



AUTHORIZATION TO OPERATE A LAND TREATMENT SYSTEM
FOR THE
AGRICULTURAL UTILIZATION OF WASTE

Pursuant to the provisions of 7 Del. C., §6003

Denali Water Solutions, LLC.
3308 Bernice Avenue
Russellville, AR 72802

Denali Water Solutions, LLC is hereby granted a permit to operate land treatment systems for Dissolved Air Flootation (DAF) solids generated at the Pet Poultry Products Bridgeville (Delaware) facility, the Allen Harim Harbeson and Millsboro (Delaware) facilities, the Amick Farms Hurlock (Maryland) facility, the Tyson Temperanceville (Virginia) facility, Valley Proteins, Inc. Linkwood (Maryland) facility, Mountaire Selbyville (Delaware) facility, Perdue Georgetown, Milford, and Salisbury (Delaware and Maryland) facilities, and other land treatable wastes approved by DNREC in writing. This permit is limited to the application of waste as stated above at agronomic rates to the sites designated in this permit.

The application rates, monitoring requirements and other permit conditions are set forth in Parts I, II and III hereof.

Gordon Woodrow, Program Manager
Surface Water Discharges Section
Division of Water
Department of Natural Resources
and Environmental Control

Date Signed

Part I

A. GENERAL DESCRIPTION OF OPERATION

The operation involves the land application of DAF solids and other approved residuals, generated at the Pet Poultry Products Bridgeville (Delaware) facility, the Allen Harim Harbeson and Millsboro (Delaware) facility, the Amick Farms Hurlock (Maryland) facility, the Tyson Temperanceville (Virginia) facility, Valley Proteins, Inc. Linkwood (Maryland) facility, Mountaire Selbyville (Delaware) facility, Perdue Georgetown, Milford, and Salisbury (Delaware and Maryland) facilities and other land treatable wastes as approved by DNREC in writing, to the site location listed below. The site locations in this permit may be utilized for the application of DNREC approved land treatable wastes for up to, but not exceeding one continuous 365-day time period out of a three-year time period. The waste will be transported to the sites in accordance with a valid Delaware Waste Transporters Permit where it will be land applied at agronomic rates. The waste will be land applied by means of subsurface injection or alternatively by means of surface application with incorporation with separate written Department approval.

B. SITE LOCATIONS:

1. The Schreiber Farm (Feedlot 2) Site Description:

This application site consists of approximately 160 acres of land suitable for land application of parcels totaling approximately 395 acres of land located on the north side of the intersection of Whiteleysburg Road and Ingram Branch Road approximately 8 miles west of Harrington, Delaware.

Tax parcel numbers: 6-00-15600-01-0800-00001, 6-00-15600-01-0600-00001, and 6-00-15600-01-0601-00001



* The outlined application areas above are approximate. Additional application areas may be permitted for subsurface injection. Refer to the PDR for specific application areas and field sizes. **Restricted application areas, as outlined in the PDR, shall be limited to application in accordance with Part I, D.16. At no time may the fields be utilized for the application of DAF when the distance between the depth to tillage to the water table is less than 20 inches.**

2. The Seeney Farm Site Description:

This application site consists of approximately 100 acres of land suitable for land application of parcels totaling approximately 111 acres of land located on the southeast side of the intersection of Whiteleysburg Road and Ingram Branch Road approximately 8 miles west of Harrington, Delaware.

Tax parcel numbers: 6-00-15600-01-1600-00001 and 6-00-16700-01-1400-00001

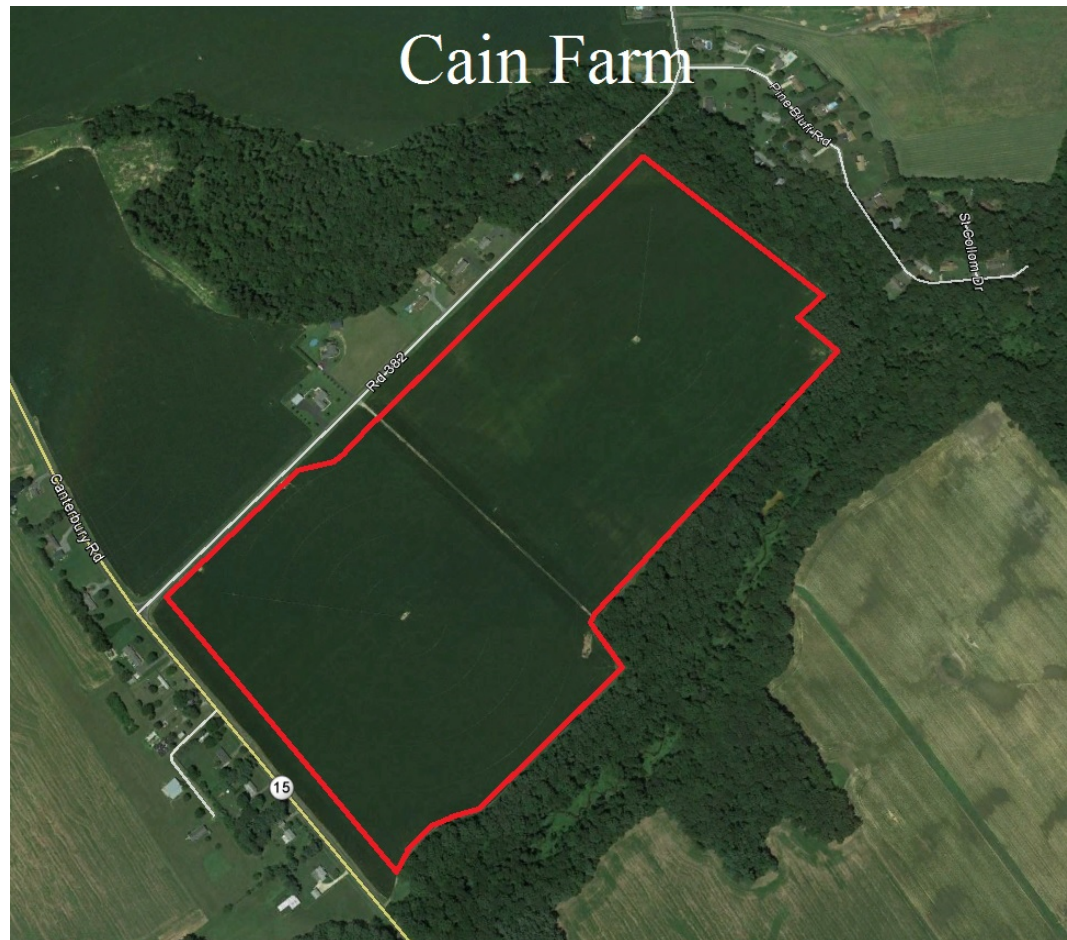


* The outlined application areas above are approximate. Additional application areas may be permitted for subsurface injection. Refer to the PDR for specific application areas and field sizes. **Restricted application areas, as outlined in the PDR, shall be limited to application in accordance with Part I, D.16. At no time may the fields be utilized for the application of DAF when the distance between the depth to tillage to the water table is less than 20 inches.**

3. The Cain Farm Site Description:

This application site consists of approximately 90 acres of land suitable for land application of parcels totaling approximately 128 acres of land located east of the intersection of Indian Point Road and Canterbury Road (Route 15) approximately 3 miles west of Frederica, Delaware.

Tax parcel number: 8-00-13000-01-7000-00001



* The outlined application areas above are approximate. Additional application areas may be permitted for subsurface injection. Refer to the PDR for specific application areas and field sizes. **Restricted application areas, as outlined in the PDR, shall be limited to application in accordance with Part I, D.16. At no time may the fields be utilized for the application of DAF when the distance between the depth to tillage to the water table is less than 20 inches.**

4. The Masten Farm Site Description:

This application site consists of approximately 174 acres of land suitable for land application of parcels totaling approximately 333 acres of land located on the west and southeast sides of the intersection of Little Mastens Corner Road and Reeves Crossing Road approximately 4 miles north of Harrington, Delaware.

Tax parcel number: 8-00-14800-01-2600-00001 and 8-00-14800-01-0200-00001

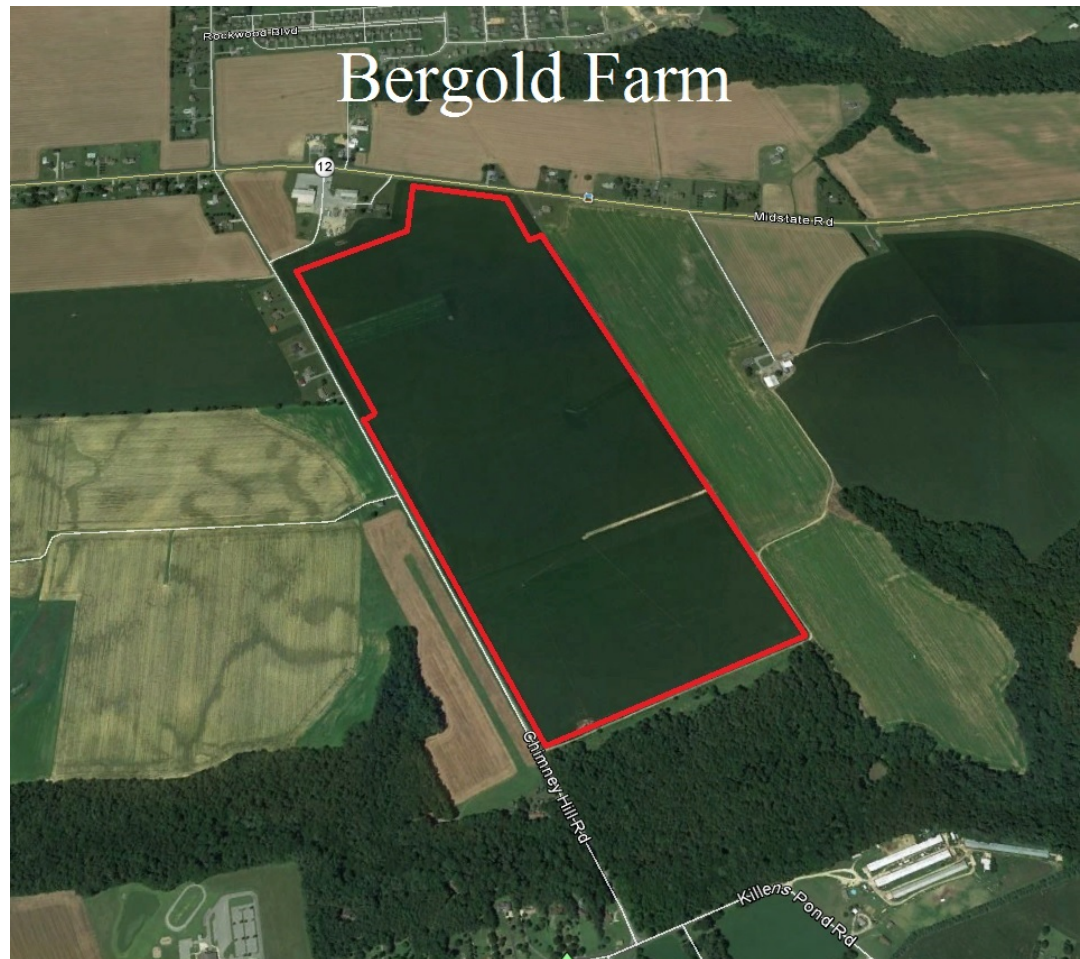


* The outlined application areas above are approximate. Additional application areas may be permitted for subsurface injection. Refer to the PDR for specific application areas and field sizes. **Restricted application areas, as outlined in the PDR, shall be limited to application in accordance with Part I, D.16. At no time may the fields be utilized for the application of DAF when the distance between the depth to tillage to the water table is less than 20 inches.**

5. The Bergold Farm Site Description:

This application site consists of approximately 170 acres of land suitable for land application of parcels totaling approximately 237 acres of land located at the southeast side of the intersection of Midstate Road and Chimney Hill Road approximately 5 miles north of Harrington, Delaware.

Tax parcel number: 8-00-13900-01-1500-00001



* The outlined application areas above are approximate. Additional application areas may be permitted for subsurface injection. Refer to the PDR for specific application areas and field sizes. **Restricted application areas, as outlined in the PDR, shall be limited to application in accordance with Part I, D.16. At no time may the fields be utilized for the application of DAF when the distance between the depth to tillage to the water table is less than 20 inches.**

6. The Winkler Farm Site Description:

This application site consists of approximately 325 acres of land suitable for land application of parcels totaling approximately 468 acres of land located on the east of DuPont Highway (Rt. 13), south of Paradise Alley Road (Road 426), and north of Winkler Road approximately 4 miles north of Harrington, Delaware.

Tax parcel numbers: 6-00-16000-01-0800-00001, 6-00-16000-01-0200-00001, and 6-00-14900-01-0701-00001



* The outlined application areas above are approximate. Additional application areas may be permitted for subsurface injection. Refer to the PDR for specific application areas and field sizes. **Restricted application areas, as outlined in the PDR, shall be limited to application in accordance with Part I, D.16. At no time may the fields be utilized for the application of DAF when the distance between the depth to tillage to the water table is less than 20 inches.**

7. The Harrison Farm Site Description:

This application site consists of approximately 75 acres of land suitable for land application of a parcel totaling approximately 116 acres of land located north of Spectrum Farms Road between the intersections of John Hurd Road and Spectrum Farms Road and the intersection of Burnite Mill Road (Route 12) and Spectrum Farms Road approximately 7 miles northwest of Harrington, Delaware.

Tax parcel number: 8-00-13600-01-1100-00001, 8-00-13600-01-1000-00001

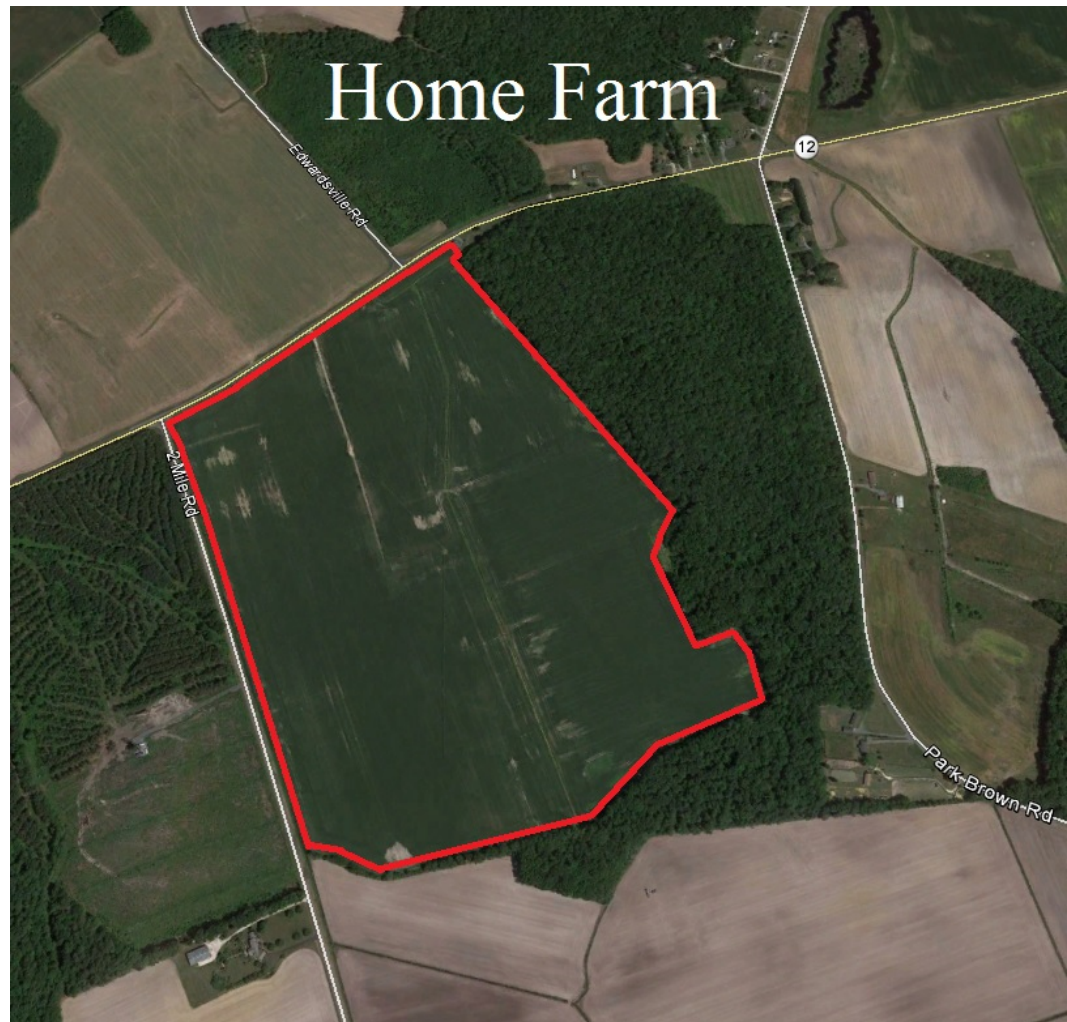


* The outlined application areas above are approximate. Additional application areas may be permitted for subsurface injection. Refer to the PDR for specific application areas and field sizes. **Restricted application areas, as outlined in the PDR, shall be limited to application in accordance with Part I, D.16. At no time may the fields be utilized for the application of DAF when the distance between the depth to tillage to the water table is less than 20 inches.**

8. The Home Farm Site Description:

This application site consists of approximately 119 acres of land suitable for land application of parcels totaling approximately 169 acres of land located on south of the intersection of Burnite Mill Road and Edwadsville Road approximately 7 miles northwest of Harrington, Delaware.

Tax parcel number: 6-00-15600-01-0300-00001

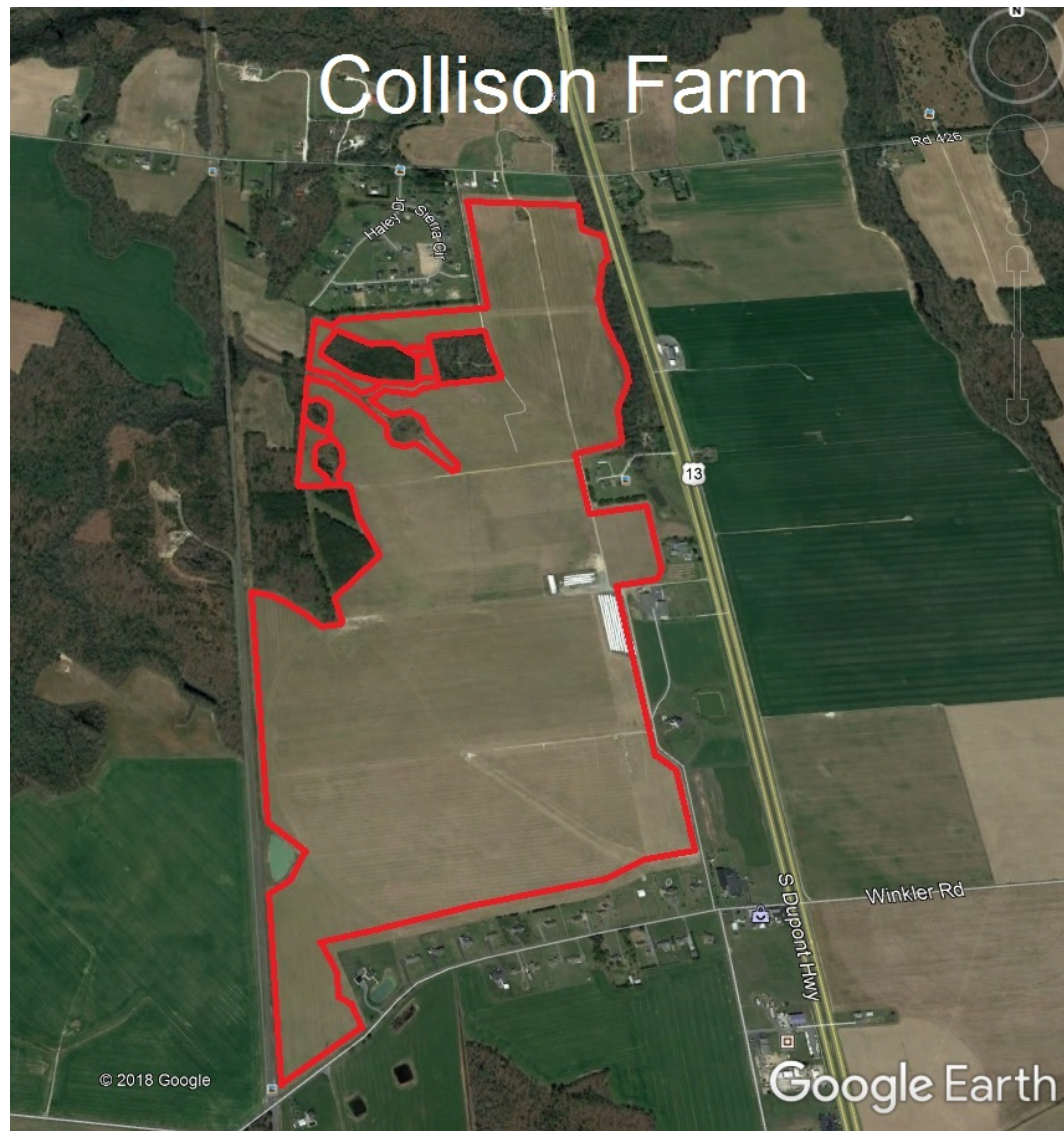


* The outlined application areas above are approximate. Additional application areas may be permitted for subsurface injection. Refer to the PDR for specific application areas and field sizes. **Restricted application areas, as outlined in the PDR, shall be limited to application in accordance with Part I, D.16. At no time may the fields be utilized for the application of DAF when the distance between the depth to tillage to the water table is less than 20 inches.**

9. The Collison Farm Site Description:

This application site consists of approximately 320 acres of land suitable for land application and consists of parcels totaling approximately 420 acres of land located west of DuPont Highway (Rt. 13), south of Paradise Alley Road (Road 426), and north of Hopkins Cemetery Road approximately 4 miles north of Harrington, Delaware.

Tax parcel number: 6-00-15900-01-3300-00001, 6-00-15900-01-3800-00001, 6-00-15900-01-3201-00001, and 6-00-14800-01-4400-00001

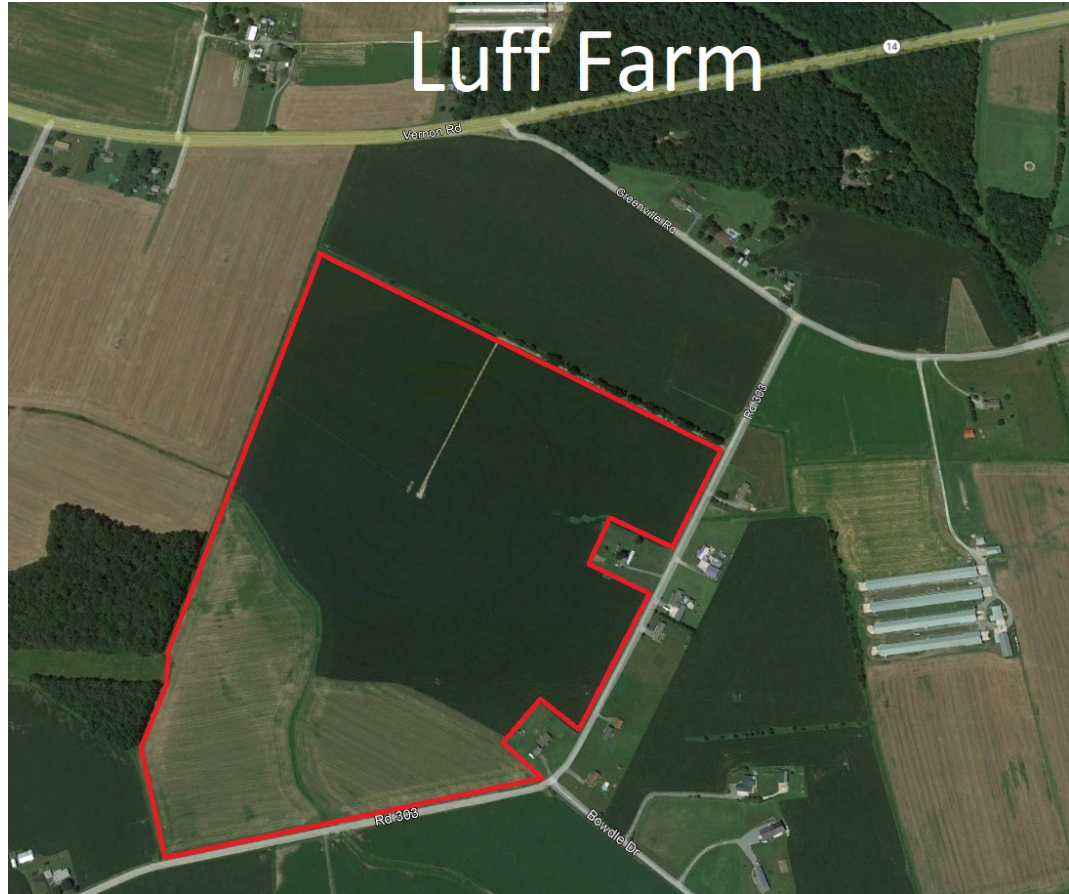


* The outlined application areas above are approximate. Additional application areas may be permitted for subsurface injection. Refer to the PDR for specific application areas and field sizes. **Restricted application areas, as outlined in the PDR, shall be limited to application in accordance with Part I, D.16. At no time may the fields be utilized for the application of DAF when the distance between the depth to tillage to the water table is less than 20 inches.**

10. The Luff Farm Site Description:

This application site consists of approximately 91 acres of land suitable for land application and consists of parcels totaling approximately 97 acres of land located southwest of the intersection of High Stump Road and Greenville Road approximately 6 miles southwest of Harrington, Delaware.

Tax parcel number: 6-00-185-01-4400-00001



* The outlined application areas above are approximate. Additional application areas may be permitted for subsurface injection. Refer to the PDR for specific application areas and field sizes. **Restricted application areas, as outlined in the PDR, shall be limited to application in accordance with Part I, D.16. At no time may the fields be utilized for the application of DAF when the distance between the depth to tillage to the water table is less than 20 inches.**

C. REGULATORY AND SUPPORTING DOCUMENTATION:

The land treatment operations shall be conducted in accordance with the following documents:

1. The Department's Guidance and Regulations Governing the Land Treatment of Wastes, Part V, the Land Treatment of Waste Products;
2. The Department's Guidance and Regulations Governing the Land Treatment of Wastes, Part III, B, Land Treatment of Wastes (revised October 1999);
3. Non-Hazardous Liquid Waste Transporter Permit Number OH-601;
4. Enviro-Organic Technologies, Inc.'s October 28, 2016 permit application and Project Development Report (PDR); and
5. Ownership agreements, dated November 23, 2016, to apply DAF solids onto the application sites listed in this permit.
6. The June 21, 2017 change of ownership request from Enviro-Organic Technologies, Inc. to transfer State Permit Number AGU 1703-K-05 to Denali Water Solutions, LLC.
7. The January 24, 2018 permit application and supporting information for the addition of the Collison Farm application site.
8. The August 2021 permit renewal package and request to add the Luff Farm application site.

D. WASTE APPLICATION LIMITATIONS

1. During the period beginning on the effective date and lasting through the expiration date of this permit, the permittee is authorized to operate the land treatment sites identified in Part I of this permit. Application of approved DAF solids and other land treatable wastes, as approved by the Department in writing, shall be applied at agronomic rates. The timing of waste application to the land treatment sites, as well as the quantity and quality of waste to be land applied, shall be specified in an annual Nutrient Management Plan (NMP) and in accordance with the limitations below.
2. The NMP shall be submitted to the Department for review and approval prior to any DAF solids or other land treatable wastes application at the site.
3. The site locations in this permit may be utilized for the application of DNREC approved land treatable wastes for up to, but not exceeding, one continuous 365-day time period out of a three-year time period.
4. DAF solids and other Department approved land treatable wastes shall be applied at agronomic rates established for the subsequent cropping plan. Mineralized nitrogen from prior application must be considered in calculating nitrogen application rates. Consultation with a Delaware Certified Nutrient Management Consultant is required in establishing application rates.
5. After an area has received its maximum load of DAF solids, an appropriate application of nitrogen corresponding to the requirements of the growing or subsequent crop may be applied to the area.
6. Application of any waste (excluding animal manure) other than DAF solids or other approved land treatable wastes to the approved land treatment sites as specified above is prohibited and will result in the revocation of this permit.
7. When any of the limits specified in the NMP have been achieved, no additional waste may be applied to that site unless a supplementary written approval has been issued by the Department.
8. If supplemental fertilizers are used on those portions of the land treatment sites which have received waste, the total amount of plant available nitrogen applied shall not exceed the requirement of the current crop. Records of crop yield must be kept, in accordance with Part I, I.3 of this permit, for each application area on the site.
9. Any individual that land applies materials regulated under this permit shall have a private or commercial nutrient handler certification through the Delaware Department of Agriculture.

10. Once a field has received up to the nitrogen loading rate in the NMP, within one (1) month the field shall be planted with an appropriate crop as specified in the NMP. Effort shall be made to coordinate waste application with the planned date of crop planting. In the event of unanticipated weather conditions that do not allow for planting of a crop within (1) month of waste application, the Department may grant an extension allowing additional time for planting. Should conditions not allow for crop germination after application, an appropriate crop shall be planted as soon as practicable. Failure to plant a field within the timeframes specified above may result in the Department evoking provisions listed in Part II B. 6 of this permit.
11. During years that waste is applied, a cover crop or appropriate winter crop must be planted.
12. Nutrient uptake from a crop shall only be credited if the crop is harvested. Should a crop be disked into the soil, nutrients remaining in the soil shall be taken into account by the certified nutrient consultant when planning future nitrogen application rates.
13. Fields with "high" phosphorus soil levels as defined by Title 3, Chapter 22 of the Delaware Code (the Nutrient Management Law) and the Delaware Nutrient Management Commission (150 FIV) shall be in compliance with a current Nutrient Management Plan and phosphorus management requirements in the Nutrient Management Law. Utilization of the phosphorous site index (PSI) and phosphorus management strategies, as recommended by the University of Delaware Cooperative Extension, may also be utilized to comply with the Nutrient Management Law.
14. Each day that waste is applied and/or when any other management activities are conducted at the land application site, an operation record in accordance with Part II, A.1 of this permit must be completed. Daily operating records must be maintained for a minimum of 5 years as required in Part I, I.3 of this permit.
15. Each active application area must be flagged prior to use. Application must be uniform over the application area and made at a rate that does not contribute to runoff from the area or pooling of wastewater. Non-biodegradable contents (e.g. plastic products, steel wool, etc.) incidentally applied with approved wastes shall be removed.
16. Groundwater level readings shall be taken through temporary hand auger borings prior to land application in sufficient quantity to characterize separation distances from groundwater to the depth of tillage of application. Should water-level readings indicate that areas

of the field have or likely have a water table that is within 20 inches of the depth of tillage, application in these areas shall not occur until the limiting situation has passed.

17. All land treatment activity shall conform to the conditions of this permit and the Guidance and Regulations Governing the Land Treatment of Waste.
18. A copy of this permit shall be kept in all land application equipment any time application of materials regulated under this permit occurs and shall be presented to the Department upon request.
19. If objectionable odors, vectors, or other nuisance conditions from land application activities regulated under this permit impact neighboring properties, the Department may require the addition of lime (or another odor mitigating substance) to the land application fields after application of sludge and/or require lime to be added to waste prior to land application. In addition, if the Department determines nuisance vectors from land application activities are affecting neighbors, pest management practices shall be immediately implemented by the utilization of appropriate pesticides in accordance with State and Federal requirements. The Department may require additional odor, vector, and/or nuisance control measures to be taken for any waste application under this permit, if deemed necessary.
20. DAF solids may not be applied from December 7 through February 15. Application is limited to daylight hours only. In the event of unforeseen circumstances, the Department may make a written exception to these conditions.
21. Application is forbidden during periods of active rain or onto excessively wet ground. Periods of active rain shall be defined more than 0.1 inches of rain in an hour. A rain gauge must be mounted and maintained on-site at any farm receiving application during any rainfall. Application onto snow in excess of 2 inches cover is not permitted without written Department approval. Application to frozen ground may be made provided that no runoff from the application area occurs.
22. The permittee shall conform to any conditions required by Kent County ordinance and policy in addition to the conditions contained in this permit.
23. The following buffer distances shall be maintained at all times during waste application. Any drain(s) located within the land application area that lead to a ditch or water body must use application setbacks for ditches or waterbodies as appropriate.

	Surface Application	Surface Injection
Occupied off-site dwelling	200 feet	100 feet
Occupied on-site dwelling	100 feet	50 feet
Potable wells	100 feet	100 feet
Non-potable wells	25 feet	25 feet
Public roads	25 feet	15 feet
Property lines	50 feet	25 feet
Bedrock outcrops	50 feet	25 feet
Streams, tidal waters, or other water bodies	50 feet	33 feet
Drainage ditches	25 feet	25 feet

* Buffer zones at the Collison Farm are 300 feet and 150 feet respectively for occupied off-site dwellings. The permittee may be required to increase buffer zones from the distances above on a case-by-case basis.

24. No waste shall be applied if sample analysis yields pollutant concentrations in excess of the following values:

Arsenic 41 mg/kg	Cadmium 39 mg/kg	Chromium 1200 mg/kg	Copper 1500 mg/kg
Lead 300 mg/kg	Mercury 17 mg/kg	Molybdenum 18 mg/kg	Nickel 420 mg/kg
Selenium 36 mg/kg	Zinc 2800 mg/kg	- - -	- - -

25. Waste products containing pathogenic agents shall be stabilized in accordance with a process cited in Part III, (B), of the Guidance and Regulations Governing the Land Treatment of Wastes.

E. GROUNDWATER LIMITATIONS

Application of waste to the designated fields shall not cause groundwater to exceedance applicable Federal or State Drinking Water Standards on an average annual basis.

F. MONITORING REQUIREMENTS

During the period beginning on the effective date and lasting through the expiration date, the permittee is authorized to apply waste products approved under this permit at agronomic rates to the land treatment sites found in Part I, of this permit. Applications shall be monitored by the permittee as specified below:

1. DAF SOLIDS AND OTHER APPROVED WASTES

<u>Parameter</u>	<u>Measurement</u>	<u>Sampling Frequency</u>	<u>Sample Type</u>
Moisture content	percent	Once per event*	Composite
Total Nitrogen as N (dry weight basis)	mg/kg	Once per event*	Composite
Organic Nitrogen as N (dry weight basis)	mg/kg	Once per event*	Composite
Ammonium and Nitrate Nitrogen as N (dry weight basis)	mg/kg	Once per event*	Composite
Phosphorus (dry weight basis)	mg/kg	Once per event*	Composite
Potassium (dry weight basis)	mg/kg	Once per event*	Composite
pH	S.U.	Once per event*	Composite
Arsenic (dry weight basis)	mg/kg	Every 5 Years	Composite
Cadmium (dry weight basis)	mg/kg	Every 5 Years	Composite
Chromium (dry weight basis)	mg/kg	Every 5 Years	Composite
Copper (dry weight basis)	mg/kg	Every 5 Years	Composite
Lead (dry weight basis)	mg/kg	Every 5 Years	Composite
Mercury (dry weight basis)	mg/kg	Every 5 Years	Composite
Molybdenum (dry weight basis)	mg/kg	Every 5 Years	Composite
Nickel (dry weight basis)	mg/kg	Every 5 Years	Composite
Selenium (dry weight basis)	mg/kg	Every 5 Years	Composite
Zinc (dry weight basis)	mg/kg	Every 5 Years	Composite

* Testing of the DAF is only required if waste will be land applied during a calendar year. Separate composite samples must be collected from each storage tank (1 composite sample shall be submitted to the lab from each tank) that contains DAF prior to the land application event. DAF shall be thoroughly mixed within the aboveground storage tank(s) prior to sample collection.

Results from the analysis must be received by the Department at least seven (7) days before land application occurs.

All waste samples shall be taken and analyzed in accordance with Part III, B., Section 152 of the Department's Guidance and Regulations Governing the Land Treatment of Wastes. See Part I J. for reporting frequencies. The Department may modify the sampling frequency or location(s) based upon review of continuing or additional analyses.

2. SOIL MONITORING

Soil monitoring for each application site must be received by the Department at least thirty (30) days prior to land application at the locations permitted above and frequency outlined below. The permittee shall be exempt from the requirements of this section if no waste is land applied, unless Part II, B. 7 of this permit applies.

<u>Parameter</u>	<u>Measurement</u>	<u>Sampling Frequency</u>	<u>Sample Type</u>
Phosphorus (dry weight basis)	mg/kg	Annually	Composite
Potassium (dry weight basis)	mg/kg	Annually	Composite
pH	S.U.	Annually	Composite
Sodium (dry soil basis)	mg/kg	Annually	Composite
% Organic Matter	Percent	Annually	Composite
Arsenic (dry weight basis)	mg/kg	Every 5 Years	Composite
Cadmium (dry weight basis)	mg/kg	Every 5 Years	Composite
Chromium (dry weight basis)	mg/kg	Every 5 Years	Composite
Copper (dry weight basis)	mg/kg	Every 5 Years	Composite
Lead (dry weight basis)	mg/kg	Every 5 Years	Composite
Mercury (dry weight basis)	mg/kg	Every 5 Years	Composite
Molybdenum (dry weight basis)	mg/kg	Every 5 Years	Composite
Nickel (dry weight basis)	mg/kg	Every 5 Years	Composite
Selenium (dry weight basis)	mg/kg	Every 5 Years	Composite
Zinc (dry weight basis)	mg/kg	Every 5 Years	Composite

NOTE: 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 133 of the Department's Guidance and Regulations Governing the Land Treatment of Wastes. See Part I, J. for reporting requirements.

The Department may modify the sampling frequency based upon review of continuing or additional analyses.

3. PLANT TISSUE AND GRAIN ANALYSIS

None is required at this time

4. GROUNDWATER MONITORING

Groundwater monitoring is not required provided that waste is not applied to any one field longer than one continuous 365-day time period out of a three-year time period.

G. SCHEDULE OF COMPLIANCE

None

H. BONDING

Not required pursuant to Part V. of the Guidance and Regulations Governing the Land Treatment of Wastes.

I. MONITORING

1. Representative Sampling:

Samples and measurements taken as required herein shall be representative of the volume and nature of the waste to be land applied.

2. Recording of Results:

For each measurement or sample taken pursuant to the requirements of this permit, the permittee shall record the following information:

- a. The exact place, date and time of sampling and/or measurement;
- b. The person(s) who performed the sampling and/or measurement;
- c. The dates and times the analyses were performed;
- d. The person(s) who performed the analyses;
- e. The results of each analysis.

3. Records Retention:

All records and information resulting from the monitoring activities required by this permit including all records of analyses performed and calibration and maintenance of instrumentation and recording from continuous monitoring instrumentation shall be retained for five (5) years. This period of retention shall be extended automatically during the course of any unresolved litigation regarding the regulated activity or regarding control standards applicable to the permittee, or as requested by the Department.

J. REPORTING

1. In a format acceptable to the Department, the permittee shall submit to the Department and landowners an annual operation report on or before February 1 of each year. Should the permittee fail to supply the required documents on or before the deadline specified, the Department may revoke this permit. The annual operation report shall include the following:

- a. The daily operational record (as specified in Part II, A.1);
- b. The weight (wet and dry tons) and volume of waste utilized at the land application site;

- c. The weight of nitrogen, phosphorus and potassium, from waste, applied to each field. Supplemental fertilizers must be reported separately;
 - d. Any changes in ownership of the land where the operation is conducted or any change in any lease agreement for the use of such land that may affect or alter the operator's rights upon such land;
 - e. A chemical analysis of soil from each field for the constituents identified in Part I, F.2. The procedure for soil analysis shall be consistent with Department guidance;
 - f. Site maps showing the boundaries within each field where waste has been applied during the previous year;
 - g. For each site: the cropping scheme followed during the previous year and anticipated for the coming year; crop yield data and an explanation of which portions of the plants were harvested; identification of fields to be used during the coming year; waste application rates for the coming year based on nitrogen mineralization calculations from previous waste application practices;
 - h. Waste application rate adjustments, if necessary (See Part I, D.1);
 - i. Additional information as required by the Department.
2. Waste analytical data obtained during the previous one monitoring period shall be summarized for each period and postmarked no later than the 28th day of the month following the completed reporting period. **If no waste was applied during this period a signed statement saying no application occurred this period shall be submitted to the Department.** Signed copies of these, and all other reports required herein, shall be submitted to the Department at the following address or to a designated Department email account:

**DELAWARE DEPARTMENT OF NATURAL RESOURCES AND
ENVIRONMENTAL CONTROL, DIVISION OF WATER, SURFACE
WATER DISCHARGES SECTION, 89 KINGS HIGHWAY, DELAWARE
19901; TELEPHONE: (302) 739-9946**

When submitting monitoring results, copies of the original laboratory sheets should be included. If more than one sample is analyzed during any month, a table showing the range of constituent concentration values shall be prepared and included with the submittal.

3. The permittee shall submit copies of all monitoring results to the landowner of each site in accordance with condition F.2, above.

4. Test Procedures

Test procedures for all analyses shall conform to the applicable test procedures identified in Part III, (B), Section 151 of the Department's Guidance and Regulations Governing the Land Treatment of Wastes, unless otherwise specified in this permit.

K. DEFINITIONS

1. "Agricultural Utilization" means the application rate of waste or waste products which shall not exceed the nutrient needs of the crop grown on the particular soil plus the other assimilative pathways in soils (e.g. immobilization with organic material, volatilization, and leachate in compliance with drinking water standards).
2. "Composite" means a series of grab samples which have been collected in a manner such that the final sample is representative of the volume and characteristics of the material to be analyzed.
3. "Dissolved Air Flotation Solids or DAF" means a semisolid, flowable waste, that does not contain sanitary wastewater, composed of processing water and poultry processing solids that were unsuccessfully recovered in the facilities' offal process.
4. "Land Application" means the placement of waste within 2 feet below the surface of land used to support vegetative growth. This term includes subsurface injection.
5. "Phosphorus Site Index or PSI" means the assessment tool approved as a State Technical Standard designed to evaluate the site characteristics and management factors in determining Phosphorus loss to the environment.
6. "Treatment" means a process which alters modifies or changes the biological, physical, or chemical characteristics of waste.
7. "Vector Attraction" is the characteristic of waste that attracts rodent, flies, mosquitoes, or other organisms capable of transporting infectious agents.

Part II

A. MANAGEMENT REQUIREMENTS

1. Land Application of Waste

The permittee shall prepare and maintain an operational record for each day that waste is applied and/or when any other management activities are conducted at the land application sites. The daily operational record shall include the following:

- a. The date, type, volume and dry weights of the waste applied;
- b. The application rate for waste;
- c. Weather conditions at the time of application
- d. The facility from which the waste originated;
- e. A map for each site showing the fields of daily activity;
- f. A record of any major deviations from the operating plan;
- g. A record of all actions taken to correct violations of the Delaware Environmental Protection Act and the Department's Regulations;
- h. Management undertaken, such as planting and harvesting of crops, fertilizers and chemicals added, irrigation frequency, techniques used, etc.

2. Change in Operation

The application of waste to the land treatment sites authorized herein shall be in compliance with the terms and conditions of this permit. The application of waste at levels in excess of the amount necessary to provide plant available nitrogen for the crop being grown, in accordance with the limits identified in Part I, D and E of this permit, shall constitute a violation of the permit. Any anticipated facility expansion, production increase, or change in site conditions which would affect the land limiting constituent, create a new land limiting constituent, or adversely affect site conditions must be reported in writing to the Department. Upon review of this information, the Department may revoke or modify this permit in accordance with the provisions of Part II, B.6 of this permit.

3. Noncompliance Notification

The permittee shall report to the Department:

- a. In writing thirty (30) days before any planned physical alteration or addition to the permitted facilities or activities, if that alteration or addition would

result in any significant change in information that was submitted during the permit application process;

- b. In writing thirty (30) days before any anticipated change which would result in noncompliance with any permit condition or the Department's Guidance and Regulations Governing the Land Treatment of Wastes;
- c. Orally within twenty-four (24) hours from the time the permittee became aware of any noncompliance which may endanger the public health or the environment, at (800) 662-8802. In addition, a call must be placed at (302) 739-9946 during normal business hours, and;
- d. In writing as soon as possible but within five (5) days of the date the permittee knows or should know of any noncompliance unless extended by the Department;

This report shall contain:

- 1) A description of the noncompliance and its cause;
 - 2) The period of noncompliance including to the extent possible, times and dates and, if the noncompliance has not been corrected, the anticipated time it is expected to continue; and
 - 3) Steps taken or planned to reduce or eliminate reoccurrence of the noncompliance.
- e. In writing as soon as possible after the permittee becomes aware of relevant facts not submitted or incorrect information submitted, in a permit application or any report to the Department. Those facts or the correct information shall be included as a part of this report.
4. Minimize Impacts

The permittee shall take all necessary actions to eliminate and correct any adverse impact on the public health or the environment resulting from permit noncompliance.

B. RESPONSIBILITIES

1. Renewal Responsibilities

At least 180 days before the expiration date of this permit, the permittee shall submit a new application for a permit or notify the Department of the intent to cease operation by the expiration date. **When submitting a new permit application, updated Project Development Reports (PDRs) for all land treatment sites must be included.** In the event that a timely and sufficient reapplication has been submitted and the Department is unable, through no

fault of the permittee, to issue a new permit before the expiration date of this permit, with written permission from the Department the terms and conditions of this permit are automatically continued and remain fully effective and enforceable.

2. Entry and Access

The permittee shall allow the Department, consistent with 7 Del. C., Chapter 60, to:

- a. Enter the permitted facilities;
- b. Inspect any records that must be kept under this permit;
- c. Inspect any facility, equipment, practice, or operation permitted or required by this permit;
- d. Sample or monitor for the purpose of assuring permit compliance, any substance or any parameter at the facility or land application site.

3. Provide Information

The permittee shall furnish to the Department within a reasonable time, any information requested, including copies of records, which may be used by the Department to determine whether cause exists for modifying, revoking, reissuing, or terminating the permit, or to determine compliance with the permit or the Guidance and Regulations Governing the Land Treatment of Wastes.

4. Transfer of Ownership or Control

This permit may be transferable to a new owner or operator provided that the permittee notifies the Department by requesting a minor modification of the permit before the date of transfer and provided that the transferee shows evidence of a legal right to use the site and is otherwise in compliance with all applicable provisions of the Department's Guidance and Regulations Governing the Land Treatment of Wastes.

5. Operation of Facility

The permittee shall at all times properly maintain and operate all structures, systems, and equipment for treatment, control and monitoring, which are installed or used by the permittee to achieve compliance with this permit or the Guidance and Regulations Governing the Land Treatment of Wastes.

6. Permit Revocation and Modification

- a. After notice and opportunity for a hearing, this permit may be modified or revoked in whole or in part during its term for cause including, but not

limited to, the following:

- 1) Violation of any terms or conditions of this permit;
 - 2) Obtaining this permit by misrepresentation or failure to disclose fully all of the relevant facts;
 - 3) Any change in operating conditions that requires either a temporary or permanent permit modification; or
 - 4) If the Department finds that the public health, safety or welfare requires emergency action, the Department shall incorporate findings in support of such action in a written notice of emergency revocation issued to the permittee. Emergency revocation shall be effective upon receipt by the permittee. Thereafter, if requested by the permittee in writing, the Department shall provide the permittee a revocation hearing and prior notice thereof. Such hearings shall be conducted in accordance with 7 Del. C., Chapter 60.
- b. The Department may revoke this permit if the permittee violates any permit condition, any applicable provisions of the Guidance and Regulations Governing the Land Treatment of Wastes, or fails to pay applicable Department fees.

7. Permit Closure Report

- a. All land approved for the Agricultural Utilization of waste is required to have a closure report when the land is no longer being utilized as described in permit application. The report must be submitted to the Department within four (4) months of determination that the field will no longer be utilized for waste application. The closure report will have the following:
- 1) Letter from permittee stating the application site (with tax parcel number(s)) will no longer receive waste approved by this Permit.
 - 2) Copy of the last waste monitoring results as required in Part 1, F.1 of this permit.
 - 3) Copy of the last soil monitoring results as required in Part 1, F.2 of this permit. A soil test is required after the last land application of waste.

8. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under 7 Del. C., Chapter 60.

9. State Laws

Nothing in this permit shall be construed to preclude the institution of any legal action or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation.

10. Property Rights

The issuance of this 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, nor any infringement of Federal, State or local laws or regulations.

11. Severability

The provisions of this permit are severable, and if any provision of this permit, or the application or any provision of this permit to any circumstances is held invalid, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected thereby.

12. Compliance Required

The permittee shall comply with all conditions of the permit.

13. Reopener

In the event that the Part V, of the Guidance and Regulations Governing the Land Treatment of Wastes or applicable Federal Regulations are revised, this permit may be reopened and modified accordingly after notice and opportunity for a public hearing.

Part III

A. SPECIAL CONDITIONS

The permittee must ensure that the following conditions are met:

1. Waste shall be transported to the land treatment sites in accordance with a valid Delaware Non-Hazardous Waste Transporters Permit.
2. Pre Start-Up
 - a. Prior to the application of waste, buffer zones and the areas on which waste is to be applied must be clearly marked with stakes, flags, or other suitable markers acceptable to the Department.
 - b. Before the permitted may begin to apply waste to a designated land application field/zone for the first time of a calendar year, the permittee must notify the Department at (302) 739-9946 at least two (2) working days prior to the proposed start application date. The Department may require and conduct a pre start-up inspection to verify that proper buffer zones and that non-application areas are suitably marked. If a pre start-up inspection is required, based on the results of the inspection the Department will either:
 - 1) Grant approval for waste application operations to begin or;
 - 2) Require the permittee to perform additional site preparation (such work must be performed and approved prior to waste application).
3. **AST Inspections:**
 - a. The permittee shall conduct annual visual inspections of the DAF above ground storage tanks (ASTs) for structural integrity. A report documenting the condition of the tank, any observed changed in the condition of the tank, any concerns identified during the inspections shall be submitted in writing to the Department on or before February 1 of each year.
 - b. The permittee must obtain a written assessment reviewed and certified by a qualified professional engineer that attests to the structural integrity of the ASTs at minimum once during the effective period of this permit. Completion of the first inspection shall be no later than one year after the effective date of this permit. Within thirty (30) days of completion of the aforementioned requirements, written documentation of the assessment shall be submitted to the Department. Should structural concerns be identified with the AST's, the permittee shall decommission the tank within (30) days of the identification of the structural concern. The AST(s) shall not be placed back into service until a qualified professional engineer attests to the integrity of the effected AST(s) in accordance with appropriate standards, regulations, and standard engineering practices.