

Land Application Permit

This Permit Authorizes

SC Pet Food Solutions

to land apply wastewater from a facility located at

***1299 Duncan Road
Ward, SC
Saluda County***

to

Multiple onsite sprayfields totaling up to 310 acres

in accordance with limitations, monitoring requirements and other conditions set forth herein. This permit is issued in accordance with the provisions of the Pollution Control Act of South Carolina (S.C. Code Sections 48-1-10 *et seq.*, 1976) and Regulation 61-9.

**Jeffrey P. deBessonnet, P.E., Director
Water Facilities Permitting Division**

Issue Date: TBD

Expiration Date¹: TBD

Effective Date: TBD

Permit No.: ND0089419

¹ This permit will continue to be in effect beyond the expiration date if a complete timely re-application is received pursuant to Regulation 61-9.505.6 and signed per Regulation 61-9.505.22.



S.C. Department of Health and
Environmental Control

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PART I. Definitions

Any term not defined in this Part has the definition stated in the Pollution Control Act or in “Water Pollution Control Permits”, R.61-9 or its normal meaning.

- A. The “Act”, or CWA, shall refer to the Clean Water Act (Formerly referred to as the Federal Water Pollution Control Act) Public Law 92-500, as amended.
- B. “Agronomic rate” is the application rate designed:
 - 1. To provide the amount of nitrogen needed by the food crop, feed crop, fiber crop, cover crop, or vegetation grown on the land.
 - 2. To minimize the amount of nitrogen in the industrial sludge that passes below the root zone of the crop or vegetation grown on the land to the groundwater; and
 - 3. To provide the amount of other organic and inorganic plant nutrients that promote crop or vegetation growth, such as calcium carbonate equivalency.
- C. “Annual pollutant loading rate” is the maximum amount of a pollutant that can be applied to a unit area of land during a 365 day period.
- D. “Annual whole sludge application rate” is the maximum amount of industrial sludge (dry weight) that can be applied to a unit area of land during a 365 day period.
- E. “Application frequency” means the number of days per week that wastewater or sludge is applied to the land.
- F. “Application period” means the length of time per day that wastewater or sludge is applied to the land.
- G. “Application rate” may be used for hydraulic loading.
- H. The “average” or “arithmetic mean” of any set of values is the summation of the individual values divided by the number of individual values.
- I. “Background groundwater analysis” means the chemical or biological quality of groundwater before application of wastewater or sludge, or the groundwater chemistry or biological quality of up-gradient to the site of concern.
- J. “Basin” (or “Lagoon”) means any in-ground or earthen structure designed to receive, treat, store, temporarily retain and/or allow for the infiltration/evaporation of wastewater.
- K. “Bypass” means the intentional diversion of waste streams from any portion of a treatment facility.
- L. A “composite sample” of wastewater shall be defined as one of the following four types:
 - 1. An influent or effluent portion collected continuously over a specified period of time at a rate proportional to the flow.

2. A combination of not less than 8 influent or effluent grab samples collected at regular (equal) intervals over a specified period of time and composited by increasing the volume of each aliquot in proportion to flow. If continuous flow measurement is not used to composite in proportion to flow, the following method will be used: An instantaneous flow measurement should be taken each time a grab sample is collected. At the end of the sampling period, the instantaneous flow measurements should be summed to obtain a total flow. The instantaneous flow measurement can then be divided by the total flow to determine the percentage of each grab sample to be combined. These combined samples form the composite sample.
3. A combination of not less than 8 influent or effluent grab samples of equal volume but at variable time intervals that are inversely proportional to the volume of the flow. In other words, the time interval between aliquots is reduced as the volume of flow increases.
4. If the effluent flow varies by less than 15 percent, a combination of not less than 8 influent or effluent grab samples of constant (equal) volume collected at regular (equal) time intervals over a specified period of time.

All samples shall be properly preserved in accordance with Part II.J.4. Continuous flow or the sum of instantaneous flows measured and averaged for the specified compositing time period shall be used with composite results to calculate mass.

- M. "Cover crop" is a small grain crop, such as oats, wheat, or barley; grasses; or other crop grown for agronomic use.
- N. "Cumulative pollutant loading rate" is the maximum amount of an inorganic pollutant that can be applied to an area of land.
- O. "Daily discharge" means the discharge of a pollutant measured during a calendar day or any 24-hour period that reasonably represents the calendar day for purposes of sampling. For pollutants with limitations expressed in units of mass, the daily discharge is calculated as the total mass of the pollutant discharged over the day. For pollutants with limitations expressed in other units of measurement, the daily discharge is calculated as the average measurement of the pollutant over the day.
- P. "Daily maximum" is the highest average value recorded of samples collected on any single day during the calendar month.
- Q. "Daily minimum" is the lowest average value recorded of samples collected on any single day during the calendar month.
- R. The "Department" or "DHEC" shall refer to the South Carolina Department of Health and Environmental Control.
- S. "Down gradient" means the portion of the water table that is down the hydraulic slope of the water table with respect to a specific area or point of reference.
- T. "Dry weight basis" means calculated on the basis of having been dried at 105° Celcius until reaching a constant mass (i.e., essentially 100 percent solids content).

- U. The “geometric mean” of any set of values is the Nth root of the product of the individual values where N is equal to the number of individual values. The geometric mean is equivalent to the antilog of the arithmetic mean of the logarithms of the individual values. For purposes of calculating the geometric mean, values of zero (0) shall be considered to be one (1).
- V. A “grab sample” of wastewater is an individual, discrete or single influent or effluent portion of at least 100 milliliters collected at a time representative of the discharge and over a period not exceeding 15 minutes and retained separately for analysis.
- W. “Groundwater” means the water below the land surface found in fractured rock or various soil strata.
- X. “Hydraulic loading” means the rate at which liquid is applied to the land per unit area. The term “application rate” may be used for hydraulic loading.
- Y. “Land application” is the spraying or spreading of industrial sludge onto the land surface; the injection of industrial sludge below the land surface; or the incorporation of industrial sludge into the soil so that the industrial sludge can either condition the soil or fertilize crops or vegetation grown in the soil.
- Z. The “maximum or minimum” is the highest or lowest value, respectively, recorded of all samples collected during the calendar month. These terms may also be known as the instantaneous maximum or minimum.
- AA. “Metals” means the following elements: Arsenic (As), Cadmium (Cd), Chromium (Cr), Copper (Cu), Lead (Pb), Mercury (Hg), Molybdenum (Mo), Nickel (Ni), Selenium (Se), and Zinc (Zn).
- BB. “Monitoring well” means any well used to sample groundwater for water quality analysis or to measure groundwater levels.
- CC. The “monthly average”, other than for fecal coliform and enterococci, is the arithmetic mean of all samples collected in a calendar month period. The monthly average for fecal coliform and enterococci bacteria is the geometric mean of all samples collected in a calendar month period. The monthly average loading is the arithmetic average of all daily discharges made during the month.
- DD. “Nutrients” means an element or compound essential as raw materials for plant growth and development such as Total Nitrogen (N), Phosphorus (P), Potassium (K), Calcium (Ca), Magnesium (Mg), Sulfur (S), Boron (B), Zinc (Zn), Manganese (Mn), Iron (Fe), Copper (Cu), Molybdenum (Mo), Chlorine (Cl), and Sodium (Na). Total Nitrogen is the sum of Organic Nitrogen and Inorganic Nitrogen. Organic Nitrogen is Total Kjeldahl Nitrogen minus Ammonia Nitrogen. Inorganic nitrogen is the sum of Ammonia Nitrogen, Nitrite Nitrogen, and Nitrate Nitrogen.
- EE. The “practical quantitation limit (PQL)” is the concentration at which the entire analytical system must give recognizable signal and acceptable calibration point. It is the concentration in a sample that is equivalent to the concentration of the lowest calibration standard analyzed by a specific analytical procedure, assuming that all the method-specific sample weights, volumes, and processing steps have been followed. It is also referred to as the reporting limit.

- FF. “Quarter” is defined as the first three calendar months beginning with the month that this permit becomes effective and each group of three calendar months thereafter.
- GG. “Quarterly average” is the arithmetic mean of all samples collected in a quarter.
- HH. “Runoff” is rainwater, leachate or other liquid that drains overland on any part of a land surface and runs off the land surface.
- II. “Seasonal high water table” means the highest water table as determined in the soil profile by the encountered indications of soil mottling or iron concentrations or by measuring seasonal fluctuations of the water table in a water table well over a period acceptable to the Department.
- JJ. “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.
- KK. “Sludge” means industrial sludge. Industrial sludge is a solid, semi-solid, or liquid residue generated during the treatment of industrial wastewater in a treatment works. Industrial sludge includes, but is not limited to, industrial septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from industrial sludge. Industrial sludge does not include ash generated during the firing of industrial sludge in an industrial sludge incinerator or grit and screenings generated during preliminary treatment of industrial wastewater in a treatment works. Industrial sludge by definition does not include sludge covered under 40 CFR Part 503 or R.61-9.503.
- LL. “Spray field” means a specified area where properly treated wastes, treated effluent from process, agricultural or domestic wastewater, sewage sludge, industrial sludge or other sources is applied to the land. The terms “application area,” “application site” or “spray disposal area” may also be used.
- MM. “Up-gradient” means the portion of the water table that is up the hydraulic slope of the water table with respect to a specific area or point of reference.
- NN. “Upset” means an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- OO. “Wastewater” means industrial wastewater. Industrial wastewater is wastewater generated from a federal facility, commercial or industrial process, including waste and wastewater from humans when generated at an industrial facility.
- PP. “Water table” means the level below the land surface at which all the voids are filled with water at a pressure equal to the atmospheric pressure. The depth to the water level in the ground is to be measure at least 24 hours after encountering it in a well.
- QQ. “Weekly average” is the arithmetic mean of all the samples collected during a one-week period. For self-monitoring purposes, weekly periods in a calendar month are defined as three (3) consecutive seven-day intervals

starting with the first day of the calendar month and a fourth interval containing seven (7) days plus those days beyond the 28th day in a calendar month. The value to be reported is the single highest of the four (4) weekly averages computed during a calendar month. The weekly average loading is the arithmetic average of all daily discharges made during the week.

PART II. Standard Conditions

A. Duty to comply

The permittee shall comply with all conditions of the permit. Any permit noncompliance constitutes a violation of the Pollution Control Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. The Department's approval of wastewater facility plans and specifications does not relieve the permittee of responsibility to meet permit limits.

1. Failure to comply with permit conditions or the provisions of this permit may subject the permittee to civil penalties under S.C. Code Section 48-1-330 or criminal sanctions under S.C. Code Section 48-1-320. Sanctions for violations of the Federal Clean Water Act may be imposed in accordance with the provisions of 40 CFR Part 122.41(a)(2) and (3).
2. A person who violates any provision of this permit, a term, condition or schedule of compliance contained within a valid land application permit or State permit is subject to the actions defined in the State law and Regulation 61-9.

B. Duty to reapply

If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit. A permittee with a currently effective permit shall submit a new application at least 180 days before the existing permit expires, unless permission for a later date has been granted by the Department. The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.

C. Need to halt or reduce activity not a defense

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 this permit.

D. Duty to mitigate

The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

E. Proper operation and maintenance

1. The permittee shall at all times properly operate and maintain in good working order and operate as efficiently as possible all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the terms and conditions of this permit. Proper operation and maintenance includes effective performance based on design facility removals, adequate funding, adequate operator staffing and training and also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary

facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

2. Power Failures. In order to maintain compliance with effluent limitations and prohibitions of this permit, the permittee shall either:
 - a. provide an alternative power source sufficient to operate the wastewater control facilities;
 - b. or have a plan of operation which will halt, reduce, or otherwise control production and/or all discharges upon the reduction, loss, or failure of the primary source of power to the wastewater control facilities.
3. The permittee shall develop and maintain at the facility a complete Operations and Maintenance Manual for the waste treatment facilities. The manual shall be made available for on-site review during normal working hours. The manual shall contain operation and maintenance instructions for all equipment and appurtenances associated with the waste treatment facilities and land application system. The manual shall contain a general description of the treatment process(es), the operational procedures to meet the requirements of E.1 above, and the corrective action to be taken should operating difficulties be encountered.
4. The permittee shall provide for the performance of daily treatment facility inspections by a certified operator of the appropriate grade as defined in Part V.E of this permit. The Department may make exceptions to the daily operator requirement in accordance with R.61-9.505.41(e)(3)(ii). The inspections shall include, but should not necessarily be limited to, areas which require visual observation to determine efficient operation and for which immediate corrective measures can be taken using the O & M manual as a guide. All inspections shall be recorded and shall include the date, time, and name of the person making the inspection, corrective measures taken, and routine equipment maintenance, repair, or replacement performed. The permittee shall maintain all records of inspections at the permitted facility as required by the permit, and the records shall be made available for on-site review during normal working hours.
5. A roster of operators associated with the facility's operation and their certification grades shall be submitted to the DHEC/Bureau of Water/Water Pollution Control Division. For existing facilities, this roster shall be submitted within thirty (30) days of the effective date of this permit. For new facilities, this roster must be submitted prior to placing the facility into operation. Additionally, any changes in operator or operators (including their certification grades) shall be submitted to the Department as they occur.
6. Wastewater Sewer Systems
 - a. Purpose. This section establishes rules for governing the operation and maintenance of wastewater sewer systems, including gravity or pressure interceptor sewers. It is the purpose of this section to establish standards for the management of sewer systems to prevent and/or minimize system failures that would lead to public health or environmental impacts.
 - b. Applicability. This section applies to all sewer systems that have been or would be subject to a DHEC construction permit under Regulation 61-67 and whose owner owns or operates the wastewater treatment system to which the sewer discharges.
 - c. General requirements. The permittee must:

- (1) Properly manage, operate, and maintain at all times all parts of its sewer system(s), to include maintaining contractual operation agreements to provide services, if appropriate;
- (2) Provide adequate capacity to convey base flows and peak flows for all parts of the sewer system or, if capital improvements are necessary to meet this standard, develop a schedule of short and long term improvements;
- (3) Take all reasonable steps to stop and mitigate the impact of releases of wastewater to the environment; and
- (4) Notify the Department within 30 days of a proposed change in ownership of a sewer system.

F. Permit actions

This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

G. Property rights

This permit does not convey any property rights of any sort, or any exclusive privilege nor does it authorize any injury to persons or property or invasion of other private rights, or any infringement of State or local law or regulations.

H. Duty to provide information

The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

I. Inspection and entry

The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:

1. Enter upon the permittee's premises where a regulated facility or activity including all land disposal sites is located or conducted, or where records must be kept under the conditions of this permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and

4. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Pollution Control Act, any substances or parameters at any location including all land disposal sites.

J. Monitoring and records

1. a. (1) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(2) Samples shall be reasonably distributed in time, while maintaining representative sampling.

(3) No sampling or analysis, which is otherwise valid, shall be terminated for the purpose of preventing the analysis from showing a permit or water quality violation.
- b. Flow Measurements.
 - (1) Where primary flow meters are required, appropriate flow measurement devices and methods consistent with accepted scientific practices shall be present and used to ensure the accuracy and reliability of measurements of the volume of monitored discharges. The devices shall be installed, calibrated and maintained to ensure that the accuracy of the measurements are consistent with the accepted capability of that type of device. Devices selected shall be capable of measuring flows with a maximum deviation of less than \square 10% from the true discharge rates throughout the range of expected discharge volumes. The primary flow device, where required, must be accessible to the use of a continuous flow recorder.
 - (2) Where permits require an estimate of flow, the permittee shall maintain at the permitted facility a record of the method(s) used in estimating the discharge flow (e.g., pump curves, production charts, water use records) for the outfall(s) designated on limits pages to monitor flow by an estimate.
 - (3) Records of any necessary calibrations must be kept.
2. Except for records of monitoring information required by this permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five years (or longer as required by R.61-9.503 or R.61-9.504), 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 this permit, and records of all data used to complete the application for this permit, for a period of at least 3 years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.
3. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;

- d. The individual(s) who performed the analyses;
 - e. The analytical techniques or methods used; and
 - f. The results of such analyses.
4. a. Analyses for required monitoring must be conducted according to test procedures approved under 40 CFR Part 136, equivalent test procedures approved by DHEC's Division of Laboratory Certification or other test procedures that have been specified in the permit.

In the case of sludge use or disposal, analysis for required monitoring must be conducted according to test procedures approved under 40 CFR Part 136, test procedures specified in R.61-9.503 or R.61-9.504, equivalent test procedures approved by DHEC's Division of Laboratory Certification or other test procedures that have been specified in the permit.

- b. Unless addressed elsewhere in this permit, the permittee shall use a sufficiently sensitive analytical method that achieves a value below the derived permit limit stated in Part III. For the purposes of reporting analytical data on the Discharge Monitoring Report (DMR):
 - (1) Analytical results below the PQL conducted using a method in accordance with Part II.J.4.a above shall be reported as zero (0). Zero (0) shall also be used to average results which are below the PQL. When zero (0) is reported or used to average results, the permittee shall report, in the "Comment Section" or in an attachment to the DMR, the analytical method used, the PQL achieved, and the number of times results below the PQL were reported as zero (0).
 - (2) Analytical results above the PQL conducted using a method in accordance with Part II.J.4.a shall be reported as the value achieved. When averaging results using a value containing a "less than," the average shall be calculated using the value and reported as "less than" the average of all results collected.
 - (3)(a) The mass value for a pollutant collected using a grab sample shall be calculated using the 24-hour totalized flow for the day the sample was collected (if available) or the instantaneous flow at the time of the sample and either the concentration value actually achieved or the value as determined from the procedures in (1) or (2) above, as appropriate. Grab samples should be collected at a time representative of the discharge.
 - (b) The mass value for a pollutant collected using a composite sample shall be calculated using the 24-hour totalized flow measured for the day the sample was collected and either the concentration value actually achieved or the value as determined from the procedures in (1) or (2) above, as appropriate.
5. The PCA provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this permit shall be subject to civil and criminal penalties as provided for in the act, law or other appropriate regulations.

K. Signatory requirement.

1. All applications, reports, or information submitted to the Department shall be signed and certified.
 - a. Applications. All permit applications shall be signed as follows:
 - (1) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means:
 - (a) 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
 - (b) The manager of one or more manufacturing, production, or operating facilities, provided the manager is authorized to make management decisions which govern the operation of the regulated facility including having the explicit or implicit duty of making major capital investment recommendations, and initiating and directing other comprehensive measures to assure long term environmental compliance with environmental laws and regulations; the manager can ensure that the necessary systems are established or actions taken to gather complete and accurate information for permit application requirements; and where authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - (3) For a municipality, State, Federal, or other public agency or public facility: By either a principal executive officer, mayor, or other duly authorized employee or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes:
 - (a) The chief executive officer of the agency, or
 - (b) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrator, Region IV, EPA).
 - b. All reports required by permits, and other information requested by the Department, shall be signed by a person described in Part II.K.1.a of this section, or by 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 Part II.K.1.a of this section;
 - (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, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.) and,
 - (3) The written authorization is submitted to the Department.

- c. Changes to authorization. If an authorization under Part II.K.1.b of this section is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of Part II.K.1.b of this section must be submitted to the Department prior to or together with any reports, information, or applications to be signed by an authorized representative.
 - d. Certification. Any person signing a document under Part II.K.1.a or b 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."
2. The PCA provides that any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall be subject to civil or criminal provisions as provided for in the act, law, or other appropriate regulations.

L. Reporting requirements

1. Planned changes.

The permittee shall give written notice to DHEC/Bureau of Water/Water Facilities Permitting Division as soon as possible of any planned physical alterations or additions to the permitted facility (and obtain a Construction Permit if required under Regulation 61-67). Prior notice is required only when:

- a. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under Regulation 61-9.122.42(a)(1).
- b. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;

2. Anticipated noncompliance.

The permittee shall give advance notice to the DHEC/Bureau of Water/Water Pollution Control Division of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

3. Transfers.

This permit is not transferable to any person except after written notice to the DHEC/Bureau of Water/NPDES Administration. The Department may require modification or revocation and reissuance of the permit to change the name of permittee and incorporate such other requirements as may be necessary under the Pollution Control Act.

- a. Transfers by modification. Except as provided in paragraph b of this section, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified or revoked and reissued (under R.61-9.505.62(e)(2)), or a minor modification made (under R.61-9.505.63(d)), to identify the new permittee and incorporate such other requirements as may be necessary under PCA.
- b. Other transfers. As an alternative to transfers under paragraph a of this section, any land application or state permit may be transferred to a new permittee if:
 - (1) The current permittee notifies the Department at least 30 days in advance of the proposed transfer date in Part II.L.3.b(2) of this section;
 - (2) The notice includes a written agreement between the existing and new permittee containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
 - (3) Permits are non-transferable except with prior consent of the Department. A modification under this section is a minor modification which does not require public notice.
4. Monitoring reports. Monitoring results shall be reported at the intervals specified elsewhere in this permit. Monitoring periods are calculated beginning with the permit effective date unless otherwise stated elsewhere in this permit. If the permit is modified, monitoring periods are calculated beginning with the modification effective date for those items that are part of the modification unless otherwise stated elsewhere in this permit.
 - a. Monitoring results must be reported on a Discharge Monitoring Report (DMR) or forms provided or specified by the Department for reporting results of monitoring of groundwater or sludge use or disposal practices including the following:
 - (1) Effluent Monitoring: Until final approval of DHEC's designated electronic DMR system, effluent monitoring results obtained at the required frequency shall be reported on a Discharge Monitoring Report Form (EPA Form 3320-1). The DMR is due postmarked no later than the 28th day of the month following the end of the monitoring period. One original and one copy of the Discharge Monitoring Reports (DMRs) shall be submitted to:

S.C. Department of Health and Environmental Control
Bureau of Water/Water Pollution Control Division
Data and Records Management Section
2600 Bull Street
Columbia, South Carolina 29201

Once DHEC notifies the permittee that the electronic DMR system is operational, the permittee will be required to use the electronic DMR system beginning the monitoring period following the notification. Completed electronic DMRs must be received no later than 11:59 PM on the 28th day of the month following the end of the monitoring period.

- (2) Groundwater Monitoring: Groundwater monitoring results obtained at the required frequency shall be reported on a Groundwater Monitoring Report Form (DHEC 2110) (or in the laboratory report from the analyzing laboratory) postmarked no later than the 28th day of the month following the end of the monitoring period. One original and one copy of the Groundwater Monitoring Report Form (DHEC 2110) (or the laboratory report from the analyzing laboratory) shall be submitted to:

S.C. Department of Health and Environmental Control
Bureau of Water/Water Pollution Control Division
Data and Records Management Section
2600 Bull Street
Columbia, South Carolina 29201

- (3) Sludge, Biosolids and/or Soil Monitoring: Sludge, biosolids and/or soil monitoring results obtained at the required frequency shall be reported in a laboratory format as stated in Part V of the permit postmarked no later than the 28th day of the month following the end of the monitoring period, unless otherwise stated elsewhere in this permit. Two copies of these results shall be submitted to:

S.C. Department of Health and Environmental Control
Bureau of Water/Water Pollution Control Division
Data and Records Management Section
2600 Bull Street
Columbia, South Carolina 29201

- (4) All other reports required by this permit shall be submitted postmarked no later than the 28th day of the month following the end of the monitoring period, unless otherwise stated elsewhere in this permit. Two copies of these reports shall be submitted to:

S.C. Department of Health and Environmental Control
Bureau of Water/Water Pollution Control Division
Data and Records Management Section
2600 Bull Street
Columbia, South Carolina 29201

- b. If the permittee monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR Part 136 or, in the case of sludge use or disposal, approved under 40 CFR Part 136 unless otherwise specified in R.61-9.503 or R.61-9.504, or as specified in the permit, all valid results of this monitoring shall be included in the calculation and reporting of the data submitted in the DMR or sludge reporting form specified by the Department.
- c. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the Department in the permit.

5. Twenty-four hour reporting

- a. The permittee shall report any non-compliance, which may endanger health or the environment. Any information shall be provided orally to local DHEC office within 24 hours from the time the permittee becomes aware of the circumstances. During normal working hours call:

County	DHEC Region	Phone No.
Anderson, Oconee	Upstate Region BEHS Anderson	864-260-5585
Abbeville, Greenwood, Laurens, McCormick	Upstate Region BEHS Greenwood	864-227-5915
Greenville, Pickens	Upstate Region BEHS Greenville	864-372-3273
Cherokee, Spartanburg, Union	Upstate Region BEHS Spartanburg	864-596-3327
Fairfield, Lexington, Newberry, Richland	Midlands Region BEHS Columbia	803-896-0620
Chester, Lancaster, York	Midlands Region BEHS Lancaster	803-285-7461
Aiken, Barnwell, Edgefield, Saluda	Midlands Region BEHS Aiken	803-642-1637
Chesterfield, Darlington, Dillon, Florence, Marion, Marlboro	Pee Dee Region BEHS Florence	843-661-4825
Clarendon, Kershaw, Lee, Sumter	Pee Dee Region BEHS Sumter	803-778-6548
Georgetown, Horry, Williamsburg	Pee Dee Region BEHS Myrtle Beach	843-238-4378
Berkeley, Charleston, Dorchester	Low Country Region BEHS Charleston	843-953-0150
Beaufort, Colleton, Hampton, Jasper	Low Country Region BEHS Beaufort	843-846-1030
Allendale, Bamberg, Calhoun, Orangeburg	Low Country Region BEHS Orangeburg	803-533-5490

* After-hour reporting should be made to the 24-Hour Emergency Response telephone number 1-888-481-0125.

A written submission shall also be provided to the address in Part II.L.4.a(4) within 5 days of the time the permittee becomes aware of the circumstances. The written submission 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, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

- b. The following shall be included as information which must be reported within 24 hours under this paragraph.
- (1) Any unanticipated bypass which exceeds any effluent limitation in the permit. (See R.61-9.505.44).
 - (2) Any upset which exceeds any effluent limitation in the permit.

(3) Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit to be reported within 24 hours (See R 61-9.505.44).

c. The Department may waive the written report on a case-by-case basis for reports under Part II.L.5.b of this section if the oral report has been received within 24 hours.

6. Other noncompliance.

The permittee shall report all instances of noncompliance not reported under Part II.L.4 and 5 of this section and Part IV at the time monitoring reports are submitted. The reports shall contain the information listed in Part II.L.5 of this section.

7. Other information.

Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information to the Water Facilities Permitting Division. This information may result in permit modification, revocation and reissuance, or termination in accordance with Regulation 61-9.

M. Bypass

1. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of Part II.M.2 and 3 of this section.

2. Notice.

a. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least ten days before the date of the bypass to the DHEC/Bureau of Water/ Water Facilities Permitting Division.

b. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Part II.L.5 of this section.

3. Prohibition of bypass

a. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:

(1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;

(2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and

(3) The permittee submitted notices as required under Part II.M.2 of this section.

- b. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three conditions listed above in Part II.M.3.a of this section.

N. Upset

1. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of Part II.N.2 of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
2. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - a. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - b. The permitted facility was at the time being properly operated; and
 - c. The permittee submitted notice of the upset as required in Part II.L.5.b(2) of this section.
 - d. The permittee complied with any remedial measures required under Part II.D of this section.
3. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

O. Misrepresentation of Information

1. Any person making application for a land application permit or state permit or filing any record, report, or other document pursuant to a regulation of the Department, shall certify that all information contained in such document is true. All application facts certified to by the applicant shall be considered valid conditions of the permit issued pursuant to the application.
2. Any person who knowingly makes any false statement, representation, or certification in any application, record, report, or other documents filed with the Department pursuant to the State law, and the rules and regulations pursuant to that law, shall be deemed to have violated a permit condition and shall be subject to the penalties provided for pursuant to 48-1-320 or 48-1-330.

P. Other Requirements

There shall be no runoff of any effluent, sludge, treated waste or mixture of pollutants outside the permitted area.

Part III. Limitations and Monitoring Requirements

A. Treated Wastewater Limitations and Monitoring Requirements

1. During the period beginning on the effective date of this permit and lasting through the expiration date, the permittee is authorized to land apply to the spray field, listed in Part V.A.1: Process wastewater, Utility wastewater, and Plant/Vehicle wash-down water

Such discharge shall be limited and monitored by the permittee as specified below:

Treated Wastewater Characteristics	Application Limitations		Monitoring Requirements	
	Monthly Average	Daily Maximum	Measurement Frequency	Sample Type
Flow	MR ¹ (MGD)	MR ¹ (MGD)	Daily	Estimate ²
pH	Min 6.0 su, Max 9.0 su ³		1/Month	Grab
Total Nitrogen ⁴	134 (mg/l)	194 (mg/l)	1/Month	Grab
Total Phosphorous	MR ¹ (mg/l)	MR ¹ (mg/l)	1/Month	Grab
Ammonia (as N)	152 (lb/d)	303 (lb/d)	1/Month	Composite
Biochemical Oxygen Demand (BOD ₅)	195 (lb/d)	390 (lb/d)	1/Month	Composite
Oil & Grease (as HEM) ⁵	108 (lb/d)	217 (lb/d)	1/Month	Grab
Total Suspended Solids (TSS)	238 (lb/d)	477 (lb/d)	1/Month	Composite
Fecal Coliform	-	400/100 ml	1/Month	Grab
Total Copper ⁶	MR ¹ (mg/l)	MR ¹ (mg/l)	1/Quarter	Grab
Total Lead ⁶	MR ¹ (mg/l)	MR ¹ (mg/l)	1/Quarter	Grab
Total Zinc ⁶	MR ¹ (mg/l)	MR ¹ (mg/l)	1/Quarter	Grab

¹ MR = Monitor and Report

² See Part II.J.1.

³ See Part I.Z.

⁴ Total Nitrogen means the total of nitrate/nitrite and total Kjeldahl nitrogen.

⁵ Oil & Grease (as HEM) = Total recoverable oil and grease measured as n-hexane extractable material (HEM)

⁶ See Part V.E.3

- b. Samples taken in compliance with the monitoring requirements specified above shall be taken at the following location(s): after the effluent holding pond, but prior to application on the spray field.

B. Whole Effluent Toxicity and Other Biological Limitations and Monitoring Requirements

None

C. Groundwater Monitoring Requirements

1. During the period beginning on the effective date of this permit and lasting through the expiration date, each of the seven (7) groundwater monitoring wells which monitor the groundwater around the spray field shall be sampled by the permittee as specified below:

Parameter	Measurement Frequency	Sample Method
Ammonia (NH ₃)	Quarterly	Pump or Bailer Method
Nitrate (N)	Quarterly	Pump or Bailer Method
Field pH	Quarterly	Pump or Bailer Method
Field Specific Conductance	Quarterly	Pump or Bailer Method
Cadmium	Quarterly	Pump or Bailer Method
Chromium	Quarterly	Pump or Bailer Method
Depth to Groundwater (Report within 0.01 feet)	Quarterly	Tape
Groundwater Elevation (Report within 0.01 feet above mean sea level)	Quarterly	Tape

2. The permittee shall follow the Groundwater Monitoring Sampling Period and Reporting Deadline in the table below for the coordinating Measurement Frequency indicated in the table (in paragraph a.) above:

Measurement Frequency	Sampling Period	Reporting Deadline
Quarterly (Samples must be taken at least 60 days apart.)	January 1st – March 31st	April 28th
	April 1st – June 30th	July 28th
	July 1st – September 30th	October 28th
	October 1st – December 31st	January 28th
Semi-Annually	January 1 st – March 31 st	April 28 th
	July 1 st – September 30 th	October 28 th
Annually	October 1 st – December 31 st	January 28 th

3. Sample collection methods shall be in accordance with the EPA Region 4 Groundwater Sampling Operation Procedure, EPA publication SESDPROC 301-R3, effective March 6, 2013 or most recent version of the EPA Region 4 Groundwater Sampling Operation Procedure. Analytical methods must be EPA-approved, appropriate for the media being analyzed, and must be able to achieve a practical quantitation limit (i.e. reporting limit) below the standard for Class GB groundwater as established in South Carolina Water Classifications and Standards R.61-68 if applicable to the parameter being analyzed.
4. All groundwater monitoring wells must be properly maintained at all times and are to yield a representative sample of the aquifer. If the groundwater elevation drops to a level that prevents the collection of a sample

for two consecutive sampling periods, then this well shall be considered as “rendered unusable.” In accordance with Regulation 61-71, any monitoring well which is destroyed, rendered unusable, or abandoned, shall be reported to the Department, and shall be properly abandoned, revitalized, or replaced. The permittee shall revitalize or replace the dry well within six months after recording the second dry sampling period.

5. In accordance with R.61-9.505.5(d), “If a deleterious impact to the groundwaters of the State from the permitted use or disposal practices is documented through groundwater monitoring levels exceeding the standards set forth in R.61-68 or a significant adverse trend occurs, then it will be the obligation of the permittee as directed by the Department to conduct an investigation to determine the vertical and horizontal extent of groundwater impact. The Department may require remediation of the groundwater to within acceptable levels for groundwater as set forth in R.61-68.”
6. For new in-ground wastewater treatment units or new land application activities, background groundwater quality data must be submitted prior to final approval to place into operation.

D. Soil Monitoring Requirements

1. The soil conditions shall be evaluated by the permittee **annually**. The first 12-inches will be used to determine if modifications shall be required to the nutrient loadings in the Nutrient Management Plan (NMP). The NMP will be modified as needed to properly manage nutrient applications to the fields. The USDA Natural Resources Conservation Service or other qualified soil testing agency or firm should be contacted for assistance in soil testing and evaluation.
2. The number of samples should be either a minimum of one composite sample per field (as described below) or no less than one composite sample per twenty (20) cropland acres.
3. A minimum of ten (10) discrete samples for each composite should be taken at randomly selected locations within the field. Soil samples collected must be mixed together forming a single composite sample.
4. If one field is being managed differently (e.g. multiple crops are being grown), then a single composite sample from each managed area (with at least one per twenty (20) cropland acres) should be provided.
5. The soil scoop for any composite soil test should be approximately the same volume.
6. At each collection location within each sampling area, soil cores (samples) shall be taken at depths of 0"-6", 6"-12", 12"-24", 24"-36" and 36"-48" for nitrogen. The collected samples shall be composited according to its depth, thereby yielding one composite sample for each sample depth (i.e., all samples at the depth of 0"-6" shall be composited). The deep core soil sampling for nitrates will help us determine if there are excess nitrates sitting below the soil surface, and should be used to determine if the site is getting good nutrient capture from the cover crop.
7. The following will be used to determine the available Nitrogen in the Soil. See Part VI.A.1.

Soil Depth (inches)	Available Nitrogen* from Soil Analysis (ppm)	Available Nitrogen in lbs/acre (lbs/acre = ppm x 4)	Exceeds 240 lbs/acre? (Yes/No) If yes, then no land application allowed
0-12			

* Current Available N from Soil will include NO₃-N (Nitrate Nitrogen) and NH₄-N (Ammonia/Ammonium Nitrogen). See example below.

Example Soil Analysis Conversion (ppm to lbs/acre):

Calculation: Available N (lbs/acre) = [NO₃-N (Nitrate Nitrogen) concentration (ppm) + NH₄-N (Ammonia/Ammonium Nitrogen)] x4
(Assuming 2 million pounds of dry soil in upper 6-inches/acre)

Example:

<u>Depth</u>	<u>NO₃-N + NH₄-N</u>
0-12 inches	4 ppm

N in 0-12 inch increment = 4 x 4 = 16 lbs N/acre (Total N in soil profile)

8. Metals monitoring of the soils may be required by the Department if deemed necessary.

E. Sludge Monitoring Requirements

None

Part IV. Schedule of Compliance

A. Schedule(s)

1. Nutrient Management Plan

- a. Within 120 days of the effective date of this permit, submit a Nutrient Management Plan (NMP) with following components:
 - i. List of all proposed crops and the appropriate agronomic rates (not to exceed 240 lbs/ac/yr of plant available nitrogen (PAN)), for all sites. The agronomic rates shall include nitrogen from all sources, including but not limited to: the wastewater being applied, chemical fertilizers, available nitrogen in the soil, etc.
 - ii. Identify the projected yield for each crop.
 - iii. Proposed suitable application dates (Jan-Dec) based upon each crop for nitrogen. If split applications of nitrogen based on Clemson recommendation, identify when (which month) application would occur. Note that crops in the winter have lower nutrient uptake rates, and applications rates may need to be reduced to ensure nutrient are taken in by the plants and does not pass through to the groundwater.
 - iv. Describe soil analysis plan. This plan shall include the soil series for each site.
 - v. Identify the form of the waste for land application (liquid or dewatered) and the method of land application (irrigation, surface spreading, surface spreading followed by incorporation or subsurface injection).
- b. The USDA Natural Resources Conservation Service or other qualified soil science agency or firm should be contacted for assistance. The firm should know that the focus of the NMP is to maximize the crops nitrogen uptake, so that nutrients do not pass through the root zone and enter the water table. Heavy rains in the winter when mineralization and volatilization are at a minimum can cause heavy leaching below where roots can recover the N.
- c. The NMP should be submitted to the Department for information and should be implemented immediately.

2. Groundwater Monitoring Plan

- a. Within 180 days of the effective date of this permit, submit a permanent Groundwater Monitoring Plan that includes background groundwater quality data and permanent monitoring wells capable of monitoring the groundwater quality and flow directions at the land application area(s).
- b. Within 60 days, after Department approval of the above referenced monitoring plan, the permittee shall proceed with monitoring well installation.
- c. Within 60 days of the installation of the approved monitoring wells, the first groundwater monitoring report (GWMR) must be submitted to the Department. The first GWMR must include, at a minimum, the following information:
 - A topographic map showing the land application area.
 - Geologic logs and well construction details for the monitoring wells.

- A map showing the well locations and well elevations surveyed by a SC registered land surveyor to 1/100 of a foot.
- Groundwater monitoring data and laboratory data sheets from the first groundwater monitoring event.
- Groundwater flow map (i.e., potentiometric map) constructed with the water-level elevation measurements from the initial groundwater monitoring event.

d. After the first groundwater monitoring report (GWMR) has been submitted, the next (and all following) groundwater monitoring sampling shall be on the sampling period schedule as detailed in Part III.C.2.

3. Sludge Disposal Plan

a. Within 180 days of the effective date of this permit, submit a sludge disposal plan that includes the approximate schedule for sludge removal and the anticipated sludge disposal method. An extension may be granted to this deadline if reasonable justification is provided.

B. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than 14 days following each scheduled date.

Part V. Other Requirements

A. Land Application Requirements

1. The treated wastewater will be applied as a nutrient and water source to the dedicated sites totaling up to 310 acres in Saluda County. The site is owned by the partnership company (A3 Land and Timber, LLC) that has been formed for this facility, and is located on 0.95 miles north of the intersection of Old Charleston Road and Duncan Road and 1 mile west of the intersection of Bell Road and Duncan Road.
2. The design parameters and hydraulic loading rate at each site shall be such that:
 - a. Land application of industrial wastewater is limited to the following approved sites. No change in the approved fields or cover crop is allowed without modification to this permit.

County	Land owner	Location	Net Acreage	Cover Crop ¹	Plant Available Nitrogen (PAN) (lb/ac/yr) ²
Saluda	A3 Land and Timber, LLC	Area A		Coastal Bermuda Fescue	240 160
Saluda	A3 Land and Timber, LLC	Area B			
Saluda	A3 Land and Timber, LLC	Area C			
Saluda	A3 Land and Timber, LLC	Area D			
Saluda	A3 Land and Timber, LLC	Total Backup Area			
Total Net Acreage			~ 310		

¹ Fescue is a cold weather cover crop established for the winter months (from October to March) and Coastal Bermuda is for the summer months (from April to September). The crop listed above may be replaced or multiple crops utilized by the permittee provided the individual agronomic rates for each crop are not exceeded. No application in excess of 240 lbs PAN/acre/yr is approved.

² The agronomic rate shall be based on published lime and fertilizer recommendations (such as Plant Nutrient Element Management of Agricultural Soils in South Carolina by Clemson University 2007), but not to exceed 240 lbs/ac/yr of plant available nitrogen (PAN).

- b. The application loading rate is to be calculated for plant available nitrogen (PAN) and applied at a rate not to exceed those listed in the table above for the given crop(s).
- c. The application loading rate shall not exceed 0.75 inches/week/acre based on hydraulics.
- d. The application of industrial wastewater must be accomplished using calibrated equipment designed for even distribution over the site. The permittee shall provide supervision and is directly responsible for the land application event.
- e. An incremental amount of wastewater shall be applied on a daily basis over the entire application sites to facilitate the nutrient uptake and minimize a situation where hydraulically overloading the soils.

- f. The design application frequency for effluent irrigation shall not exceed a spray to rest ration of 1:20 unless an alternative rate is approved by the Department.

3. Site Restrictions

- a. Public access to land with a high potential for public exposure shall be restricted for one year after application of industrial wastewater.
- b. Public access to land with a low potential for public exposure shall be restricted for 30 days after application of industrial wastewater.
- c. General public access to the sites shall be controlled, such as posting of all weather signs around the land application sites, (to inform the public of the land use), and fencing (gate) of access road ways to site.
- d. The spray field shall be at least 200 feet from surface waters of the State, occupied buildings and potable water wells. The spray field shall be at least 100 feet from the property boundary. The applicant may request the buffer zone for specific spray areas be eliminated for sites where the adjacent property owner agrees to the elimination of the buffer in writing.
- e. The application site shall be divided into designed spray areas to meet the spray to rest ratio and a continuous application period per defined spray area shall be designed not to exceed 1.2 hours per day, or up to 8 consecutive hours per week (only under those limited conditions when excessive rainfall on the application sites requires application in one day). If the design application rate on a daily basis is exceeded, the Department may require the permittee to provide additional spray application area or alternative disposal methods may be required (e.g. expanding storage capacity for effluent at the facility).
- f. Spray field slopes shall not exceed 10 percent unless approved by the Department. The Department may require that slopes be less than 10 percent based on site conditions

4. Management Practices

- a. Effluent shall not be applied to any land application site that is flooded, frozen, or snow-covered so that the effluent enters a wetland or other waters of the State, as defined in R.61-9.122.2.
- b. With exception of the initial application of effluent and providing a limited period of time for infiltration into the soil, there shall be no ponding (free standing water) on the land application sites as a result of effluent application, and the sites must be properly maintained. The effluent must be applied using methods that suppress the chance of runoff occurring. Effluent application during periods of precipitation or wet weather is strictly prohibited. Effluent application after rainfall events should not occur if ponding (free standing water) or the potential of runoff from the site would occur.
- c. Adequate procedures shall be provided to prevent surface runoff from conveying pollutants from the application site onto adjacent property or waters of the State.
- d. There shall be no runoff of any effluent, sludge, treated waste, or mixture of pollutants outside of the permitted area.

- e. The permittee is responsible for controlling any nuisance conditions that may occur due to operations at the site. The permittee shall take appropriate measures to prevent wind erosion and aerosol drift from the land application site.
- f. The permittee shall be responsible for proper transportation of the effluent to the approved sites and for proper distribution to these sites.
- g. The permittee shall be responsible for maintaining spill control and rain event plans (e.g., addressing shutting down operation during unforeseen inclement weather).
- h. All attempts shall be made to utilize the maximum nitrogen uptake period/season of the crop (including soil pH adjustment), and therefore, minimize the possibility of nitrogen leaching.
- i. The permittee shall implement and comply with the Nutrient Management Plan as required in Part IV.A.1 of the permit. The plan shall be updated as necessary.
- j. The cover crop must be harvested in accordance with standard agricultural practices. The cover crop, when harvested, shall be removed from the site.
- k. The permittee shall contact Clemson Extension Services, or other qualified organization, to determine if use of the cover crop for animal feed should be limited due to nitrogen (or other parameter) levels in the harvested material. Use of the crop for animal feed should be limited to the recommended feed rates provided by the qualified agency. If vegetative sampling indicates that use of the cover crop from the dedicated sites for animal feed should be limited due to any parameter level, then an alternative disposal method, such as landfill disposal, for the harvested crop must be approved by the Department.
- l. Industrial effluent shall not be applied to the land if it is likely to adversely affect a threatened or endangered species listed under section 4 of the Endangered Species Act or its designated critical habitat.

5. Record keeping and Reporting

- a. All quarterly monitoring periods shall include a three month reporting period based on calendar quarters (i.e. 1st Quarter being January through March, 2nd being April through June, 3rd being July through September, and 4th being October through December).
- b. The permittee shall submit the following information **annually** in report form, but not limited to:
 - (1) Permittee Name, ND Permit Number, Bureau of Water Site ID and location (either by street address or latitude and longitude) of the site on which industrial effluent was applied;
 - (2) Contact Person including phone number, address, and email address;
 - (3) Monitoring Period Dates (from and to dates);
 - (4) The name and number of all sites and acres (or hectares) in each site on which the industrial wastewater was land applied;
 - (5) The date(s) on which industrial effluent was land applied to each site;
 - (6) The amount of industrial effluent land applied to each site and the method of application used;
 - (7) The cover crop(s) used on each site, the date the crop(s) were planted, the date crop(s) were harvested and yield of each crop;

- (8) A description of how the management practices and site restrictions above were met;
- (9) The adjusted application rates, if applicable, based on the most recent effluent sampling, soil sampling, and Nutrient Management Plan (the application rate could change due to change in field use, crop grown, or other factors). Documentation must be provided that the permittee completed an assessment to determine if the application rate should be based on other plant nutrients such as phosphorus, potassium or magnesium;
- (10) A summary of all data that has been collected to meet any permit requirements, including, but not limited to, the date(s) and location of the samples, methods used, and results of all samples in the same units as those given in the permit requirements, so compliance may be easily determined;
- (11) The type, amounts and date(s) of application of any additional nutrients added to the site.
- (12) Any updates made to the Nutrient Management Plan (See Part VI.A.1 and Part V.A.4.i) during the year.

The above information must also be kept at the permitted facility and be available for on-site review during normal working hours at the request of the Department.

- c. All annual reports shall be received by the Department no later than **February 19th** of each calendar year, for the period of January 1 through December 31 of the previous calendar year.
- d. The permittee shall maintain a record of the method(s) used in "estimating" the loading rate (i.e. pump curves, production charts, water use records, etc.). Records of any necessary calculations must also be kept. This information shall be made available for review by Department personnel.

6. Odor Control Requirements

The permit holder shall use best management practices normally associated with the proper operation and maintenance of a wastewater treatment site, any sludge storage or lagoon areas, transportation of wastewater/sludges, and all other related activities to ensure that an undesirable level of odor does not exist.

- a. The permittee shall not cause, allow, or permit emission into the ambient air of any substance or combinations of substances in quantities that an undesirable level of odor is determined to result unless preventative measures of the type set out below are taken to abate or control the emission to the satisfaction of the Department. Should an odor problem come to the attention of the Department through field surveillance or specific complaints, the Department may determine, in accordance with section 48-1-120 of the Pollution Control Act, if the odor is at an undesirable level by considering the character and degree of injury or interference to:
 - (1) The health or welfare of the people;
 - (2) Plant, animal, freshwater aquatic, or marine life;
 - (3) Property; or
 - (4) Enjoyment of life or use of affected property.
- b. Should the Department determine that an undesirable level of odor exists, the Department may require:
 - (1) The permittee to submit a corrective action plan to address the odor problem,
 - (2) Remediation of the undesirable level of odor within a reasonable timeframe, and
 - (3) In an order, specific methods to address the problem.

- c. If the permittee fails to control or abate the odor problems addressed in this section within the specified timeframe, the Department may revoke disposal/application activities associated with the site or the specific aspect of the sludge management program.

B. Groundwater Monitoring Requirements

See Part III.C

C. Soil Monitoring Requirements

See Part III.D

D. Sludge Monitoring Requirements

1. The permittee shall develop and submit to the Department for approval a sludge disposal plan within 180 days of the effective date of this permit unless an extension has been granted by the Department (see Part IV.A.3.) Note that the proposed sludge disposal method must be approved by the Department prior to initiation.
2. Written approval from the Department must be obtained prior to disposal of other sludges/solid wastes (e.g., Grass clippings) or use of other sludge disposal methods.

E. Other Conditions

1. The wastewater treatment plant is assigned a classification of **Group IV-Biological**. This classification corresponds to an operator with a **Grade A-Biological** wastewater operator's license. Note that the land application sprayfields are considered part of the wastewater treatment plant.
2. The permittee shall maintain an all weather access road to the wastewater treatment system, land application sites, and appurtenances at all times.
3. For a monitoring and reporting (MR) requirement for metals in Part III.A, the practical quantitation limit (PQL) and analytical method stated below shall be used for reporting results.

Parameter	Analytical Method	PQL (µg/l)
Total Copper	EPA Method 200.7, 200.8, 200.9, or SM3113B	10
Total Lead	EPA Method 200.7, 200.8, 200.9, or SM3111B, SM3113B	2.0
Total Zinc	EPA Method 200.7, 200.8, 289.2 or SM3111B	10

4. The permittee shall monitor all parameters consistent with conditions established by this permit in Part III.A on the 1st Monday of every calendar month in which sampling is required, unless otherwise approved by this Department. If this day falls on a holiday, sampling shall be conducted on the next business day. If no

discharge occurs on this day, the permittee shall collect an effluent sample during the monitoring period on a day when there is a discharge. If there is no discharge during the entire monitoring period, report “no discharge” for all parameters. Additional monitoring as necessary to meet the frequency requirements of this permit shall be performed by the permittee.

5. Within 2 years of the commencement of discharge, the permittee must fully complete and submit an EPA Application Form 2C in accordance with Regulation 61-9.122.21(k)(5)(vi).
6. All waste oil and solid and hazardous waste shall be disposed of in accordance with the rules and regulations of SCDHEC's Bureau of Land and Waste Management.
7. The Department may require the permittee to limit land application on any site. The permittee shall cease operation on that site when notified in writing by the Department.
8. The permittee shall take all practicable measures to ensure that the disposal of wastewater authorized by this permit does not result in sediment and erosion control problems.
9. The permittee shall update and maintain a Best Management Practices (BMP) plan to identify and control the discharge of significant amounts of oils and the hazardous and toxic substances listed in 40 CFR Part 117 and Tables II and III of Appendix D to 40 CFR Part 122. The plan shall include a listing of all potential sources of spills or leaks of these materials, a method for containment, a description of training, inspection and security procedures, and emergency response measures to be taken in the event of a discharge to surface waters or plans and/or procedures which constitute an equivalent BMP. Sources of such discharges may include materials storage areas; in-plant transfer, process and material handling areas; loading and unloading operations; plant site runoff; and sludge and waste disposal areas. The BMP plan shall be developed in accordance with good engineering practices, shall be documented in narrative form, and shall include any necessary plot plans, drawings, or maps. The BMP plan shall be maintained at the plant site and shall be available for inspection by EPA and Department personnel.
10. Storm water and sanitary wastewater are not included in this permit.
11. All wastewater treatment facilities and the land application system shall be closed out within one hundred eighty (180) days in accordance with applicable regulations, when the facility is closed or the effluent disposal permit is inactivated, terminated or revoked, unless determined by the Department that a greater time is necessary. As a prerequisite to closure, the Department must approve the closure plan.
12. Total approved acreage for land application is up to 310 acres (excluding approximately 50 acres of the plant, wastewater treatment lagoons, and access roads.) Specific fields within the approved land application boundary may be approved by a minor permit modification. Once the locations of the land application site and the permanent facility/wastewater treatment lagoons are finalized, the permittee shall provide an updated site map with clear labeling, showing the facility, wastewater treatment plant components, specific sprayfields including backup fields with a net acreage of each area, the groundwater monitoring wells, any on-site production wells, property boundary lines and any nearby streams or surface water bodies.
13. If the permittee wants to add new land application fields from outside of the approved land application boundary, the permittee shall submit a request for a permit modification to the Department to change the approved fields and total acreage of the land application site. The following items must be included: a

topographic map of the proposed land application site, an updated site map showing the proposed fields with a net acreage and the proposed groundwater monitoring wells, proposed cover crops, and the soil boring and double ring infiltrometer test results for the proposed land application site. Note that the additional grade-out may be necessary if the slopes on the proposed spray field is over 10%.