

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.