



Application for the Land Treatment of Waste Products (Part V)
Land Treatment of Biosolids Program
Delaware Department of Natural Resources and Environmental Control
Surface Water Discharges Section

General Information

Date: _____

Facility Name: _____ Facility Address: _____

Contact Person : _____ Contact Info: _____

Delaware Non-Hazardous Liquid Waste Transporters Permit Number: _____

Waste Product Characterization (Part V, Section 300)

Out of state waste being utilized? Yes No
If yes, what state _____

Briefly describe the source and constituent make up of the waste product:

Waste Source Characterization (Part V, Subsection 301)

The following information shall be submitted to the Department to characterize the source of the waste product.

- a. A process flow chart which identifies and explains each phase of the waste product generation process.
- b. A description of all major equipment and components used in the process that generates the waste product.
- c. A description of any stabilization or treatment process the waste product will undergo prior to final utilization.
- d. Estimated quantity of waste product to be land applied (annual basis).
- e. Any waste containing pathogenic agents shall be stabilized as cited in Part III, (B) Section 600 of the Department's Guidance and Regulations Governing the Land Treatment of Wastes (Biosolids Regulations).

Waste Constituent Characterization (Part V, Subsection 302)

The waste generator shall submit to the Department a chemical analysis of the waste product for the parameters found in Appendix A, Table 1 of this form.

Waste Management Plan (Part V, Subsection 401)

An application for a Permit, to utilize a waste product for agricultural purposes or in a distribution and marketing program, shall include a Waste Management Plan for Department review and approval. The Waste Management Plan shall provide:

- a. An explanation of how the waste product will be utilized.
- b. An operation plan to include proposed application rates and identification of land limiting constituents (LLC); the proposed life of the operation; equipment to be used for site preparation; application and incorporation of the waste and runoff control.

Additional Requirements (Part V, Subsection 405)

The Permit applicant shall provide to the Department the following documents prior to application approval:

- a. Topographical map showing the Tax ID number, land boundaries, total acres, and location of any watercourses, wetlands, domestic wells, or residences within 1000 feet of the proposed application site.
- b. A description of the soil characteristics of the site to confirm each NRCS soil series in accordance with Part III (B), Subsection 403 (7) (a) of the Biosolids Regulations. A sufficient number of samples must be collected to accurately characterize the site. In addition, the depth to the seasonal ground water table and a delineation of soil areas which are not suitable for land application of waste must be included.
- c. A minimum of three soil analyses for the parameters listed in Appendix A, Table 2 of this form, for each major soil series, at the proposed facility.
- d. Vegetative Management Plan that includes:
 - A projected crop rotation plan which shall specify crops to be grown, fertilizer requirements, planting and harvesting schedules, timing of application of the waste, application rate of the waste and final use of the crop.
 - Method and frequency for applying the waste to the site.
 - The total volume of waste product to be applied to the site and the proposed life of the operation.
 - Methods to manage runoff and control erosion during the life of the project.
 - If the waste product is to be applied to land owned by persons other than the generator of the waste product, the name and address of the landowner and evidence that the landowner has reviewed and approved by the project.

Note: The permittee shall conform to any conditions required by County ordinances and policy in addition to Permit conditions.



Land Treatment of Waste Products (Part V)
Appendix A
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Surface Water Discharges Section

Table 1(Waste)

Parameter	Measurement	Sample Type
pH	S.U.	Composite
Moisture content	percent	Composite
Total Nitrogen as N (dry weight basis)	mg/kg	Composite
Organic Nitrogen as N (dry weight basis)	mg/kg	Composite
Ammonium and Nitrate Nitrogen as N (dry weight basis)	mg/kg	Composite
Phosphorus (dry weight basis)	mg/kg	Composite
Potassium (dry weight basis)	mg/kg	Composite
Arsenic (dry weight basis)	mg/kg	Composite
Cadmium (dry weight basis)	mg/kg	Composite
Chromium (dry weight basis)	mg/kg	Composite
Copper (dry weight basis)	mg/kg	Composite
Lead (dry weight basis)	mg/kg	Composite
Mercury (dry weight basis)	mg/kg	Composite
Molybdenum (dry weight basis)	mg/kg	Composite
Nickel (dry weight basis)	mg/kg	Composite
Selenium (dry weight basis)	mg/kg	Composite
Zinc (dry weight basis)	mg/kg	Composite

Table 2 (Soil)

Parameter	Measurement	Sample Type
pH	S.U.	Composite
Nitrogen as N (dry soil basis)	mg/kg	Composite
Total Phosphorus as P (dry soil basis)	mg/kg	Composite
Potassium (dry soil basis)	mg/kg	Composite
Aluminum (dry soil basis)	mg/kg	Composite
Iron (dry soil basis)	mg/kg	Composite
Arsenic (dry soil basis)	mg/kg	Composite
Cadmium (dry soil basis)	mg/kg	Composite
Chromium (dry soil basis)	mg/kg	Composite
Copper (dry soil basis)	mg/kg	Composite
Lead (dry soil basis)	mg/kg	Composite
Mercury (dry soil basis)	mg/kg	Composite
Molybdenum (dry soil basis)	mg/kg	Composite
Nickel (dry soil basis)	mg/kg	Composite
Selenium (dry soil basis)	mg/kg	Composite
Zinc (dry soil basis)	mg/kg	Composite
Cation Exchange Capacity	meq/100grams	Composite
% Organic Matter	Percent	Composite

Note: Composite soil samples representing each soil series within each waste application area shall be collected in accordance with Subsection 403 (7) (a) of the Department's Biosolids Regulations. Soil chemistry testing must be in accordance with the Methods of Soil Analysis published by the American Society of Agronomy, and in accordance with Part III (B), Section 1001 (4) of the Department's Guidance and Regulations Governing the Land Treatment Wastes.