive maintenance and in the exercise of reasonable engineering judgment the permittee could have installed adequate backup equipment to prevent such bypass, this exclusion shall not apply as a defense.

3. If an unplanned bypass occurs, the permittee shall notify the department as soon as possible, but in no case later than 24 hours, and shall take steps to halt the bypass as early as possible. This notification will be a condition for defense to an enforcement action that an unplanned bypass met the conditions in subdivision 2 of this subsection and in light of the information reasonably available to the owner at the time of the bypass.

K. Upset. A permittee may claim an upset as an affirmative defense to an action brought for noncompliance. In any enforcement proceedings a permittee shall have the burden of proof to establish the occurrence of any upset. In order to establish an affirmative defense of upset, the permittee shall present properly signed, contemporaneous operating logs or other relevant evidence that shows:

1. That an upset occurred and that the cause can be identified;
2. That the permitted facility was at the time being operated efficiently and in compliance with proper operation and maintenance procedures;
3. That the 24-hour reporting requirements to the department were met; and
4. That the permittee took all reasonable steps to minimize or correct any adverse impact on state waters resulting from noncompliance with the VPA permit.

L. Signature requirements. All applications, reports, or information submitted to the department shall be signed and certified as required in 9VAC25-32-70.

M. Transfers. A VPA permit is not transferable to any person except after notice to the department according to 9VAC24-32-230. The board may require modification or revocation and reissuance of the VPA permit to change the name of the permittee and incorporate such other requirements as may be necessary.

**9VAC25-32-90. Conditions applicable to publicly or privately owned sewage treatment works.**

A. Publicly or privately owned sewage treatment works shall provide adequate notice to the department of any substantial change in quantity or quality of pollutants being introduced into the privately or publicly owned sewage treatment works and any anticipated impact the change may have on such treatment works.

B. When the monthly average flow influent to a POTW or PVOTW reaches 95% of the design capacity authorized by the VPA permit for each month of any consecutive three-month period, the owner shall within 30 days notify the department in writing and within 90 days submit a plan of action for ensuring continued compliance with the terms of the VPA permit.

1. The plan shall include the necessary steps and a prompt schedule of implementation for controlling any current problem, or any problem which could reasonably be anticipated, resulting from high influent flows.
2. Upon receipt of the owner's plan of action, the board shall notify the owner whether the plan is approved or disapproved. If the plan is disapproved, such notification shall state the reasons and specify the actions necessary to obtain approval of the plan.
3. Failure to submit an adequate plan in a timely manner shall be deemed a violation of the VPA permit.

C. Nothing herein shall in any way impair the authority of the board to take enforcement action under § 62.1-44.15, § 62.1-44.23, or § 62.1-44.32 of the Code of Virginia.

**9VAC25-32-100. Establishing limitations and other VPA permit conditions.**

A. In addition to the conditions established in 9VAC25-32-80 and 9VAC25-32-90, each VPA permit shall include conditions meeting the following requirements where applicable.

1. Determination of limitations. VPA permit limitations and conditions shall be established based on the nature of the pollutant management activity in order to ensure compliance with technology-based limitations, water quality standards, the law and all regulations promulgated thereunder. These limitations and conditions may include, but are not limited to, duration of VPA permits, monitoring requirements, limitations to control toxic pollutants, best management practices and schedules of compliance.
2. Duration of VPA permits. VPA permits issued under this regulation shall have an effective date and an expiration date which will determine the life of the VPA permit. VPA permits shall be effective for a fixed term not to exceed 10 years as specified in the VPA permit. The term of the VPA permits shall not be extended by modification beyond the maximum duration. The VPA permit shall expire at the end of the term unless an application for a new VPA permit has been timely filed as required by this chapter and the board is unable, through no fault of the permittee, to issue a new VPA permit before the expiration date of the previous VPA permit.

B. Monitoring requirements.

1. All VPA permits may specify:
  - a. Requirements concerning the proper use, maintenance and installation, when appropriate, of monitoring equipment or methods;
  - b. Required monitoring including type, intervals, and frequency sufficient to yield data which are representative of the monitored activity and including, when appropriate, continuous monitoring; and
  - c. Applicable reporting requirements based upon the impact of the regulated activity on water quality.
2. VPA permits may include requirements to report monitoring results with a frequency dependent on the nature and effect of the pollutant management activity.
3. In addition, the following monitoring requirements may be included in the VPA permits:
  - a. Mass or other measurements specified in the VPA permit for each pollutant of concern;
  - b. The volume of waste, wastewater, biosolids, or sludge managed by the activity; and
  - c. Other measurements as appropriate.

C. Best Management Practices (BMPs). The VPA permit shall require the use of BMPs to control or abate pollutants where numeric limits are infeasible, and the VPA permit may include BMPs in addition to numeric limits where BMPs are necessary to achieve limitations and standards or to carry out the purpose and intent of the law.

D. Sludge disposal. The VPA permit shall include, where appropriate, specific requirements for disposal of all sludge.

E. Biosolids land application. 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 setback distances, transportation routes, slope, material source, methods of handling and application, and time of day restrictions exceeding those required by this regulation. The permit applicant shall have at least 14 days in which to review and respond to the proposed conditions.

F. Schedules of compliance. The VPA permit may specify a schedule, when appropriate, leading to compliance with the VPA permit as soon as possible. When schedules of compliance are applicable the following shall be incorporated:

1. Schedule or schedules of compliance shall require the permittee to take specific steps where necessary to achieve expeditious compliance with the VPA permit;
2. The schedule of compliance shall set forth interim time periods not more than one year apart for the submission of reports of progress toward completion of each requirement; and
3. Schedule or schedules of compliance may be modified by modification of the VPA permit for good cause beyond the control of the permittee (e.g., act of God, strike, flood, material shortage).

#### **9VAC25-32-110. Draft VPA permit formulation.**

A. Upon receipt of a complete application, the board shall make a decision to tentatively issue the VPA permit or deny the application. If a tentative decision is to issue the VPA permit then a draft VPA permit shall be prepared in advance of public notice. The following tentative determinations shall be incorporated into a draft VPA permit:

1. Conditions, limitations, standards and other requirements applicable to the VPA permit;
2. Compliance schedules where applicable; and
3. Monitoring requirements.

B. If the tentative decision is to deny the application, the board shall advise the owner of that decision and of the requirements necessary to obtain approval. The owner may withdraw the application prior to board action. If the application is not withdrawn or modified to contain conditions necessary for tentative approval to issue, the board shall provide public notice and opportunity for a public hearing prior to board action on a recommendation to deny the application.

C. This section does not apply to requests for coverage under a general VPA permit.

#### **9VAC25-32-120. Fact sheet.**

A. A fact sheet shall be prepared to accompany all draft VPA permits. These fact sheets shall be made available to the public upon request.

B. The fact sheet shall include:

1. A brief description of the pollutant management activity to be permitted;
2. An explanation of the statutory or regulatory provisions on which the VPA permit requirements are based;
3. Calculations or other necessary explanations of the derivation of the VPA permit conditions or limitations;
4. The location of each pollutant management activity;
5. The reasons for any requested modifications;
6. A description of the procedures and sequence of events for reaching the final decision; and
7. The name and telephone number of a person to contact for additional information.

**9VAC25-32-130. Continuation of expiring VPA permits.**

A. Expiring VPA permits are automatically continued pending issuance of a new VPA permit if:

1. The permittee has submitted a timely and complete application as required by this chapter, unless the board has given permission for a later submittal, which shall not extend beyond the expiration date of the original VPA permit; and
2. The board is unable, through no fault of the permittee, to issue a new VPA permit before the expiration date of the previous VPA permit.

B. Continued VPA permits remain effective and enforceable against the permittee.

Part III  
Public Involvement

**9VAC25-32-140. Public notice of VPA permit action and public comment period.**

A. Draft VPA permits.

1. Every draft VPA permit shall be given public notice, paid for by the owner, by publication once a week for two successive weeks in a newspaper of general circulation in the area affected by the pollutant management activity.
2. Interested persons shall have a period of at least 30 days following the date of the initial newspaper public notice to submit written comments on the tentative decision and to request a public hearing.
3. The contents of the public notice of an application for a VPA permit shall include:
  - a. The name and address of the applicant. If the location of the pollutant management activity differs from the address of the applicant the notice shall also state the location of the pollutant management activity including storage and land application sites;
  - b. A brief description of the business or activity conducted at the facility;
  - c. A statement of the tentative determination to issue or deny a VPA permit;
  - d. A brief description of the final determination procedure;
  - e. The address and phone number of a specific person at the state office from whom further information may be obtained; and
  - f. A brief description of how to submit comments and request a hearing.

B. VPA permit application.

1. Upon receipt of an application for the issuance of a new or modified permit, the department shall notify in writing the locality wherein the pollutant management activity does or is proposed to take place. This notification shall, at a minimum, include:
    - a. The name of the applicant;
    - b. The nature of the application and proposed pollutant management activity;
    - c. The availability and timing of any comment period; and
    - d. Upon request, any other information known to, or in the possession of, the board or the department regarding the application except as restricted by 9VAC25-32-150.
  2. Whenever the department receives an application for a new permit for land application of biosolids or land disposal of treated sewage, stabilized sewage sludge, or stabilized septage, or an application to reissue with the addition of sites increasing acreage by 50% or more of that authorized in the initial permit, the department shall establish a date for a public meeting to discuss technical issues relating to proposals for land application of biosolids or land disposal of treated sewage, stabilized sewage sludge or stabilized septage. The department shall give notice of the date, time, and place of the public meeting and a description of the proposal by publication in a newspaper of general circulation in the city or county where the proposal is to take place. Public notice of the scheduled meeting shall occur no fewer than seven nor more than 14 days prior to the meeting. The department shall not issue the permit until the public meeting has been held and comment has been received from the local governing body or until 30 days have lapsed from the date of the public meeting.
  3. Following the submission of an application for a new permit for land application of biosolids or land disposal of treated sewage, stabilized sewage sludge, or stabilized septage, the department shall make a good faith effort to notify or cause to be notified persons residing on property bordering the sites that contain the proposed land application fields. This notification shall be in a manner selected by the department. For the purposes of this subsection, "site" means all contiguous land under common ownership, but which may contain more than one tax parcel.
  4. Public notice shall not be required for submission or approval of plans and specifications or conceptual engineering reports not required to be submitted as part of the application.
- C. Following the submission of an application to add a site that is not contiguous to sites included in an existing permit authorizing the land application of biosolids:
1. The department shall notify persons residing on property bordering such site and shall receive written comments from those persons for a period of 30 days. Based upon written comments, the department shall determine whether additional site-specific requirements should be included in the authorization for land application at the site.
  2. An application for any permit amendment to increase the acreage authorized by the initial permit by 50% or more shall be considered a major modification and shall be treated as a new application for purposes of public notice and public hearings. The increase in acreage for the purpose of determining the need for the public meeting is the sum of all acreage that has been added to the permit since the last public meeting, plus that proposed to be added.
- D. Before issuing any permit, if the board finds that there are localities particularly affected by the permit, the board shall:
1. Publish, or require the applicant to publish, a notice in a local paper of general circulation in the localities affected at least 30 days prior to the close of any public comment period. Such notice shall contain a statement of the estimated local impact of

the proposed permit, which at a minimum shall include information on the specific pollutants involved and the total quantity of each which may be discharged; and

2. Mail the notice to the chief elected official and chief administrative officer and planning district commission for those localities.

Written comments shall be accepted by the board for at least 15 days after any public hearing on the permit, unless the board votes to shorten the period. For the purposes of this section, the term "locality particularly affected" means any locality which bears any identified disproportionate material water quality impact which would not be experienced by other localities.

#### **9VAC25-32-150. Public access to information.**

A. Any secret formulae, secret processes, or secret methods other than effluent data submitted to the department pursuant to this chapter may be claimed as confidential by the submitter pursuant to § 62.1-44.21 of the Code of Virginia. Any such claim must be asserted at the time of submission in the manner prescribed on the application form or instructions or, in the case of other submissions, by stamping the words "secret formulae, secret processes or secret methods" on each page containing such information. If no claim is made at the time of submission, the department may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in the Virginia Freedom of Information Act (§ 2.1-340 et seq. of the Code of Virginia) and § 62.1-44.21 of the Code of Virginia.

B. Claims of confidentiality for the following information will be denied:

1. The name and address of any permit applicant or permittee; and
2. Permit applications, permits, and effluent data.

C. Information required by VPDES application forms provided by the department may not be claimed confidential. This includes information submitted on the forms themselves and any attachments used to supply information required by the forms.

#### **9VAC25-32-160. Conditions requested by other government agencies.**

If during the comment period any other state agency with jurisdiction over fish, wildlife, or public health advises the department in writing that the imposition of specified conditions upon the VPA permit is necessary to avoid substantial impairment of human health or of fish, shellfish, or wildlife resources, the board shall consider the inclusion of the specified conditions in the VPA permit. If any conditions requested are not included in the VPA permit, the agency making the request shall be notified of the reasons for not including the conditions.

#### **9VAC25-32-170. Public comments and hearings.**

A. A comment period of at least 30 days following the initial date of the newspaper public notice of the formulation of a draft VPA permit shall be provided. During this period any interested persons may submit written comments on the draft VPA permit and may request a public hearing. A request for a public hearing shall be in writing and shall state the nature of the issues to be raised pursuant to the board's Procedural Rule No. 1 (9VAC25-230-10 et seq.), or its successor. All comments shall be considered by the board in preparing the final VPA permit and shall be responded to in writing.

B. The board may hold a public hearing on any permit action. The board shall hold a public hearing where there is a significant degree of public interest relevant to a draft VPA permit. Public notice of that hearing shall be given as specified in 9VAC25-32-180. Nothing in this

subsection shall relieve the board of the requirement to hold a hearing where a hearing is required by applicable law or regulation.

C. Any hearing convened pursuant to this section will be held in the geographical area of the proposed pollutant management activity, or in another appropriate area. Related groups of VPA permit applications may be considered at any such hearing.

D. If changes are made to the VPA permit based on public comments, the permittee and all persons who commented will be notified of the changes and the reasons for the changes. No further public notice is required.

E. Any owner aggrieved by any action of the board taken without a formal hearing, or by inaction of the board, may demand in writing a formal hearing pursuant to § 62.1-44.25 of the Code of Virginia.

F. Proceedings at, and the decision from, the public hearing will be governed by the board's Procedural Rule No. 1 (9VAC25-230-10 et seq) or its successor.

**9VAC25-32-180. Public notice of hearing.**

A. Public notice of any hearing held pursuant to 9VAC25-32-170 shall be circulated as follows:

1. Notice shall be published once in a newspaper of general circulation in the county or city where the pollutant management activity is to occur; and
2. Notice of the hearing shall be sent to all persons and government agencies which received a copy of the notice of the VPA permit application.

B. Notice shall be effected pursuant to subsection A of this section at least 30 days in advance of the hearing.

C. The content of the public notice of any hearing held pursuant to 9VAC25-32-170 shall include at least the following:

1. Name and address of each owner whose application will be considered at the hearing and a brief description of the owner's pollutant management activities or operations;
2. A brief reference to the public notice issued for the VPA permit application, including identification number and date of issuance unless the public notice includes the hearing notice;
3. Information regarding the time and location for the hearing;
4. The purpose of the hearing;
5. A concise statement of the issues raised by the persons requesting the hearing;
6. The name of a contact person and the address at which interested persons may obtain further information, request a copy of the draft VPA permit prepared pursuant to 9VAC25-32-110, request a copy of the fact sheet prepared pursuant to 9VAC25-32-120 and inspect or arrange for receipt of copies of forms and related documents; and
7. A brief reference to the rules and procedures to be followed at the hearing.

Part IV  
Operator Requirements

**9VAC25-32-190. Operator requirements.**

A. The permittee shall employ or contract at least one operator who holds a current wastewater license appropriate for the permitted facility, if required by the VPA permit. The



license shall be issued in accordance with Title 54.1 of the Code of Virginia and the regulations of the Board for Waterworks and Wastewater Works Operators (18VAC160-20-10 et seq.). Notwithstanding the foregoing requirement, unless the pollutant management activity is determined by the board on a case-by-case basis to be a potential contributor of pollution, no licensed operator is required for wastewater treatment works:

1. That have a design hydraulic capacity equal to or less than 0.04 million gallons per day;
2. That discharge industrial waste or other waste from coal mining operations; or
3. That do not utilize biological or physical/chemical treatment.

B. In making this case-by-case determination, the following shall be considered:

1. The location of the pollutant management activity with respect to state waters;
2. The size of the pollutant management activity;
3. The quantity and nature of pollutants reaching state waters; and
4. The treatment methods used at the treatment works.

C. The permittee shall notify the department in writing whenever he is not complying, or has grounds for anticipating he will not comply, with the requirements of subsection A of this section. The notification shall include a statement of reasons and a prompt schedule for achieving compliance.

#### Part V

#### Permit Modification, Revocation and Reissuance, and Termination

#### **9VAC25-32-200. Modification, revocation and reissuance, and termination.**

A. VPA permits shall be modified, revoked and reissued, or terminated only as authorized by this section.

B. A VPA permit may be modified in whole or in part, revoked and reissued, or terminated.

C. VPA permit modifications shall not be used to extend the term of a VPA permit.

D. Modification, revocation and reissuance, or termination of VPA permit may be initiated by the board, interested persons, or permittee under applicable provisions of this chapter.

E. An updated VPA permit application may be required in order to modify or revoke and reissue a VPA permit.

#### **9VAC25-32-210. Causes for termination.**

A. The following are causes for terminating a VPA permit during its term, or for denying a VPA permit renewal application, after public notice and opportunity for a public hearing:

1. The permittee has violated any regulation or order of the board, any condition of a VPA permit, any provision of the law, or any order of a court, where such violation results in a release of harmful substances into the environment or poses a substantial threat of release of harmful substances into the environment or presents a hazard to human health or the violation is representative of a pattern of serious or repeated violations which, in the opinion of the board, demonstrates the permittee's disregard for or inability to comply with applicable laws, regulations or requirements;
2. The permittee's failure to disclose fully all relevant material facts, or the permittee's misrepresentation of any relevant material facts in applying for a VPA permit, or in any other report or document required under the law or this chapter;

3. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by VPA permit modification or termination; or

4. There exists a material change in the basis on which the VPA permit was issued that requires either a temporary or a permanent reduction or elimination of any pollutant management activity controlled by the VPA permit necessary to protect human health or the environment.

B. In addition to causes for terminating a VPA permit specified in subsection A of this section, causes for terminating a VPA permit issued for land application, marketing and distribution of biosolids shall include:

1. Failure to comply with the conditions of the permit.

2. Violation of Chapter 3.1 (§ 62.1-44.2 et seq.) of Title 62.1 of the Code of Virginia or of any provisions of this regulation.

3. Change in ownership.

4. Abandonment of the facilities.

C. A VPA permit may be terminated without public notice and opportunity for a hearing when the termination is mutually agreed to by the permittee and the board.

#### **9VAC25-32-220. Causes for modification.**

A VPA permit may be modified, but not revoked and reissued, except when the permittee agrees or requests, when any of the following developments occur:

1. When additions or alterations have been made to the affected facility which require the application of VPA permit conditions that differ from those of the existing VPA permit or are absent from it;

2. When new information becomes available about the operation or pollutant management activity covered by the VPA permit which was not available at VPA permit issuance and would have justified the application of different VPA permit conditions at the time of VPA permit issuance;

3. When a change is made in the promulgated standards or regulations on which the VPA permit was based;

4. When it becomes necessary to change final dates in compliance schedules due to circumstances over which the permittee has little or no control such as acts of God, materials shortages, etc.; or

5. For the addition of new land application sites, new biosolids sources or routine storage facilities to the permit.

#### **9VAC25-32-230. Transfer of VPA permits.**

A. Transfer by modification. Except as provided for under automatic transfer in subsection B of this section, a VPA permit shall be transferred only if the VPA permit has been modified to reflect the transfer or has been revoked and reissued to the new owner.

B. Automatic transfer. Any VPA permit shall be automatically transferred to a new owner if:

1. The current owner notifies the department 30 days in advance of the proposed transfer of the title to the facility or property;

2. The notice to the department includes a written agreement between the existing and proposed new owner containing a specific date of transfer of VPA permit responsibility, coverage and liability between them; and

3. The board does not within the 30-day time period notify the existing owner and the proposed owner of its intent to modify or revoke and reissue the VPA permit.

**9VAC25-32-240. Minor modification.**

A. Upon request of the permittee, or upon board initiative with the consent of the permittee, minor modifications may be made in the VPA permit without following the public involvement procedures.

B. Minor modification may only:

1. Correct typographical errors;
2. Require reporting by the permittee at a frequency other than that required in the VPA permit;
3. Change an interim compliance date in a schedule of compliance to no more than 120 days from the original compliance date and provided it will not interfere with the final compliance date;
4. Allow for a change in name, ownership or operational control when the board determines that no other change in the VPA permit is necessary, provided that a written agreement containing a specific date for transfer of VPA permit responsibility, coverage and liability from the current to the new permittee has been submitted to the department;
5. Delete the listing of a land application site when the pollutant management activity is terminated and does not result in an increase of pollutants which would exceed VPA permit limitations;
6. Reduce VPA permit limitations to reflect a reduction in the permitted activity when such reduction results from a shutdown of processes or pollutant generating activities or from connection of the permitted activity to a POTW;
7. Change plans and specifications where no other changes in the VPA permit are required;
8. Authorize treatment facility expansions, production increases or process modifications which will not cause a significant change in the quantity of pollutants being managed or a significant change in the nature of the pollutant management activity; or
9. Delete VPA permit limitation or monitoring requirements for specific pollutants when the activities generating these pollutants are terminated.

C. An application for any permit amendments to increase the acreage authorized by the initial permit shall not be considered a minor modification and shall require the public involvement procedures outlined in 9VAC25-32-140 C.

**9VAC25-32-250. Confined animal feeding operations.**

A. All confined animal feeding operations shall maintain no point source discharge of pollutants to surface waters except in the case of a storm event greater than the 25-year, 24-hour storm. Concentrated confined animal feeding operations are pollutant management activities subject to the VPA permit program. Two or more confined animal feeding operations under common ownership are considered, for the purposes of this regulation, to be a single confined animal feeding operation if they adjoin each other or if they use a common area or system for the disposal of wastes.

B. Case-by-case designation of concentrated confined animal feeding operations.

1. The board may designate any confined animal feeding operation which does not fall under the definition of concentrated confined animal feeding operation as defined in

9VAC25-20-10 upon determining that it is a potential or actual contributor of pollution to state waters. In making this designation the following factors shall be considered:

- a. The size of the operation;
  - b. The location of the operation relative to state waters;
  - c. The means of conveyance of animal wastes and process waters into state waters;
  - d. The slope, vegetation, rainfall, and other factors affecting the likelihood or frequency of discharge of animal wastes and process waste waters into state waters;
  - e. The means of storage, treatment, or disposal of animal wastes; and
  - f. Other relevant factors.
2. A VPA permit application shall not be required for a concentrated confined animal feeding operation designated under subdivision 1 of this subsection until the board has conducted an on-site inspection of the operation and determined that the operation shall be regulated under the VPA permit program.

#### **9VAC25-32-260. General VPA permits.**

The board may issue a general VPA permit in accordance with the following:

1. Sources. A general VPA permit may be written to regulate a category of pollutant management activities that:
  - a. Involve the same or similar types of operations;
  - b. Manage the same or similar types of wastes;
  - c. Require the same VPA permit limitations or operating conditions;
  - d. Require the same or similar monitoring; and
  - e. In the opinion of the board, are more appropriately controlled under a general VPA permit than under individual VPA permits.
2. Administration.
  - a. General VPA permits will be issued, modified, revoked and reissued, or terminated pursuant to the law and the Administrative Process Act (§ 2.2-4000 et seq. of the Code of Virginia).
  - b. The board may require any person operating under a general VPA permit to apply for and obtain an individual VPA permit. Interested persons may petition the board to take action under this subdivision. Cases where an individual VPA permit may be required include the following:
    - (1) Where the pollutant management activity is a significant contributor of pollution;
    - (2) Where the owner is not in compliance with the conditions of the general VPA permit;
    - (3) When a water quality management plan containing requirements applicable to the pollutant management activity is approved; or
    - (4) When a permitted activity no longer meets the general VPA permit conditions.
  - c. Any owner operating under a general VPA permit may request to be excluded from the coverage of the general VPA permit by applying for an individual VPA permit.
  - d. When an individual VPA permit is issued to an owner the applicability of the general VPA permit to the individual permittee is automatically terminated on the effective date of the individual VPA permit.

- e. When a general VPA permit is issued which applies to an owner already covered by an individual VPA permit, such owner may request exclusion from the provisions of the general VPA permit and subsequent coverage under an individual VPA permit.
- f. A general VPA permit may be revoked as to an individual owner for any of the reasons set forth in 9VAC25-32-210 or subdivision 2 b of this section subject to appropriate opportunity for a hearing.

**9VAC25-32-270. Control of disposal of pollutants into wells.**

A. No right to dispose of pollutants into wells shall exist under this regulation, except as authorized pursuant to a VPA permit issued by the board.

B. Whenever an applicant for a VPA permit proposes to dispose of pollutants into a well or wells, the proposed disposal shall be prohibited, or specific terms and conditions shall be included in the VPA permit which shall control the proposed disposal in order to prevent the pollution of and protect all beneficial uses of state waters, protect the public health and welfare, and require compliance with all applicable water quality standards.

Part VII  
Enforcement

**9VAC25-32-280. Enforcement.**

- A. The board may enforce the provisions of this regulation by:
  - 1. Issuing directives in accordance with the law;
  - 2. Issuing special orders in accordance with the law;
  - 3. Issuing emergency special orders in accordance with the law;
  - 4. Seeking injunction, mandamus or other appropriate remedy as authorized by the law;
  - 5. Seeking civil penalties under the law;
  - 6. Seeking remedies under the law or under other laws including the common law.
- B. The board encourages citizen participation in all its activities, including enforcement. In particular:
  - 1. The board will investigate citizen complaints and provide written response to all signed, written complaints from citizens concerning matters within the board's purview;
  - 2. The board will not oppose intervention in any civil enforcement action when such intervention is authorized by statute or Supreme Court rule, or in any administrative enforcement action when authorized by the board's Procedural Rule; and
  - 3. At least 30 days prior to the final settlement of any civil enforcement action or the issuance of any consent special order, the board will publish public notice of such settlement or order in a newspaper of general circulation in the county, city or town in which the pollutant management activity is located, and in the Virginia Register of Regulations. This notice will identify the owner, specify the enforcement action to be taken and specify where a copy of the settlement or order can be obtained. Appeals will be public noticed in accordance with Procedural Rule No. 1 (9VAC25-230-10 et seq.). A consent special order is a special order issued without a public hearing and with the written consent of the affected owner. For the purpose of this chapter, an emergency special order is not a consent special order. The board shall consider all comments received during the comment period before taking final action.

C. When a VPA permit is amended solely to reflect a new owner, and the previous owner had been issued a consent special order that at the time of VPA permit amendment was still in full force and effect, a consent special order issued to the new owner does not have to go to public notice provided that:

1. The VPA permit amendment does not have to go to public notice, and
2. The terms of the new consent order are the same as issued to the previous owner.

D. Notwithstanding subdivision 3 of this subsection, a special order may be issued by agreement at a board meeting without further notice when a public hearing has been scheduled to issue a special order, to the affected owner, whether or not the public hearing is actually held.

## Part VIII Delegation of Authority; Transition

### **9VAC25-32-290. Delegation of authority.**

The director may perform any act of the board provided under this regulation, except as limited by § 62.1-44.14 of the Code of Virginia.

### **9VAC25-32-300. Transition.**

A. Permits issued prior to January 1, 2008, by the Department of Health under the authority of the State Board of Health shall continue in force until expired or terminated in accordance with the permit or this regulation.

B. All owners holding active biosolids use permits as of January 1, 2008, shall submit an application for a Virginia Pollution Abatement Permit in accordance with this regulation at least 180 days before the expiration date of permits issued prior to January 1, 2008, or by June 30, 2012, whichever comes first.

C. All owners of biosolids use facilities shall comply with the applicable requirements set forth in the operational regulations of Part IX (9VAC25-32-303 et seq.) of this chapter.

D. Notwithstanding the foregoing, all VDH-BUR permits shall terminate no later than December 31, 2012, or 12 months after the effective date, whichever is later, if an administratively complete VPA application for the activity authorized by the VDH-BUR permit has not been submitted to the department.

## Part IX Biosolids Program Article 1 Procedures and Requirements

### **9VAC25-32-303. Purpose and applicability.**

A. This part establishes standards, which consist of general requirements, pollutant limits, management practices, and operational standards, for the final use of biosolids or disposal of sewage sludge generated during the treatment of domestic sewage in a treatment works. Standards are included in this part for biosolids applied to the land. Also included in this part are pathogen and alternative vector attraction reduction requirements for biosolids applied to the land.

B. The standards in this part also include the frequency of monitoring and recordkeeping requirements when biosolids is applied to the land.

C. Applicability.

1. This part applies to any person who prepares biosolids or applies biosolids to the land.
2. This part applies to biosolids applied to the land.
3. This part applies to land where biosolids is applied.

**9VAC25-32-305. Permits.**

A. No owner shall cause or allow any land application, marketing, or distribution of biosolids except in compliance with a permit issued by the board that authorizes these activities.

B. A separate biosolids use permit shall be issued for each political jurisdiction (county or city) where land application is proposed.

C. No person shall land apply Class B biosolids on any land in Virginia unless that land has been identified in an application to issue, reissue or modify a permit and approved by the board.

D. No person shall land apply, market, or distribute biosolids in Virginia unless the biosolids source has been approved by the board.

**9VAC25-32-307. Relationship to other regulations.**

A. Disposal of sewage sludge in a municipal solid waste landfill unit that complies with the requirements in the Virginia Solid Waste Management Regulation (9VAC20-81) constitutes compliance with § 405 (d) of the federal Clean Water Act.

B. Any person who prepares sewage sludge that is disposed in a municipal solid waste landfill unit shall ensure that the sewage sludge meets the requirements in 9VAC20-81 concerning the quality of materials disposed in a municipal solid waste landfill.

**9VAC25-32-310. Definitions (Repealed. 9/13 – moved to 10.)**

**9VAC25-32-313. General requirements.**

A. No person shall apply biosolids to the land except in accordance with the requirements in this article.

B. No person shall apply bulk biosolids to the land if it is likely to adversely affect a threatened or endangered species listed in 9VAC25-260-320 or § 4 of the Endangered Species Act (16 USC § 1533) or if the land application is likely to adversely affect its designated critical habitat.

C. No person shall apply bulk biosolids subject to the cumulative pollutant loading rates in 9VAC25-32-356 Table 3 to agricultural land, forest, a public contact site, or a reclamation site if any of the cumulative pollutant loading rates in 9VAC25-32-356 Table 3 has been reached.

D. No person shall apply domestic septage to agricultural land, forest, or a reclamation site during a 365-day period if the annual application rate in 9VAC25-32-356 D has been reached during that period.

E. The person who prepares bulk biosolids that is applied to agricultural land, forest, a public contact site, or a reclamation site shall provide the person who applies the bulk biosolids written notification of the concentration of total nitrogen and phosphorus (as N and P on a dry weight basis) in the bulk biosolids.

F. Before bulk biosolids subject to the cumulative pollutant loading rates in 9VAC25-32-356 Table 3 is applied to the land, the person who proposes to apply the bulk biosolids shall contact the department to determine whether bulk biosolids subject to the cumulative pollutant loading rates in 9VAC25-32-356 Table 3 has been applied to the site since July 20, 1993.

1. If bulk biosolids subject to the cumulative pollutant loading rates in 9VAC25-32-356 Table 3 has not been applied to the site since July 20, 1993, the cumulative amount of each pollutant listed in 9VAC25-32-356 Table 3 may be applied to the site in accordance with 9VAC25-32-356 B 2 a.

2. If bulk biosolids subject to the cumulative pollutant loading rates in 9VAC25-32-356 Table 3 has been applied to the site since July 20, 1993, and the cumulative amount of each pollutant applied to the site in the bulk biosolids since that date is known, the cumulative amount of each pollutant applied to the site shall be used to determine the additional amount of each pollutant that can be applied to the site in accordance with 9VAC25-32-356 B 2 a.

3. If bulk biosolids subject to the cumulative pollutant loading rates in 9VAC25-32-356 Table 3 has been applied to the site since July 20, 1993, and the cumulative amount of each pollutant applied to the site in the bulk biosolids since that date is not known, an additional amount of each pollutant shall not be applied to the site in accordance with 9VAC25-32-356 B 2 a.

G. When a person who prepares bulk biosolids provides the bulk biosolids to a person who applies the bulk biosolids to the land, the person who prepares the bulk biosolids shall provide the person who applies the biosolids notice and necessary information to comply with the requirements in this article.

H. When a person who prepares biosolids provides the biosolids to another person who prepares the biosolids, the person who provides the biosolids shall provide the person who receives the biosolids notice and necessary information to comply with the requirements in this article.

I. The person who applies bulk biosolids to the land shall provide the owner or lease holder of the land on which the bulk biosolids is applied notice and necessary information to comply with the requirements in this article.

J. Any person who prepares bulk biosolids in another state that is applied to land in Virginia shall provide written notice to the department prior to the initial application of bulk biosolids to the land application site by the applier. The notice shall include:

1. The location, by either street address or latitude and longitude, of each land application site;
2. The approximate time period bulk biosolids will be applied to the site;
3. The name, address, telephone number, and National Pollutant Discharge Elimination System permit number (if appropriate) for the person who prepares the bulk biosolids; and,
4. The name, address, telephone number, and National (or Virginia) Pollutant Discharge Elimination System permit number (if appropriate) for the person who will apply the bulk biosolids.

K. Any person who applies bulk biosolids subject to the cumulative pollutant loading rates in 9VAC25-32-356 Table 3 to the land shall provide written notice, prior to the initial application of bulk biosolids to the land application site by the applier, to the department and the department shall retain and provide access to the notice. The notice shall include:

1. The location, by either street address or latitude and longitude, of the land application site; and
2. The name, address, telephone number, and Virginia Pollution Abatement permit number (if appropriate) of the person who will apply the bulk biosolids.



**9VAC25-32-315. Additional and more stringent requirements.**

A. On a case-by-case basis, the board may impose requirements for the use of biosolids or the disposal of sewage sludge in addition to or more stringent than the requirements in this part when necessary to protect human health and the environment from any adverse effect of a pollutant in the biosolids or sewage sludge.

B. Nothing in this part precludes the authority of another state agency, political subdivision of Virginia, or an interstate agency with respect to the use of biosolids or disposal of sewage sludge.

C. For biosolids land application 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 setback distances, transportation routes, slope, material source, methods of handling and application, and time of day restrictions exceeding those required by this regulation. The permit applicant shall have at least 14 days in which to review and respond to the proposed conditions.

**9VAC25-32-317. Exclusions.**

A. Treatment processes. This part does not establish requirements for processes to treat domestic sewage or for processes used to treat sewage sludge prior to final use or disposal, except as provided in 9VAC25-32-675 and 9VAC25-32-685.

B. Selection of a use or a disposal practice. This part does not dictate the selection of a specific biosolids use or sewage sludge disposal practice by the owner of the wastewater treatment works.

C. Incineration of sewage sludge. This part does not establish requirements for sewage sludge fired in a sewage sludge incinerator or co-fired in an incinerator with other wastes or for the incinerator in which sewage sludge or other waste are co-fired.

D. Hazardous sewage sludge. This part does not establish requirements for the use or disposal of sewage sludge determined to be hazardous in accordance with 40 CFR Part 261 (2000) or the Code of Virginia.

E. Sewage sludge with high PCB concentration. This part does not establish requirements for the use or disposal of sewage sludge with a concentration of polychlorinated biphenyls (PCBs) equal to or greater than 50 milligrams per kilogram of total solids (dry weight basis).

F. Incinerator ash. This part does not establish requirements for the use or disposal of ash generated during the firing of sewage sludge in a sewage sludge incinerator.

G. Grit and screenings. This part does not establish requirements for the use or disposal of grit (e.g., sand, gravel, cinders, or other materials with a high specific gravity) or screenings (e.g., relatively large materials such as rags) generated during preliminary treatment of domestic sewage in a treatment works.

**9VAC25-32-320. Local enforcement of the regulation.**

A. In the event of a dispute concerning the existence of a violation between a permittee and a locality that has adopted a local ordinance for testing and monitoring of the land application of biosolids, the activity alleged to be in violation shall be halted pending a determination by the director.

B. Upon determination by the director that there has been a violation of § 62.1-44.19:3, 62.1-44.19:3.1 or 62.1-44.19:3.3 of the Code of Virginia, or of any regulation promulgated under those sections, and that such violation poses an imminent threat to public health, safety or welfare, the department shall commence appropriate action to abate the violation and immediately notify the chief administrative officer of any locality potentially affected by the violation.

C. Local governments shall promptly notify the department of all results from the testing and monitoring of the land application of biosolids performed by persons employed by local governments and any violation of § 62.1-44.19:3, 62.1-44.19:3.1 or 62.1-44.19:3.3 of the Code of Virginia.

D. Local governments receiving complaints concerning land application of biosolids shall notify the department and the permit holder within 24 hours of receiving the complaint.

### **9VAC25-32-330. Variances.**

A. The board may grant a variance to a procedural, design, or operational regulation by following the appropriate procedures set forth in this section.

B. Requirements for a variance. The board may grant a variance if it finds that the hardship imposed outweighs the benefits that may be received by the public and that the granting of such variance does not subject the public to unreasonable health risks or environmental pollution.

C. Application for a variance. Any owner may apply in writing for a variance. The application shall be submitted to the appropriate regional office for evaluation. The application shall include:

1. A citation of the regulation from which a variance is requested.
2. The nature and duration of variance requested.
3. A statement of the hardship to the owner and the anticipated impacts to the public health and welfare if a variance were granted.
4. Suggested conditions that might be imposed on the granting of a variance that would limit its detrimental impact on public health and welfare.
5. Other information, if any, believed to be pertinent by the applicant.
6. Such other information as may be required to make the determination in accordance with subsection B of this section.

D. Consideration of a variance.

1. The board shall act on any variance request submitted pursuant to this subsection within 90 days of receipt of request.
2. In the board's consideration of whether a biosolids use variance should be granted, the board shall consider such factors as the following:
  - a. The effect that such a variance would have on the adequate operation of the biosolids use facility, including public nuisance concerns;
  - b. The cost and other economic considerations imposed by this requirement; and
  - c. The effect that such a variance would have on the protection of the public health or the environment.

E. Disposition of a variance request.

1. The board may grant the variance request and if the board proposes to deny the variance it shall provide the owner an opportunity to an informal proceeding as provided in § 2.2-4019 of the Code of Virginia. Following this opportunity for an informal proceeding the board may reject any application for a variance by sending a rejection

notice to the applicant. The rejection notice shall be in writing and shall state the reasons for the rejection. A rejection notice constitutes a case decision.

2. If the board proposes to grant a variance request submitted pursuant to this regulation, the applicant shall be notified in writing of this decision. Such notice shall identify the variance, the biosolids use facility involved, and shall specify the period of time for which the variance will be effective. Such notice shall provide that the variance will be terminated when the biosolids use facility comes into compliance with the applicable regulation and may be terminated upon a finding by the board that the biosolids use facility has failed to comply with any requirements or schedules issued in conjunction with the variance. The effective date of the variance shall be 15 days following its issuance.

F. Posting of variances. All variances granted for the design or operation of biosolids use facility are nontransferable. Any requirements of the variance shall become part of the permit for biosolids use subsequently granted by the board.

**9VAC25-32-340. Permits (Repealed. 9/13 - moved to 305.)**

**9VAC25-32-350. Procedures for obtaining a certificate to construct and certificate to operate.**

No owner shall cause or allow the construction, expansion, modification, or operation of facilities necessary for biosolids treatment or storage except in compliance with a certificate to construct (CTC) and a certificate to operate (CTO) issued by the board in accordance with the Sewage Collection and Treatment Regulations (9VAC25-790).

**9VAC25-32-355. Biosolids use regulatory advisory committee (Repealed - 9/13 – no longer active.)**

Article 2  
Operational and Monitoring Requirements

**9VAC25-32-356. Pollutant monitoring and limits.**

A. Bulk biosolids or biosolids sold or given away in a bag or other container shall be monitored for the parameters identified in Table 1 of this section:

TABLE 1 PARAMETERS for BIOSOLIDS ANALYSIS <sup>(1)</sup>	
Pollutant	
Percent solids (%)	
Volatile solids (%)	
pH (standard units)	
Total Kjeldahl nitrogen (%)	
Ammonia nitrogen (%)	

Nitrates (mg/kg)
Total phosphorus (%)
Total potassium (%)
Alkalinity as CaCO <sub>3</sub> (mg/kg) <sup>(2)</sup>
Arsenic (mg/kg)
Cadmium (mg/kg)
Copper (mg/kg)
Lead (mg/kg)
Mercury (mg/kg)
Molybdenum (mg/kg)
Nickel (mg/kg)
Selenium (mg/kg)
Zinc (mg/kg)

<sup>(1)</sup>Values reported on a dry weight basis unless indicated.

<sup>(2)</sup>Lime treated biosolids (10% or more lime by weight) shall be analyzed for percent CaCO<sub>3</sub>.

#### B. Biosolids pollutant limits.

1. Bulk biosolids or biosolids sold or given away in a bag or other container shall not be applied to the land if the concentration of any pollutant in the biosolids exceeds the ceiling concentration for the pollutant in Table 2 of this section.
2. If bulk biosolids is applied to agricultural land, forest, a public contact site, or a reclamation site, either:
  - a. The cumulative loading rate for each pollutant shall not exceed the cumulative pollutant loading rate for the pollutant in Table 3 of this section; or
  - b. The concentration of each pollutant in the biosolids shall not exceed the concentration for the pollutant in Table 4 of this section.
3. If bulk biosolids is applied to a lawn or a home garden, the concentration of each pollutant in the biosolids shall not exceed the concentration for the pollutant in Table 4 of this section.
4. If biosolids is sold or given away in a bag or other container for application to the land, either:
  - a. The concentration of each pollutant in the biosolids shall not exceed the concentration for the pollutant in Table 4 of this section; or
  - b. The product of the concentration of each pollutant in the biosolids and the annual whole sludge application rate for the biosolids shall not cause the annual pollutant loading rate for the pollutant in Table 5 of this section to be exceeded. The procedure used to determine the annual whole sludge application rate is presented in subsection D of this section.

#### C. Pollutant concentrations and loading rates - biosolids.

TABLE 2
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CEILING CONCENTRATIONS	
Pollutant	Ceiling Concentration (milligrams per kilogram)*
Arsenic	75
Cadmium	85
Copper	4,300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
Selenium	100
Zinc	7,500
*Dry weight basis	

TABLE 3 CUMULATIVE POLLUTANT LOADING RATES <sup>(1)</sup>		
Pollutant	Cumulative Pollutant Loading Rate	
	(kilograms per hectare)	(pounds per acre)
Arsenic <sup>(2)</sup>	41	36
Cadmium	39	35
Copper	1,500	1,340
Lead	300	270
Mercury	17	16
Molybdenum <sup>(2)</sup>		
Nickel	420	375
Selenium	100	89
Zinc	2,800	2,500
<p>Notes:<sup>(1)</sup>Such total applications to be made on soils with the biosolids/soil mixture pH adjusted to 6.0 or greater if the biosolids cadmium content is greater than or equal to 21 mg/kg.</p> <p>The maximum cumulative application rate is limited for all ranges of cation exchange capacity due to soil background pH in Virginia of less than 6.5 and lack of regulatory controls of soil pH adjustment after biosolids application ceases.</p> <p><sup>(2)</sup>The maximum cumulative application is currently under study by USEPA. Research suggests that for Molybdenum a cumulative pollutant loading rate below 40 kg/hectare may be appropriate to reduce the risk of copper deficiency in grazing animals.</p>		

TABLE 4  
POLLUTANT CONCENTRATIONS

Pollutant	Monthly Average Concentration (milligrams per kilogram)*
Arsenic	41
Cadmium	39
Copper	1,500
Lead	300
Mercury	17
Molybdenum <sup>(1)</sup>	
Nickel	420
Selenium	100
Zinc	2,800
*Dry weight basis Note: <sup>(1)</sup> The monthly average concentration is currently under study by USEPA. Research suggests that a monthly average Molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals.	

TABLE 5  
ANNUAL POLLUTANT LOADING RATES <sup>(1)</sup>

Pollutant	Annual Pollutant Loading Rate (per 365-day period)	
	(kilograms per hectare)	(pounds per acre)
Arsenic <sup>(2)</sup>	2.0	1.8
Cadmium	1.9	1.7
Copper	75	67
Lead	15	13
Mercury	0.85	0.76
Molybdenum <sup>(2)</sup>		
Nickel	21	19
Selenium	5.0	4.6
Zinc	140	125
Notes: <sup>(1)</sup> Such total applications to be made on soils with the biosolids/soil mixture pH adjusted to 6.0 or greater if the biosolids cadmium content is greater than or equal to		

21 mg/kg.

The maximum cumulative application rate is limited for all ranges of cation exchange capacity due to soil background pH in Virginia of less than 6.5 and lack of regulatory controls of soil pH adjustment after biosolids application ceases.

<sup>(2)</sup>The maximum cumulative application is currently under study by USEPA.

D. Procedures to determine the annual whole sludge application rate (AWSAR) for biosolids. Subdivision B 4 b of this section requires that the product of the concentration for each pollutant listed in Table 4 of this section in biosolids sold or given away in a bag or other container for application to the land and the AWSAR for the biosolids not cause the annual pollutant loading rate for the pollutant in Table 5 to be exceeded. This subsection contains that procedure used to determine the AWSAR for a biosolids that does not cause the annual pollutant loading rates (APLR) in Table 5 of this section to be exceeded.

1. The relationship between the APLR for a pollutant and the AWSAR for a biosolids is shown in equation (1):

EQUATION (1)
$APLR = C \times AWSAR \times 0.001$
APLR = Annual pollutant loading rate in kilograms per hectare per 365-day period
C = Pollutant concentration in milligrams per kilogram of total solids (dry weight basis)
AWSAR = Annual whole sludge application rate in metric tons per hectare per 365-day period (dry weight basis)
0.001 = A conversion factor

2. To determine the AWSAR, equation (1) is rearranged into equation (2):

EQUATION (2)
$AWSAR = APLR / (C \times 0.001)$
AWSAR = Annual whole sludge application rate in metric tons per hectare per 365-day period (dry weight basis)
APLR = Annual pollutant loading rate in kilograms per hectare per 365-day period
C = Pollutant concentration in milligrams per kilogram of total solids (dry weight basis)
0.001 = A conversion factor

3. The procedure used to determine the AWSAR for a biosolids is presented below:

- a. Analyze a sample of the biosolids to determine the concentration for each of the pollutants listed in Table 4 of this section in the biosolids.
- b. Using the pollutant concentrations from subdivision 3 a of this subsection and the APLRs from Table 5 of this section, calculate an AWSAR for each pollutant using Equation (2) above.
- c. The AWSAR for the biosolids is the lowest AWSAR calculated in subdivision 3 b of this subsection.

**9VAC25-32-357. Operational standards, pathogens, and vector attraction reduction.**

A. Biosolids shall be monitored to verify that the selected pathogen reduction treatment classification and vector attraction reduction method requirements have been met.

B. Pathogens – biosolids.

1. The Class A pathogen requirements in 9VAC25-32-675 A or the Class B pathogen requirements and site restrictions in 9VAC25-32-675 B shall be met when bulk biosolids is applied to agricultural land, forest, a public contact site, or a reclamation site.

2. The Class A pathogen requirements in 9VAC25-32-675 A shall be met when bulk biosolids is applied to a lawn or a home garden.

3. The Class A pathogen requirements in 9VAC25-32-675 A shall be met when biosolids is sold or given away in a bag or other container for application to the land.

C. Pathogens – domestic septage. The requirements in 9VAC25-32-675 C shall be met when domestic septage is applied to agricultural land, forest, or a reclamation site.

D. Vector attraction reduction – biosolids.

1. One of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 10 shall be met when bulk biosolids is applied to agricultural land, forest, a public contact site, or a reclamation site.

2. One of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8 shall be met when bulk biosolids is applied to a lawn or a home garden.

3. One of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8 shall be met when biosolids is sold or given away in a bag or other container for application to the land.

E. Vector attraction reduction – domestic septage. The vector attraction reduction requirements in 9VAC25-32-685 B 9, B 10, or B 12 shall be met when domestic septage is applied to agricultural land, forest, or a reclamation site.

F. Additional operational control information may be required on an individual basis by the department.

**9VAC25-32-358. Frequency of monitoring.**

A. Biosolids.

1. The frequency of monitoring for the pollutants listed in Tables 1 through 5 of 9VAC25-32-356; the pathogen density requirements in 9VAC25-32-675 A and B 2 through B 4; and the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 4, B 7, and B 8 shall be the frequency in Table 1 of this section.

TABLE 1 FREQUENCY OF MONITORING – LAND APPLICATION	
Amount of biosolids <sup>(1)</sup> (metric tons per 365-day period)	Frequency <sup>(2)</sup>
Greater than zero but less than 290	Once per year
Equal to or greater than 290 but less than 1,500	Once per quarter (four times per year)
Equal to or greater than 1,500 but less than 15,000	Once per 60 days (six



	times per year)
Equal to or greater than 15,000	Once per month (12 times per year)
Note <sup>(1)</sup> : Either the amount of bulk biosolids applied to the land or the amount of biosolids received by a person who prepares biosolids that is sold or given away in a bag or other container for application to the land (dry weight basis).	
Note <sup>(2)</sup> : Sampling shall be conducted at approximately equal intervals at the listed frequencies. Biosolids programs that store biosolids and land apply only during discrete events throughout the year shall schedule sampling events to coincide with application periods. The department may require increased monitoring frequencies, if necessary, to adequately define any significant variability in biosolids quality.	

2. After the biosolids has been monitored for two years at the frequency in Table 1 of this section, the board may reduce the frequency of monitoring for pollutant concentrations and for the pathogen density requirements in 9VAC25-32-675 A 5 b and c.

B. Domestic septage. If the vector attraction reduction requirements in 9VAC25-32-685 B 12 are met when domestic septage is applied to agricultural land, forest, or a reclamation site, each container of domestic septage applied to the land shall be monitored for compliance with those requirements.

#### **9VAC25-32-359. Recordkeeping.**

##### **A. Biosolids.**

1. If the pollutant concentrations in Table 4 of 9VAC25-32-356, the Class A pathogen requirements in 9VAC25-32-675 A, and the vector attraction reduction requirements in either 9VAC25-32-685 B 9 or B 10 are met when bulk biosolids is applied to agricultural land, forest, a public contact site, or a reclamation site:

a. The person who prepares the bulk biosolids shall develop the following information and shall retain the information for five years:

(1) The concentration of each pollutant listed in Table 4 of 9VAC25-32-356 in the bulk biosolids;

(2) The following certification statement:

"I certify, under penalty of law, that the information that will be used to determine compliance with the pathogen requirements in 9VAC25-32-675 A was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."; and

(3) A description of how the pathogen requirements in 9VAC25-32-675 A are met.

b. The person who applies the bulk biosolids shall develop the following information and shall retain the information for five years:

(1) The following certification statement:

"I certify, under penalty of law, that the information that will be used to determine compliance with the management practices in 9VAC25-32-560 and the vector attraction reduction requirement in (insert either 9VAC25-32-685 B 9 or B 10) was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this

- information. I am aware that there are significant penalties for false certification including fine and imprisonment."; and
- (2) A description of how the management practices in 9VAC25-32-560 are met for each site on which bulk biosolids is applied; and
  - (3) A description of how the vector attraction reduction requirements in either 9VAC25-32-685 B 9 or B 10 are met for each site on which bulk biosolids is applied.
2. If the pollutant concentrations in 9VAC25-32-356 Table 4 and the Class B pathogen requirements in 9VAC25-32-675 B are met when bulk biosolids is applied to agricultural land, forest, a public contact site, or a reclamation site:
- a. The person who prepares the bulk biosolids shall develop the following information and shall retain the information for five years:
    - (1) The concentration of each pollutant listed in Table 4 of 9VAC25-32-356 in the bulk biosolids;
    - (2) The following certification statement:  
 "I certify, under penalty of law, that the information that will be used to determine compliance with the Class B pathogen requirements in 9VAC25-32-675 B and the vector attraction reduction requirement in (insert one of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8, if one of those requirements is met) was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification, including the possibility of fine and imprisonment."; and
    - (3) A description of how the Class B pathogen requirements in 9VAC25-32-675 B are met; and
    - (4) When one of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8 is met, a description of how the vector attraction reduction requirement is met.
  - b. The person who applies the bulk biosolids shall develop the following information and shall retain the information for five years:
    - (1) The following certification statement:  
 "I certify, under penalty of law, that the information that will be used to determine compliance with the management practices in 9VAC25-32-560, the site restrictions in 9VAC25-32-675 B 5, and the vector attraction reduction requirements in (insert either 9VAC25-32-685 B 9 or B 10, if one of those requirements is met) was prepared for each site on which bulk biosolids is applied under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.";
    - (2) A description of how the management practices in 9VAC25-32-560 are met on each site on which bulk biosolids is applied;
    - (3) A description of how the site restrictions in 9VAC25-32-675 B 5 are met for each site on which bulk biosolids is applied;
    - (4) When the vector attraction reduction requirement in either 9VAC25-32-685 B 9 or B 10 is met, a description of how the vector attraction reduction requirement is met; and
    - (5) The date bulk biosolids is applied to each site.

3. If the requirements in 9VAC25-32-356 B 2 are met when bulk biosolids is applied to agricultural land, forest, a public contact site, or a reclamation site:

a. The person who prepares the bulk biosolids shall develop the following information and shall retain the information for five years:

(1) The concentration of each pollutant listed in Table 2 of 9VAC25-32-356 in the bulk biosolids;

(2) The following certification statement:

"I certify, under penalty of law, that the information that will be used to determine compliance with the pathogen requirements in (insert either 9VAC25-32-675 A or B and the vector attraction reduction requirement in (insert one of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8, if one of those requirements is met)) was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fines and imprisonment.";

(3) A description of how the pathogen requirements in either 9VAC25-32-675 A or B are met; and,

(4) When one of the vector attraction requirements in 9VAC25-32-685 B 1 through B 8 is met, a description of how the vector attraction reduction requirement is met.

b. The person who applies the bulk biosolids shall develop the following information, retain the information in subdivisions A 3 b (1) through A 3 b (7) indefinitely, and retain the information in subdivisions A 3 b (8) through A 3 b (13) for five years:

(1) The location, by either street address or latitude and longitude, of each site on which bulk biosolids is applied;

(2) The number of hectares in each site on which bulk biosolids is applied;

(3) The date bulk biosolids is applied to each site;

(4) The cumulative amount of each pollutant (i.e., kilograms) listed in Table 3 of 9VAC25-32-356 in the bulk biosolids applied to each site, including the amount in 9VAC25-32-313 F 2 c;

(5) The amount of biosolids (i.e., dry metric tons) applied to each site;

(6) The following certification statement:

"I certify, under penalty of law, that the information that will be used to determine compliance with the requirements to obtain information in 9VAC25-32-313 F 2 was prepared for each site on which bulk biosolids is applied under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including fine and imprisonment.";

(7) A description of how the requirements to obtain information in 9VAC25-32-313 F 2 are met;

(8) The following certification statement:

"I certify, under penalty of law, that the information that will be used to determine compliance with the management practices in 9VAC25-32-313 B and 9VAC25-32-560 was prepared for each site on which bulk biosolids is applied under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including fine and imprisonment.";

(9) A description of how the management practices in 9VAC25-32-560 are met for each site on which bulk biosolids is applied;

(10) The following certification statement when the bulk biosolids meet the Class B pathogen requirements in 9VAC25-32-675 B:

"I certify, under penalty of law, that the information that will be used to determine compliance with the site restrictions in 9VAC25-32-675 B 5 was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including fines and imprisonment.";

(11) A description of how the site restrictions in 9VAC25-32-675 B 5 are met for each site on which Class B bulk biosolids is applied;

(12) The following certification statement when the vector attraction reduction requirement in either 9VAC25-32-685 B 9 or B 10 is met:

"I certify, under penalty of law, that the information that will be used to determine compliance with the vector attraction reduction requirement in (insert either 9VAC25-32-685 B 9 or B 10) was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."; and

(13) If the vector attraction reduction requirements in either 9VAC25-32-685 B 9 or B 10 are met, a description of how the requirements are met.

B. Domestic septage. When domestic septage is applied to agricultural land, forest, or a reclamation site, the person who applies the domestic septage shall develop the following information and shall retain the information for five years:

1. The location, by either street address or latitude and longitude, of each site on which domestic septage is applied;

2. The number of acres in each site on which domestic septage is applied;

3. The date domestic septage is applied to each site;

4. The nitrogen and phosphorus requirement for the crop or vegetation grown on each site during the 365-day period;

5. The rate, in gallons per acre per 365-day period, at which domestic septage is applied to each site;

6. The following certification statement:

"I certify, under penalty of law, that the information that will be used to determine compliance with the pathogen requirements in (insert either 9VAC25-32-675 C 1 or C 2) and the vector attraction reduction requirements in (insert 9VAC25-32-685 B 9, B 10, or B 12) was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.";

7. A description of how the pathogen requirements in either 9VAC25-32-675 C 1 or C 2 are met; and

8. A description of how the vector attraction reduction requirements in 9VAC25-32-685 B 9; B 10 and B 12 are met.

**9VAC25-32-360. Reporting.**

A. An activity report shall be submitted (electronically or postmarked) to the department by the 15th day of each month for land application activity that occurred in the previous calendar month, unless another date is specified in the permit in accordance with 9VAC25-32-80 I 4. The report shall indicate those sites where land application activities took place during the previous month. If no land application occurs under a permit during the calendar month, a report shall be submitted stating that no land application occurred.

B. A report shall be submitted to the department annually on February 19 of each year for the previous calendar year's activity. The report shall include at a minimum:

1. The information in 9VAC25-32-359 A, except the information in 9VAC25-32-359 A 1 b, A 2 b and A 3 b, for the appropriate requirements; and
2. The information in 9VAC25-32-359 A 3 b (1) through (7) when 90% or more of any of the cumulative pollutant loading rates in Table 3 of 9VAC25-32-356 is reached at a land application site.

C. Reports shall be maintained documenting the required treatment and quality characteristics and the maximum allowable land application loading rates established for biosolids use; in addition, operational monitoring results shall verify that required sludge treatment has achieved the specified levels of pathogen control and vector attraction reductions (9VAC25-32-675 and 9VAC25-32-685). Adequate records on biosolids composition, treatment classification, biosolids application rates, and methods of application for each site shall be maintained by the generator and owner.

D. The generator and owner shall maintain the records for a minimum period of five years. Sites receiving frequent applications of biosolids that meet or exceed maximum cumulative constituent loadings and dedicated disposal sites should be properly referenced for future land transactions (Sludge Disposal Site Dedication Form).

**9VAC25-32-370. Minimum biosolids sampling and testing (Repealed. 9/13 - moved to 450.)**

**9VAC25-32-380. Minimum operational testing & control (Repealed. 9/13 - moved to 410.D & 450.)**

**9VAC25-32-390. Additional monitoring, reporting and recording (Repealed. 9/13 - moved to Article 6.)**

**9VAC25-32-400. Additional monitoring.**

A. The department may require that additional site specific monitoring be performed by the holder of the permit for any biosolids land application practice regardless of frequency of application or size of the application area. Such requirements may occur in situations in which groundwater contamination, surface runoff, soil toxicity, health hazards or nuisance conditions are identified as an existing problem or potential problem as a result of biosolids use operations. Additional monitoring may include, but is not limited to, groundwater, surface water, crop, and soil monitoring.

B. The board may require the owner or operator of any facility or operation to install, use, and maintain monitoring equipment for internal testing of biosolids quality, to identify and determine the causes of operational problems, and to determine the necessary corrective

actions to correct such problems. If this testing is required, test results shall be recorded, compiled, and reported to the department.

C. Additional operational control information may be required on an individual basis by the department.

D. The department may require biosolids to be tested for certain toxic organic compounds prior to agricultural use. If performed and validated, these test results shall be utilized to evaluate the maximum allowable annual loading rate for the tested biosolids. If analytical test results verify that biosolids contains levels of organic chemicals exceeding concentration limits incorporated in federal regulations or standards, appropriate restrictions shall be imposed for agricultural use of those biosolids.

E. Additional parameters may be required for screening purposes such as aluminum (mg/kg), water soluble boron (mg/kg), calcium (mg/kg), manganese (mg/kg), sulfates (mg/kg), and those pollutants for which removal credits are granted.

F. Microbiological testing may be necessary to document the sludge treatment classification (9VAC25-32-675). Microbiological standards shall be verified by the log mean of the analytical results from testing of seven or more samples of the sludge source. Sampling events shall be separated by an appropriate period of time so as to be representative of the random and cyclic variations in sewage characteristics.

#### **9VAC25-32-410. Biosolids management plan.**

A. The permit holder shall maintain and implement a Biosolids Management Plan that shall consist of three components:

1. The materials, including site booklets, developed and submitted at the time of permit application or permit modification adding a farm to the permit in accordance with 9VAC25-32-60 F;
2. Nutrient management plan developed for each site, prior to biosolids application; and
3. Operations and maintenance (O&M) manual, developed and submitted to the department within 90 days of the effective date of the permit.

B. The biosolids management plan and all of its components shall be incorporated as an enforceable part of the permit.

C. Nutrient management plan:

1. A nutrient management plan approved by the Department of Conservation and Recreation shall be required for application sites prior to board authorization under specific conditions, including but not limited to:
  - a. Sites operated by an owner or lessee of a confined animal feeding operation as defined in subsection A of § 62.1-44.17:1 of the Code of Virginia, or confined poultry feeding operation as defined in subsection A of § 62.1-44.17:1.1 of the Code of Virginia;
  - b. Sites where land application more frequently than once every three years at greater than 50% of the annual agronomic rate is proposed;
  - c. Mined or disturbed land sites where land application is proposed at greater than agronomic rates; and
  - d. Other sites based on site-specific conditions that increase the risk that land application may adversely impact state waters.
2. Where conditions at the land application site change so that it meets one or more of the specific conditions identified in subdivisions 1 a through d of this subsection, an

approved nutrient management plan shall be submitted prior to any future land application at the site.

3. The nutrient management plan shall be available for review by the department at the land application site during biosolids land application.

4. Within 30 days after land application at the site has commenced, the permit holder shall provide a copy of the nutrient management plan to the farm operator of the site, the Department of Conservation and Recreation and the chief executive officer or designee for the local government unless they request in writing not to receive the nutrient management plan.

5. The nutrient management plan must be approved by the Department of Conservation and Recreation prior to land application for application sites where the soil test phosphorus levels exceed the values in Table 1 of this section. For purposes of approval, permittees should submit the nutrient management plan to the Department of Conservation and Recreation at least 30 days prior to the anticipated date of land application to ensure adequate time for the approval process.

TABLE 1 SOIL PHOSPHORUS LEVELS REQUIRING NMP APPROVAL	
Region	Soil Test P (ppm) VPI & SU Test (Mehlich I)*
Eastern Shore and Lower Coastal Plain	135
Middle and Upper Coastal Plain and Piedmont	136
Ridge and Valley	162

\*If results are from another laboratory, the Department of Conservation and Recreation approved conversion factors must be used.

D. The O&M manual shall include at a minimum:

1. Equipment maintenance and calibration procedures and schedules;
2. Storage facility maintenance procedures and schedules;
3. Sampling schedules for:
  - a. Required monitoring; and
  - b. Operational control testing;
4. Sample collection, preservation, and analysis procedures, including laboratories and methods used; and
5. Instructions for recording and reporting of all monitoring activities.

#### **9VAC25-32-420. Operability.**

A. Independently operated essential equipment, or components, of biosolids use facilities and operations, including treatment works, shall be provided with sufficient capacity and routine maintenance resources so that the average quantity of biosolids used may be reliably transported, stored, treated or otherwise managed in accordance with permit requirements.

B. The need for spare parts shall be determined from operational experience and evaluation of past maintenance requirements. A spare parts inventory may be included in the operation and maintenance manual.

C. Sufficient spare parts determined as necessary to ensure continuous operability of essential unit operations and equipment shall be either located at the treatment works or at readily accessible locations. The minimum quantities of spare parts actually provided shall be in accordance with the operation and maintenance manual.

**9VAC25-32-430. Maintenance.**

A regular or routine program of preventive maintenance shall be adhered to. The operations and maintenance manual shall contain a system of maintenance requirements to be accomplished. The routine, minimum preventive maintenance system shall be in accordance with the operations and maintenance manual. Such a system should provide for advanced scheduling of preventive maintenance and should be continually assessed in order to reflect increased service requirements as equipment ages or flow rates increase. Adequate records, files and inventories to assist the operator in his task should also be described in the operation and maintenance manual. Information systems provided for maintenance should describe the documentation required to verify biosolids treatment quality necessary for compliance with permits. Where certain components of the treatment process may be damaged by flooding so as to cause excessive delays in restoring the treatment process to a normal operating level, the means of protecting or removal of such components prior to flooding should be described in the operations and maintenance manual.

**9VAC25-32-440. Biosolids monitoring/reporting (Repealed. 9/13 - moved to 358 & 360.)**

**9VAC25-32-450. Sampling, analysis, and preservation.**

A. Representative samples of biosolids that is applied to the land or placed on a surface disposal site shall be collected and analyzed.

1. Raw sewage or sludge samples are to be collected prior to the treatment process unit operations.
2. Final treated samples are to be taken at a point following appropriate unit operations in the treatment process. An evaluation of biosolids treatment may require monitoring of fecal coliform levels in treated biosolids.
3. Composite samples shall be collected in accordance with the treatment works operation and maintenance manual.

B. Liquid biosolids. In the case of digesters and liquid storage holding tanks, a representative sample shall be composed of at least four grab samples obtained during daily operations at the facility or land application site. Samples of liquid biosolids obtained under pressure or vacuum should be obtained shortly after the beginning, during and at the end of the time period that the biosolids are produced at the sampling point.

C. Biosolids storage facilities. Equal volumes of biosolids shall be withdrawn from random locations across the width and throughout the length of the storage facility at the surface, mid-depth and near the bottom of the lagoon at each grab sample location. These grab samples shall be added to form a composite mix. A range of the minimum number of grab samples that should be obtained from various sizes of biosolids storage facilities in order to obtain a representative composite sample is presented in Table 1 of this section:

TABLE 1 MINIMUM NUMBER OF GRAB SAMPLES FROM STORAGE FACILITIES	
Surface Area (Acres)	Minimum Number of Grab Samples



	Depth less than 4 feet	Depth greater than 4 feet
1 to 9.99	4 to 5	6 to 8
10 or more	6 to 8	9 to 11

D. Dewatered biosolids. Small, equally sized grab samples of the dewatered sludge stream may be taken at equally spaced intervals over the period of operation of the dewatering unit. Centrifuged biosolids samples may be taken from a belt conveyor or receiving hopper. Filter cake biosolids samples may be taken from a belt conveyor or a portion of the cake may be removed as it leaves the unit. The smaller grab samples should be combined to form a representative composite sample. A composite sample can be obtained over the daily operational period at the land application site.

E. Compost sampling. Collect composite samples composed of at least three grab samples of 1 kilogram or more so that a representative average level of compost characteristics can be obtained from analytical testing. This mixture should be used for analytical testing or for combination with other composites to obtain a total composite sample representing a fixed period of operation. Compost samples may be taken with a scoop or shovel and placed in flexible bags that can be thoroughly shaken to mix grab samples.

F. Biosolids samples shall be preserved and analyzed in accordance with methods listed in 40 CFR Part 136 (2007) and methods identified in 9VAC25-31-490. Calculation procedures in the methods shall be used to calculate the percent volatile solids reduction for biosolids. Any other acceptable test procedure not listed in 40 CFR Part 136 (2007) shall be specified in the VPA permit.

#### **9VAC25-32-460. Soils monitoring.**

A. Soil shall be sampled and analyzed prior to biosolids application. No sample analysis used to determine application rates shall be more than three years old at the time of biosolids land application. Soil shall be sampled and analyzed in accordance with Table 1 of this section. Reduced monitoring may also apply to one time biosolids applications to forest or reclaimed lands. For background analysis, random composite soil samples from the zone of incorporation is required for infrequent applications and frequent applications at less than agronomic rates (total less than 15 dry tons per acre).

TABLE 1  
SOIL TEST PARAMETERS FOR LAND APPLICATION SITES<sup>1</sup>

Parameter
Soil pH (Std. Units)
Available phosphorus (ppm) <sup>2</sup>
Extractable potassium (ppm)
Extractable sodium (mg/100g) <sup>3</sup>
Extractable calcium (mg/100g)
Extractable magnesium (mg/100g)
Zinc (ppm)
Manganese (ppm)

<sup>1</sup>Note: Unless otherwise stated, analyses shall be reported on a dry weight basis.

<sup>2</sup>Available P shall be analyzed using one of the following methods: Mehlich I or Mehlich III.

<sup>3</sup>Extractable sodium shall be analyzed only where biosolids known to be high in sodium will be land applied.

B. The permit applicant or permit holder may be required to conduct soil testing and analysis of additional parameters, as determined by the department, based on site-specific history or conditions.

C. Samples shall be collected in accordance with § 10.1-104.2 of the Code of Virginia.

#### **9VAC25-32-470. Crop monitoring and reporting.**

Vegetation monitoring may be required by the board upon recommendation of the department once every three years on sites with frequent applications of biosolids applied at or greater than agronomic rates and when 400 pounds per acre or more of available phosphorus has been applied to the soil. Analyses of plant tissue should be conducted at the proper growth stage as recommended by either the Virginia Department of Agriculture and Consumer Services, the Virginia Department of Conservation and Recreation or Virginia Cooperative Extension Service. Routine analyses include nitrate-nitrogen, phosphorus, potassium, calcium, manganese, magnesium, iron, copper and zinc. Analysis for additional parameters may be necessary as determined on a case-by-case basis. Results shall be reported annually to the department.

#### **9VAC25-32-480. Groundwater monitoring and reporting.**

A. Monitoring wells may be required by the board for land treatment sites, sludge lagoons, biosolids land application sites, or biosolids storage facilities to monitor groundwater quality.

B. If groundwater monitoring is required, a groundwater monitoring plan shall be submitted to the department for approval that includes at a minimum:

1. Geologic and hydrologic conditions at the site;
2. Monitoring well design, placement, and construction;
3. Sampling frequency;
4. Sampling procedures, including quality assurance and quality control; and
5. Collection of background samples.

### **Article 3**

#### **Biosolids Use Standards and Practices**

#### **9VAC25-32-490. Compliance with biosolids use practices of this chapter.**

Guidelines set forth in 9VAC25-32-515 through 9VAC25-32-580 of this regulation specify minimum standards for biosolids use for land application, marketing and distribution, including biosolids quality and site specific management practices. Compliance with this chapter will not be required for facilities not including land application, distribution, or marketing, which have received the approval of the Commissioner of the State Department of Health and the State Water Control Board and for which operation has commenced as of January 1, 2008. Such operation of facilities is deemed to be commenced upon issuance of a certificate to operate in accordance with the Sewage Collection and Treatment Regulations (9VAC25-790). However,

the board may impose standards and requirements that are more stringent than those contained in this regulation according to the provisions of 9VAC25-32-100 E, 9VAC25-32-315, and 9VAC25-32-560 B 3. Conformance to local land use zoning and planning should be resolved between the local government and the facility owner or permit holder. Applications submitted for facilities must demonstrate that the facility and biosolids use management practices will adequately safeguard public health and will comply with the certificate and permit requirements, as appropriate. Submissions that are in substantial compliance with this regulation and comply with any additional requirements as noted above will be approved. Justification for biosolids use proposals may be required for those portions of the submitted proposal that differ from these criteria. The owner or owner's agent shall identify and justify noncompliance with specific standards or "shall" criteria that the department identifies, or the applicant, in his judgment, believes to be substantial in nature. The department may request changes in designs that are not in substantial compliance with this regulation and that are not adequately justified by the applicant. The fact that significant work was accomplished on a specific permit application prior to adoption of this regulation shall be a consideration when evaluating applications.

**9VAC25-32-500. Sludge management (Repealed. 9/13 – unnecessary general narration referring to other sections.)**

**9VAC25-32-510. General biosolids use standards (Repealed. 9/13 - moved to 515.)**

**9VAC25-32-515. Notification of land application activity.**

**A. Written notification.**

1. At least 100 days prior to commencing the first land application of biosolids at a permitted site, the permit holder shall deliver or cause to be delivered written notification to the chief executive officer or designee for the local government where the site is located. This requirement may be satisfied by the department's notice to the local government at the time of receiving the permit application if all necessary information is included in the notice or by providing a list of available permitted sites in the locality at least 100 days prior to commencing the application at any site on the list. If the site is located in more than one county, the information shall be provided to all jurisdictions where the site is located.
2. At least 14 days prior to commencing land application of biosolids at a permitted site, the permit holder shall deliver or cause to be delivered written notification to the department and the chief executive officer or designee for the local government where the site is located unless they request in writing not to receive the notice. The notice shall identify the location of the permitted site and the expected sources of the biosolids to be applied to the site.
3. Not more than 24 hours prior to commencing land application activities, including delivery of biosolids at a permitted site, the permittee shall notify in writing the department and the chief executive officer or designee for the local government where the site is located unless they request in writing not to receive the notice. This notification shall include identification of the biosolids source and shall include only sites where land application activities will commence within 24 hours or where biosolids will be staged within 24 hours.

**B. Posting signs.**

1. At least five business days prior to delivery of biosolids for land application on any site permitted under this regulation, the permit holder shall post signs at the site that comply

with this section, are visible and legible from the public right-of-way in both directions of travel, and conform to the specifications herein. The sign shall remain in place for at least five business days after land application has been completed at the site. The permit holder shall not remove the signs until at least 30 days after land application has been completed at the site.

- a. A sign shall be posted at or near the intersection of the public right-of-way and the main site access road or driveway to the site used by the biosolids transport vehicles.
  - b. If the field is located adjacent to a public right-of-way, at least one sign shall be posted along each public road frontage beside the field to be land applied.
  - c. The department may grant a waiver to the requirements in this section, or require alternative posting options due to extenuating circumstances or where requirements conflict with local government ordinances and other requirements regulating the use of signs.
2. Upon the posting of signs at a land application site prior to commencing land application, the permittee shall deliver or cause to be delivered written notification to the department and the chief executive officer or designee for the local government where the site is located unless they request in writing not to receive the notice. Notification shall be delivered to the department within 24 hours of the posting of signs. The notice shall include the following:
  - a. The name and telephone number of the permit holder, including the name of a representative knowledgeable of the permit;
  - b. Identification by tax map number and the DEQ control number for sites on which land application is to take place;
  - c. The name or title and telephone number of at least one individual designated by the permit holder to respond to questions and complaints related to the land application project if not the permit holder identified in 9VAC25-32-515 B 2 a;
  - d. The approximate dates on which land application is to begin and end at the site; and
  - e. The name, address, and telephone number of the wastewater treatment facility or facilities from which the biosolids will originate, including the name or title of a representative of the treatment facility who is knowledgeable about the land application operation.
3. The sign shall be made of weather-resistant materials and shall be sturdily mounted so as to be capable of remaining in place and legible throughout the period that the sign is required at the site. Signs required by this section shall be temporary, nonilluminated, and four square feet or more in area, and only contain the following information:
  - a. A statement that biosolids are being land-applied at the site;
  - b. The name of the permit holder;
  - c. The telephone number of an individual designated by the permit holder to respond to complaints and inquiries; and
  - d. Contact information for the department, including a telephone number for complaints and inquiries.
4. The permit holder shall make a good faith effort to replace or repair any sign that has been removed from a land application site or that has been damaged so as to render any of its required information illegible prior to five business days after completion of land application.

C. Handling of complaints.

1. Within 24 hours of receiving notification of a complaint, the permit holder shall commence investigation of said complaint and shall determine whether the complaint is substantive. The permit holder shall confirm receipt of all substantive complaints by phone, email, or facsimile to the department, the chief executive officer or his designee for the local government of the jurisdiction in which the complaint originates, and the owner of the treatment facility from which the biosolids originated within 24 hours after receiving the complaint.
2. For the purposes of this section, a substantive complaint shall be deemed to be any complaint alleging a violation of these regulations, state law, or local ordinance; a release of biosolids to state waters or to a public right-of-way or to any location not authorized in the permit; or failure to comply with the nutrient management plan for the land application site.
3. Localities receiving complaints concerning land application of biosolids shall notify the department and the permit holder within 24 hours of receiving the complaint.

**9VAC25-32-520. Sludge quality and composition (Repealed. 9/13 – unnecessary general narration referring to other sections.)**

**9VAC25-32-530. Land acquisition.**

A. When an application to permit land application of biosolids is submitted to the department, the permit applicant shall ensure the continued availability of the land and protection from improper concurrent use during the utilization period.

B. Land acquisition requirements.

1. Permit holders shall use a unique control number assigned by the department as an identifier for fields permitted for land application.
2. A written agreement shall be established between the landowner and permit applicant or permit holder to be submitted with the permit application, whereby the landowner shall consent to apply biosolids on his property. The landowner agreement shall include:
  - (a) A statement certifying that the landowner is the sole owner or one of multiple owners of the property or properties identified on the landowner agreement;
  - (b) A statement certifying that no concurrent agreements are in effect for the fields to be permitted for biosolids application;
  - (c) An acknowledgement that the landowner shall notify the permittee when land is sold or ownership transferred;
  - (d) An acknowledgement that the landowner shall notify the permittee if any conditions change such that any component of the landowner agreement becomes invalid;
  - (e) Permission to allow department staff on the landowner's property to conduct inspections;
  - (f) An acknowledgement by the landowner of any site restrictions identified in the regulation;
  - (g) An acknowledgement that the landowner has received a biosolids fact sheet approved by the department; and
  - (h) An acknowledgement that the landowner shall not remove notification signs placed by the permit holder.

3. New landowner agreements using the most current form provided by the board shall be submitted to the department for proposed land application sites identified in each application for issuance or reissuance of a permit or the modification to add land to an existing permit that authorizes the land application of biosolids.
4. For permits modified in order to incorporate changes to this regulation, the permit holder shall, within 60 days of the effective date of the permit modification, advise the landowner by certified letter of the requirement to provide a new landowner agreement. The letter shall include instructions to the landowner for signing and returning the new landowner agreement, and shall advise the landowner that the permit holder's receipt of such new landowner agreement is required prior to application of biosolids to the landowner's property.
5. The responsibility for obtaining and maintaining the agreements lies with the permit holder. The written agreement shall be submitted to the department with the permit application.

#### **9VAC25-32-540. Transport.**

A. Transport routes should follow primary highways, shall avoid residential areas when possible, and shall comply with all Virginia Department of Transportation requirements and standards. Transport vehicles shall be sufficiently sealed to prevent leakage and spillage of biosolids. For biosolids with a solids content of less than 15%, totally closed watertight transport vehicles with rigid tops shall be provided to prevent spillage unless adequate justification is provided to demonstrate that such controls are unnecessary. The board may also require certain dewatered biosolids exceeding 15% solids content to be handled as liquid biosolids. The minimum information for biosolids transport that shall be supplied in the biosolids management plan is listed in 9VAC25-32-60 F.

B. The permit holder shall be responsible for the prompt cleanup and removal of biosolids spilled during transport. The operations manual shall include a plan for the prevention of spills during transport and for the cleanup and removal of spills. The permit holder shall ensure that its personnel, subcontractors or the drivers of vehicles transporting biosolids for land application shall be properly trained in procedures for spill removal and cleanup.

C. The permit holder shall take appropriate steps to prevent drag-out and track-out of dirt and debris or biosolids from land application sites onto public roads. Where material is transported onto a paved or public road surface, the road surface shall be cleaned thoroughly as soon as practicable, but no later than the end of each day.

D. The permit holder shall promptly report offsite spills to the department, the chief executive officer or designee for the local government and the owner of the facility generating the biosolids. The report shall be made verbally as soon as possible, but no later than 24 hours after the discovery of the spill. After business hours notification may be provided by voicemail, facsimile or email.

E. A written report, which shall include a description of measures taken in response to the spill, shall be submitted by the permit holder to the department, the chief executive officer or designee for the local government, and the owner of the facility generating the biosolids within five working days of the spill. The report may be sent by first class mail, facsimile or email, or it may be hand delivered.

#### **9VAC25-32-545. Staging of biosolids for land application.**

A. Staging is the placement of biosolids on a permitted land application field, within the land application area, in preparation for commencing land application or during an ongoing

application, at the field or an adjacent permitted field. Staging is not considered storage and shall not take the place of storage.

B. Staging requirements.

1. Staging of biosolids shall not commence unless the field meets the requirements for land application in accordance with Part IX (9VAC25-32-303 et seq.) of this regulation and field conditions are favorable for land application;
2. Biosolids may be staged for up to seven days from the first day biosolids are offloaded onto the staging area, with the following exceptions:
  - a. In areas of Karst topography, biosolids offloaded at a permitted land application field shall be land applied by the end of the business day;
  - b. In areas identified in the USDA soil survey as frequently flooded, biosolids offloaded at a permitted land application field shall be land applied by the end of the business day; or
  - c. Biosolids shall not be staged overnight on sites that have on-site storage;
3. If staged biosolids cannot be spread by the end of the seventh day of staging, the permittee shall take the following actions:
  - a. Biosolids shall be covered to prevent contact with precipitation;
  - b. The permittee shall notify the department in writing within 24 hours. Notification shall include the biosolids source or sources and amounts, location of the site, and reason for staging biosolids longer than seven days; and
  - c. Biosolids that have been staged for greater than seven days shall be spread or removed from the field as soon as field conditions become favorable for land application;
4. Staging shall be limited to the amount of biosolids specified in the nutrient management plan to be applied at the intended field;
5. Biosolids will be staged within the land application area of the field in which the biosolids will be applied or in a permitted field adjacent to the subject field, in a location selected to prevent runoff to waterways and drainage ditches;
6. Biosolids shall not be staged in the setback areas;
7. Biosolids shall not be staged overnight within 400 feet of an occupied dwelling unless reduced or waived through written consent of the occupant and landowner;
8. Biosolids shall not be staged overnight within 200 feet of a property line unless reduced or waived through written consent of the landowner;
9. Management practices, as described in the biosolids management plan, shall be utilized as appropriate to prevent pollution of state waters by staged biosolids;
10. Staged biosolids are to be inspected by the certified land applier daily. After precipitation events of 0.1 inches or greater inspections shall ensure that runoff controls are in good working order. Observed excessive slumping, erosion, or movement of biosolids is to be corrected within 24 hours. Any ponding at the site is to be corrected and any malodor shall be addressed in accordance with the odor control plan. The certified land applier shall maintain documentation of the inspections of staged biosolids; and
11. Staged biosolids shall be managed so as to prevent adverse impacts to water quality or public health

**9VAC25-32-550. Storage facilities.**

A. No person shall apply to the department for a permit, a variance, or a permit modification authorizing storage of biosolids without first complying with all requirements adopted pursuant to § 62.1-44.19:3 R of the Code of Virginia.

B. Two types of storage may be integrated into a complete biosolids management plan:

1. On-site storage, or
2. Routine storage. Only routine storage facilities shall be considered a facility under this regulation.

C. All on-site storage and routine storage facilities shall comply with the requirements of this section by 12 months from the effective date of this regulation.

D. On-site storage. On-site storage is the short-term storage of biosolids on a constructed surface within a site approved for land application at a location preapproved by the department. These stored biosolids shall be applied only to sites under the operational control of the same owner or operator of the site where the on-site storage is located. Requirements for on-site storage include the following:

1. The certified land applier shall notify the department within the same working day whenever it is necessary to implement on-site storage. Notification shall include the source or sources, location, and amounts;
2. A surface shall be constructed with sufficient strength to support operational equipment and with a maximum permeability of  $10^{-7}$  cm/sec;
3. Storage shall be limited to the amount of biosolids specified in the nutrient management plan to be applied at sites under the operational control of the same owner or operator of the site where the on-site storage is located;
4. If malodors related to the stored biosolids are verified by the department at any occupied dwelling on surrounding property, the problem must be corrected within 48 hours. If the problem is not corrected within 48 hours, the biosolids must be removed from the storage site;
5. All biosolids stored on the on-site storage pad shall be land applied by the 45<sup>th</sup> day from the first day of on-site storage;
6. Biosolids storage shall be located to provide minimum visibility from adjacent properties;
7. Best management practices shall be utilized as appropriate to prevent contact with storm water run on or runoff;
8. Stored biosolids are to be inspected by the certified land applier at least every seven days and after precipitation events of 0.1 inches or greater to ensure that runoff controls are in good working order. Observed excessive slumping, erosion, or movement of biosolids is to be corrected within 24 hours. Any ponding or malodor at the storage site is to be corrected. The certified land applier shall maintain documentation of inspections of stored biosolids;
9. The department may prohibit or require additional restrictions for on-site storage in areas of Karst topography and environmentally sensitive sites; and
- 10.

Storage of biosolids shall be managed so as to prevent adverse impacts to water quality or public health.

E. Routine storage. Routine storage is the long-term storage of biosolids at a facility not located at the site of the wastewater treatment plant, preapproved by the department and



constructed specifically for the storage of biosolids to be applied at any permitted site. Routine storage facilities shall be provided for all land application projects if no alternative means of management is available during nonapplication periods. No person shall apply to the department for a permit, a variance, or a permit modification authorizing storage of biosolids without first complying with all requirements adopted pursuant to § 62.1-44.19:3 A 5 of the Code of Virginia. Plans and specifications for any surface storage facilities (pits, ponds, lagoons) or aboveground facilities (tanks, pads) shall be submitted as part of the minimum information requirements. The minimum information requirements include:

1. Location.

- a. The facility shall be located at an elevation that is not subject to, or is otherwise protected against, inundation produced by the 100-year flood/wave action as defined by U.S. Geological Survey or equivalent information.
- b. Storage facilities should be located to provide minimum visibility.
- c. All storage facilities located offsite of property owned by the generator shall be provided with a minimum 750-foot setback area. The length of the setback area considered will be the distance measured from the perimeter of the storage facility. Residential uses, high-density human activities and activities involving food preparation are prohibited within the setback area. The board may reduce the setback requirements based on site-specific factors, such as facility size, topography, prevailing wind direction, and the inclusion of an effective windbreak in the overall design.

2. Design capacity.

- a. The design capacity for storage of liquid biosolids shall be sufficient to store a minimum volume equivalent to 60 days or more average production of biosolids and the incidental wastewater generated by operation of the treatment works plus sufficient capacity necessary for: (i) the 25 year-24 hour design storm (incident rainfall and any runoff as may be present); (ii) net precipitation excess during the storage period; and (iii) an additional one foot freeboard from the maximum water level (attributed to the sum of the above factors) to the top berm elevation. Storage capacity of less than that specified above will be considered on a case-by-case basis only if sufficient justification warrants such a reduction.
- b. If alternative methods of management cannot be adequately verified, contractors shall provide for a minimum of 30 days of in-state routine storage capacity for the average quantity of biosolids transported into Virginia from out-of-state treatment works generating at least a Class B biosolids.

3. Facility design.

- a. All drawings and specifications shall be submitted in accordance with 9VAC25-790-160.
- b. The biosolids shall be stored on an engineered surface with a maximum permeability of  $10^{-7}$  cm/sec and of sufficient strength to support operational equipment.
- c. Storage facilities designed to hold dewatered biosolids shall be constructed with a cover to prevent contact with precipitation.
- d. Existing facilities permitted as routine storage facilities and designed to contain liquid biosolids may be used to store dewatered biosolids. The supernatant shall be managed as liquid biosolids in accordance with 9VAC25-32-550 E 5 d. Freeboard shall be maintained in accordance with 9VAC25-32-550 E 5 c. The department may require additional monitoring prior to land application.

- e. Storage facilities shall be of uniform shape (round, square, rectangular) with no narrow or elongated portions.
  - f. The facilities shall also be designed to permit access of equipment necessary for loading and unloading biosolids, and shall be designed with receiving facilities to allow for even distribution of biosolids into the facility.
  - g. The design shall also provide for truck cleaning facilities.
4. Monitoring. All biosolids storage facilities shall be monitored in accordance with the requirements of this regulation. Plans and specifications shall be provided for such a monitoring program in accordance with the minimum information specified in 9VAC25-32-60 F and 9VAC25-32-410.
5. Operation.
- a. Only biosolids suitable for land application (Class A or B biosolids) shall be placed into permitted routine storage facilities.
  - b. Storage of biosolids located offsite or remote from the wastewater treatment works during the summer months shall be avoided whenever possible so that the routine storage facility remains as empty as possible during the summer months.
  - c. Storage facilities shall be operated in a manner such that sufficient freeboard is provided to ensure that the maximum anticipated high water elevation due to any and all design storm inputs is not less than one foot below the top berm elevation.
  - d. Complete plans for supernatant disposal shall be provided in accordance with 9VAC25-32-60 F. Plans for supernatant disposal may include transport to the sewage treatment works, mixing with the biosolids for land application or land application separately. However, separate land application of supernatant will be regulated as liquid biosolids; additional testing, monitoring and treatment (disinfection) may be required.
  - e. The facility site shall be fenced to a minimum height of five feet; gates and locks shall be provided to control access. The fence shall be posted with signs identifying the facility. The fence shall not be constructed closer than 10 feet to the outside edge of the facility or appurtenances, to allow adequate accessibility.
  - f. If malodors related to the stored biosolids are verified by the department at any occupied dwelling on surrounding property, the malodor must be corrected within 48 hours.
6. Closure. An appropriate plan of closure or abandonment shall be developed by the permittee when the facility ceases to be utilized and approved by the board. Such plans may also be reviewed by the Department of Health.
7. Recordkeeping. A manifest system shall be developed, implemented and maintained and be available for inspection during operations as part of the overall daily recordkeeping for the project (9VAC25-32-60 F).

**9VAC25-32-560. Biosolids utilization methods.**

- A. Requirements applicable to land application of biosolids.
  - 1. All biosolids application rates, application times and other site management operations shall be restricted as specified in the biosolids management plan. The biosolids management plan shall include a nutrient management plan as required by 9VAC25-32-410 and prepared by a certified nutrient management planner as stipulated in regulations promulgated pursuant to § 10.1-104.2 of the Code of Virginia.

2. Biosolids shall be treated to meet standards for land application as required by Part IX (9VAC25-32-303 et seq.) of this chapter prior to delivery at the land application site. No person shall alter the composition of biosolids at a site approved for land application of biosolids under a Virginia Pollution Abatement Permit. Any person who engages in the alteration of such biosolids shall be subject to the penalties provided in Article 6 (§ 62.1-44.31 et seq.) of Chapter 3.1 of Title 62.1 of the Code of Virginia. The addition of lime or deodorants to biosolids that have been treated to meet standards for land application as required by Part IX (9VAC25-32-303 et seq.) of this chapter shall not constitute alteration of the composition of biosolids. The board may authorize public institutions of higher education to conduct scientific research on the composition of biosolids that may be applied to land.

B. Agricultural use. Agricultural use of biosolids is the land application of biosolids to cropland or pasture land to obtain agronomic benefits as a plant nutrient source and soil conditioner.

1. Biosolids treatment. As a minimum, biosolids that are applied to the land or incorporated into the soil shall be treated by a Class II pathogen treatment process and shall be treated or managed to provide an acceptable level of vector attraction reduction.

2. Site soils.

a. Depth to bedrock or restrictive layers shall be a minimum of 18 inches.

b. Biosolids application shall not be made during times when the seasonal high water table of the soil is within 18 inches of the ground surface. If Natural Resources Conservation Service soil survey information regarding depth of seasonal water table is not available, the water table depth shall be determined by soil characteristics or water table observations. If the soil survey or such evidence indicates that the seasonal water table can be less than 18 inches below the average ground surface, soil borings shall be conducted within seven days prior to land application operations during periods of high water table for the soil series present to verify the actual water table depth. The use of soil borings and water table depth verification may be required for such sites from November to May (during seasonal high water table elevations) of each year depending on soil type. Constructed channels (agricultural drainage ditches) may be utilized to remove surface water and lower the water table as necessary for crop production and site management.

c. The pH of the biosolids and soil mixture shall be 6.0 or greater at the time of each biosolids application if the biosolids cadmium concentration is greater than or equal to 21 mg/kg. The soil pH must be properly tested and recorded prior to land application operations during which a pH change of one-half unit or more may occur within the zone of incorporation (i.e., use of biosolids containing lime or other alkaline additives at 10% or more of dry solid weight).

d. When soil test pH is less than 5.5 S.U., the land shall be supplemented with lime at the recommended agronomic rate prior to or during biosolids application if the biosolids to be land applied have not been alkaline stabilized.

e. When soil test potassium levels are less than 38 parts per million (Mehlich I analytical procedure or equivalent), the land shall be supplemented with potash at the recommended agronomic rate prior to or during biosolids application.

3. Management practices.

a. Site specific application rates shall not exceed the rates established in the nutrient management plan nor result in exceedance of the cumulative trace element loading rates specified in 9VAC25-32-356 Table 3.

b. Agricultural use of stabilized septage shall be in accordance with the same requirements as biosolids.

c. Application frequency.

Infrequent. If biosolids are applied to a field only once in a three-year period, biosolids may be applied such that the total crop needs for nitrogen is not exceeded during a one-year crop rotation period including the production and harvesting of two crops in succession within a consecutive 12-month growing season. The infrequent application rate may be restricted (i) down to 10% of the maximum cumulative loading rate (9VAC25-32-356 Table 3) for cadmium and lead or (ii) to account for all sources of nutrients applied to the site, including existing residuals.

d. Operations.

(1) Field management. The application rate of all application equipment shall be routinely measured as described in a biosolids management plan. Liquid biosolids shall not be applied at rates exceeding 14,000 gallons per acre, per application. Sufficient drying times shall be allowed between subsequent applications. Application vehicles shall be suitable for use on agricultural land. Pasture and hay fields shall be grazed or clipped to a height of approximately six inches prior to biosolids application. Biosolids shall be applied such that uniform application is achieved. If application methods do not result in a uniform distribution of biosolids, additional operational methods shall be employed following application such as dragging with a pasture harrow, followed by clipping if required, to achieve a uniform distribution of the applied biosolids.

(2) Surface incorporation may be required on cropland by the department, or the local monitor with approval of the department, to mitigate malodors when incorporation is practicable and compatible with a soil conservation plan or contract meeting the standards and specifications of the U.S. Department of Agriculture Natural Resources Conservation Service.

(3) Slopes above 15%. Biosolids shall not be applied to site slopes exceeding 15%. This restriction may be waived by the department for the establishment and maintenance of perennial vegetation or based on site specific criteria and BMPs in place in the field.

(4) Biosolids application timing and slope restrictions shall conform to criteria contained in regulations promulgated pursuant to § 10.1-104.2 of the Code of Virginia.

(5) Snow. Biosolids may only be applied to snow-covered ground if the snow cover does not exceed one inch and the snow and biosolids are incorporated within 24 hours of application. If snow melts during biosolids application, incorporation is not necessary.

e. Setback distances.

(1) Setback distances. The land application of biosolids shall not occur within the following minimum setback distance requirements (Table 2 of this section):

TABLE 1: MINIMUM SETBACK DISTANCE REQUIREMENTS	
Adjacent Feature	Minimum Setback Distance (Feet) to Land Application

	Area
Occupied dwelling	200 <sup>1,2,3</sup>
Odor sensitive receptors (without injection or same day incorporation)	400 <sup>3</sup>
Odor sensitive receptors (with injection or same day incorporation)	200
Property lines	100 <sup>2,4</sup>
Property lines of publicly accessible sites <sup>5</sup>	200
Water supply wells or springs	100
Public water supply reservoirs	400
All segments of streams and tributaries designated as a Public Water Supply under the Water Quality Standards	100
Surface waters without a vegetated buffer	100
Surface waters with a 35-foot vegetated buffer	35
Agricultural drainage ditches	10
All improved roadways	10
Rock outcrops	25
Open sinkholes	100
Limestone rock outcrops and closed sinkholes <sup>6</sup>	50
<p><sup>1</sup>The setback distance to occupied dwellings may be reduced or waived upon written consent of the occupant and landowner of the dwelling.</p> <p><sup>2</sup>The department shall grant to any landowner or resident in the vicinity of a biosolids land application site an extended setback of up to 200 feet from their property line and up to 400 feet from their occupied dwelling upon request from their physician based on medical reasons. In order for an extended setback request to be granted, the request must be submitted to the department in writing on a form provided by the department. A request must be received by the department no later than 48 hours before land application commences on the field affected by the extended setback, and communicated to the permittee no later than 24 hours before land application commences on the field affected by the extended setback. The department may extend a setback distance within 48 hours of land application if requested by the Virginia Department of Health in connection with the landowner or resident's physician.</p> <p><sup>3</sup>Setback distances may be extended beyond 400 feet where an evaluation by the Virginia Department of Health determines that a setback in excess of 400 feet is necessary to prevent specific and immediate injury to the health of an individual.</p> <p><sup>4</sup>The setback distance to property lines may be reduced or waived upon written consent of the landowner.</p>	

<sup>5</sup>Publicly accessible sites are open to the general public and routinely accommodate pedestrians and include, but are not limited to, schools, churches, hospitals, parks, nature trails, businesses open to the public, and sidewalks. Temporary structures, public roads or similar thoroughfares are not considered publicly accessible.

<sup>6</sup>A closed sinkhole does not have an open conduit to groundwater. The setback from a closed sinkhole may be reduced or waived by the department upon evaluation by a professional soil scientist.

(2) In cases where more than one setback distance is involved, the most restrictive distance governs.

(3) Waivers. Waivers from adjacent property residents and landowners may only be used to reduce setback distances from occupied dwellings and property lines.

(4) Extended setback distances. The department may increase setback requirements based on site specific features, such as agricultural drainage features and site slopes.

f. Voluntary extensions of setback distances. If a permit holder negotiates a voluntary agreement with a landowner or resident to extend setback distances or add other more restrictive criteria than required by this regulation, the permit holder shall document the agreement in writing and provide the agreement to the department. Voluntary setback increases or other management criteria will not become an enforceable part of the land application permit unless the permit holder modifies the biosolids management plan to include the additional restriction.

g. Extension of setback distances with phosphorus index. If the application rate included in a nutrient management plan for a biosolids land application site is dependent upon an extended setback distance calculated using the phosphorus index, the phosphorus index calculations shall be included in the nutrient management plan. The extended setback distance shall be an enforceable part of the permit.

C. Forestland (Silviculture). Silvicultural use includes application of biosolids to timber and fiber production land, as well as federal and state forests. The forestland may be recently cleared and planted, young plantations (two-year-old to five-year-old trees), or established forest stands.

1. Biosolids standards. Refer to the standards of this article.

2. Site suitability.

a. Site suitability requirements shall conform to the requirements contained in subdivision B 2 of this section.

b. Notwithstanding the requirements of subdivision B 2 of this section the soil pH shall be managed at the natural soil pH for the types of trees proposed for growth.

c. Notwithstanding the requirements of subdivision B 2 of this section the soil test potassium level is not required to be at a minimum level at the time of biosolids application.

3. Management practices.

a. Application rates. Biosolids application rates shall be in accordance with the biosolids management plan. The biosolids management plan shall include information provided by the Virginia Department of Forestry.

b. Operations.

(1) Field management.

(a) High pressure spray shall not be utilized if public activity is occurring within 1,500 feet downwind of the application site. Public access to the site shall be controlled following application in accordance with Article 3 (9VAC25-32-490 et seq.) of this part.

(b) Biosolids application vehicles shall have adequate ground clearance to be suitable for silvicultural field use.

(c) Application scheduling included in the biosolids management plan shall take into account rainfall and periods of freezing conditions.

(d) Monitoring requirements shall be site specific and may include groundwater, surface water or soils, for frequent application sites.

(2) Setbacks. Setbacks shall conform to those for agricultural utilization. Refer to Table 1 of this section.

**D. Reclamation of disturbed land.**

1. Biosolids standards. Refer to the standards of this article.

2. Site suitability. Site suitability requirements shall conform to the requirements contained in subdivision B 2 of this section. Exceptions may be considered on a case-by-case basis.

3. Management practices.

a. Application rates. The biosolids application rates shall be established in the biosolids management plan in consultation with the Virginia Department of Mines, Minerals and Energy, the Virginia Department of Conservation and Recreation, and the Department of Crop and Soil Environmental Sciences of the Virginia Polytechnic Institute and State University. The nutrient management plan shall be approved by the Department of Conservation and Recreation prior to permit issuance where land application is proposed at greater than agronomic rates.

b. Vegetation selection. The land shall be seeded with grass and legumes even when reforested. The biosolids management plan shall include information on the seeding mixture and a detailed seeding schedule.

c. Operations.

(1) The soil pH shall be maintained at 6.0 or above if the cadmium level in the biosolids applied is at or above 21 mg/kg. during the first year after the initial application. Soil samples should be analyzed by a qualified laboratory. The application rate shall be limited by the most restrictive cumulative trace element loading (9VAC25-32-356 Table 3).

(2) Surface material shall be turned or worked prior to the surface application of liquid biosolids.

(3) Unless the applied biosolids are determined to be Class A or have been documented as subjected to Class I treatment, crops intended for direct human consumption shall not be grown for a period of three years following the date of the last biosolids application. No animals whose products are intended for human consumption may graze the site or obtain feed from the site for a period of six months following the date of the last biosolids application.

**9VAC25-32-570. Distribution and marketing.**

A. Exceptional quality. Distribution or marketing provides for the sale or distribution of exceptional quality biosolids or mixtures of exceptional quality biosolids with other materials such that the mixture achieves the Class A pathogen control, vector attraction reduction and

pollutant control standards. Distribution or marketing of Class A biosolids that have been mixed with inert materials may be approved on a case-by-case basis. Use of such mixtures for agricultural purposes shall be evaluated through proper testing or research programs designed to assess the suitability of the material for such use. Exceptional quality biosolids marketed as fertilizers or soil conditioners must meet the following conditions:

1. The biosolids product must be registered with the Virginia Department of Agriculture and Consumer Services in accordance with the provisions of § 3.2-3607 of the Code of Virginia.
2. The biosolids product must be processed to meet Class A pathogen requirements as specified in 9VAC25-32-675 A.
3. The biosolids product must meet one of the vector attraction reduction requirements as specified in 9VAC25-32-685 B 1 through B 8.
4. The biosolids product must meet the ceiling concentrations specified in 9VAC25-32-356 - Table 2.
5. The biosolids product must meet the pollutant concentrations specified in 9VAC25-32-356 - Table 4.
6. Additional parameters may be required for screening purposes such as organic chemicals, aluminum (mg/kg), water soluble boron (mg/kg), calcium (mg/kg), chlorides (mg/l), manganese (mg/kg), sulfur (mg/kg), and those pollutants for which removal credits are granted.

B. Bulk distribution. Exceptional quality biosolids may be distributed and marketed in either bulk amounts (unpacked) or as a bagged product. The following requirements shall apply to distribution and marketing of biosolids products:

1. Any permit holder who distributes or markets exceptional quality biosolids shall comply with the reporting requirements of §§ 3.2-3609 and 3.2-3610 of the Code of Virginia. The records shall be maintained for five years and made available to the department upon request.
2. Bulk quantities of exceptional quality biosolids shall be land applied in accordance with a nutrient management plan prepared by a certified nutrient management planner as stipulated in regulations promulgated pursuant to § 10.1-104.2 of the Code of Virginia, except under the following conditions:
  - a. The percent solids of the biosolids is equal to or greater than 90% based on moisture content and total solids, or
  - b. A blended product derived from biosolids is utilized for a purpose other than land application at agricultural operations.
3. Within 30 days after land application at the site has commenced, the permit holder shall provide a copy of the plan to the farm operator of the site and the Department of Conservation and Recreation.

C. Approval of biosolids sources. Only exceptional quality biosolids produced from a sludge processing facility approved by the board can be distributed and marketed.

D. Information furnished to all users. Labeling requirements shall be addressed in a biosolids management plan. Either a label shall be affixed to the bag or other container in which exceptional quality biosolids is sold or given away for application to the land, or an information sheet shall be provided to the person who receives exceptional quality biosolids. The label or information sheet shall contain the following information:

1. The name and address of the person who prepared the exceptional quality biosolids;



2. A statement that application of the exceptional quality biosolids to the land is prohibited except in accordance with the instructions on the label or information sheet;
3. The annual whole sludge application rate for the biosolids that does not cause any of the annual pollutant loading rates in Table 5 of 9VAC25-32-356 to be exceeded; and
4. Information required in accordance with regulations promulgated under § 3.2-3601 of the Code of Virginia and with the labeling provisions of § 3.2-3611 of the Code of Virginia.

E. Recordkeeping.

1. The person who prepares exceptional quality biosolids shall develop the following information and shall retain the information for five years:

- a. The concentration of each pollutant listed in Table 4 of 9VAC25-32-356 in the biosolids;

- b. The following certification statement:

"I certify, under penalty of law, that the information that will be used to determine compliance with the Class A pathogen requirements in 9VAC25-32-675 A and the vector attraction reduction requirement in (insert one of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8) was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.";

- c. A description of how the Class A pathogen requirements in 9VAC25-32-675 A are met; and

- d. A description of how one of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8 is met.

2. The person who derives the material that meets the criteria of exceptional quality biosolids shall develop the following information and shall retain the information for five years:

- a. The concentration of each pollutant listed in Table 4 of 9VAC25-32-356 in the material;

- b. The following certification statement:

"I certify, under penalty of law, that the information that will be used to determine compliance with the Class A pathogen requirements in 9VAC25-32-675 A and the vector attraction reduction requirement in (insert one of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8) was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.";

- c. A description of how the Class A pathogen requirements in 9VAC25-32-675 A are met; and

- d. A description of how one of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8 is met.

3. If the requirements in 9VAC25-32-356 B 4 b are met when biosolids is sold or given away in a bag or other container for application to the land, the person who prepares the biosolids that is sold or given away in a bag or other container shall develop the following information and shall retain the information for five years:

- a. The annual whole sludge application rate for the biosolids that does not cause the annual pollutant loading rates in Table 5 of 9VAC25-32-356 to be exceeded;
- b. The concentration of each pollutant listed in Table 5 of 9VAC25-32-356 in the biosolids;
- c. The following certification statement:

"I certify, under penalty of law, that the information that will be used to determine compliance with the management practices in 9VAC25-32-570 E and F, the Class A pathogen requirement in 9VAC25-32-675 A, and the vector attraction reduction requirement in (insert one of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8) was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.";

d. A description of how the Class A pathogen requirements in 9VAC25-32-675 A are met; and

e. A description of how one of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8 is met.

F. An annual report shall be submitted to the department that includes the following information:

- 1. Total amount in dry tons of exceptional quality biosolids distributed in a bag or other container per year;
- 2. Total amount in dry tons of exceptional quality biosolids distributed in bulk; and
- 3. Total amount in dry tons of exceptional quality biosolids distributed from each approved source.

#### **9VAC25-32-580. Sludge disposal.**

Permits for sludge disposal practices will be issued through other state and federal regulations and are not subject to this regulation. Such practices may include:

- 1. Incineration. Emission quality control requirements will be established in accordance with state and federal regulations. The generated ash is required to be properly managed in accordance with local, state and federal regulations. Applicable regulatory requirements in addition to this regulation may involve permits issued by the appropriate state and federal agencies. Setback distance requirements will be established on a site specific basis in accordance with the applicable regulations.
- 2. Landfill. Management of stabilized sludge suitable for topdressing of completed landfill areas will be subject to state and federal regulations. Codisposal of sludge within municipal solid waste landfills is subject to state and federal regulation. Codisposal requirements have included:
  - a. Stabilization treatment of sludges.
  - b. Dewatering of sludges by methods designed to achieve a suspended solids level of 20% or more, or a treated sludge sample passes the paint filter test standards for free water.
  - c. A nonhazardous declaration from the owner.
- 3. Lagooning (surface disposal). When these facilities are closed by burying the wastes in place, they may be considered to be surface disposal sites. A closure plan shall be provided to the appropriate agencies.

4. Dedicated sites. The primary purpose of surface disposal sites is to allow frequent long-term sludge application at a single location at amounts that exceed agronomic rates but not for the purpose of reclaiming disturbed soils. Sludge disposal operations on dedicated sites will be subject to local, state and federal regulations including site management practices. Permits will be issued through state and federal regulations to protect public health and the quality of state waters. Any dedicated site may be subject to local zoning requirements and may be recorded as a dedicated site in the appropriate circuit court deed book by filing a Sludge Disposal Site Dedication Form.

**9VAC25-32-590. Standards for agricultural use (Repealed. 9/13 –NMP.)**

**9VAC25-32-600. Biosolids characteristics; nutrients; trace elements; organic chemicals (Repealed. 9/13 - duplicative.)**

**9VAC25-32-610. Biosolids treatment (Repealed. 9/13 – replaced by 675 and 685.)**

**9VAC25-32-620. Site access time restrictions (Repealed. 9/13 – moved to 675.)**

**9VAC25-32-630. Biosolids management for N loading (Repealed. 9/13 – NMP.)**

**9VAC25-32-640. Maximum application rates for trace elements (Repealed. 9/13 - duplicative.)**

**9VAC25-32-650. Maximum application rates for high lime biosolids (Repealed. 9/13 – NMP.)**

**9VAC25-32-660. Maximum application rates for biosolids (Repealed. 9/13 – moved to 356 & NMP.)**

Article 4  
Pathogen and Vector Attraction Reduction

**9VAC25-32-665. Scope.**

A. This article contains the requirements for a biosolids to be classified either Class A or Class B with respect to pathogens.

B. This article contains the site restrictions for land on which a Class B biosolids is applied.

C. This article contains the pathogen requirements for domestic septage applied to agricultural land, forest, or a reclamation site.

D. This article contains alternative vector attraction reduction requirements for biosolids that is applied to the land or placed on a surface disposal site.

**9VAC25-32-670. Minimum information required for a management practices plan utilizing land application (Repealed. 9/13 – moved to 60.)**

**9VAC25-32-675. Pathogens.**

**A. Biosolids - Class A.**

1. The requirement in subdivision 2 of this subsection and the requirements in either subdivision 3, 4, 5, 6, 7, or 8 of this subsection shall be met for biosolids to be classified as Class A biosolids with respect to pathogens.
2. The Class A pathogen requirements in subdivisions 3 through 8 of this subsection shall be met either prior to meeting or at the same time the vector attraction reduction requirements in 9VAC25-32-685, except the vector attraction reduction requirements in 9VAC25-32-685 B 6 through B 8, are met.
3. Class A - Alternative 1.

a. Either the density of fecal coliform in the biosolids shall be less than 1,000 Most Probable Number per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the biosolids shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the biosolids is used or disposed; at the time the biosolids is prepared for sale or giveaway in a bag or other container for application to the land; or at the time the biosolids or material derived from biosolids is prepared to meet the ceiling concentrations in 9VAC25-32-356 Table 2, the pollutant concentrations in 9VAC25-32-356 Table 4, the Class A pathogen requirements in subsection A of this section, and one of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8.

b. The temperature of the sewage sludge that is used as biosolids or disposed shall be maintained at a specific value for a period of time.

(1) When the percent solids of the sewage sludge is 7.0% or higher, the temperature of the sewage sludge shall be 50°C or higher, the time period shall be 20 minutes or longer; and the temperature and time period shall be determined using equation (1), except when small particles of sewage sludge are heated by either warmed gases or an immiscible liquid.

EQUATION (1)
$D = 131,700,000/10^{0.1400t}$
D = time in days
t = temperature in degrees Celsius

(2) When the percent solids of the sewage sludge is 7.0% or higher and small particles of sewage sludge are heated by either warmed gases or an immiscible liquid, the temperature of the sewage sludge shall be 50°C or higher; the time period shall be 15 seconds or longer; and the temperature and time period shall be determined using equation (1).

(3) When the percent solids of the sewage sludge is less than 7.0% and the time period is at least 15 seconds, but less than 30 minutes, the temperature and time period shall be determined using equation (1).

(4) When the percent solids of the sewage sludge is less than 7.0%, the temperature of the sewage sludge is 50°C or higher; and the time period is 30 minutes or longer; the temperature and time period shall be determined using equation (2).

EQUATION (2)
$D = 50,070,000/10^{0.1400t}$
D = time in days
t = temperature in degrees Celsius

4. Class A - Alternative 2.

a. Either the density of fecal coliform in the biosolids shall be less than 1,000 Most Probable Number per gram of total solids (dry weight basis) or the density of Salmonella sp. bacteria in the biosolids shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the biosolids is used or disposed; at the time the biosolids is prepared for sale or giveaway in a bag or other container for application to the land; or at the time the biosolids or material derived from biosolids is prepared to meet the ceiling concentrations in 9VAC25-32-356 Table 2; the pollutant concentrations in 9VAC25-32-356 Table 4; the Class A pathogen requirements in subsection A of this section, and one of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8.

b. The pH and temperature of the sewage sludge that is used as biosolids or disposed shall be maintained at specific values for a period of time.

(1) The pH of the sewage sludge that is used as biosolids or disposed shall be raised to above 12 and shall remain above 12 for 72 hours ;

(2) The temperature of the sewage sludge shall be above 52°C for 12 hours or longer during the period that the pH of the sewage sludge is above 12; and

(3) At the end of the 72-hour period during which the pH of the sewage sludge is above 12, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50%.

5. Class A - Alternative 3.

a. Either the density of fecal coliform in the biosolids shall be less than 1,000 Most Probable Number per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in biosolids shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the biosolids is used or disposed; at the time the biosolids is prepared for sale or giveaway in a bag or other container for application to the land; or at the time the biosolids or material derived from biosolids is prepared to meet the ceiling concentrations in 9VAC25-32-356 Table 2; the pollutant concentrations in 9VAC25-32-356 Table 4; the Class A pathogen requirements in subsection A of this section; and one of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8.

b. The sewage sludge shall be analyzed prior to pathogen treatment to determine whether the sewage sludge contains enteric viruses.

(1) When the density of enteric viruses in the sewage sludge prior to pathogen treatment is less than one Plaque-forming Unit per four grams of total solids (dry weight basis), the sewage sludge is Class A with respect to enteric viruses until the next monitoring episode for the sewage sludge;

(2) When the density of enteric viruses in the sewage sludge prior to pathogen treatment is equal to or greater than one Plaque-forming Unit per four grams of total

solids (dry weight basis), the sewage sludge is Class A with respect to enteric viruses when the density of enteric viruses in the sewage sludge after pathogen treatment is less than one Plaque-forming Unit per four grams of total solids (dry weight basis) and when the values or ranges of values for the operating parameters for the pathogen treatment process that produces the biosolids that meets the enteric virus density requirement are documented; and

(3) After the enteric virus reduction in subdivision 5 b (2) of this subsection is demonstrated for the pathogen treatment process, the biosolids continues to be Class A with respect to enteric viruses when the values for the pathogen treatment process operating parameters are consistent with the values or ranges of values documented in subdivision 5 b (2) of this subsection.

c. The sewage sludge shall be analyzed prior to pathogen treatment to determine whether the sewage sludge contains viable helminth ova.

(1) When the density of viable helminth ova in the sewage sludge prior to pathogen treatment is less than one per four grams of total solids (dry weight basis), the sewage sludge is Class A with respect to viable helminth ova until the next monitoring episode for the sewage sludge.

(2) When the density of viable helminth ova in the sewage sludge prior to pathogen treatment is equal to or greater than one per four grams of total solids (dry weight basis), the sewage sludge is Class A with respect to viable helminth ova when the density of viable helminth ova in the sewage sludge after pathogen treatment is less than one per four grams of total solids (dry weight basis) and when the values or ranges of values for the operating parameters for the pathogen treatment process that produces the sewage sludge that meets the viable helminth ova density requirement are documented.

(3) After the viable helminth ova reduction in subdivision 5 c (2) of this subsection is demonstrated for the pathogen treatment process, the sewage sludge continues to be Class A with respect to viable helminth ova when the values for the pathogen treatment process operating parameters are consistent with the values or ranges of values documented in subdivision 5 c (2) of this subsection.

#### 6. Class A - Alternative 4.

a. Either the density of fecal coliform in the biosolids shall be less than 1,000 Most Probable Number per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the biosolids shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the biosolids is used or disposed; at the time the biosolids is prepared for sale or giveaway in a bag or other container for application to the land; or at the time the biosolids or material derived from biosolids is prepared to meet the ceiling concentrations in 9VAC25-32-356 Table 2; the pollutant concentrations in 9VAC25-32-356 Table 4; the Class A pathogen requirements in subsection A of this section; and one of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8.

b. The density of enteric viruses in the biosolids shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the biosolids is used or disposed; at the time the biosolids is prepared for sale or giveaway in a bag or other container for application to the land; or at the time the biosolids or material derived from biosolids is prepared to meet the ceiling concentrations in 9VAC25-32-356 Table 2; the pollutant concentrations in 9VAC25-32-356 Table 4; the Class A pathogen requirements in subsection A of this section; and one of the vector

attraction reduction requirements in 9VAC25-32-685 B 1 through B 8, unless otherwise specified by the board.

c. The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the biosolids is used or disposed; at the time the biosolids is prepared for sale or giveaway in a bag or other container for application to the land; or at the time the biosolids or material derived from biosolids is prepared to meet the ceiling concentrations in 9VAC25-32-356 Table 2; the pollutant concentrations in 9VAC25-32-356 Table 4; the Class A pathogen requirements in subsection A of this section, and one of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8, unless otherwise specified by the board.

7. Class A - Alternative 5.

a. Either the density of fecal coliform in the biosolids shall be less than 1,000 Most Probable Number per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the biosolids shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the biosolids is used or disposed; at the time the biosolids is prepared for sale or giveaway in a bag or other container for application to the land; or at the time the biosolids or material derived from biosolids is prepared to meet the ceiling concentrations in 9VAC25-32-356 Table 2; the pollutant concentrations in 9VAC25-32-356 Table 4; the Class A pathogen requirements in subsection A of this section; and one of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8.

b. Biosolids that is used or disposed shall be treated in one of the processes to further reduce pathogens described in subsection E of this section.

8. Class A - Alternative 6.

a. Either the density of fecal coliform in the biosolids shall be less than 1,000 Most Probable Number per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the biosolids shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the biosolids is used or disposed; at the time the biosolids is prepared for sale or giveaway in a bag or other container for application to the land; or at the time the biosolids or material derived from biosolids is prepared to meet the ceiling concentrations in 9VAC25-32-356 Table 2; the pollutant concentrations in 9VAC25-32-356 Table 4; the Class A pathogen requirements in subsection A of this section; and one of the vector attraction reduction requirements in 9VAC25-32-685 B 1 through B 8.

b. Biosolids that is used or disposed shall be treated in a process that is equivalent to a process to further reduce pathogens, as determined by the board.

B. Biosolids - Class B.

1. Minimum requirements for Class B biosolids.

a. The requirements in either subdivisions 2, 3, or 4 of this subsection shall be met for a sewage sludge to be classified as Class B biosolids with respect to pathogens.

b. The site restrictions in subdivision B 5 of this section shall be met when biosolids that meets the Class B pathogen requirements in subdivision 2, 3, or 4 of this subsection is applied to the land.

2. Class B - Alternative 1.

a. Seven representative samples of the biosolids that is used or disposed shall be collected.

- b. The geometric mean of the density of fecal coliform in the samples collected in subdivision 2 a of this subsection shall be less than either 2,000,000 Most Probable Number per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).
3. Class B - Alternative 2. Biosolids that is used or disposed shall be treated in one of the processes to significantly reduce pathogens described in subsection D of this section.
4. Class B - Alternative 3. Biosolids that is used or disposed shall be treated in a process that is equivalent to a process to significantly reduce pathogens, as determined by the board.
5. Site restrictions.
- Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of biosolids.
  - Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of biosolids when the biosolids remains on the land surface for four months or longer prior to incorporation into the soil.
  - Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of biosolids when the biosolids remains on the land surface for less than four months prior to incorporation into the soil.
  - Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of biosolids.
  - Animals shall not be grazed on the land for 30 days after application of biosolids (60 days for lactating dairy livestock).
  - Turf grown on land where biosolids is applied shall not be harvested for one year after application of the biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the board.
  - Public access to land with a high potential for public exposure shall be restricted for one year after application of biosolids.
  - Public access to land with a low potential for public exposure shall be restricted for 30 days after application of biosolids.

TABLE 1 TIME RESTRICTIONS FOLLOWING COMPLETION OF BIOSOLIDS APPLICATION ASSOCIATED WITH CLASS B PATHOGEN REDUCTION		
Type of Application	Surface <sup>(1)</sup>	Incorporated <sup>(2)</sup>
Control of access for high potential for public contact <sup>(3)</sup>	12 months	12 months
Time lapse required before above ground food crops with harvested parts that touch the biosolids/soil mixture can be harvested	14 months	14 months
Time lapse before food crops with harvested parts below the land surface can be harvested	20 months	38 months
Harvesting food crops, feed crops and fiber	1 month	1 month



crops		
Grazing and feeding harvested crops to animals whose products are consumed by humans <sup>(4)</sup>	1 month	1 month
Grazing of farm animals whose products are not consumed by humans	1 month	1 month
Harvesting turf for placement on land with a high potential for public exposure or a lawn <sup>(5)</sup>	12 months	12 month
<p>Notes:</p> <p><sup>(1)</sup>Remains on land surface for four months or longer prior to incorporation.</p> <p><sup>(2)</sup>Remains on land surface for less than four months prior to incorporation.</p> <p><sup>(3)</sup>Public access to agricultural sites and other sites with a low potential for direct contact with the ground surface shall be controlled for 30 days.</p> <p><sup>(4)</sup>The restriction for lactating dairy cows is 60 days.</p> <p><sup>(5)</sup>This time restriction must be met unless otherwise specified by the department.</p>		

C. Domestic septage.

The site restrictions in subdivision B 5 of this section shall be met when domestic septage is applied to agricultural land, forest, or a reclamation site.

D. Processes to significantly reduce pathogens (PSRP).

1. Aerobic digestion. Sewage sludge is agitated with air or oxygen to maintain aerobic conditions for a specific mean cell residence time at a specific temperature. Values for the mean cell residence time and temperature shall be between 40 days at 20°C and 60 days at 15°C.
2. Air drying. Sewage sludge is dried on sand beds or on paved or unpaved basins. The sewage sludge dries for a minimum of three months. During two of the three months, the ambient average daily temperature is above 0°C.
3. Anaerobic digestion. Sewage sludge is treated in the absence of air for a specific mean cell residence time at a specific temperature. Values for the mean cell residence time and temperature shall be between 15 days at 35°C to 55°C and 60 days at 20°C.
4. Composting. Using either the within-vessel, static aerated pile, or windrow composting methods, the temperature of the sewage sludge is raised to 40°C or higher and remains at 40°C or higher for five days. For four hours during the five days, the temperature in the compost pile exceeds 55°C.
5. Lime stabilization. Sufficient lime is added to the sewage sludge to raise the pH of the sewage sludge to 12 after two hours of contact.

E. Processes to further reduce pathogens (PFRP).

1. Composting. Using either the within-vessel composting method or the static aerated pile composting method, the temperature of the sewage sludge is maintained at 55°C or higher for three days. Using the windrow composting method, the temperature of the sewage sludge is maintained at 55°C or higher for 15 days or longer. During the period when the compost is maintained at 55°C or higher, there shall be a minimum of five turnings of the windrow.
2. Heat drying. Sewage sludge is dried by direct or indirect contact with hot gases to reduce the moisture content of the sewage sludge to 10.0% or lower. Either the temperature of the sewage sludge particles exceeds 80°C or the wet bulb temperature of

the gas in contact with the sewage sludge as the sewage sludge leaves the dryer exceeds 80°C.

3. Heat treatment. Liquid sewage sludge is heated to a temperature of 180°C or higher for 30 minutes.

4. Thermophilic aerobic digestion. Liquid sewage sludge is agitated with air or oxygen to maintain aerobic conditions and the mean cell residence time of the sewage sludge is 10 days at 55°C to 60°C.

5. Beta ray irradiation. Sewage sludge is irradiated with beta rays from an accelerator at dosages of at least 1.0 megarad at room temperature (ca. 20°C).

6. Gamma ray irradiation. Sewage sludge is irradiated with gamma rays from certain isotopes, such as Cobalt 60 and Cesium 137, at dosages of at least 1.0 megarad at room temperature (ca. 20°C).

7. Pasteurization. The temperature of the sewage sludge is maintained at 70°C or higher for 30 minutes or longer.

**9VAC25-32-680. Minimum site specific information required for a management practices plan (Repealed. 9/13 – moved to 60.)**

**9VAC25-32-685. Vector attraction reduction.**

A. Conditions under which vector attraction reductions are required:

1. One of the vector attraction reduction requirements in subdivisions B 1 through B 10 of this section shall be met when bulk biosolids is applied to agricultural land, forest, a public contact site, or a reclamation site;
2. One of the vector attraction reduction requirements in subdivisions B 1 through B 8 of this section shall be met when bulk biosolids is applied to a lawn or a home garden;
3. One of the vector attraction reduction requirements in subdivisions B 1 through B 8 of this section shall be met when biosolids is sold or given away in a bag or other container for application to the land;
4. One of the vector attraction reduction requirements in subdivisions B 1 through B 11 of this section shall be met when sewage sludge (other than domestic septage) is placed on an active sewage sludge unit;
5. One of the vector attraction reduction requirements in subdivision B 9, B 10, or B 12 of this section shall be met when domestic septage is applied to agricultural land, forest, or a reclamation site; and
6. One of the vector attraction reduction requirements in subdivisions B 9 through B 12 shall be met when domestic septage is placed on an active sewage sludge unit.

B. Vector attraction reduction options:

1. The mass of volatile solids in the sewage sludge shall be reduced by a minimum of 38%, calculated according to the method in 9VAC25-32-450 F 8.
2. When the 38% volatile solids reduction requirement in subdivision 1 of this subsection cannot be met for an anaerobically digested sewage sludge, vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge anaerobically in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30°C and 37°C. When at the end of the 40 days, the volatile solids in the sewage sludge at the beginning of that period is reduced by less than 17%, vector attraction reduction is achieved.

3. When the 38% volatile solids reduction requirement in subdivision 1 of this section cannot be met for an aerobically digested sewage sludge, vector attraction reduction can be demonstrated by digesting a portion of the previously digested sewage sludge that has a percent solids of 2.0% or less aerobically in the laboratory in a bench-scale unit for 30 additional days at 20°C. When at the end of the 30 days, the volatile solids in the sewage sludge at the beginning of that period is reduced by less than 15%, vector attraction reduction is achieved.
4. The specific oxygen uptake rate (SOUR) for sewage sludge treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20°C.
5. Sewage sludge shall be treated in an aerobic process for 14 days or longer. During that time, the temperature of the sewage sludge shall be higher than 40°C and the average temperature of the sewage sludge shall be higher than 45°C.
6. The pH of sewage sludge shall be raised to 12 or higher by alkaline addition and, without the addition of more alkaline material, shall remain at 12 or higher for two hours and then at 11.5 or higher for an additional 22 hours.
7. The percent solids of sewage sludge that does not contain unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 75% based on the moisture content and total solids prior to mixing with other materials.
8. The percent solids of sewage sludge that contains unstabilized solids generated in a primary wastewater treatment process shall be equal to or greater than 90% based on the moisture content and total solids prior to mixing with other materials.
9. Sewage sludge injection requirements:
  - a. Sewage sludge shall be injected below the surface of the land.
  - b. No significant amount of the sewage sludge shall be present on the land surface within one hour after the sewage sludge is injected.
  - c. When the sewage sludge that is injected below the surface of the land is Class A with respect to pathogens, the sewage sludge shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.
10. Sewage sludge incorporation requirements:
  - a. Sewage sludge applied to the land surface or placed on an active sewage sludge unit shall be incorporated into the soil within six hours after application to or placement on the land unless otherwise specified by the board.
  - b. When the sewage sludge that is incorporated into the soil is Class A with respect to pathogens, the sewage sludge shall be applied to or placed on the land within eight hours after being discharged from the pathogen treatment process.
11. Sewage sludge placed on an active sewage sludge unit shall be covered with soil or other material at the end of each operating day.
12. The pH of domestic septage shall be raised to 12 or higher by alkaline addition and, without the addition of more alkaline material, shall remain at 12 or higher for 30 minutes.

Article 5  
Certification of Land Applicators

**9VAC25-32-690. Certificate requirements for land applicators.**

A. No person shall land apply biosolids pursuant to a permit issued in accordance with this regulation unless an individual holding a valid certificate of competence as specified in this regulation (certified land applicator) is onsite at all times during such land application. Certified land applicators may be considered to be onsite if they are at the site permitted for land application and, if it is necessary to leave the site, they are available within 30 minutes to return to the site to verify and ensure that land application of biosolids is in compliance with the issued permit. Certified land applicators shall possess the site-specific permit information necessary to conduct land application on the site in accordance with the issued permit and make available at the land application site proper identification, including their certificate number issued by the department. The certified land applicator shall maintain an operator field log to document at minimum, site location, arrival and departure times, inspectors or any visitors to the site, complaints received, and any unusual condition or event. The field log shall be available for inspection by the department. Monthly reports submitted in accordance with the requirements of 9VAC25-32-360 A shall bear the name and certificate number of the certified land applicators with an approved statement attesting that they were onsite at the times of the reported operations and that those operations were in compliance with the permit. The following parts of this regulation apply to any individual seeking a certificate of competence as required in § 62.1-44.19:3.1 of the Code of Virginia.

B. Certificates of competence shall be issued by the department to certified land applicators. The department may issue such certification based on specified areas of training, experience and level of knowledge as demonstrated through successful completion of examinations as acceptable to the department.

**9VAC25-32-700. Eligibility requirements.**

A. Certification may be obtained by satisfying all of the following requirements:

1. Satisfactorily completing and submitting to the department an application in the form required by the department, including a statement of any felony convictions. Such application shall be submitted to the department at least 30 days before the scheduled examination date set by the department. The application shall request information relating to the person's education, work experience, knowledge of land application of biosolids and applicable regulations, and willingness to abide by the requirements of this regulation;
2. Supplying proof of meeting one of the following:
  - a. A copy of a transcript or similar documentation indicating completion of a high school or higher degree or equivalent education level with work experience in an agriculturally related area including farming and three months of practical experience related to land application of biosolids acceptable to the department;
  - b. A combination of training acceptable to the department that may include soil science or nutrient management or farming practice related educational training and a minimum of six months of practical experience related to land application of biosolids; or
  - c. Evidence of prior supervisory level experience with land application of biosolids of two or more years that is acceptable to the department;

3. Obtaining a passing score on each part of the land applicators certification examination administered by the department; and
4. Submitting the required certification fee by check or money order to the department.

B. Certificates shall be valid upon notification by the department and for two years following each renewal from the established renewal date and will expire on the last day of the expiration month. Certified land applicators or applicants shall notify the department of any change in mailing address within 30 days of such change in address.

C. The department, upon review, may accept or approve land applicator certification programs of other states as satisfying partial requirements for certification.

D. Individuals certified as land application operators in other states under certification or licensing programs acceptable to the department will be eligible for certification in Virginia by complying with all requirements of these regulations except for subdivision A 2 of this section. These individuals may also substitute, for the requirements in this regulation, 9VAC25-32-720, the attainment of a passing score on a Virginia specific examination component that shall include at a minimum the elements listed in 9VAC25-32-720 C 1 and C 6.

#### **9VAC25-32-710. Fees.**

A. Fees shall be collected for certification and recertification to defray the administrative cost for the certification program.

B. A fee may be charged to supply training materials and present education and training programs, including continuing education, which support the certification program.

C. Fees are nonrefundable and shall not be prorated.

D. The certification fee of \$100 for the initial certification period shall be due with the application for certification. If an applicant is unsuccessful in achieving a passing score on the examination, the applicant is eligible to retake the examination at a scheduled time as offered by the department. Applicants may retake the examination one time with no additional charge by resubmitting the application for certification. Eligibility for any additional examinations beyond the initial retaking will require the submittal of an application and appropriate fees.

E. The certificate of competence renewal fee is \$100.

F. All fees collected by the department shall be used exclusively for the operation of the Land Applicator Training and Certification Program.

#### **9VAC25-32-720. Examination.**

A. The department may offer the land applicator certification examinations on request and will schedule an examination at least once per year. The examinations shall require a demonstration of the ability to ensure that biosolids will be land applied in compliance with the requirements of this regulation. The department may limit the number of applicants taking the examination based upon available examination space.

B. Applicants for a certificate of competence shall achieve a passing score on each part of the land applicator certification examination to become eligible for certification. If applicants receive a passing score on any part of the examination they will only be retested on the remaining parts.

C. The examinations for qualified applicants for a certificate of competence in accordance with this regulation shall address the elements listed below.

1. General understanding of biosolids treatment processes and biosolids characteristics;
2. Basic principles of soils, agriculture, and silviculture;

3. Public health protection concepts;
4. Land application concepts and site management and operations;
5. Occupational safety and health protection concepts; and
6. Land application training and certification regulatory requirements, and requirements of other land application related laws, regulations, and incentive programs.

D. An individual who is unable to take an examination at the scheduled time shall notify the department at least five days prior to the date of the examination; such individual may reapply for an examination. The department may consider accepting notice of less than five days due to individual hardship situations on a case-by-case basis. Failure to notify the department may require the individual to submit a new application and payment of fees in accordance with 9VAC25-32-710.

E. The department shall establish acceptable passing scores for the examinations based on the department's determination of the level of examination performance required to show minimal acceptable competence.

F. All applicants shall be notified of results in writing within 60 days of the completion of the examinations.

G. A certificate renewal date will be established and provided to the certified land applicator.

#### **9VAC25-32-730. Training.**

A. The department shall provide training sessions on the various topics essential to ensure that land application of biosolids complies with state and federal laws and regulations at least annually.

B. The department may provide a training course on concepts supporting and relating to land application of biosolids that may include biosolids use regulation; basic soil and crop science; soil fertility; environmental management; and other relevant topics.

#### **9VAC25-32-740. Certificate renewal.**

A. The department may not renew a certificate if a proceeding to deny certification under 9VAC25-32-760 has begun, or if the department has found that the applicant violated any requirements of this regulation. A certificate is to be renewed every two years and may be renewed on or before the expiration of a certificate by complying with all of the following requirements:

1. Submittal of a renewal application on the form the department requires;
2. Payment of the renewal fee to the department; and
3. Submittal of proof of satisfactory completion of at least four hours of continuing education course work within the past two years. The completed course work must be approved by the department as providing satisfactory training. Requests for pre-approval of continuing education courses should be received at least 60 days prior to the expected course date(s) and must include a detailed syllabus indicating time to be spent on each topic area covered. Continuing education course work must be in subject matter consistent with 9VAC25-32-720.

B. Department personnel may attend continuing education sessions to verify that the requirements are met. Proof of attendance must be verified by the course provider. The department may accept continuing education units obtained in other states if such continuing education units are specifically for the purpose of recertification in the state land application operator certification program.

**9VAC25-32-750. Certificate expiration.**

A. Certificates issued under this regulation shall expire two years from the last day of the month in which they were issued, as indicated on the certificate, if any of the requirements of 9VAC25-32-740 are not met.

B. Following the expiration of a certificate, reinstatement may be accomplished only by reapplication and compliance with all requirements of 9VAC25-32-700 A, including the examination requirements.

C. It is the responsibility of the certified land applicators to accumulate the required continuing education requirements prior to expiration of the certificate of competence they hold. The department will attempt to notify the certified land applicators of any continuing education needs and other requirements as necessary for certificate renewal 90 days or more prior to certificate expiration.

**9VAC25-32-760. Compliance with regulations and disciplinary action.**

A. If the department finds that a certified land applicator or an applicant for certification violated any applicable requirements of this regulation, including the procedural violations listed in subsection B of this section, the department may deny, suspend or revoke certification, following the informal fact-finding procedures of the Administrative Process Act (§ 2.2-4000 et seq. of the Code of Virginia).

B. Certification procedural violations include:

1. Providing misleading, false, or fraudulent information in applying for a certificate;
2. Providing the department with any misleading, false, or fraudulent report;
3. Failing to ensure that land application of biosolids complies with permit requirements due to negligence of responsibilities by the certified land applicator;
4. Failing to promptly and accurately record observed permit noncompliance or, failure to promptly notify the permittee of observed permit noncompliance or, preventing access to inspect any land application site or, failure to provide required field records upon request, in accordance with this regulation; and
5. Conviction of a felony related in any way to the responsibilities of a certified land applicator.

#### Article 6

#### Liability Requirements for Transport, Storage, and Land Application of Biosolids

**9VAC25-32-770. Definitions.**

The following terms are used in the specifications for liability insurance and the financial tests liability coverage. The definitions contained in this section are intended to assist in the understanding of these regulations and are not intended to limit the meanings of terms in a way that conflicts with general insurance industry usage or with generally accepted accounting practices.

"Assets" means all existing and all probable future economic benefits obtained or controlled by a particular entity.

"Current assets" means cash or other assets or resources commonly identified as those that are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

"Current liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

"Independently audited" means an audit performed by an independent certified public accountant in accordance with generally accepted auditing standards.

"Legal defense costs" means any expenses that an insurer incurs in defending against claims of third parties brought under the terms and conditions of an insurance policy.

"Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

"Local government" means a county, city, or town or any authority, commission, or district created by one or more counties, cities, or towns.

"Net working capital" means current assets minus current liabilities.

"Net worth" means total assets minus total liabilities and is equivalent to owner's equity.

"Substantial business relationship" means the extent of a business relationship necessary under applicable state law to make a guarantee contract issued incident to that relationship valid and enforceable. A "substantial business relationship" must arise from a pattern of recent or ongoing business transactions, in addition to the guarantee itself, such that a currently existing business relationship between the guarantor and the permit holder is demonstrated to the satisfaction of the department.

"Tangible net worth" means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

#### **9VAC25-32-780. Liability requirements.**

A. A permit holder or applicant must demonstrate financial responsibility for clean-up costs, personal injury, bodily injury, and property damage resulting from the transport, storage, and land application of biosolids in Virginia. The permit holder or applicant must have and maintain pollution liability and general liability coverage in the amount of \$2 million per occurrence with an annual aggregate of at least \$2 million, exclusive of legal defense costs.

B. The permit holder or applicant may demonstrate the required liability coverage by using one of the mechanisms specified below:

1. A pollution liability policy as well as a general liability policy that covers all activities associated with the "Transport, Storage, and Land Application" of biosolids as specified in 9VAC25-32-790;
2. Passing a corporate financial test as specified in 9VAC25-32-800 or using the corporate guarantee for liability coverage as specified in 9VAC25-32-810;
3. Passing a local government financial test as specified in 9VAC25-32-820 or using the local government guarantee for liability coverage as specified in 9VAC25-32-830;
4. Obtaining a letter of credit for liability coverage as specified in 9VAC25-32-840; or
5. Obtaining a trust fund for liability coverage as specified in 9VAC25-32-850.

C. The permit holder or applicant shall notify the department in writing within 30 days whenever:

1. A claim results in a reduction in the amount of financial assurance for liability coverage provided by a financial instrument authorized in this section;



2. A certification of valid claim for bodily injury or property damages caused by the transport, storage, or land application of biosolids in Virginia is entered between the owner or operator and a third-party claimant for liability coverage in this section; or
3. A final court order establishing a judgment for bodily injury or property damage caused by the transport, storage, or land application of biosolids in Virginia is issued against the permit holder or applicant or an instrument that is providing financial assurance for liability coverage authorized in this section.

**9VAC25-32-790. Liability insurance.**

A. Each pollution and general liability insurance policy must be amended by attachment of an endorsement or evidenced by a certificate of liability insurance. The wording of the endorsement must be identical to that specified in the Biosolids Liability Endorsement form. The wording of the certificate of insurance must be identical to that specified in the Certificate of Liability Insurance form. The permit holder or applicant must submit a signed duplicate original of the endorsement or the certificate of insurance to the department. If requested by the department, the permit holder or applicant must provide a signed duplicate original of the insurance policy. An applicant for a new permit must submit the signed duplicate original of the biosolids liability endorsement or the certificate of liability insurance to the department at least 60 days before the initial application of biosolids. The insurance must be effective before the initial application of biosolids.

B. Each insurance policy must be issued by an insurer that, at a minimum, is licensed to transact the business of insurance or eligible to provide insurance as an excess or surplus lines insurer in Virginia and the insurer shall be in good financial position, as demonstrated by the AM Best (A++, A+, A, A-, B++, B+), Standard and Poor's (AAA, AA, A, BBB), or Moody's (Aaa, Aa, A, Baa) financial strength ratings.

**9VAC25-32-800. Corporate financial test.**

A. A permit holder or applicant may satisfy the requirements of this section by demonstrating that he passes a financial test as specified in this section. To pass this test the permit holder or applicant must meet the criteria of subsection B of this section.

B. A permit holder or applicant must have:

1. Net working capital and tangible net worth each at least six times the amount of liability coverage to be demonstrated by this test, and a tangible net worth of at least \$10 million; or
2. A current rating for his most recent bond issuance of AAA, AA, A, or BBB as issued by Standard and Poor's, or Aaa, Aa, A, or Baa as issued by Moody's and a tangible net worth of at least \$10 million; and a tangible net worth at least six times the amount of liability coverage to be demonstrated by this test; and assets in the United States amounting to either:
  - a. At least 90% of this total assets; or
  - b. At least six times the amount of liability coverage to be demonstrated by this test.
3. For the purposes of this section, the phrase "amount of liability coverage" refers to the annual aggregate amounts for which coverage is required under 9VAC25-32-780 A.

C. To demonstrate that he passes this test, the permit holder or applicant must submit the following three items to the department:

1. A letter signed by the permit holder or applicant's chief financial officer;

2. A copy of the independent certified public accountant's report on examination of the permit holder or applicant's financial statements for the latest completed fiscal year; and
3. A special report from the permit holder or applicant's independent certified public accountant to the permit holder or applicant stating that:

- a. He has compared the data that the letter from the chief financial officer specifies as having been derived from the independently audited, year-end financial statements for the latest fiscal year with the amounts in such financial statements; and
- b. In connection with that procedure, no matters came to his attention that caused him to believe that the specified data should be adjusted.

D. A new permit holder or new applicant must submit the items specified in subsection C of this section at least 30 days before the date on which the biosolids are first applied.

E. After the initial submission of the items specified in subsection C of this section, the permit holder or applicant must send updated information to the department within 90 days after the close of each succeeding fiscal year. This information must consist of all three items specified in subsection C of this section.

F. If the permit holder or applicant no longer meets the requirements of subsection B of this section, he must obtain insurance, a letter of credit, a surety bond, a trust fund, or a guarantee for the entire amount of the required liability coverage as specified in this section. Evidence of liability coverage must be submitted to the department within 90 days after the end of the fiscal year for which the year-end financial data show that the permit holder or applicant no longer meets the test requirements.

G. The department may disallow use of this test on the basis of qualifications in the opinion expressed by the independent certified public accountant in his report on an examination of the permit holder's or applicant's financial statements. An adverse opinion or a disclaimer of opinion may be cause for disallowance. The department will evaluate other qualifications on an individual basis. The permit holder or applicant must provide evidence for the entire amount of the required liability coverage as specified in this section within 30 days of notification of disallowance.

#### **9VAC25-32-810. Corporate guarantee.**

A. A permit holder or applicant may meet the requirements of this section by obtaining a written guarantee, hereafter referred to as "guarantee." The guarantor must be the direct or higher-tier parent corporation of the permit holder or the applicant; a firm whose parent corporation is also the parent corporation of the permit holder or applicant; or a firm with a substantial business relationship with the permit holder or applicant. The guarantor must meet the requirements for the permit holder or applicant as specified in 9VAC25-32-800. A certified copy of the guarantee must accompany the items sent to the department as specified in 9VAC25-32-800 C. One of these items must be the letter from the guarantor's chief financial officer. If the guarantor's parent corporation is also the parent corporation of the permit holder or the applicant, this letter must describe the value received in consideration of the guarantee. If the guarantor is a firm with a substantial business relationship with the permit holder or applicant, this letter must describe this substantial business relationship and the value received in consideration of the guarantee.

B. If the permit holder or applicant fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by the transport, storage, or land application of biosolids in Virginia or fails to pay an amount agreed to in a settlement of

claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage.

C. The guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the permit holder or applicant and to the department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the permit holder or applicant and the department, as evidenced by return receipts.

D. If a guarantee is cancelled, the permit holder or applicant shall, within 90 days following receipt of the cancellation notice by the permit holder or applicant and the department, obtain alternate financial assurance and provide evidence of that alternate financial assurance to the department. If the permit holder or applicant fails to provide evidence of alternate financial assurance within the 90-day period, the guarantor shall provide that alternate financial assurance within 120 days following the close of the guarantor's fiscal year; obtain alternate assurance acceptable to the department; and provide evidence of the alternate assurance to the department.

E. Recordkeeping and reporting.

1. The permit holder or applicant shall submit a signed original guarantee to the department along with the items required under 9VAC25-32-800 C. The guarantee shall be worded as specified on the Corporate Guarantee form.

2. The permit holder or applicant is no longer required to maintain the items specified in 9VAC25-32-800 C when:

- a. The permit holder or applicant substitutes alternate financial assurance as specified in this section; or
- b. The permit holder or applicant is released from the requirements of this chapter.

F. If a guarantor no longer meets the requirements specified in this section, the permit holder or applicant shall, within 90 days following close of the guarantor's fiscal year, obtain alternate financial assurance acceptable to the department and submit evidence of the alternate financial assurance to the department. If the permit holder or applicant fails to provide alternate financial assurance within the 90-day period, the guarantor shall provide that alternate financial assurance within 120 days.

**9VAC25-32-820. Local government financial test.**

A. A permit holder or applicant that satisfies the requirements of this section may demonstrate financial assurance using the local government financial test.

B. The permit holder or applicant shall satisfy the provisions of this section as applicable:

1. If the permit holder or applicant has outstanding, rated general obligation bonds that are not secured by insurance, a letter of credit, or other collateral or guarantee, he shall supply the department with documentation demonstrating that the permit holder or applicant has a current rating of Aaa, Aa, A, or Baa as issued by Moody's or AAA, AA, A, or BBB as issued by Standard and Poor's on all such general obligation bonds; or

2. If the permit holder or applicant does not have outstanding, rated general obligation bonds, he shall satisfy each of the following financial ratios based on the permit holder's or applicant's most recent audited annual financial statements:

- a. A ratio of cash plus marketable securities to total expenditures greater than or equal to 0.05; and
- b. A ratio of annual debt service to total expenditures less than or equal to 0.20.

C. The permit holder or applicant shall prepare his financial statements in conformity with generally accepted accounting principles for governments and have his financial statements audited by an independent certified public accountant or by the Auditor of Public Accounts.

D. A permit holder or applicant is not eligible to assure its obligations under this section if he:

1. Is currently in default on any outstanding general obligation bonds;
2. Has any outstanding general obligation bonds rated lower than Baa as issued by Moody's or BBB as issued by Standard and Poor's;
3. Operated at a deficit equal to 5.0% or more of total annual revenue in each of the past two fiscal years; or
4. Receives an adverse opinion, disclaimer of opinion, or other qualified opinion from the independent certified public accountant or Auditor of Public Accounts auditing his financial statements as required under subsection C of this section. However, the department may evaluate qualified opinions on a case-by-case basis and allow use of the financial test in cases where the department deems the qualification insufficient to warrant disallowance of the test.

E. The local government permit holder or applicant must submit to the department the following items:

1. An original letter signed by the local government's chief financial officer stating that the permit holder or applicant meets the requirements of this section;
2. The local government's independently audited year-end financial statements for the latest fiscal year, including the unqualified opinion of the auditor who must be an independent, certified public accountant or an appropriate state agency that conducts equivalent comprehensive audits;
3. A report of the local government from the local government's independent certified public accountant or the Auditor of Public Accounts based on performing an agreed upon procedures engagement relative to the financial ratios required by subdivision B 2 of this section, if applicable, and the requirements of this section. The certified public accountant's or state agency's report shall state the procedures performed and the certified public accountant's or state agency's findings; and
4. A copy of the comprehensive annual financial report (CAFR) used to comply with subdivision B 2 of this section.

#### **9VAC25-32-830. Local government guarantee.**

A. A local government who is also the permit holder or applicant may meet the requirements of this section by providing a written guarantee, herein referred to as "guarantee" by a local government. The guarantor shall meet the requirements of the local government financial test in section 9VAC25-32-820 and shall comply with the terms of the written guarantee identified in subsection B of this section.

B. Terms of the written guarantee.

1. The guarantee shall be effective before the initial application of biosolids; and
2. The guarantee shall provide that:
  - a. If the permit holder or applicant fails to satisfy a judgment based on a determination of liability for bodily injury or property damage to third parties caused by the transport, storage, or land application of biosolids in Virginia or fails to pay an amount agreed to in settlement of claims arising from or alleged to arise from such injury or damage, the guarantor will do so up to the limits of coverage;

b. The guarantee will remain in force unless the guarantor sends notice of cancellation by certified mail to the permit holder or applicant and to the department. Cancellation may not occur, however, during the 120 days beginning on the date of receipt of the notice of cancellation by both the permit holder or applicant and the department, as evidenced by return receipts; and

c. If a guarantee is cancelled, the permit holder or applicant shall within 90 days following receipt of the cancellation notice by the permit holder or the applicant and the department obtain alternate financial assurance and notify the department. If the permit holder or applicant fails to provide alternate financial assurance within the 90-day period, the guarantor shall provide that alternate financial assurance within 120 days following the close of the guarantor's fiscal year; obtain alternative financial assurance acceptable to the department; and submit evidence of that alternate financial assurance to the department.

C. Recordkeeping and reporting.

1. The permit holder or applicant shall submit a signed original guarantee on the Local Government Guarantee form to the department along with the items required under 9VAC25-32-820 E before the initial application of biosolids.

2. The permit holder or applicant is no longer required to maintain the items specified in 9VAC25-32-820 E when:

a. The permit holder or applicant substitutes alternate financial assurance as specified in this section; or

b. The permit holder or applicant is released from the requirements of this section.

D. If a local government guarantor no longer meets the requirements of this section, the permit holder or applicant shall, within 90 days following the close of the guarantor's fiscal year, obtain alternate financial assurance acceptable to the department and submit evidence of that alternate financial assurance to the department. If the permit holder or applicant fails to provide alternate financial assurance within the 90-day period, the guarantor shall provide that alternate financial assurance within 120 days.

**9VAC25-32-840. Letter of credit.**

A. A permit holder or applicant may satisfy the requirements of this article by obtaining an irrevocable standby letter of credit that satisfies the terms of the letter of credit and by submitting the original letter of credit to the department.

B. Terms of the letter of credit.

1. The letter of credit shall be effective before the initial application of biosolids.

2. The issuing institution shall be a bank or other financial institution that has the authority to issue letters of credit and whose letter of credit operations are regulated and examined by the Commonwealth of Virginia, by a federal agency, or by an agency of another state.

3. The letter of credit shall be irrevocable and issued for a period of at least one year in an amount of \$2 million to cover the costs for clean-up costs, personal injury, bodily injury, and property damage that may result from the transport, storage, or land application of biosolids in Virginia by the permit holder or applicant.

4. The letter of credit shall provide that the expiration date will be automatically extended for a period of at least one year. If the issuing institution decides not to extend the letter of credit beyond the current expiration date, it shall, at least 120 days before the date, notify both the permit holder or applicant and the department by certified mail of that

decision. The 120-day period will begin on the date of receipt by the department as shown on the signed return receipt. Expiration cannot occur, however, while an enforcement action is pending. Within 60 days of receipt of notice from the issuing institution that it does not intend to extend the letter of credit, the permit holder or applicant shall obtain alternate financial assurance and submit evidence of the alternate financial assurance to the department.

C. In the event of failure of the permit holder or applicant to comply with the requirements of this article, the department may cash the letter of credit.

D. The permit holder or applicant may cancel the letter of credit only if alternate financial assurance acceptable to the department is substituted as specified in this article or if the permit holder or applicant is released by the department from the requirements of this chapter.

E. The department shall return the original letter of credit to the issuing institution for termination when:

1. The permit holder or applicant substitutes acceptable alternate financial assurance for clean-up costs, personal injury, bodily injury, and property damage resulting from the transport, storage, or land application of biosolids in Virginia; or
2. The department notifies the permit holder or applicant that he is no longer required by this article to maintain financial assurance for clean-up costs, personal injury, bodily injury, and property damage resulting from the transport, storage, or land application of biosolids in Virginia.

F. The permit holder or applicant shall establish a standby trust fund. The standby trust fund shall meet the requirements of 9VAC25-32-850, except the requirements for initial payments and subsequent annual payments.

G. Payments made under the terms of the letter of credit will be deposited by the issuing institution directly into the standby trust fund. Payments from the trust fund shall be approved by the department.

H. The department may cash the letter of credit if it is not replaced 30 days prior to expiration with alternate financial assurance approved by the department.

I. The wording of the letter of credit shall be identical to that specified in the Letter of Credit form.

#### **9VAC25-32-850. Trust fund.**

A. A permit holder or applicant may satisfy the requirements of this article by establishing a trust fund that conforms to the requirements of subsection B of this section and submitting an originally signed duplicate of the trust agreement to the department.

##### **B. Trust fund requirements.**

1. The trustee must be an entity that has the authority to act as a trustee and whose trust operations are regulated and examined by the Commonwealth of Virginia, by a federal agency, or by an agency of another state.
2. The trust fund for liability coverage must be funded for the full amount of the liability coverage to be provided by the trust fund before it may be relied upon to satisfy the requirements of this section. If at any time after the trust fund is created, the amount of funds in the trust fund is reduced below the full amount of the liability coverage to be provided, the permit holder or applicant, by the anniversary date of the establishment of the fund, must either add sufficient funds to the trust fund to cause its value to be equal to the full amount of the liability coverage to be provided, or obtain other alternate financial assurance as specified in this section to cover the difference.

3. For purpose of this section, "the full amount of liability coverage provided" means the amount of coverage for clean-up costs, personal injury, bodily injury, and personal damage resulting from the transport, storage, or land application of biosolids in Virginia.
4. The wording of the trust fund must be identical to that specified in the Trust Fund form.

#### FORMS (9VAC25-32)

[Virginia Pollution Abatement Permit Application, General Instructions \(rev. 4/09\).](#)

Virginia Pollution Abatement Permit Application, Form A, All Applicants (rev. 4/09).

[Virginia Pollution Abatement Permit Application, Form B, Animal Waste \(rev. 10/95\).](#)

[Virginia Pollution Abatement Permit Application, Form C, Industrial Waste \(rev. 10/95\).](#)

Virginia Pollution Abatement Permit Application, Form D, Municipal Effluent and Biosolids Cover Page (rev. 6/13):

[Part D-I: Land Application of Municipal Effluent \(rev.4/09\).](#)

Part D-II: Land Application of Biosolids (rev. 6/13).

[Part D-III: Effluent Characterization Form \(rev.4/09\).](#)

Part D-IV: Biosolids Characterization Form (rev. 6/13).

Part D-V: Non-Hazardous Waste Declaration (rev. 6/13).

Part D-VI: Land Application Agreement - Biosolids and Industrial Residuals (rev. 9/12).

Request for Extended Setback from Biosolids Land Application Field (rev. 10/11).

[Application for Land Application Supervisor Certification \(rev. 2/11\).](#)

[Application for Renewal of Land Application Supervisor Certification \(rev. 2/11\).](#)

Sludge Disposal Site Dedication Form, Form A-1 (rev. 11/09).

Liability Requirements for Transport, Storage, and Land Application of Biosolids, Form I, Insurance Liability Endorsement (rev. 11/09).

Liability Requirements for Transport, Storage, and Land Application of Biosolids, Form II, Certificate of Liability Insurance (rev. 11/09).

Liability Requirements for Transport, Storage, and Land Application of Biosolids, Form III, Corporate Letter (rev. 11/09).

Liability Requirements for Transport, Storage, and Land Application of Biosolids, Form IV, Corporate Guarantee (rev. 11/09).

Liability Requirements for Transport, Storage, and Land Application of Biosolids, Form V, Letter of Credit (rev. 11/09).

Liability Requirements for Transport, Storage, and Land Application of Biosolids, Form VI, Trust Agreement (rev. 11/09).

NOTE: Forms listed above that are not changing with this regulatory action are linked to the currently approved form on LIS. Forms that are amended or reconfigured with this regulatory action, or have not been previously available on LIS are included in the Appendix. (cmw 7/05/2013)

DOCUMENTS INCORPORATED BY REFERENCE (9VAC25-32)

Environmental Regulations and Technology-Control of Pathogens and Vector Attraction in Sewage Sludge, EPA-625/R-92/013, July 2003, U.S. Environmental Protection Agency, Cincinnati, Ohio 45268.

Glossary-Water and Wastewater Control Engineering, 1969, American Public Health Association (APHA), American Society of Civil Engineers (ASCE), American Water Works Association (AWWA), and the Water Environment Federation (WEF).

Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, EPA Publication SW-846, Third Edition (1986) as amended by final updates I, II, IIA, IIB, IIIA, IIIB, IVA, and IVB, National Technical Information Service, Springfield, Virginia.



## Appendix: FORMS

**Department of Environmental Quality**  
**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION**  
**FORM A**

**INSTRUCTIONS**

*All applications submitted for a Virginia Pollution Abatement (VPA) Permit shall include this form.*

1. **FACILITY NAME AND ADDRESS:** Provide the name of the facility managing the pollutant. Both the mailing address, county, and physical location should be included.
2. **OWNER:** Provide the legal name, mailing address, telephone number and e-mail address of the owner or the company making application for the VPA Permit.
3. **OWNER CONTACT:** Provide the name, title, mailing address, telephone number and e-mail address of the individual whom DEQ staff should contact regarding this application. If the same as the owner, write SAME.
4. **EXISTING PERMITS:** List all environmentally-related permits issued to the facility by listing the issuing agency and permit number. Include an existing VPA permit if your facility has one.
5. **NATURE OF BUSINESS:** Provide a general statement of the type of business conducted at the facility. Industrial facilities are requested to provide applicable Standard Industrial Classification (SIC) Codes. SIC Codes may be obtained from Standard Industrial Classification Manual published by the U.S. Department of Labor, Occupational Safety and Health Administration. The manual can be found in public libraries and on the internet.
6. **TYPE OF WASTE:** Indicate pollutants or type of waste(s) handled and whether the facilities are either existing or proposed, or both. Note that the pollutant or type of waste determines which other VPA application forms must be completed.
7. **GENERAL LOCATION MAP:** The purpose of the map is to allow the DEQ staff to readily find the establishment. This map is to show the general location of the establishment. Applicants should use county or United States Geological Survey quadrangle maps. DEQ Regional Offices can provide information for obtaining such maps.
8. The application must be signed in accordance with the VPA Permit Regulation (9VAC25-32):
  - a. **FOR A CORPORATION:** by a responsible corporate official. For purposes of this section, a responsible corporate official means (1) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation, or (2) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25,000,000 (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
  - b. **FOR A MUNICIPALITY, STATE, FEDERAL OR OTHER PUBLIC AGENCY,** by either a principal executive officer or ranking elected official. (A principal executive officer of a Federal, Municipal, or State agency includes the chief executive officer of the agency or head executive officer having responsibility for the overall operation of a principal geographic unit of the agency).
  - c. **FOR A PARTNERSHIP OR SOLE PROPRIETORSHIP,** by a general partner or the proprietor, respectively.

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION  
FORM A  
ALL APPLICANTS**

1. Facility	Name	
	County/City	
	Address	
2. Owner	Legal Name	
	Mailing Address	
	Telephone Number	
	Email address	
3. Owner Contact	Name	
	Title	
	Mailing Address	
	Telephone Number	
	Email address	

4. Existing permits (e.g., VPA, VPDES; VWP, RCRA; UIC); other:

Agency	Permit Type	Permit Number

5. Nature of Business: \_\_\_\_\_

SIC Code(s):			
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6. Type of Waste:

(check box as appropriate)

Proposed

Existing

Animal Waste (complete Form B)

☐
☐

Industrial Waste (complete Form C)

☐
☐

Land Application of Municipal Effluent  
(complete Form D, Part I)

☐
☐

Land Application of Biosolids/Sewage Sludge  
(complete Form D, Part II)

☐
☐

Reclamation and/or Distribution of Reclaimed  
Wastewater (Application Addendum)

☐
☐

7. General Location Map:

Provide a general location map which clearly identifies the location of the facility

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION**  
**FORM A**  
***ALL APPLICANTS***

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering information, the information submitted is to the best of my knowledge and belief true, accurate and complete. I am aware that there are significant penalties for submitting false information including the possibility of fine and imprisonment for knowing violations. I further certify that I am an authorized signatory as specified in the VPA Permit Regulation (9VAC25-32).

Signature:		Date:
Printed Name:		
Title:		

**VIRGINIA POLLUTION ABATEMENT**  
**PERMIT APPLICATION**  
**FORM D**  
**MUNICIPAL EFFLUENT AND BIOSOLIDS**

**PART D-I LAND APPLICATION OF MUNICIPAL EFFLUENT**

**PART D-II LAND APPLICATION OF BIOSOLIDS**

**PART D-III EFFLUENT CHARACTERIZATION FORM**

**PART D-IV BIOSOLIDS CHARACTERIZATION FORM**

**PART D-V NON-HAZARDOUS WASTE DECLARATION**

**PART D-VI LAND APPLICATION AGREEMENT – BIOSOLIDS AND  
INDUSTRIAL RESIDUALS**

*Contact the Department of Environmental Quality's Regional office if instructions beyond those provided in the form are required.*

**Department of Environmental Quality**

# **VIRGINIA POLLUTION ABATEMENT APPLICATION**

## **FORM D**

### **MUNICIPAL EFFLUENT AND BIOSOLIDS**

#### **PART D-I LAND APPLICATION OF MUNICIPAL EFFLUENT**

##### **General Information**

1. Facility Name. Name given on Form A.
2. Briefly describe the design and provide a line drawing of the wastewater treatment facility which relates the various components of the treatment system including source(s), treatment unit(s) disposal alternatives and flow estimates from the various process units.
3. Briefly describe the disposal of any solid or sludge waste materials.
4. List all industrial contributors to the wastewater treatment facility.
5. Submit a copy of any leasing agreements related to the treatment works and the use or management of the application fields not under direct ownership of the applicant.
6. All Privately Owned Treatment Works (PVOTW) designed to serve 50 or more residences must be registered with the State Corporation Commission (SCC) prior to applying for a permit. Provide a copy of the SCC Certificate of Incorporation (for Virginia based operations) or the Certificate of Authority (for out of state operations) with the application.

##### **Design Information**

**Note:** This section should be completed for each alternative effluent application system.

##### Waste Characterization

7. Provide the design flow of the wastewater treatment plant.
8. Provide a sewage effluent characterization in accordance with Part D-III of the application. For a proposed facility, estimates based on data obtained from other similar facilities may be used. More than one sample may be required if the effluent may be expected to exhibit diurnal or seasonal variation.
9. Provide calculations describing the nutrient value of the effluent as mg/l nitrogen (PAN), phosphorus ( $P_2O_5$ ), potassium ( $K_2O$ ) and any liming effects which may occur from land application.

##### Storage and Land Application Requirements

10. Provide calculations justifying storage and land area requirements for wastewater application including an annual water balance on a monthly basis incorporating such factors as precipitation, evaporation, evapotranspiration, soil hydraulic conductivity, wastewater loading, dry periods, and monthly storage (input and drawdown). Provide daily, weekly and annual hydraulic loading rates (maximum and average).

All facilities must be designed and operated to prevent any discharge to State waters except in the event of a 25 year, 24 hour or greater storm event. DEQ recommends the storage capacity be sufficient to store the entire daily design flow of the treatment works for the duration of the winter months, when land application may be restricted, with a minimum of 60 days storage capacity where adequate climatological data are not available.

11. Provide calculations justifying the land area requirements for land application of sewage effluent taking into consideration average productivity group, crop(s) to be grown and most limiting factor(s), specifically PAN, metal loadings, and Sodium Adsorption Ratio (SAR) or Exchangeable Sodium, where applicable. Demonstrate the most limiting factor for land application on an annual and site life basis.

### **Site Characterization**

**Note:** A site characterization is required for each land application site on a field by field basis and for each storage facility. Site booklets organized by Operator/Land Owner and County are preferred.

Divide the land application site into individualized units of fields on the basis of agronomic management practices. For example, soils which are similar for productivity or pH adjustment which are adjacent to each other should be grouped as one field if they can be anticipated to receive effluent on similar schedules. Distinctly different soils which may require different agronomic management should be designated separately. For convenience in meeting permit reporting requirements, keep field units small.

12. Provide a general location map which clearly indicates the location of all the land application sites related to this permit application. (See General Instructions for Map Requirements.)
13. Provide a topographic map of sufficient scale (5 foot contour preferred) clearly showing the location of the following features within 0.25 mile of the site. More than one map may be required if the land application site(s) or treatment/storage facilities are not in close proximity. Provide a legend and approximate scale. Clearly mark field and property boundaries. (See Instructions for map requirements.)
  - a. Proposed or existing ground water monitoring wells
  - b. General direction of ground water movement
  - c. Water wells, abandoned or operating
  - d. Surface waters
  - e. Springs
  - f. Public water supply(s)
  - g. Sinkholes
  - h. Underground and/or surface mines
  - i. Mine pool (or other) surface water discharge points
  - j. Mining spoil piles and mine dumps
  - k. Quarry(s)
  - l. Sand and gravel pits
  - m. Gas and oil wells
  - n. Diversion ditch(s)
  - o. Agricultural drainage ditch(s)
  - p. Occupied dwellings, including industrial and commercial establishments
  - q. Landfills or dumps
  - r. Other unlined impoundments
  - s. Septic tanks and drainfields
  - t. Injection wells
  - u. Rock outcrops

14. For each land application site, provide a site plan, preferably topographically based, of sufficient detail to clearly show any landscape features which require buffer zones or may limit land application. Clearly show the field boundaries, property lines, and the location of any subsurface agricultural drainage tile, as appropriate.

Provide a site plan legend which identifies the following landscape features:

- a. Drainage ways
- b. Rock outcrops
- c. Sink holes
- d. Drinking water wells and springs
- e. Monitoring wells
- f. Property lines
- g. Roadways

- h. Occupied dwellings
- i. Slopes (greater than 8% by slope class)
- j. Wet spots
- k. Severe erosion
- l. Frequently flooded soils (SCS designation)
- m. Surface waters

15. Provide a detailed soil survey map, preferably photographically based, with the field boundaries clearly marked. (A USDA-SCS soil survey map should be provided, if available.)

Provide a detailed legend for each soil survey map which uses accepted USDA-SCS descriptions of the typifying pedon for each soil series (soil type). Complex associations may be described as a range of characteristics. Soil descriptions should include the following information:

- a. Soil symbol
- b. Soil series, textural phase and slope class
- c. Depth to seasonal high water table
- d. Depth to bedrock
- e. Estimated productivity group (for the proposed crop rotation).
- f. Estimated infiltration rate (surface soil)
- g. Estimated permeability of most restrictive subsoil layer

16. Representative soil borings and test pits to a depth of five feet or to bedrock if shallower, are to be coordinated for the typifying pedon of each soil series (soil type). Soil descriptions shall include as a minimum the following information:

- a. Soil symbol
- b. Soil series, textural phase and slope class
- c. Depth to seasonal high water table
- d. Depth to bedrock
- e. Estimated productivity group (for the proposed crop rotation).
- f. Estimated infiltration rate (surface soil)
- g. Estimated permeability of most restrictive subsoil layer

17. Collect and analyze soil samples for the following parameters for each field, weighted to best represent each of the soil borings performed for Item 16.

- a. Soil organic matter (%)
- b. Soil pH (std. units)
- c. Cation exchange capacity (meg/100g)
- d. Total nitrogen (ppm)
- e. Organic nitrogen (ppm)
- f. Ammonia nitrogen (ppm)
- g. Nitrate nitrogen (ppm)
- h. Available phosphorus (ppm)
- i. Exchangeable sodium (mg/100g)
- j. Exchangeable calcium (mg/100g)
- k. Copper (ppm)
- l. Nickel (ppm)
- m. Zinc (ppm)
- n. Cadmium (ppm)
- o. Lead (ppm)
- p. Chromium (ppm)
- q. Manganese (ppm)
- r. Particle size analysis or USDA textural estimate (%)
- s. Hydraulic conductivity (in/hr.)



### **Crop and Site Management**

18. Relate the crop nutrient needs to anticipated yields, soil productivity rating and the various fertilizer or nutrient sources from effluent and chemical fertilizers.

If the effluent may be expected to possess unusual properties, provide a description of any plant tissue testing, supplemental fertilization or intensive agronomic management practices which may be necessary.

19. Using a narrative format and referencing any related charts, describe the proposed cropping system. Show how the crop rotation and management will be coordinated with the design of the land application system. Include any supplemental fertilization program, and the coordination of tillage practices, planting and harvesting schedules and timing of land application.

# **VIRGINIA POLLUTION ABATEMENT APPLICATION**

## **FORM D**

### **MUNICIPAL EFFLUENT AND BIOSOLIDS**

#### **PART D-II LAND APPLICATION OF BIOSOLIDS**

**All of the information provided in this application will become part of the Biosolids Management Plan associated with a VPA individual permit issued for the proposed activity.**

#### **General Information**

1. Owner Legal name. (Should be the same name given on Form A, Item 2).
2. Provide a general description of the proposed operation.
  - a. For each generator of biosolids, and each source of biosolids produced at the generating facility proposed for land application, include the following (A source of biosolids at the generating facility is the product of a specific series of treatment unit processes, and a single facility may have multiple sources. For example, a generator that splits its waste activated sludge, half to a digester and a belt press and the other half to lime stabilization has 2 sources of biosolids):
    - 1) Legal name and VPDES, NPDES or other state permit number of the generating facility;
    - 2) Location of generating facility;
    - 3) Name of the owner(s) of the generating facility;
    - 4) Biosolids quality in regard to Pathogen Reduction standards and Metals;
    - 5) Biosolids treatment and handling processes for each source;
    - 6) Generating facility's odor control plan that contains at minimum:
      - a) Methods used to minimize odor in producing biosolids;
      - b) Methods used to identify malodorous biosolids before delivery to the land applier (at the generating facility);
      - c) Methods used to identify and abate malodorous biosolids if delivered to the field, prior to land application; and
      - d) Methods used to abate malodor from biosolids if land applied;
    - 7) Means of biosolids transport or conveyance;
    - 8) Location and volume of storage proposed;
    - 9) A description of field staging methods;
    - 10) General location of sites proposed for application, and
    - 11) Methods of biosolids application proposed.
3. Provide a legible copy of any leasing agreements necessary for the operation of any treatment or storage facilities not under direct ownership of the applicant, which identifies the involved parties.
4. Identify the methods for notification of DEQ and local government prior to proposed land application activities.
5. Provide to the DEQ and to each locality in which the biosolids are to be applied, written evidence of financial responsibility. Evidence of financial responsibility shall be provided in accordance with the requirements specified under 9VAC25-32-770 et seq.

## Design Information

### Biosolids Characterization

6. Provide a separate biosolids characterization form, Part D-IV, for each source of biosolids that is not identified on the VA DEQ Approved Biosolids Source List. The following biosolids sources will always require a characterization form:
  - a) biosolids from a new generating facility,
  - b) biosolids from an existing generator that has never been land applied in Virginia,
  - c) biosolids from an existing generator that has not been land applied in Virginia within the past 5 years and has not submitted biosolids monitoring data in the last 5 years,
  - d) biosolids produced by a new treatment process within an existing facility.
7. Provide a Non-Hazardous Declaration Statement for each biosolids, Part D-V.

### Biosolids Storage

8. Describe the current status of the available biosolids storage. List in a tabular format the **routine** biosolids storage facilities and **on-site** storage by location, total storage capacity, and the biosolids contracts currently permitted or assigned to these facilities or sites.
9. Provide plans and specifications for **routine** and **on-site** storage of all biosolids to be handled that depict the following information:
  - a. Site layout on a recent 7.5 minute topographic quadrangle or other appropriate scaled map with the following information:
    - (1) Location of any required soil, geologic and hydrologic test holes or borings
    - (2) Location of the following field features within 0.25 miles of the site boundary (indicated on the map) with the approximate distances from the site boundary.
      - (a) Water wells (operating or abandoned).
      - (b) Surface waters.
      - (c) Springs.
      - (d) Public water supplies.
      - (e) Sinkholes.
      - (f) Underground and/or surface mines.
      - (g) Mine pool (or other) surface water discharge points.
      - (h) Mining spoil piles and mine dumps.
      - (i) Quarries.
      - (j) Sand and gravel pits.
      - (k) Gas and oil wells.
      - (l) Diversion ditches.
      - (m) Occupied dwellings, including industrial and commercial establishments.
      - (n) Landfills - dumps.
      - (o) Other unlined impoundments.
      - (p) Septic tanks and drainfields.
      - (q) Injection wells.

- b. Topographic map (10-foot contour preferred) of sufficient detail to clearly show the following information:
    - (1) Maximum and minimum percent slopes.
    - (2) Depressions on the site that may collect water.
    - (3) Drainage ways that may attribute to rainfall run-on to or runoff from this site.
    - (4) Portions of the site (if any) which are located within the 100-year floodplain.
  - c. Data and specifications for the liner proposed for seepage control.
  - d. Scaled plan view and cross-sectional view of the storage facilities or sites showing inside and outside slopes of all embankments and details of all appurtenances.
  - e. Calculations justifying impoundment capacity, including freeboard where applicable.
  - f. A description of supernatant handling and disposal.
  - g. Groundwater monitoring plans for the facilities or sites including pertinent hydrogeological data to justify upgradient and downgradient well location and depth.
10. For the routine storage of biosolids, provide evidence of certification by the local government of the locality in which the biosolids are to be stored that the storage site is consistent with all applicable ordinances. Evidence of certification shall consist of the following:
- a. A copy of the certification from the local government confirming that the storage site is consistent with all applicable ordinances, or where the local government fails to respond within 30 days of receiving the request for certification, a copy of the letter from the applicant to the local government requesting certification of the storage facility; **or**
  - b. A copy of the special exception or special use permit from the local government that has adopted an ordinance in accordance with § 62.1-44.19:3.R of the Code of Virginia.

### **Biosolids Transport**

11. Provide a detailed description for each of the following:
- a. Vehicles that will be used to transport biosolids from generators or storage to land application sites;
  - b. Routes to be used to transport biosolids from the generator(s) to storage unit(s);
  - c. Procedures for biosolids off-loading at the biosolids facilities and the land application site together with spill prevention, cleanup (including vehicle cleaning) and emergency spill notification and cleanup measures; and
  - d. Voucher system to be used to document transport and delivery of biosolids from their source to the land application site or a facility to further process the biosolids for marketing. Also describe record retention for vouchers.

### **Field Operations**

12. For field operations involving storage, provide a detailed description for each of the following:
- a. Routine storage—procedures for biosolids loading of transport vehicles, equipment cleaning, freeboard maintenance for storage of liquid biosolids, and inspections for structural integrity of the storage unit;
  - b. On-site storage—procedures for DEQ approval and implementation; designated site locations if provided in the "Design Information"; the specific site criteria including the best management practices that will be utilized to prevent contact with storm water run on or runoff and the procedures to be followed to ensure the 45 day time limit will be met;

- c. Staging - procedures for DEQ notification; procedures to be followed including either designated site locations provided in the "Design Information" or the specific site criteria for such locations including the liner or cover requirements and the time limit assigned for such use;
  - d. Procedures for reestablishment of off-loading and staging areas.
13. Provide a detailed description for each of the following:
- a. The biosolids spreader vehicles and the specifications of each vehicle.
  - b. Procedures for calibrating each spreader based on the solids content of various biosolids to ensure uniform distribution and appropriate loading rates on a day-to-day basis.
  - c. Procedures used to ensure that operations address the following constraints:
    - (1) Application of biosolids to frozen ground, pasture or hay fields, crops for direct human consumption and saturated or ice/snow covered ground; and
    - (2) Establishment of setback distances, slopes, prohibited access for beef and dairy animals, soil pH requirements, and proper site specific biosolids loading rates on a field-by-field basis.
14. Provide a Land Applier Odor Control Plan that includes at a minimum:
- a. Methods used to identify and abate malodorous biosolids in the field prior to land application, and
  - b. Methods used to abate malodorous biosolids if land applied.

### **Land Application Sites**

15. Provide the DEQ control number, if previously assigned, identifying each land application field. If a DEQ control number has not been assigned, provide the site identification code used by the permit applicant to report activities and the site's location.
16. Provide the latitude and longitude of each land application site in decimal degrees to three decimal places and the method of determination.
17. Provide a properly completed Biosolids Application Agreement for each land owner, Part D-VI.
18. Provide a legible topographic map and aerial photograph, including legend, of proposed application areas to scale as needed to depict the following features:
- a. Property boundaries;
  - b. Surface water courses, including drainage ways;
  - c. Water supply wells and springs;
  - d. Roadways;
  - e. Rock outcrops;
  - f. Slopes;
  - g. Sinkholes
  - h. Frequently flooded areas (National Resources Conservation Service (NRCS) designation);
  - i. Occupied dwellings within 400 feet of the property boundaries and all existing dwelling and property line setback distances;
  - j. Publicly accessible properties and occupied buildings within 400 feet of the property boundaries and the associated extended setback distances; and
  - k. The gross acreage of the fields where biosolids will be applied;
19. Provide a county map or other map of sufficient detail to show general location of the site and proposed transport vehicle haul routes to be utilized from the treatment plant or storage facility.
20. Provide county tax maps labeled with Tax Parcel ID(s) ] for each farm to be included in the permit, which may include multiple fields to depict properties within 400 feet of the field boundaries.

21. Provide a USDA soil survey map, if available, of proposed sites for land application of biosolids.

22. Provide the name, mailing address, and telephone number of each site owner, if different from the applicant;
23. Provide the name, mailing address, and telephone number of the person who applies biosolids to the site, if different from the applicant.
24. Provide information as to whether the site is agricultural land, forest, a public contact site, or a reclamation site, as such site types are defined in 9VAC25-32-10.
25. Provide a description of agricultural practices including a list of proposed crops to be grown.
26. Provide the following information for each land application site that has been identified at the time of permit application, if the applicant intends to apply bulk biosolids subject to the cumulative pollutant loading rates in 9VAC25-32-356 Table 3 to the site:
  - (a) Whether the applicant has contacted VA DEQ to ascertain whether bulk biosolids subject to 9VAC25-32-356 Table 3 has been applied to the site on or since July 20, 1993, and if so, the name of person contacted; and
  - (b) Identification of facilities other than the applicant's facility that have sent, or are sending, biosolids subject to the cumulative pollutant loading rates in 9VAC25-32-356 Table 3 to the site since July 20, 1993, if, based on the inquiry in item (a) above, bulk biosolids subject to cumulative pollutant loading rates in 9VAC25-32-356 Table 3 has been applied to the site since July 20, 1993.
27. Provide a nutrient management plan approved by the Department of Conservation and Recreation and a copy of the DCR approval letter for application sites meeting the following conditions:
  - (a) Sites operated by an owner or lessee of a confined animal feeding operation, as defined in subsection A of § 62.1-44.17:1 of the Code of Virginia, or confined poultry feeding operation, as defined in subsection A of § 62.1-44.17:1.1 of the Code of Virginia;
  - (b) Sites where land application more frequently than once every three years at greater than 50% of the annual agronomic rate is proposed;
  - (c) Mined or disturbed land sites where land application is proposed at greater than agronomic rates; or
  - (d) Other sites based on site-specific conditions that increase the risk that land application may adversely impact state waters.
28. For mined or disturbed sites where land application is proposed at greater than agronomic rates, provide a reclamation plan that establishes the biosolids application rates and other site specific management practices.

VIRGINIA POLLUTION ABATEMENT APPLICATION

FORM D

MUNICIPAL EFFLUENT AND BIOSOLIDS

PART D-III EFFLUENT CHARACTERIZATION FORM

1. Facility Name: \_\_\_\_\_
2. Source or Generator: \_\_\_\_\_
3. Type of Treatment: \_\_\_\_\_
4. Degree of Treatment: \_\_\_\_\_
5. Provide at least one analysis for each parameter listed under effluent. Upon review, additional analyses may be required by DEQ.

<u>Parameter</u>	<u>Effluent</u>
BOD <sub>5</sub>	_____ mg/l
TSS	_____ mg/l
TRC	_____ mg/l
Percent Solids	_____ %
pH	_____ S.U.
Nitrogen, (Nitrate)	_____ mg/l
Nitrogen, (Ammonium)	_____ mg/l
Nitrogen, (Total Kjeldahl)	_____ mg/l
Phosphorus, (Total)	_____ mg/l
Potassium, (Total)	_____ mg/l
Sodium	_____ mg/l

6. Provide at least one analysis of any other pollutants which you believe may be present in the effluent. Upon review, additional analyses may be required by DEQ.

<u>Parameter</u>	<u>Effluent</u>
Lead	_____ mg/l
Cadmium	_____ mg/l
Copper	_____ mg/l
Nickel	_____ mg/l
Zinc	_____ mg/l
Other	_____ mg/l
	_____



**VIRGINIA POLLUTION ABATEMENT APPLICATION**

**FORM D**

**MUNICIPAL EFFLUENT AND BIOSOLIDS**

**PART D-IV BIOSOLIDS CHARACTERIZATION FORM**

1. Facility \_\_\_\_\_ Name: \_\_\_\_\_
2. Design Flow: \_\_\_\_\_ MGD
3. Annual Sludge/Biosolids Production (Total): \_\_\_\_\_ metric tons (dry weight basis)
4. Annual Biosolids Land Applied or Distributed: \_\_\_\_\_ metric tons (dry weight basis)
5. Source Identification (if facility produces multiple sources): \_\_\_\_\_
6. Pathogen Treatment Classification: ☐ Class A ☐ Class B
7. Indicate Pathogen Reduction Option:
- Class B:
- ☐ Alternative 1: Fecal coliform testing -geometric mean of 7 samples
- ☐ Alternative 2: Process to Significantly Reduce Pathogens (PSRP) - if selected, indicate process below:
- Process: ☐ anaerobic digestion ☐ aerobic digestion ☐ alkaline stabilization ☐ air drying ☐ composting
- ☐ other \_\_\_\_\_
- Class A:
- ☐ Alternative 1: Fecal coliform or Salmonella testing and heat treatment at or above 50°C.
- ☐ Alternative 2: Fecal coliform or Salmonella testing and alkaline stabilization at or above 52°C.
- ☐ Alternative 3: Fecal coliform or Salmonella testing and enteric virus and viable helminth ova testing and evaluation when enteric viruses and viable helminth ova prior to pathogen treatment are equal to or greater than 1 Plaque-forming unit or one ova, respectively, per 4 grams total solids.
- ☐ Alternative 4: Fecal coliform or Salmonella testing and enteric virus and viable helminth ova testing.
- ☐ Alternative 5: Process to Further Reduce Pathogens (PFRP) - Fecal coliform or Salmonella testing and process indicated below:
- Process: ☐ composting at 55°C ☐ heat drying at 80°C ☐ heat treatment at 180°C
- ☐ thermophilic aerobic digestion ☐ beta ray irradiation ☐ gamma ray irradiation
- ☐ pasteurization ☐ other \_\_\_\_\_
8. Indicate Vector Attraction Reduction Option:
- ☐ ≥ 38% volatile solids reduction ☐ anaerobic 40 day bench test
- ☐ aerobic 30 day bench test ☐ Specific Oxygen Uptake Rate (SOUR) test
- ☐ 14 days aerobically treated at 104° F ☐ alkaline stabilization
- ☐ drying to ≥75% total solids with no primary sludges ☐ drying to ≥90% total solids including primary sludges
- ☐ no vector attraction reduction at WWTW – 6 hour incorporation into soil or injection into soil

9. Provide a description of the method of sludge treatment or stabilization for each biosolids source, including a flow diagram of each residual treatment train.
10. Provide biosolids analytical data for the following parameters from a minimum of 3 samples taken within 4 ½ years prior to the date of the permit application. Samples must be representative of the biosolids to be land applied and taken at least one month apart. Existing data may be used in lieu of sampling done solely for the purpose of this application. For all analyses, provide the documentation from a VELAP certified laboratory that indicates analysis result, analytical method used, and method detection level.

	Average Monthly Concentration <sup>(1)</sup>		
Parameter	Month/Year <sup>(2)</sup> :	Month/Year <sup>(2)</sup> :	Month/Year <sup>(2)</sup> :
Percent Solids	%	%	%
Volatile Solids	%	%	%
pH	SU	SU	SU
Alkalinity as CaCO <sub>3</sub> <sup>(3)</sup>	mg/kg	mg/kg	mg/kg
Nitrogen, (Nitrate)	mg/kg	mg/kg	mg/kg
Nitrogen, (Ammonium)	mg/kg	mg/kg	mg/kg
Nitrogen, (Total Kjeldahl)	mg/kg	mg/kg	mg/kg
Phosphorus, (Total)	mg/kg	mg/kg	mg/kg
Potassium, (Total)	mg/kg	mg/kg	mg/kg
Lead	mg/kg	mg/kg	mg/kg
Cadmium	mg/kg	mg/kg	mg/kg
Copper	mg/kg	mg/kg	mg/kg
Nickel	mg/kg	mg/kg	mg/kg
Zinc	mg/kg	mg/kg	mg/kg
Arsenic	mg/kg	mg/kg	mg/kg
Molybdenum	mg/kg	mg/kg	mg/kg
Selenium	mg/kg	mg/kg	mg/kg

<sup>(1)</sup> Values to be reported on a dry weight basis unless indicated.

<sup>(2)</sup> If only one sample was analyzed in the month specified, it is not necessary to transpose the values from the attached laboratory sheet to the table above.

<sup>(3)</sup> Lime treated biosolids (10% or more lime by dry weight) must be analyzed for percent CaCO<sub>3</sub>.

11. Provide calculations describing the average nutrient value of the biosolids as pounds per dry ton for the following parameters:

Plant Available Nitrogen	Phosphorus (P <sub>2</sub> O <sub>5</sub> )	Potassium (K <sub>2</sub> O)	Calcium Carbonate Equivalence (for lime treated biosolids)
lbs/dry ton	lbs/dry ton	lbs/dry ton	

12. Provide a representative PCB analysis if results have not been supplied to DEQ.

Polychlorinated biphenols \_\_\_\_\_ mg/kg

13. For Exceptional Quality Biosolids, provide at least one analysis for each parameter.

Parameter	Biosolids <sup>(1)</sup>
Aldrin/dieldrin (total)	_____ mg/kg
Benzo (a) pyrene	_____ mg/kg
Chlordane	_____ mg/kg
DDT/DDE/DDD (total) <sup>(2)</sup>	_____ mg/kg
Dimethyl nitrosamine	_____ mg/kg
Heptachlor	_____ mg/kg
Hexachlorobenzene	_____ mg/kg
Hexachlorobutadiene	_____ mg/kg
Lindane	_____ mg/kg
Toxaphene	_____ mg/kg
Trichloroethylene	_____ mg/kg

<sup>(1)</sup> Values to be reported on a dry weight basis.

<sup>(2)</sup> Note: DDT = 2,2--Bis (chlorophenyl)--1,1,1--Trichloroethane; DDE = 1,1--Bis (chlorophenyl)--2,2--Dichloroethane; DDD = 1,1--Bis (chlorophenyl)--2,2--Dichloroethane

14. Provide at least one analysis of any other pollutants which you believe may be present in the biosolids. Upon review, additional analyses may be required by DEQ.

\_\_\_\_\_  
\_\_\_\_\_

15. Based on the amount of biosolids to be land applied or distributed annually, indicate the sampling frequency:

Amount of biosolids <sup>(1)</sup> (metric tons per 365-day period)	Frequency	Check one:
Greater than zero but less than 290	Once per year	<input type="checkbox"/>
Equal to or greater than 290 but less than 1,500	Once per quarter (four times per year)	<input type="checkbox"/>
Equal to or greater than 1,500 but less than 15,000	Once per 60 days (six times per year)	<input type="checkbox"/>
Equal to or greater than 15,000	Per month (12 times per year)	<input type="checkbox"/>

<sup>(1)</sup> Either the amount of bulk biosolids applied to the land or the amount of biosolids received by a person who prepares biosolids that is sold or given away in a bag or other container for application to the land (dry weight basis).

**VIRGINIA POLLUTION ABATEMENT APPLICATION**

**FORM D**

**MUNICIPAL EFFLUENT AND BIOSOLIDS**

**PART D-V NON-HAZARDOUS WASTE DECLARATION**

For waste to be land applied, the owner of the treatment works, as defined by 9 VAC 25-32-10, must sign the following statement:

I certify that the waste from the facility identified below and described in this application is non-hazardous and not regulated under the Resource Conservation and Recovery Act or the Virginia Hazardous Waste Management Regulation (9 VAC 20-60).

Facility Name: \_\_\_\_\_

VPDES, NPDES or State Permit Number: \_\_\_\_\_

\_\_\_\_\_  
(Signature of Owner)

\_\_\_\_\_  
(Date)

\_\_\_\_\_  
(Printed Name of Owner)

\_\_\_\_\_  
(Title)

**Generator Contact Information**

\_\_\_\_\_  
(Name and Title)

\_\_\_\_\_  
(Address)

\_\_\_\_\_  
(Phone Number)

\_\_\_\_\_  
(Email Address)

# VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION

## FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS

### PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS

A. This land application agreement is made on \_\_\_\_\_ between \_\_\_\_\_ referred to here as "Landowner", and \_\_\_\_\_, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

**Landowner:**

The Landowner is the owner of record of the real property located in \_\_\_\_\_, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges			
<u>Tax Parcel ID</u>	<u>Tax Parcel ID</u>	<u>Tax Parcel ID</u>	<u>Tax Parcel ID</u>

☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

Check one:

- ☐ The Landowner is the sole owner of the properties identified herein.  
☐ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

1. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
2. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

<u>Class B biosolids</u>	<u>Water treatment residuals</u>	<u>Food processing waste</u>	<u>Other industrial sludges</u>
<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

Landowner – Printed Name, Title

Signature

Mailing Address

**Permittee:**

\_\_\_\_\_, the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with [§10.1-104.2 of the Code of Virginia](#).

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

☐ I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

Permittee – Authorized Representative  
Printed Name

Signature

Mailing Address

# VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Permittee: \_\_\_\_\_ County or City: \_\_\_\_\_

Landowner: \_\_\_\_\_

## Landowner Site Management Requirements:

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

1. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.
2. Public Access
  - a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
  - b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
  - c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.
3. Crop Restrictions:
  - a. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
  - b. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
  - c. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
  - d. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
  - e. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).
4. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

  - a. Meat producing livestock shall not be grazed for 30 days,
  - b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
  - c. Other animals shall be restricted from grazing for 30 days;
5. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;
6. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

---

Landowner's Signature

Date

## Landowner Coordination Form

County or City: \_\_\_\_\_

(Signatures not required on this page)

[illegible]

### ***Supplement A: Additional Land Application Sites***

Landowner: \_\_\_\_\_

[illegible]

Mailing Address



**VIRGINIA POLLUTION ABATEMENT APPLICATION  
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS**

***Instructions***

**PART D-VI BIOSOLIDS APPLICATION AGREEMENT**

A. The permit applicant or permittee requesting to add land to a permit shall submit landowner agreement forms as follows:

1. For land application sites with a sole landowner, i.e. only one landowner is recorded on the deed, submit Pages 1 and 2 of the **Part D-VI Biosolids Application Agreement**.
2. For land application sites with multiple landowners submit Pages 1 and 2 of the **Part D-VI Biosolids Application Agreement** for each land owner recorded on the deed.
3. Once all landowner agreements are obtained, the Permittee shall complete the "Landowner Coordination Form." Complete this form as specified below. (a) through (d) refer to the form presented on page 8 of 9. NOTE: this form does not require landowner signatures.

- (a) Provide the name of the Permittee.
- (b) Provide the name of the county or city in which land application is proposed.
- (c) List tax parcels – tax parcels under common ownership may be listed together
- (d) For each tax parcel or group of tax parcels under common ownership recorded in (c), identify the landowner(s).

4. For any land that has an existing landowner agreement with another permitted contractor, submit a copy of the letter from the landowner to that original permitted contractor either:

- a. Terminating the existing landowner agreement\*

or

- b. Asking to be removed from the original permit.\*

\* If the original landowner agreement (LOA) is terminated, the sites identified in the LOA are not removed from the permit held by the original contractor, only the landowner agreement has become invalid. The sites remain in the land base of the original permit, therefore if at a future date the landowner wishes to receive biosolids from the original contractor, he would only need to terminate the existing LOA and sign a new LOA with the original contractor.

However, if the sites are removed from the original permit, if at a future date the landowner wishes to receive biosolids from the original contractor, in addition to terminating and signing new LOAs, the original contractor's permit would require a permit modification to add the landowner's land prior to any future land application of biosolids on that land.

B. Completing Form D-VI

**Page 1 of 2:**

- (1) Provide the date on which the agreement is made.
- (2) Provide the name of the individual landowner signing this form or the name of the trust, estate, company or other entity that owns the property. If there are multiple landowners, each landowner will complete and sign his/her own form. The person identified as the owner and signing the form must be legal owner or part-owner of all tax parcels identified in the form.
- (3) Provide the legal name of the entity that will hold the land application permit (Company, Municipality, Authority, etc.)
- (4) Provide the name of the county or city in which the sites are located.

- (5) Provide the County/City Tax Parcel ID for each parcel that includes land application sites. A parcel may contain more than one "field". If a "field" is located in 2 or more parcels, provide the Tax Parcel IDs for all parcels. If you want to include a whole "farm", identify all tax parcels that make up the farm.

AND provide legible tax maps identifying each of the parcels proposed for inclusion in the permit.

- (6) If more than 20 parcels under ownership of the individual landowner signing this form will be authorized to receive biosolids, place a check in the box to indicate that more parcels are identified on Supplement A.
- (7) Check one box to indicate whether the person signing the form is the only owner of record, or one of two or more owners of record for the properties identified in **Table 1: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges** and in **Exhibit A**. A landowner of record is each person identified or referenced on the deed. Multiple owners may include husband and wife, brothers and sisters, or other relatives, business partners, etc. If a deed identifies owners as, for example, Mr. Smith et ux (and wife) or Mr. Smith et al (and others), a landowner agreement must be completed by Mr. Smith and his wife, or Mr. Smith and all other owners, respectively.
- (8) Check all boxes that apply, to indicate the type of products authorized to be land applied on the property.
- (9) Print or type the landowner's legal name, including suffixes (e.g. Jr, III, etc) and mailing address. Provide an original signature.

Where the landowner is a corporation, trust, estate or other entity, or has given signatory authority to another individual, use one of the following procedures:

- a. If the landowner is a corporation or other publicly recorded entity, print or type the name of the responsible official, including suffixes (e.g. Jr, III, etc), his/her title and mailing address. Provide an original signature in accordance with [9VAC25-32-70](#):
  - i. For a corporation: by a responsible corporate official. For purposes of this section, a responsible corporate official means (i) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25,000,000 (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
  - ii. For a municipality, state, federal or other public agency by either a principal executive officer or ranking elected official. (A principal executive officer of a federal, municipal, or state agency includes the chief executive officer of the agency or head executive officer having responsibility for the overall operation of a principal geographic unit of the agency.)
  - iii. For a partnership or sole proprietorship, by a general partner or proprietor, respectively.
- b. If the landowner is an estate or trust, or has given power of attorney, the landowner agreement must be signed by the individual(s) with signatory authority as follows:
  - i. Print or type the name of the individual with signatory authority, his/her title indicating his/her signatory authority and his/her mailing address; e.g. John Smith, Power of Attorney for Robert Doe; John Smith, Executor Robert Doe Estate; or John Smith, Trustee, Doe Farm Trust. Provide an original signature; and
  - ii. One of the following documents must be presented to the Permit applicant for an estate, trust or power of attorney. The permit applicant or permit holder shall review the document(s) that assigns authority to the individual(s) and make a copy of this document(s) available to DEQ for review upon request. Documents to be reviewed include:
    - The original court document certifying the individual(s) as executor(s);
    - The original trust or memorandum of trust; or
    - The original notarized Power of Attorney.

- (10)** Provide the legal name of the entity that will hold the permit.

- (11) **Use this box only if the actual landowner does not sign the agreement.** Check this box to verify that permittee has reviewed the original trust, power of attorney, executor qualification, or other document assigning signatory authority or control of the property to someone other than the landowner as required in (9) b) (2). If someone other than the company official signing the Landowner Agreement has reviewed these documents, the reviewer shall initial to the left of the check box and print his/her name below the statement.
- (12) Print or type the name of the Permit holder's authorized representative and his/her business mailing address. Provide an original signature.

**Page 2 of 2:**

- (13) Provide the legal name of the entity that will hold the permit – the same as provided in (10)
- (14) Provide the name of the county or city in which the sites are located – same as provided in (4)
- (15) Provide the printed name of the landowner signing this form – same as in (9)
- (16) Provide the Landowner's original signature as in (9) and date.

**Supplement A**

- (1) Provide the legal name of the entity that will hold the permit – the same as provided in (10) above
- (2) Provide the name of the county or city in which the sites are located – same as provided in (4) above
- (3) Provide the printed name of the landowner signing this form – same as provided in (9) above
- (4) Provide the County/City Tax Parcel ID for each parcel that includes land application sites. A parcel may contain more than one "field". If a "field" is located in 2 or more parcels, provide the Tax Parcel ID for all parcels
- (5) Print or type the landowner's legal name, including suffixes (e.g. Jr, III, etc) and mailing address. Provide an original signature as required in (9) above.

**VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION  
FORM D: MUNICIPAL EFFLUENT AND BIOSOLIDS**

**PART D-VI: LAND APPLICATION AGREEMENT - BIOSOLIDS AND INDUSTRIAL RESIDUALS**

A. This land application agreement is made on \_\_\_\_\_ (1) \_\_\_\_\_ between \_\_\_\_\_ (2) \_\_\_\_\_ referred to here as "Landowner", and \_\_\_\_\_ (3) \_\_\_\_\_, referred to here as the "Permittee". This agreement remains in effect until it is terminated in writing by either party or, with respect to those parcels that are retained by the Landowner in the event of a sale of one or more parcels, until ownership of all parcels changes. If ownership of individual parcels identified in this agreement changes, those parcels for which ownership has changed will no longer be authorized to receive biosolids or industrial residuals under this agreement.

**Landowner:**

The Landowner is the owner of record of the real property located in \_\_\_\_\_ (4) \_\_\_\_\_, Virginia, which includes the agricultural, silvicultural or reclamation sites identified below in Table 1 and identified on the tax map(s) attached as Exhibit A.

Table 1.: Parcels authorized to receive biosolids, water treatment residuals or other industrial sludges			
<u>Tax Parcel ID</u>	<u>Tax Parcel ID</u>	<u>Tax Parcel ID</u>	<u>Tax Parcel ID</u>
(5)			

(6) ☐ Additional parcels containing Land Application Sites are identified on Supplement A (check if applicable)

(7) Check one: ☐ The Landowner is the sole owner of the properties identified herein.  
☐ The Landowner is one of multiple owners of the properties identified herein.

In the event that the Landowner sells or transfers all or part of the property to which biosolids have been applied within 38 months of the latest date of biosolids application, the Landowner shall:

3. Notify the purchaser or transferee of the applicable public access and crop management restrictions no later than the date of the property transfer; and
4. Notify the Permittee of the sale within two weeks following property transfer.

The Landowner has no other agreements for land application on the fields identified herein. The Landowner will notify the Permittee immediately if conditions change such that the fields are no longer available to the Permittee for application or any part of this agreement becomes invalid or the information herein contained becomes incorrect.

The Landowner hereby grants permission to the Permittee to land apply residuals as specified below, on the agricultural sites identified above and in Exhibit A. The Landowner also grants permission for DEQ staff to conduct inspections on the land identified above, before, during or after land application of permitted residuals for the purpose of determining compliance with regulatory requirements applicable to such application.

(8) Class B biosolids      Water treatment residuals      Food processing waste      Other industrial sludges  
☐ Yes    ☐ No      ☐ Yes    ☐ No      ☐ Yes    ☐ No      ☐ Yes    ☐ No

(9) \_\_\_\_\_  
Landowner – Printed Name, Title      Signature      Mailing Address

**Permittee:**

(10) \_\_\_\_\_, the Permittee, agrees to apply biosolids and/or industrial residuals on the Landowner's land in the manner authorized by the VPA Permit Regulation and in amounts not to exceed the rates identified in the nutrient management plan prepared for each land application field by a person certified in accordance with [§10.1-104.2 of the Code of Virginia](#).

The Permittee agrees to notify the Landowner or the Landowner's designee of the proposed schedule for land application and specifically prior to any particular application to the Landowner's land. Notice shall include the source of residuals to be applied.

(11) ☐ I reviewed the document(s) assigning signatory authority to the person signing for landowner above. I will make a copy of this document(s) available to DEQ for review upon request. (Do not check this box if the landowner signs this agreement)

(12) \_\_\_\_\_  
Permittee – Authorized Representative      Signature      Mailing Address  
Printed Name

VIRGINIA POLLUTION ABATEMENT PERMIT APPLICATION: PART D-VI LAND APPLICATION AGREEMENT

Permittee: \_\_\_\_\_ (13) County or City: \_\_\_\_\_ (14)

Landowner: \_\_\_\_\_ (15)

**Landowner Site Management Requirements:**

I, the Landowner, I have received a DEQ Biosolids Fact Sheet that includes information regarding regulations governing the land application of biosolids, the components of biosolids and proper handling and land application of biosolids.

I have also been expressly advised by the Permittee that the site management requirements and site access restrictions identified below must be complied with after biosolids have been applied on my property in order to protect public health, and that I am responsible for the implementation of these practices.

I agree to implement the following site management practices at each site under my ownership following the land application of biosolids at the site:

7. Notification Signs: I will not remove any signs posted by the Permittee for the purpose of identifying my field as a biosolids land application site, unless requested by the Permittee, until at least 30 days after land application at that site is completed.

8. Public Access

- a. Public access to land with a high potential for public exposure shall be restricted for at least one year following any application of biosolids.
- b. Public access to land with a low potential for public exposure shall be restricted for at least 30 days following any application of biosolids. No biosolids amended soil shall be excavated or removed from the site during this same period of time unless adequate provisions are made to prevent public exposure to soil, dusts or aerosols;
- c. Turf grown on land where biosolids are applied shall not be harvested for one year after application of biosolids when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by DEQ.

9. Crop Restrictions:

- f. Food crops with harvested parts that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after the application of biosolids.
- g. Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after the application of biosolids when the biosolids remain on the land surface for a time period of four (4) or more months prior to incorporation into the soil,
- h. Food crops with harvested parts below the surface of the land shall not be harvested for 38 months when the biosolids remain on the land surface for a time period of less than four (4) months prior to incorporation.
- i. Other food crops and fiber crops shall not be harvested for 30 days after the application of biosolids;
- j. Feed crops shall not be harvested for 30 days after the application of biosolids (60 days if fed to lactating dairy animals).

10. Livestock Access Restrictions:

Following biosolids application to pasture or hayland sites:

- a. Meat producing livestock shall not be grazed for 30 days,
- b. Lactating dairy animals shall not be grazed for a minimum of 60 days.
- c. Other animals shall be restricted from grazing for 30 days;

11. Supplemental commercial fertilizer or manure applications will be coordinated with the biosolids and industrial residuals applications such that the total crop needs for nutrients are not exceeded as identified in the nutrient management plan developed by a person certified in accordance with §10.1-104.2 of the Code of Virginia;

12. Tobacco, because it has been shown to accumulate cadmium, should not be grown on the Landowner's land for three years following the application of biosolids or industrial residuals which bear cadmium equal to or exceeding 0.45 pounds/acre (0.5 kilograms/hectare).

(16) \_\_\_\_\_  
Landowner's Signature Date

**Instructions**  
**Page 6 of 7**

## Landowner Coordination Form

Permittee: \_\_\_\_\_ (a)  
County or City: \_\_\_\_\_ (b)

(Signatures not required on this page)

[illegible]



**Request for Extended Setback from Biosolids Land Application Field**  
**Department of Environmental Quality – Office of Land Application Programs**

**Patient**

Name: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

Telephone Number: \_\_\_\_\_

\_\_\_\_\_ is a patient under my care. I understand that the Department of Environmental Quality regulations regarding the land application of biosolids to agricultural fields requires setbacks from neighboring residences and property lines; within these setback areas biosolids may not be applied. The standard setback is 200 feet from an occupied dwelling and 100 feet from a property line. Based on my patient's medical condition, I recommend extending the setbacks from

☐ my patient's home to a nearby agricultural field that will receive biosolids.

☐ my patient's property line to a nearby agricultural field that will receive biosolids.

(check all that apply)

\_\_\_\_\_  
Physician's Name (print)

\_\_\_\_\_  
Physician's Signature

\_\_\_\_\_  
Date

*Please do not submit any medical records or personal health information with this form. All information submitted to the Department of Environmental Quality is regarded as public information and is subject to release under Freedom Of Information Act requests.*



## SLUDGE DISPOSAL SITE DEDICATION

....., a Virginia Corporation, does dedicate that tract or parcel of real estate situated, lying and being in..... County, Virginia, more particularly described by deeded and plat of survey of record in Deed Book....., pages.....,....., and....., of the Clerk's Office of the Circuit Court of..... County, Virginia, and being the identical real estate that said corporation acquired by grant with General Warranty of Title and Modern English Covenants from..... Said dedication being to establish the aforesaid area for the disposal of sewage sludge only, and that said sludge disposal site will not be used for human habitation, grazing land for domestic animals or for agricultural purposes, and will not be accessible to the public. The full interest and control of the foresaid area dedicated shall remain with the..... and this instrument is solely for the purpose of assuring the Department of Health and the Water Control Board of the Commonwealth of Virginia as to the matters hereinabove set forth. WITNESS the following signatures and seal this.... day of....., 19....

BY:..... ATTEST:.....

State of.....

County of.....

The foregoing instrument was acknowledged before me this..... day of...., 19...., by..... of..... a..... corporation, on behalf of the corporation.....

Notary Public

My Commission Expires.....

For use of Clerk of Court

This Sludge Disposal Site Dedication Document, as described above, was recorded in Deed Book..... page... on the..... day of....., 19....

SIGNED:..... of the..... Circuit Clerks Office

Liability Requirements for Transport, Storage, and Land Application of Biosolids  
Form I - Insurance Liability Endorsement

1. This endorsement certifies that the policy to which the endorsement is attached provides liability insurance covering clean up costs, personal injury, and property damage resulting from the transport, storage, and land application of biosolids in connection with the insured's obligation to demonstrate financial responsibility under this chapter. The coverage applies at [list Permit number, name, and DEQ Control Number]. The limits of liability are Two Million U.S. dollars \$2,000,000 per occurrence and the annual aggregate amount of Two Million U.S. dollars \$2,000,000 exclusive of legal defense costs.

2. The insurance afforded with respect to such occurrences is subject to all of the terms and conditions of the policy; provided, however, that any provisions of the policy inconsistent with subsections (a) through (e) of this Paragraph 2 are hereby amended to conform with subsections (a) through (e):

(a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy to which this endorsement is attached.

(b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer.

(c) Whenever requested by the Department, the Insurer agrees to furnish to Department a signed duplicate original of the policy and all endorsements.

(d) Cancellation of this endorsement, whether by the Insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Department.

(e) Any other termination of this endorsement will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Department.

Attached to and forming part of policy No. \_\_\_\_ issued by [name of Insurer], herein called the Insurer, of [address of Insurer] to [name of insured] of [address] this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_. The effective date of said policy is \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_.

I hereby certify that the wording of this endorsement is identical to the wording specified in 9VAC25-32-790 as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

[Signature of Authorized Representative of Insurer]

[Type name]

[Title], Authorized Representative of [name of Insurer]

[Address of Representative]

Liability Requirements for Transport, Storage, and Land Application of Biosolids  
Form II - Certificate of Liability Insurance

1. [Name of Insurer], (the "Insurer"), of [address of Insurer] hereby certifies that it has issued liability insurance covering clean up costs, personal injury, and property damage resulting from the transport, storage, and land application of biosolids in Virginia to [name of insured], (the "insured"), of [address of insured] in connection with the insured's obligation to demonstrate financial responsibility under this chapter. The coverage applies at [list Permit number, name, and DEQ Control Number]. The limits of liability are Two Million U.S. dollars \$2,000,000 per occurrence and annual aggregate amount of Two Million U.S. dollars \$2,000,000 exclusive of legal defense costs. The coverage is provided under policy number \_\_\_\_, issued on [date]. The effective date of said policy is [date].

2. The Insurer further certifies the following with respect to the insurance described in Paragraph 1:

- (a) Bankruptcy or insolvency of the insured shall not relieve the Insurer of its obligations under the policy.
- (b) The Insurer is liable for the payment of amounts within any deductible applicable to the policy, with a right of reimbursement by the insured for any such payment made by the Insurer.
- (c) Whenever requested by the Department, the Insurer agrees to furnish to the Department a signed duplicate original of the policy and all endorsements.
- (d) Cancellation of the insurance, whether by the insurer, the insured, a parent corporation providing insurance coverage for its subsidiary, or by a firm having an insurable interest in and obtaining liability insurance on behalf of the owner or operator of the hazardous waste management facility, will be effective only upon written notice and only after the expiration of 60 days after a copy of such written notice is received by the Department.
- (e) Any other termination of the insurance will be effective only upon written notice and only after the expiration of thirty (30) days after a copy of such written notice is received by the Department.

I hereby certify that the wording of this instrument is identical to the wording specified in 9VAC25-32-790 as such regulation was constituted on the date first above written, and that the Insurer is licensed to transact the business of insurance, or eligible to provide insurance as an excess or surplus lines insurer, in one or more States.

[Signature of authorized representative of Insurer]

[Type name]

[Title], Authorized Representative of [name of Insurer]

[Address of Representative]

Liability Requirements for Transport, Storage, and Land Application of Biosolids  
Form III - Corporate Letter From Chief Financial Officer

[Address to]

Virginia Department of Environmental Quality  
629 East Main Street  
Richmond, Virginia 23219

I am the chief financial officer of [firm's name and address]. This letter is in support of the use of the financial test to demonstrate financial responsibility for liability coverage as specified in 9VAC25-32-800.

The firm identified above is the permit holder or applicant for which liability coverage for clean up costs, personal injury, and/or property damage resulting from the transport, storage, and land application of biosolids in Virginia is being demonstrated through the financial test specified in 9VAC25-32-800.

[Fill in Alternative I if the criteria of 9VAC25-32-800 B 1 are used. Fill in Alternative II if the criteria of 9VAC25-32-800 B 2 are used.]

**Alternative I**

1. Amount of annual aggregate liability coverage to be demonstrated \$ \_\_\_\_.

\*2. Current assets \$ \_\_\_\_.

\*3. Current liabilities \$ \_\_\_\_.

4. Net working capital (line 2 minus line 3) \$ \_\_\_\_.

\*5. Tangible net worth \$ \_\_\_\_.

\*6. If less than 90% of assets are located in the U.S., give total U.S. assets \$ \_\_\_\_.

7. Is line 5 at least \$10 million? (Yes/No) \_\_\_\_.

8. Is line 4 at least 6 times line 1? (Yes/No) \_\_\_\_.

9. Is line 5 at least 6 times line 1? (Yes/No) \_\_\_\_.

\*10. Are at least 90% of assets located in the U.S.? (Yes/No) \_\_\_\_\_. If not, complete line 11.

11. Is line 6 at least 6 times line 1? (Yes/No) \_\_\_\_.

Liability Requirements for Transport, Storage, and Land Application of Biosolids  
Form III - Corporate Letter From Chief Financial Officer

**Alternative II**

1. Amount of annual aggregate liability coverage to be demonstrated \$ \_\_\_\_.
2. Current bond rating of most recent issuance and name of rating service \_\_\_\_.
3. Date of issuance of bond \_\_\_\_\_.
4. Date of maturity of bond \_\_\_\_\_.
- \*5. Tangible net worth \$ \_\_\_\_.
- \*6. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) \$ \_\_\_\_.
7. Is line 5 at least \$10 million? (Yes/No) \_\_\_\_.
8. Is line 5 at least 6 times line 1? \_\_\_\_.
9. Are at least 90% of assets located in the U.S.? If not, complete line 10. (Yes/No) \_\_\_\_.
10. Is line 6 at least 6 times line 1? \_\_\_\_.

I hereby certify that the wording of this letter is identical to the wording specified in 9VAC25-32-800 as such regulations were constituted on the date shown immediately below.

[Signature] \_\_\_\_\_

[Name] \_\_\_\_\_

[Title] \_\_\_\_\_

[Date] \_\_\_\_\_

The permittee or applicant shall satisfy a third-party liability claim only on receipt of one of the following documents:

(a) Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Liability Requirements for Transport, Storage, and Land Application of Biosolids  
Form III - Corporate Letter From Chief Financial Officer

**Certification of Valid Claim**

The undersigned, as parties [insert Principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of clean up costs, personal injury, and/or property damage arising from the transport, storage, and land application of biosolids in Virginia should be paid in the amount of \$ \_\_\_\_\_.

[Signatures] \_\_\_\_\_  
Principal \_\_\_\_\_  
(Notary) Date \_\_\_\_\_  
[Signatures] \_\_\_\_\_  
Claimant(s) \_\_\_\_\_  
(Notary) Date \_\_\_\_\_

(b) A valid final court order establishing a judgment against the Principal for clean up costs, personal injury, and property damage resulting from the transport, storage, and land application of biosolids in Virginia. I hereby certify that the wording of the guarantee is identical to the wording specified in 9VAC25-32 800 as such regulations were constituted on the date shown immediately below.

Effective date: \_\_\_\_\_  
[Name of guarantor] \_\_\_\_\_  
[Authorized signature for guarantor] \_\_\_\_\_  
[Name of person signing] \_\_\_\_\_  
[Title of person signing] \_\_\_\_\_  
Signature of witness or notary: \_\_\_\_\_

Liability Requirements for Transport, Storage, and Land Application of Biosolids  
Form IV - Corporate Guarantee

Letter From Chief Financial Officer  
[Address to]

Virginia Department of Environmental Quality  
629 East Main Street  
Richmond, Virginia 23219

I am the chief financial officer of [firm's name and address]. This letter is in support of the use of the corporate guarantee to demonstrate financial responsibility for liability coverage as specified in 9VAC25-32- 810.

The firm identified above guarantees, through the guarantee specified in 9VAC25-32-800 and 9VAC25-32-810, liability coverage for clean up costs, personal injury, and/or property damage resulting from the transport, storage, and land application of biosolids in Virginia. The firm identified above is [insert one or more: (1) The direct or higher-tier parent corporation of the owner or operator; (2) owned by the same parent corporation as the parent corporation of the owner or operator, and receiving the following value in consideration of this guarantee \_\_\_\_; or (3) engaged in the following substantial business relationship with the owner or operator \_\_\_\_, and receiving the following value in consideration of this guarantee \_\_\_\_]. [Attach a written description of the business relationship or a copy of the contract establishing such relationship to this letter.]

[Fill in Alternative I if the criteria of 9VAC25-32-800 B 1 are used. Fill in Alternative II if the criteria of 9VAC25-32-800 B 2 are used.]

**Alternative I**

1. Amount of annual aggregate liability coverage to be demonstrated \$ \_\_\_\_.

\*2. Current assets \$ \_\_\_\_.

\*3. Current liabilities \$ \_\_\_\_.

4. Net working capital (line 2 minus line 3) \$ \_\_\_\_.

\*5. Tangible net worth \$ \_\_\_\_.

\*6. If less than 90% of assets are located in the U.S., give total U.S. assets \$ \_\_\_\_.

7. Is line 5 at least \$10 million? (Yes/No) \_\_\_\_.

8. Is line 4 at least 6 times line 1? (Yes/No) \_\_\_\_.

9. Is line 5 at least 6 times line 1? (Yes/No) \_\_\_\_.

Liability Requirements for Transport, Storage, and Land Application of Biosolids  
Form IV - Corporate Guarantee

\*10. Are at least 90% of assets located in the U.S.? (Yes/No) \_\_\_\_\_. If not, complete line 11.

11. Is line 6 at least 6 times line 1? (Yes/No) \_\_\_\_\_.

**Alternative II**

1. Amount of annual aggregate liability coverage to be demonstrated \$\_\_\_\_\_.

2. Current bond rating of most recent issuance and name of rating service \_\_\_\_\_.

3. Date of issuance of bond \_\_\_\_\_.

4. Date of maturity of bond \_\_\_\_\_.

\*5. Tangible net worth \$\_\_\_\_\_.

\*6. Total assets in U.S. (required only if less than 90% of assets are located in the U.S.) \$\_\_\_\_\_.

7. Is line 5 at least \$10 million? (Yes/No) \_\_\_\_\_.

8. Is line 5 at least 6 times line 1? \_\_\_\_\_.

9. Are at least 90% of assets located in the U.S.? If not, complete line 10. (Yes/No) \_\_\_\_\_.

10. Is line 6 at least 6 times line 1? \_\_\_\_\_.

I hereby certify that the wording of this letter is identical to the wording specified in 9VAC25-32-800 and 9VAC25-32-810 as such regulations were constituted on the date shown immediately below.

[Signature]\_\_\_\_\_

[Name]\_\_\_\_\_

[Title]\_\_\_\_\_

[Date]\_\_\_\_\_

A guarantee, as specified in 9VAC25-32-800 and 9VAC25-32-810 of this chapter, must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:



# Liability Requirements for Transport, Storage, and Land Application of Biosolids Form IV - Corporate Guarantee

## **Guarantee for Liability Coverage**

Guarantee made this [date] by [name of guaranteeing entity], a business corporation organized under the laws of [if incorporated within the United States insert "the State of \_\_\_\_" and insert name of State; if incorporated outside the United States insert the name of the country in which incorporated, the principal place of business within the United States, and the name and address of the registered agent in the State of the principal place of business], herein referred to as guarantor. This guarantee is made on behalf of [permit holder or applicant] of [business address], which is one of the following: "our subsidiary;" "a subsidiary of [name and address of common parent corporation], of which guarantor is a subsidiary;" or "an entity with which guarantor has a substantial business relationship, as defined in 9VAC25-32-770 to any and all third parties who sustain clean up costs, personal injury, and property damage resulting from the transport, storage, and land application of biosolids in Virginia covered by this guarantee.

## **Recitals**

1. Guarantor meets or exceeds the financial test criteria and agrees to comply with the reporting requirements for guarantors as specified in 9VAC25-32-800 and 9VAC25-32-810.
2. [Permit holder or applicant] for which liability coverage for clean up costs, personal injury, and/or property damage resulting from the transport, storage, and land application of biosolids in Virginia covered by this guarantee: [List for each permit number, name, and address; and if guarantor is incorporated outside the United States list the name and address of the guarantor's registered agent in each State.] This corporate guarantee satisfies third-party liability requirements for clean up costs, personal injury, and property damage resulting from the transport, storage, and land application of biosolids in Virginia in the amount of \$2,000,000 for each occurrence and \$2,000,000 annual aggregate.
3. For value received from [permit holder or applicant], guarantor guarantees to pay any and all third parties who have sustained or may sustain clean up costs, personal injury, and property damage resulting from the transport, storage, and land application of biosolids in Virginia covered by this guarantee that in the event that [permit holder or applicant] fails to satisfy a judgment or award based on a determination of liability for clean up costs, personal injury, and property damage resulting from the transport, storage, and land application of biosolids in Virginia covered by this guarantee to third parties resulting from the transport, storage, and land application of biosolids in Virginia or fails to pay an amount agreed to in settlement of a claim arising from or alleged to arise from such injury or damage, the guarantor will satisfy such judgment(s), award(s) or settlement agreement(s) up to the limits of coverage identified above.
4. Guarantor agrees that if, at the end of any fiscal year before termination of this guarantee, the guarantor fails to meet the financial test criteria, guarantor shall send within 90 days, by certified mail, notice to the DEQ and to [permit holder or applicant] that he intends to provide alternate liability coverage as specified in 9VAC25-32-810, as applicable, in the name of [permit holder or applicant]. Within 120 days after the end of such fiscal year, the guarantor shall establish such liability coverage unless [permit holder or applicant] has done so.
5. The guarantor agrees to notify the DEQ by certified mail of a voluntary or involuntary proceeding under Title 11 (Bankruptcy), U.S. Code, naming guarantor as debtor, within 10 days after commencement of the proceeding.
6. Guarantor agrees that within 30 days after being notified by DEQ of a determination that guarantor no longer meets the financial test criteria or that he is disallowed from continuing as a guarantor, he shall establish alternate liability coverage as specified in 9VAC25-32-810 in the name of [permit holder or applicant], unless [permit holder or applicant] has done so.
7. Guarantor reserves the right to modify this agreement to take into account amendment or modification of the liability requirements set by 9VAC25-32-800 and 9VAC25-32-810, provided that such modification shall become effective only if DEQ does not disapprove the modification within 30 days of receipt of notification of the modification.

Liability Requirements for Transport, Storage, and Land Application of Biosolids  
Form IV - Corporate Guarantee

8. Guarantor agrees to remain bound under this guarantee for so long as [permit holder or applicant] must comply with the applicable requirements of this chapter except as provided in paragraph 9 of this agreement.

9. [Insert the following language if the guarantor is (a) a direct or higher-tier corporate parent, or (b) a firm whose parent corporation is also the parent corporation of the permit holder or applicant]:

Guarantor may terminate this guarantee by sending notice by certified mail to the DEQ and to [permit holder or applicant], provided that this guarantee may not be terminated unless and until [permit holder or applicant] obtains, and the DEQ(s) approve(s), alternate liability coverage complying with 9VAC25-32-810.

[Insert the following language if the guarantor is a firm qualifying as a guarantor due to its "substantial business relationship" with the permit holder or applicant]:

Guarantor may terminate this guarantee 120 days following receipt of notification, through certified mail, by the DEQ director and by [the permit holder or applicant].

10. Guarantor hereby expressly waives notice of acceptance of this guarantee by any party.

11. Guarantor agrees that this guarantee is in addition to and does not affect any other responsibility or liability of the guarantor with respect to the covered facilities.

**The Guarantor shall satisfy a third-party liability claim only on receipt of one of the following documents:**

(a) Certification from the Principal and the third-party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

**Certification of Valid Claim**

The undersigned, as parties [insert Principal] and [insert name and address of third-party claimant(s)], hereby certify that the claim of clean up costs, personal injury, and/or property damage arising from the transport, storage, and land application of biosolids in Virginia should be paid in the amount of \$\_\_\_\_\_.

[Signatures] \_\_\_\_\_  
Principal \_\_\_\_\_  
(Notary) Date \_\_\_\_\_  
[Signatures] \_\_\_\_\_  
Claimant(s) \_\_\_\_\_  
(Notary) Date \_\_\_\_\_

(b) A valid final court order establishing a judgment against the Principal for clean up costs, personal injury, and property damage resulting from the transport, storage, and land application of biosolids in Virginia. I hereby certify that the wording of the guarantee is identical to the wording specified in 9VAC25-32-800 and 9VAC25-32-810 as such regulations were constituted on the date shown immediately below.

Effective date: \_\_\_\_\_  
[Name of guarantor] \_\_\_\_\_  
[Authorized signature for guarantor] \_\_\_\_\_  
[Name of person signing] \_\_\_\_\_  
[Title of person signing] \_\_\_\_\_  
Signature of witness or notary: \_\_\_\_\_

Liability Requirements for Transport, Storage, and Land Application of Biosolids  
Form V - Irrevocable Letter of Credit

Director  
Department of Environmental Quality  
P.O. Box 1105  
Richmond, VA 23218

Dear {Sir or Madam}:

We hereby establish our Irrevocable Letter of Credit No.... in the favor of any and all third party liability claimants and at the request of and for the account of (permit holder or applicant) for up to the amount of Two Million U.S. dollars \$2,000,000 per occurrence and the annual aggregate amount of Two Million U.S. dollars \$2,000,000 for clean up costs, personal injury, and property damage resulting from the transport, storage, and land application of biosolids in Virginia available upon presentation of a sight draft, bearing reference to this letter of credit No....and

(1) a signed certificate reading as follows:

**Certificate of Valid Claim**

The undersigned, as parties [insert permit holder or applicant] and [insert name and address of third party claimant(s)], hereby certify that the claim of clean up costs, personal injury, and property damage resulting from the transport, storage, and land application of biosolids in Virginia should be paid in the amount of \$[\_\_\_\_\_].

[Signatures] \_\_\_\_\_  
permit holder or applicant \_\_\_\_\_  
[Signatures] \_\_\_\_\_  
Claimant(s) \_\_\_\_\_

or (2) a valid final court order establishing a judgment against the permit holder or applicant for clean up costs, personal injury, and property damage resulting from the transport, storage, and land application of biosolids in Virginia.

This letter of credit is effective as of [date] and shall expire on [date at least one year later], but such expiration date shall be automatically extended for a period of [at least one year] on [date and on each successive expiration date, unless, at least 120 days before the current expiration date, we notify you, the Director, Department of Environmental Quality, and [permit holder or applicant] by certified mail that we have decided not to extend this letter of credit beyond the current expiration date.

Whenever this letter of credit is drawn on under and in compliance with the terms of this credit, we shall duly honor such draft upon presentation to us.

In the event that this letter of credit is used in combination with another mechanism for liability coverage, this letter of credit shall be considered [insert "primary" or "excess" coverage]."

We certify that the wording of this letter of credit is identical to the wording specified in 9VAC25-32-840 as such regulations were constituted on the date shown immediately below.

[Signature(s) and title(s) of official(s) of issuing institution] [Date].

This credit is subject to [insert "the most recent edition of the Uniform Customs and Practice for Documentary Credits, published and copyrighted by the International Chamber of Commerce," or "the Uniform Commercial Code"].

## Liability Requirements for Transport, Storage, and Land Application of Biosolids Form VI – Trust Agreement

Trust Agreement, the “Agreement,” entered into as of [date] by and between [permit holder or applicant] a [name of State] [insert “corporation,” “partnership,” “association,” or “proprietorship”], the “Grantor,” and [name of corporate trustee], [insert, “incorporated in the State of \_\_\_\_” or “a national bank”], the “trustee.”

Whereas, the Virginia Department of Environmental Quality (VDEQ) has established certain regulations applicable to the Grantor, requiring that a biosolids permit holder or applicant must demonstrate financial responsibility to third parties for clean up costs, personal injury and property damage resulting from the transport, storage, and land application of biosolids in Virginia.

Whereas, the Grantor has elected to establish a trust to assure all such financial responsibility for clean up costs, personal injury and property damage resulting from the transport, storage, and land application of biosolids in Virginia.

Whereas, the Grantor, acting through its duly authorized officers, has selected the Trustee to be the trustee under this agreement, and the Trustee is willing to act as trustee.

Now, therefore, the Grantor and the Trustee agree as follows:

Section 1. Definitions. As used in this Agreement:

(a) The term “Grantor” means the permit holder or applicant who enters into this Agreement and any successors or assigns of the Grantor.

(b) The term “Trustee” means the Trustee who enters into this Agreement and any successor Trustee.

Section 2. Identification of permit holder or applicant. This agreement pertains to the permit holder or applicant identified on attached schedule A [on schedule A, for each permit holder or applicant list the permit Number, name, and address of the permit holder or applicant and the amount of liability coverage.

Section 3. Establishment of Fund. The Grantor and the Trustee hereby establish a trust fund, hereinafter the “Fund,” for the benefit of any and all third parties injured or damaged from the transport, storage, and land application of biosolids in Virginia.

The Fund is established initially as consisting of the property, which is acceptable to the Trustee, described in Schedule B attached hereto. Such property and any other property subsequently transferred to the Trustee is referred to as the Fund, together with all earnings and profits thereon, less any payments or distributions made by the Trustee pursuant to this Agreement. The Fund shall be held by the Trustee, IN TRUST, as hereinafter provided. The Trustee shall not be responsible nor shall it undertake any responsibility for the amount or adequacy of, nor any duty to collect from the Grantor, any payments necessary to discharge any liabilities of the Grantor established by DEQ.

Section 4. Payment for Personal Injury or Property Damage. The Trustee shall satisfy a third party liability claim by making payments from the Fund only upon receipt of one of the following documents:

(a) Certification from the Grantor and the third party claimant(s) that the liability claim should be paid. The certification must be worded as follows, except that instructions in brackets are to be replaced with the relevant information and the brackets deleted:

Liability Requirements for Transport, Storage, and Land Application of Biosolids  
Form VI – Trust Agreement

**Certification of Valid Claim**

The undersigned, as parties [insert Grantor] and [insert name and address of third party claimant(s)], hereby certify that the claim of clean up costs, personal injury and/or property damage caused by the transport, storage, and land application of biosolids in Virginia be paid in the amount of \$[\_\_\_\_\_].

[Signatures]

Grantor

[Signatures]

Claimant(s)

(b) A valid final court order establishing a judgment against the Grantor for clean up costs, personal injury and/or property damage caused by the transport, storage, and land application of biosolids in Virginia be paid in the amount of \$[\_\_\_\_\_].

Section 5. Payments Comprising the Fund. Payments made to the Trustee for the Fund shall consist of cash or securities acceptable to the Trustee.

Section 6. Trustee Management. The Trustee shall invest and reinvest the principal and income, in accordance with general investment policies and guidelines which the Grantor may communicate in writing to the Trustee from time to time, subject, however, to the provisions of this section. In investing, reinvesting, exchanging, selling, and managing the Fund, the Trustee shall discharge his duties with respect to the trust fund solely in the interest of the beneficiary and with the care, skill, prudence, and diligence under the circumstance then prevailing which persons of prudence, acting in a like capacity and familiar with such matters, would use in the conduct of an enterprise of a like character and with like aims; *except that:*

(i) Securities or other obligations of the Grantor or any of their affiliates as defined in the Investment Company Act of 1940, as amended, 15 U.S.C. 80a-2.(a), shall not be acquired or *held* unless they are securities or other obligations of the Federal or a State government;

(ii) The Trustee is authorized to invest the Fund in time or demand deposits of the Trustee, to the extent insured by an agency of the Federal or State government; and

(iii) The Trustee is authorized to hold cash awaiting investment or distribution uninvested for a reasonable time and without liability for the payment of interest thereon.

Section 7. Commingling and Investment. The Trustee is expressly authorized in its discretion:

(a) To transfer from time to time any or all of the assets of the Fund to any common commingled, or collective trust fund created by the Trustee in which the fund is eligible to participate, subject to all of the provisions thereof, to be commingled with the assets of other trusts participating therein; and

(b) To purchase shares in any investment company registered under the Investment Company Act of 1940, 15 U.S.C. 81a-1 et seq., including one which may be created, managed, underwritten, or to which investment advice is rendered or the shares of which are sold by the Trustee. The Trustee may vote such shares in its discretion.

## Liability Requirements for Transport, Storage, and Land Application of Biosolids Form VI – Trust Agreement

Section 8. Express Powers of Trustee. Without in any way limiting the powers and discretions conferred upon the Trustee by the other provisions of this Agreement or by law, the Trustee is expressly authorized and empowered:

- (a) To sell, exchange, convey, transfer, or otherwise dispose of any property held by it, by public or private sale. No person dealing with the Trustee shall be bound to see to the application of the purchase money or to inquire into the validity or expediency of any such sale or other disposition;
- (b) To make, execute, acknowledge, and deliver any and all documents of transfer and conveyance and any and all other instruments that may be necessary or appropriate to carry out the powers herein granted;
- (c) To register any securities held in the Fund in its own name or in the name of a nominee and to hold any security in bearer form or in book entry, or to combine certificates representing such securities with certificates of the same issue held by the Trustee in other fiduciary capacities, or to deposit or arrange for the deposit of such securities in a qualified central depository even though, when so deposited, such securities may be merged and held in bulk in the name of the nominee of such depository with other securities deposited therein by another person, or to deposit or arrange for the deposit of any securities issued by the United States Government, or any agency or instrumentality thereof, with a Federal Reserve bank, but the books and records of the Trustee shall at all times show that all such securities are part of the Fund;
- (d) To deposit any cash in the Fund in interest-bearing accounts maintained or savings certificates issued by the Trustee, in its separate corporate capacity, or in any other banking institution affiliated with the Trustee, to the extent insured by an agency of the Federal or State government; and
- (e) To compromise or otherwise adjust all claims in favor of or against the Fund.

Section 9. Taxes and Expenses. All taxes of any kind that may be assessed or levied against or in respect of the Fund and all brokerage commissions incurred by the Fund shall be paid from the Fund. All other expenses incurred by the Trustee in connection with the administration of this Trust, including fees for legal services rendered to the Trustee, the compensation of the Trustee to the extent not paid directly by the Grantor, and all other proper charges and disbursements of the Trustee shall be paid from the Fund.

Section 10. Annual Valuations. The Trustee shall annually, at least 30 days prior to the anniversary date of establishment of the Fund; furnish to the Grantor and to the DEQ a statement confirming the value of the Trust. Any securities in the Fund shall be valued at market value as of no more than 60 days prior to the anniversary date of establishment of the Fund. The failure of the Grantor to object in writing to the Trustee within 90 days after the statement has been furnished to the Grantor and the DEQ shall constitute a conclusively binding assent by the Grantor barring the Grantor from asserting any claim or liability against the Trustee with respect to matters disclosed in the statement.

Section 11. Advice of Counsel. The Trustee may from time to time consult with counsel, who may be counsel to the Grantor with respect to any question arising as to the construction of this Agreement or any action to be taken hereunder. The Trustee shall be fully protected, to the extent permitted by law, in acting upon the advice of counsel.

Section 12. Trustee Compensation. The Trustee shall be entitled to reasonable compensation for its services as agreed upon in writing from time to time with the Grantor.

Section 13. Successor Trustee. The Trustee may resign or the Grantor may replace the Trustee, but such resignation or replacement shall not be effective until the Grantor has appointed a successor trustee and this successor accepts the appointment. The successor trustee shall have the same powers and duties as those conferred upon the Trustee hereunder. Upon the successor trustee's acceptance of the appointment, the Trustee shall assign, transfer, and pay over to the successor trustee the funds and properties then

## Liability Requirements for Transport, Storage, and Land Application of Biosolids Form VI – Trust Agreement

constituting the Fund. If for any reason the Grantor cannot or does not act in the event of the resignation of the Trustee, the Trustee may apply to a court of competent jurisdiction for the appointment of a successor trustee or for instructions. The successor trustee shall specify the date on which it assumes administration of the trust in a writing sent to the Grantor, the DEQ, and the present Trustee by certified mail 10 days before such change becomes effective. Any expenses incurred by the Trustee as a result of any of the acts contemplated by this section shall be paid as provided in Section 9.

Section 14. Instructions to the Trustee. All orders, requests, and instructions by the Grantor to the Trustee shall be in writing, signed by such persons as are designated in the attached Exhibit A or such other designees as the Grantor may designate by amendments to Exhibit A. The Trustee shall be fully protected in acting without inquiry in accordance with the Grantor's orders, requests, and instructions. All orders, requests, and instructions by the DEQ to the Trustee shall be in writing, signed by the DEQ director or his designee, and the Trustee shall act and shall be fully protected in acting in accordance with such orders, requests, and instructions. The Trustee shall have the right to assume, in the absence of written notice to the contrary, that no event constituting a change or a termination of the authority of any person to act on behalf of the Grantor or DEQ hereunder has occurred. The Trustee shall have no duty to act in the absence of such orders, requests, and instructions from the Grantor and/or DEQ, except as provided for herein.

Section 15. Notice of Nonpayment. If a payment for clean up costs, personal injury and/or property damage is made under Section 4 of this trust, the Trustee shall notify the Grantor of such payment and the amount(s) thereof within five (5) working days. The Grantor shall, on or before the anniversary date of the establishment of the Fund following such notice, either make payments to the Trustee in amounts sufficient to cause the trust to return to its value immediately prior to the payment of claims under Section 4. If the Grantor does not either make payments to the Trustee or provide the Trustee with such proof, the Trustee shall within 10 working days after the anniversary date of the establishment of the Fund provide a written notice of nonpayment to the DEQ.

Section 16. Amendment of Agreement. This Agreement may be amended by an instrument in writing executed by the Grantor, the Trustee, and the DEQ, or by the Trustee and the DEQ if the Grantor ceases to exist.

Section 17. Irrevocability and Termination. Subject to the right of the parties to amend this Agreement as provided in Section 16, this Trust shall be irrevocable and shall continue until terminated at the written agreement of the Grantor, the Trustee, and DEQ, or by the Trustee and the DEQ, if the Grantor ceases to exist. Upon termination of the Trust, all remaining trust property, less final trust administration expenses, shall be delivered to the Grantor.

The DEQ will agree to termination of the Trust when the permit holder or applicant substitutes alternate financial assurance as specified in this section.

Section 18. Immunity and Indemnification. The Trustee shall not incur personal liability of any nature in connection with any act or omission, made in good faith, in the administration of this Trust, or in carrying out any directions by the Grantor or the DEQ issued in accordance with this Agreement. The Trustee shall be indemnified and saved harmless by the Grantor or from the Trust Fund, or both, from and against any personal liability to which the Trustee may be subjected by reason of any act or conduct in its official capacity, including all expenses reasonably incurred in its defense in the event the Grantor fails to provide such defense.

Section 19. Choice of Law. This Agreement shall be administered, construed, and enforced according to the laws of the State of [enter name of State].

Section 20. Interpretation. As used in this Agreement, words in the singular include the plural and words in the plural include the singular. The descriptive headings for each section of this Agreement shall not affect the interpretation or the legal efficacy of this Agreement.

Liability Requirements for Transport, Storage, and Land Application of Biosolids  
Form VI – Trust Agreement

In Witness Whereof the parties have caused this Agreement to be executed by their respective officers duly authorized and their corporate seals to be hereunto affixed and attested as of the date first above written. The parties below certify that the wording of this Agreement is identical to the wording specified in 9VAC24-32-850 as such regulations were constituted on the date first above written.

\_\_\_\_\_

[Signature of Grantor]

[Title]

Attest:

[Title]

[Seal]

\_\_\_\_\_

[Signature of Trustee]

Attest:

[Title]

[Seal]

(2) The following is an example of the certification of acknowledgement which must accompany the trust agreement for a trust fund as specified in this chapter. State requirements may differ on the proper content of this acknowledgement.

State of \_\_\_\_\_  
County of \_\_\_\_\_

On this [date], before me personally came [owner or operator] to me known, who, being by me duly sworn, did depose and say that she/he resides at [address], that she/he is [title] of [corporation], the corporation described in and which executed the above instrument; that she/he knows the seal of said corporation; that the seal affixed to such instrument is such corporate seal; that it was so affixed by order of the Board of Directors of said corporation, and that she/he signed her/his name thereto by like order.

\_\_\_\_\_

[Signature of Notary Public]