COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

Permit No. VPA00836

Effective Date: April 1, 2013
Modified Date: February 3, 2015
Expiration Date: March 31, 2023

AUTHORIZATION TO MANAGE POLLUTANTS UNDER THE

VIRGINIA POLLUTION ABATEMENT PERMIT

AND

THE VIRGINIA STATE WATER CONTROL LAW

In compliance with the provisions of the State Water Control Law and the Permit Regulation adopted pursuant thereto, the following owner is authorized to manage pollutants in conformity with the application, plans, specifications and supporting data submitted to the Department of Environmental Quality and other conditions set forth in this permit.

Owner: **Synagro Central, LLC**
Permit Name: **10647 Tidewater Trail, Champlain, VA 22438**
Facility Name: **Synagro Central, LLC – Chesterfield County, Virginia**

The authorized pollutant management shall be in accordance with this cover page, Part I - Monitoring Requirements and Special Conditions and Part II - Conditions Applicable to All VPA Permits, as set forth herein.

Kyle I. Winter, Deputy Regional Director
Piedmont Regional Office

03 FEB 2015
Date

During the period beginning with the permit's effective date and lasting until the permit's expiration date, and in accordance with 9VAC25-32-10 et seq. and the limitations, conditions and requirements set forth in this permit, the permittee is authorized to land apply biosolids and water treatment plant (WTP) residuals in Chesterfield County and manage the pollutants in the biosolids and WTP residuals land applied under the authority of this permit.

All biosolids/WTP residuals samples shall be collected and analyzed in accordance with Title 40 of the Code of Federal Regulations, Parts 503 and 136. Analyses shall be conducted by a VELAP accredited environmental laboratory. The permittee shall ensure that all biosolids and WTP residuals land applied in Virginia through this permit are monitored in accordance with the monitoring requirements in Part I.A.; however, the monitoring may be conducted by the generator of the biosolids or WTP residuals and provided to the permittee for reporting purposes.

A. LIMITATIONS AND MONITORING REQUIREMENTS

1. BIOSOLIDS/WTP RESIDUALS

a. Metals Limitations – Pollutants in biosolids/WTP residuals that are land applied under the authority of this permit shall be monitored and limited as specified below. Biosolids shall not be applied to the land if the concentration of any pollutant in the biosolids exceeds the ceiling limitation of that pollutant.

PARAMETERS (1)	PC / CPLR LIMITATIONS	CEILING LIMITATIONS	MONITORING REQUIREMENTS	
	Monthly Average (mg/kg) (2)	Maximum (mg/kg) (2)	Frequency	Sample Type
Arsenic	41	75	Part I.A.3	Composite
Cadmium	39	85	Part I.A.3	Composite
Copper	1,500	4,300	Part I.A.3	Composite
Lead	300	840	Part I.A.3	Composite
Mercury	17	57	Part I.A.3	Composite
Molybdenum	NL (3)	75	Part I.A.3	Composite
Nickel	420	420	Part I.A.3	Composite
Selenium	100	100	Part I.A.3	Composite
Zinc	2,800	7,500	Part I.A.3	Composite
Aluminum (4)	NL	NL	1/Year	Composite

NL = No limitations, monitor and report.

(1) All constituents are subject to cumulative pollutant loading rates (CPLR), pollutant concentrations (PC), and ceiling limits. PC biosolids contain the constituents identified above at concentrations below the monthly average specified in Part I.A.1. CPLR biosolids contain the constituents identified above at concentrations above the monthly average and each sample must be below the maximum concentration specified in Part I.A.1. If the concentration of any of these constituents in biosolids from any source exceeds the monthly average concentration, then the biosolids from the source are subject to CPLR rules (Part I.A.1.b, Part I.C.3, and Part I.I.16).

(2) All limits and criteria are expressed on a dry weight basis.

(3) The monthly average concentration for molybdenum is currently under study by USEPA. Research suggests that a monthly average Molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals

(4) All residuals generated at a WTP that uses any aluminum based coagulant are subject to aluminum monitoring and the tracking of the aluminum loading at each field on which WTP residuals are applied.

b. Site Specific Metals Loading Limitations – If the concentration of any of these constituents in biosolids/WTP residuals from any source exceeds the monthly average PC in Part I.A.1.a, and each individual sample is below the ceiling concentration, then the biosolids/WTP residuals from the source are subject to CPLR rules and tracking (Part I.C.3 and Part I.I.16) and the cumulative pollutant loading at each site shall be limited by the permittee as specified below:

PARAMETERS	LIMITATIONS Maximum CPLR [1] (kg/ha) [2][3]	LIMITATIONS Maximum CPLR [1] (Lbs/Ac) [2][3]	MONITORING REQUIREMENTS Frequency	MONITORING REQUIREMENTS Sample Type
Arsenic	41	36	Each application	Calculated
Cadmium	39	35	Each application	Calculated
Copper	1,500	1,340	Each application	Calculated
Lead	300	270	Each application	Calculated
Mercury	17	16	Each application	Calculated
Molybdenum	NL[4]	NL	Each application	Calculated
Nickel	420	375	Each application	Calculated
Selenium	100	89	Each application	Calculated
Zinc	2,800	2,500	Each application	Calculated
Aluminum [5]	4,570	4,113	Each Application	Calculated

NL = No Limitations, monitor and report.

(1) The CPLR is the maximum cumulative application of trace elements that can be applied to soils used for crop production. The maximum cumulative application rate is limited for all ranges of cation exchange capacity due to soil background pH in Virginia of less than 6.5 S.U. and lack of regulatory controls of soil pH adjustment after biosolids application ceases.
(2) All limits and criteria are expressed on a dry weight basis.
(3) No person shall apply bulk biosolids subject to the CPLRs identified above to agricultural land, forest, a public contact site, or a reclamation site if any of the CPLRs identified above has been reached.
(4) The maximum cumulative application for molybdenum is currently under study by USEPA. Research suggests that for Molybdenum a cumulative pollutant loading rate below 40 kg/hectare may be appropriate to reduce the risk of copper deficiency in grazing animals.
(5) All sites that receive residuals generated at a WTP that uses any aluminum based coagulant are subject to the tracking of aluminum loading, regardless of concentration of aluminum in the residuals.

c. Pathogen Reduction Requirements – Biosolids that are land applied under this permit shall be treated to meet at least one Pathogen Reduction Alternative as identified in the table below prior to delivery to the land application site. The biosolids shall be monitored and limited in accordance with the treatment options selected and used by the generator. The permittee will have a system in place to verify that all biosolids land applied under this permit meet these pathogen reduction standards and treatment requirements.

PATHOGEN REDUCTION ALTERNATIVE	PROCESS TO SIGNIFICANTLY REDUCE PATHOGENS (PSRP) OPTION	CLASS B PATHOGEN REDUCTION TREATMENT STANDARDS	MONITORING REQUIREMENTS
1	NA	Fecal coliform monitoring: <2,000,000 MPN/gm or <2,000,000 CFU/gm, geometric mean of 7 samples (9VAC25-32-675.B.2)	Part I.A.3 (1)
2	1	PSRP: Aerobic Digestion: Sludge mean cell residence time from 40 days at 20˚C to 60 days at 15˚C (9VAC25-32-675.D.1)	(2)
2	2	PSRP: Air dry in a drying bed for three months. Ambient average daily temperature must be above 0˚C for 2 of the 3 months (9VAC25-32-675.D.2)	(2)
2	3	PSRP: Anaerobic digestion for a mean cell residence time between 15 days at 35˚C - 55˚C up to 60 days at 20˚C (9VAC25-32-675.D.3)	(2)
2	4	PSRP: Composting at 40˚C or above for 5 or more days, maintaining > 55˚C for 4 consecutive hours during the 5 days (9VAC25-32-675.D.4)	(2)
2	5	PSRP: Sufficient lime is added to the sewage sludge to raise the pH of the sewage sludge to 12 after two hours of contact (9VAC25-32-675.D.5)	(2)
3	PROCESS AS APPROVED	Process equivalent to PSRP: PROCESS AS APPROVED (9VAC25-32-675 B.4.)	(2)

NA = Not applicable

(1) Between sampling events, operating records must demonstrate that the Wastewater Treatment Plant (WWTP) is operating at a performance level known to meet pathogen reduction standards.
(2) Process monitoring must be sufficient to demonstrate compliance with PSRP treatment requirements.

d. Vector Attraction Reduction (VAR) Requirements – Biosolids that are land applied under this permit shall be treated to meet at least one VAR Option 1 - 8 as identified in the table below prior to delivery to the land application site or VAR Options 9 or 10 must be performed at the land application site. The biosolids shall be monitored and limited in accordance with the treatment options selected and used by the generator. The permittee will have a system in place to verify that all biosolids land applied under this permit meet these vector attraction reduction standards and treatment requirements.

VAR OPTION	VECTOR ATTRACTION REDUCTION TREATMENT STANDARD	MONITORING REQUIREMENTS
1	38% Reduction of volatile solids by digestion (9VAC25-32-685.B.1)	Part I.A.3. (1)
2	When 38% reduction is not achieved by anaerobic digestion, 40 day bench study at temperatures between 30°C and 37°C to demonstrate further reduction of volatile solids <17% (9VAC25-32-685.B.2)	Part I.A.3. (1)
3	When 38% reduction is not achieved by aerobic digestion, 30 day bench study at 20°C to demonstrate further reduction of volatile solids <15% (9VAC25-32-685.B.3)	Part I.A.3. (1)
4	Specific Oxygen Uptake Rate of <= 1.5 mg O_2/hour/gram total solids at 20°C (aerobically processes sludge) (9VAC25-32-685.B.4)	Part I.A.3. (1)
5	14 day aerobic process, temperatures above 40°C with an average temperature of >45°C (9VAC25-32-685.B.5)	(2)
6	Sufficient alkali is added to the sewage sludge to raise the pH of the sewage sludge to 12 S.U. or higher, and without the addition of more alkali, maintain the pH at 12 S.U. for two hours and then at 11.5 S.U. or higher for an additional 22 hours (9VAC25-32-685.B.6)	(2)
7	Where biosolids do not contain unstabilized solids from primary wastewater treatment, the percent solids of the biosolids shall be >= 75% (9VAC25-32-685.B.7)	Part I.A.3. (1)
8	Where biosolids contain unstabilized solids from primary wastewater treatment, the percent solids of the biosolids shall be >= 90% (9VAC25-32-685.B.8)	Part I.A.3. (1)
9	Sewage Sludge shall be injected below the surface of the land (9VAC25-32-685.B.9)	NA
10	Sewage sludge land applied shall be incorporated into the soil within 6 hours after application (9VAC25-32-685.B.10)	NA

NA = Not applicable

(1) Between sampling events, operating records must demonstrate that the WWTP is operating at a performance level known to meet the VAR standards.
(2) Process monitoring must be sufficient to demonstrate compliance with VAR treatment requirements.

e. Biosolids Characteristics – Biosolids/WTP residuals that are land applied under the authority of this permit shall be monitored and limited as specified below:

PARAMETERS	LIMITATIONS		MONITORING REQUIREMENTS	
	Monthly Average	Minimum and Maximum	Frequency	Sample Type
Percent Solids (%)	NL	NA	Part I.A.3.	Composite
Volatile Solids (%)	NL	NA	Part I.A.3.	Composite
Total Kjeldahl Nitrogen (mg/kg) (1)	NL	NA	Part I.A.3.	Composite
Ammonia Nitrogen (mg/kg) (1)	NL	NA	Part I.A.3.	Composite
Nitrate Nitrogen (mg/kg) (1)	NL	NA	Part I.A.3.	Composite
Total Phosphorus (mg/kg) (1)	NL	NA	Part I.A.3.	Composite
Total Potassium (mg/kg) (1)	NL	NA	Part I.A.3.	Composite
pH (S.U.)	NA	NL	Part I.A.3.	Composite
Alkalinity as $CaCO_3$ (mg/kg) (If lime by weight is less than 10%)	NL	NA	Part I.A.3.	Composite
CCE as $CaCO_3$ (%) (If lime by weight is 10% or more)	NL	NA	Part I.A.3.	Composite

NL = No limitations, monitor and report.
NA = Not applicable

(1) Expressed on a dry weight basis.

f. Biosolids Nutrient Concentrations, Application Rates, and Loadings – Nutrient application rates and total 12 month field loadings shall be calculated and reported for each source of biosolids/WTP residuals land applied and each application of biosolids/WTP residuals to an application site as follows:

PARAMETERS	LIMITATIONS				MONITORING REQUIREMENTS	
	Concentration (Lbs/Dry Ton)	Field Application Rate	12 Month Field Loading	NMP Application Rate	Frequency	Sample Type
Biosolids/Residuals (Dry/Tons/Ac)	N/A	(1)	(1)	(1)	Each application	Calculated
Plant Available Nitrogen (PAN)(Lbs/Ac)	NL	(1)	(1)	(1)	Each application	Calculated
Phosphate (P_2O_5) (Lbs/Ac)	NL	(1)	(1)	(1)	Each application	Calculated
K_2O (Lbs/Ac)	NL	(2)	(2)	(3)	(2,3)	Calculated
$CaCO_3$ (Lbs/Ac)	NL	(1)(4)	(4)	(5)	(4,5)	Calculated

NL = No Limit, monitor and report

(1) The field application rate and 12 month field loading shall not exceed the application rate specified in the nutrient management plan (NMP) for the application method used.
(2) Report the amount of K_2O provided by the biosolids/residuals and supplemental K_2O applied for each application where the soil test K is < 38 ppm Mehlich I.
(3) Report the K_2O application rate recommended in the NMP for each application where the soil test K is < 38 ppm Mehlich I.
(4) Report the amount of $CaCO_3$ provided by the biosolids/residuals and supplemental $CaCO_3$ applied for each application where the soil test pH is < 5.5 S.U.
(5) Report the $CaCO_3$ application rate recommended in the NMP for each application where the soil test pH is < 5.5 S.U.

2. SOIL – The soil within the land application area of each field that receives biosolids/WTP residuals shall be monitored by the permittee as specified below. Soil pH, available phosphorus and extractable potassium monitoring results shall be included in the monthly report.

PARAMETERS (1)	LIMITATIONS (2)(3)	MONITORING REQUIREMENTS	
		Frequency (4)	Sample Type
Soil pH (S.U.)	NL	Prior to biosolids application***	Composite
Available Phosphorus (Mehlich I - P)* (ppm)	NL	Prior to biosolids application	Composite
Extractable Potassium (Mehlich I – K)**(ppm)	NL	Prior to biosolids application	Composite
Extractable Calcium (mg/100 g)	NL	Prior to biosolids application	Composite
Extractable Magnesium (mg/100 g)	NL	Prior to biosolids application	Composite
Zinc (mg/kg)	NL	Prior to biosolids application	Composite
Manganese (mg/kg)	NA	Prior to biosolids application	Composite

NL = No Limit, monitoring required

* Available Phosphorus shall be analyzed using Mehlich I or Mehlich III analytical procedure. If sample is analyzed using Mehlich III, results shall be converted to Mehlich I for reporting purposes.

** Extractable Potassium shall be analyzed using Mehlich I analytical procedure or equivalent. If sample is analyzed using an equivalent procedure, results shall be converted to Mehlich I for reporting purposes.

*** For biosolids with a cadmium concentration greater than or equal to 21 mg/kg the soil pH sample must be less than 1 year old.

(1) Soil samples shall be collected and analyzed in accordance with regulations promulgated under § 10.1-104.2 of the Code of Virginia and as outlined in the Biosolids Management Plan (BSMP).
(2) All parameters except for pH shall be monitored on a dry weight basis.
(3) Results of the soil monitoring specified above shall be used to develop the NMP in accordance with Part I.D.2.
(4) No sample analysis used to determine application rates shall be more than 3 years old at the time of the biosolids land application.

3. FREQUENCY OF MONITORING – The frequency of monitoring for each biosolids source is based on the amount of bulk biosolids from that source applied to the land, as indicated in the table below:

Amount of biosolids land applied (dry tons per 365-day period)	Frequency
Greater than zero but less than 320	Once per year
Equal to or greater than 320 but less than 1,653	Once per quarter (four times per year)
Equal to or greater than 1,653 but less than 16,535	Once per 60 days (six times per year)
Equal to or greater than 16,535	Once per month (12 times per year)

WTP residuals shall be monitored once per year.

B. REPORTING REQUIREMENTS AND LAND APPLICATION FEES

1. Monthly Reporting – The permittee shall submit the biosolids/WTP residuals monitoring data, the generator notice and necessary information (NANI), and monthly land application activity to the Department of Environmental Quality (DEQ) –Piedmont Regional Office and a copy of the report to the DEQ – Office of Land Application Programs (OLAP) by the 15th day of each month (as evidenced by the transmission date or postmark), for land application activities that occurred in the previous calendar month. If the report is submitted electronically, then the sender must include the attestation statement in Part I.B.1.d that the transmitted documents are being submitted under his/her signature.

   If no land application occurs under this permit during a calendar month, a report shall be submitted stating that no land application occurred.

   a. Biosolids/WTP Residuals Monitoring Data – The following data shall be submitted with the monthly report for all biosolids/WTP residuals land applied during the previous month:
      (1) The facility name and Virginia Pollution Discharge Elimination System (VPDES) permit number for all in-state sources of biosolids/WTP residuals and National Pollution Discharge Elimination System (NPDES) or state permit number for out-of-state sources of land applied during the previous month;
      (2) The amount of biosolids/WTP residuals from each source land applied on each field daily, in gallons or wet tons, and dry tons;
      (3) The results of the monitoring specified in:
         (a) Part I.A.1.a Biosolids/WTP Residuals – Metals Limitations;
         (b) Part I.A.1.b Biosolids/WTP Residuals – Site Specific Metals Loading Limitations;
         (c) Part I.A.1.e Biosolids/WTP Residuals – Biosolids Characteristics;
         (d) Part I.A.1.f Biosolids/WTP Residuals - Nutrient Concentrations, Application Rates, and Loadings; and
         (e) Part I.A.2. Soil – Soil pH, available phosphorus and extractable potassium.
      (4) Monitoring data required by Part I.B.1.a.(3)(a) – (e) shall be submitted in the format provided in the Biosolids/Residuals Monitoring Report. Supporting documentation, including laboratory chain of custody forms and certificates of analyses, shall be submitted with the report;
      (5) Monthly average shall be reported as the average of the results of all samples collected within a calendar month and analyzed using an approved method, in accordance with Part II.C.3-4 of this permit. For monitoring periods which include multiple months, if one sample is collected during the monitoring period, that result shall be reported as the monthly average. If samples are collected in different months during the monitoring period, a monthly average shall be calculated for each month in which samples were collected during the monitoring period and the highest monthly average reported. Individual results and calculations shall be submitted with the report; and
      (6) The maximum concentration shall be reported as the highest single result from all samples collected and analyzed during a monitoring period.
   b. Generator NANI – In accordance with 9VAC25-32-313.G and 9VAC25-31-530.F, when the permittee receives biosolids from a generator, the permittee shall obtain a NANI from the generator and submit the NANIs received with the next monthly report, but no later than 45 days after the last day of the month in which biosolids were received. The NANI shall be on the form included with this permit and include at minimum:
      (1) A statement that Class B pathogen requirements in 9VAC25-32-675.B were met and the alternative used;
      (2) A statement that one of the VAR requirements in 9VAC25-32-685.B.1 through B.8 was met and the alternative used; or
      (3) A statement that one of the VAR requirements in 9VAC25-32-685.B.1 through B.8 was not met and incorporation or injection was required;
      (4) The notice(s) provided to the land applier when biosolids provided did not meet VAR and required incorporation or injection;
      (5) The following certification statement:
         "I certify, under penalty of law, that the information that will be used to determine compliance with the Class B pathogen requirements in 9VAC25-32-675.B and the VAR requirement in (insert one of the VAR requirements in 9VAC25-32-685.B.1 through B.8, if one of those requirements is met) was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification, including the possibility of fine and imprisonment".
   c. Monthly Land Application Activity – The following items shall be submitted in the format provided in the Biosolids/Residuals Monitoring Report for all biosolids/WTP residuals land applied during the previous month:
      (1) Name of Permittee and DEQ permit number;
      (2) Dates of activities;

(3) Identification of land application site(s), including the DEQ Control Identification (ID) for the site(s);
(4) The source of biosolids/WTP residuals and field area (reported to the nearest 0.1 acres) receiving those biosolids;
(5) The amount of biosolids/ WTP residuals applied in dry tons and the method and calculations used to determine the reported value. Dry ton values for individual applications shall be reported to the nearest 0.01 dry tons. The grand total of all biosolids land applied during the reporting period may be rounded up to the nearest whole ton;
(6) WTP Residuals Loading - for each application of WTP Residuals to an application site, the concentration of aluminum (as pounds per dry ton) in the WTP Residuals and the amount of aluminum (as pounds per acre) applied to the site from the WTP Residuals;
(7) The calculation of the total fee required in Part I.B.2;
(8) A summary list of the total amount of biosolids/WTP residuals applied and the calculated fee itemized by County;
(9) The Certified Land Applicator(s) signed statement(s) as required per Part I.J.8.d.
(10) The name of a responsible official or authorized representative of the permittee and a statement signed and dated by that responsible official or authorized representative indicating that the information submitted has been verified by that responsible official or authorized representative as correctly reported, in accordance with the Part II.K.

d. Electronic Submittal Attestation Statement – When submitting a report via email, the following statement shall be included in the email.

I, <u>representative official's or authorized representative's name</u>, hereby declare that I am submitting the attached documents under my signature for the purposes of compliance with the reporting requirements of VPA Permit number VPA00836. With the transmission of this email, I attest that the above statement is true and valid to the best of my knowledge.

2. Biosolids Land Application Fee – The permittee shall collect from the generator of Class B biosolids and remit to the DEQ a fee of $7.50 per dry ton of biosolids land applied in the Commonwealth of Virginia. Billing and payment procedures are as follows:
   a. Upon reviewing the Monthly Biosolids Activity Report, DEQ will bill the Permittee for the fee that is due. Payment is due 30 days after receipt of the bill from DEQ.
   b. The permittee shall collect this fee from the facilities that generated the biosolids applied.
   c. The check or money order shall be payable to the "Treasurer of Virginia", and mailed with the invoice to:

      Department of Environmental Quality
      Receipts Control
      P.O. Box 1104
      Richmond, VA 23218

   Failure to submit payment by the due date may result in the permit being revoked or approved sources being reclassified as unapproved. This permit shall not be reissued, administratively continued or modified without full payment of any past due fee.

3. Annual Report – The permittee shall submit an Annual Report not later than February 19th of each year to the DEQ–Piedmont Regional Office. Each report is for the previous calendar year's activity. If no land application occurs under this permit during the previous calendar year, a report shall be submitted stating that no land application occurred. The report shall include at minimum:
   a. A summary of biosolids/WTP residuals disposal contracts currently held with generators, as well as any other biosolids or sludges currently being handled through subcontracts or other agreements;
   b. A summary of approved biosolids storage facilities including the capacity at each facility which is dedicated for a particular biosolids and the amount of remaining storage capacity;
   c. The total acreage of permitted land application sites available for use in the next calendar year; and
   d. Monitoring and testing data or process control data that demonstrate compliance with pathogen reduction and VAR requirements for out of state sources of biosolids land applied during the previous calendar year.
   e. Any biosolids/WTP residuals monitoring data required by Part I.A that were not submitted during the reporting calendar year.
   f. The annual report shall be certified and signed in accordance with Part II.K.

C. RECORD KEEPING REQUIREMENTS

1. Records Retention – The permittee shall retain records of all biosolids, WTP residuals and land application activity for a period of at least 5 years from the date of the sample, measurement, report or application, unless otherwise specified in

this permit. This period of retention may be extended by request of the Board at any time. Records to be retained include:

a. Monitoring information required in Part I.A;
b. Reports required in Part I.B;
c. Records required below in Part I.C.2 – Part I.C.3;
d. Site Operator Notification and Information as required in Part I.E.6;
e. Certified Land Applicator Field Log as required in Part I.J.8.c; and
f. Any other information pertaining to biosolids, WTP residuals and land application, including all calibration and maintenance records, as well as records of all data used to complete the application for this permit.

2. Class B/PC Biosolids Record Keeping – Records shall include:
   a. A description of how the management practices in 9VAC25-32-560 are met on each site on which bulk biosolids is applied;
   b. A description of how the site restrictions in 9VAC25-32-675.B.5 are met for each site on which bulk biosolids is applied;
   c. A description of how the VAR requirement is met if incorporation or injection are used to meet VAR;
   d. The date bulk biosolids is applied to each site; and
   e. The following certification statement:
   "I certify, under penalty of law, that the information that will be used to determine compliance with the management practices in 9VAC25-32-560, the site restrictions in 9VAC25-32-675.B.5, and the VAR requirements in (insert either 9VAC25-32-685.B.9 or B.10, if one of those requirements is met) was prepared for each site on which bulk biosolids is applied under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."

3. Class B/CPLR Biosolids and CPLR WTP Residuals Record Keeping – For sites where CPLR biosolids/WTP residuals are land applied the permittee shall develop the following information and retain the information in subsections Part I.C.3.a through Part I.C.3.f indefinitely and retain the information in subsections Part I.C.3.g through Part I.C.3.m for 5 years.
   a. The DEQ Control ID of each site on which bulk biosolids is applied;
   b. The number of acres in each site on which bulk biosolids is applied;
   c. The date bulk biosolids are applied to each site;
   d. The cumulative amount of each pollutant (i.e., kilograms) listed in Table 2 of 9VAC25-32-356 in the bulk biosolids applied to each site, including the amount in 9VAC25-32-313.F.2;
   e. The amount of biosolids (i.e., dry tons) applied to each site;
   f. The following certification statement:
   "I certify, under penalty of law, that the information that will be used to determine compliance with the requirements to obtain information in 9VAC25-32-313.F.2 was prepared for each site on which bulk biosolids is applied under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including fine and imprisonment."
   g. A description of how the requirements to obtain information in 9VAC25-32-313.F.2 are met;
   h. The following certification statement:
   "I certify, under penalty of law, that the information that will be used to determine compliance with the management practices in 9VAC25-32-313.B and 9VAC25-32-560 was prepared for each site on which bulk biosolids is applied under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including fine and imprisonment.";
   i. A description of how the management practices in 9VAC25-32-560 are met for each site on which bulk biosolids is applied;
   j. The following certification statement when the bulk biosolids meet the Class B pathogen requirements in 9VAC25-32-675.B:
   "I certify, under penalty of law, that the information that will be used to determine compliance with the site restrictions in 9VAC25-32-675.B.5 was prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including fines and imprisonment."
   k. A description of how the site restrictions in 9VAC25-32-675.B.5 are met for each site on which Class B bulk biosolids is applied;
   l. The following certification statement when the VAR requirement in either 9VAC25-32-685.B.9 or B.10 is met:

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

m. If the VAR requirements in either 9VAC25-32-685.B.9 or B.10 are met, a description of how the requirements are met.

D. BIOSOLIDS MANAGEMENT PLAN (BSMP)

1. BSMP – The permittee shall implement and maintain a BSMP which consists of the following components:
   a. The materials, including site booklets, developed and submitted at the time of permit application or permit modification to add a farm or land application site to the permit in accordance with 9VAC25-32-60.F;
   b. A NMP developed for each site prior to biosolids/WTP residuals application;
   c. The Operations and Maintenance (O&M) Manual; and
   d. The Odor Control Plans.

   The BSMP and all of its components are an enforceable part of the permit.

2. NMP Requirement – A NMP shall be developed for each land application site prior to biosolids/WTP residuals application. A copy of the NMP shall be present at the land application site during land application operations and available for review by DEQ staff. A copy of the NMP shall be submitted to the DEQ–Piedmont Regional Office upon request. Within 30 days after land application at the site has commenced, the permittee shall provide a copy of the NMP to the farm operator of the site, the Department of Conservation and Recreation (DCR) and the chief executive officer or designee for the local government where land application of biosolids/WTP residuals is to occur, unless they request in writing not to receive the NMP.

   The NMP shall be prepared or revised by a certified nutrient management planner as stipulated in 4VAC5-15-10 et seq. The NMP shall be written in accordance with the criteria stipulated in 4VAC5-15-10 et seq.

   The NMP must be approved by DCR prior to land application for application sites where the soil test phosphorus levels exceed the values in the table below. For purposes of approval, permittees should submit the NMP to DCR at least 30 days prior to the anticipated date of land application to ensure adequate time for the approval process.

Soil Phosphorus Levels Requiring NMP Approval	
REGION	SOIL TEST P (ppm) (Mehlich I - VPI & SU Test)*
Eastern Shore and Lower Coastal Plain	135
Middle and Upper Coastal Plain and Piedmont	136
Ridge and Valley	162
*If results are from another laboratory, DCR approved conversion factors must be used.	

   All NMPs shall account for all sources of nutrients to be applied to the site. If the application rate has been determined using the phosphorus index and that rate is dependent upon setback distance to stream or riparian buffer width greater than the required setback distance in Part I.I.13.a., the phosphorus index calculations shall be included in the NMP. The extended setback distance required by the NMP shall be an enforceable part of the permit.

   Where the following conditions exist, permit modification requests shall include an NMP that has been approved by the DCR and a copy of the approval letter:
   a. The proposed site is operated by an owner or lessee of a confined animal feeding operation or a confined poultry feeding operation, as defined in subsections A of §62.1-44.17:1 and 62.1-44.17:1:1 of the Code of Virginia;
   b. The land application of biosolids is to be performed more frequently than once every three years at greater than 50% of the annual agronomic rate;
   c. Mined or disturbed land sites where land application is proposed at greater than agronomic rates; or
   d. The site-specific conditions increase the risk that land application may adversely impact state waters.

When conditions at the land application site change so that it meets one or more of the specific conditions identified in Part I.D.2.a – 2.d, an approved NMP shall be submitted prior to any subsequent land application at the site.

3. O&M Manual Requirement – If an up-to-date O&M Manual is not on file at DEQ, an updated O&M Manual shall be submitted to DEQ within 90 days of the modification date of this permit. The permittee shall conduct all biosolids/WTP residuals use or disposal activities in accordance with the O&M Manual. Any proposed changes in biosolids/WTP residuals use or disposal practices or procedures followed by the permittee shall be documented and submitted to DEQ within 90 days of the effective date of the changes. The O&M Manual shall include at a minimum:
   a. A copy of the permit;
   b. Spill response, remediation and reporting procedures for offsite spills, including telephone numbers for immediate reporting to the DEQ–Piedmont Regional Office;
   c. Staff responsibilities on the land application site, including duties of the certified land applier in charge and procedures to be followed if he must leave the site;
   d. Schedules, procedures, and recordkeeping instructions for equipment maintenance and calibration;
   e. Voucher system forms and recordkeeping instructions;
   f. Schedules, procedures, and recordkeeping instructions for storage facility maintenance;
   g. Sampling schedules for:
      (1) Required monitoring, including a list of required minimum tests; and
      (2) Operational control testing;
   h. Sample collection, preservation, and analysis procedures, including selection of sample locations, and laboratories and methods used; and
   i. Instructions for recording and reporting of all monitoring activities;
   j. Instructions for maintaining the Certified Land Applier's Operator Field Log and minimum information to record, including:
      (1) Site location,
      (2) Date, arrival and departure times,
      (3) The names of any inspectors or visitors to the site;
      (4) Complaints received; and
      (5) Any unusual condition or event, such as unusual odor, spill, accident, etc.

4. Odor Control Plan (OCP) Requirement – If an OCP for the Permittee or any generator of biosolids identified in the permit application or currently authorized to be land applied under this permit is not on file at DEQ, an OCP shall be submitted to DEQ–Piedmont Regional Office and DEQ–OLAP within 90 days of the modification/effective date of this permit.
   a. Land Applier OCP shall include at a minimum:
      (1) Methods used to identify and abate malodorous biosolids in the field prior to land application; and
      (2) Methods used to abate malodorous biosolids if land applied.
      (3) Procedures for informing the generator of odor issues and complaints;
   b. Each generating facility's OCP shall include at a minimum:
      (1) Methods used to minimize odor in producing biosolids;
      (2) Methods used to identify malodorous biosolids before delivery to the land applier (at the generating facility);
      (3) Methods used to identify and abate malodorous biosolids if delivered to the field, prior to land application;
      (4) Methods used to abate malodor from biosolids if land applied; and
      (5) Generator's contact information for reporting odor issues and complaints.

5. Permittee Source List – Biosolids/WTP Residuals.
   a. For a source that is identified as approved on the DEQ Source List, but not identified in the Permittee's BSMP, at least 30 days prior to the staging, storage or land application of any such biosolids/WTP residuals, the permittee shall submit to the DEQ–Piedmont Regional Office and DEQ–OLAP:
      (1) An amended Permittee Source List identifying all biosolids/WTP residuals sources, including the generator's legal name and VPDES, NPDES or state permit number, facility location and source of biosolids/WTP residuals; and
      (2) The biosolids generator's OCP, if not on file at DEQ.
   b. For a source that is not approved on the DEQ Sources List, the permittee shall submit the following to the DEQ–OLAP, and the source shall be approved prior to the staging, storage or land application of any such biosolids/WTP residuals:
      (1) VPA Permit Application Form D-IV, Biosolids Characterization;
      (2) VPA Permit Application Form D-V, Non-Hazardous Declaration, completed and signed by the generator;
      (3) VPA Permit Application Form C, Industrial Sludge Characterization;

(4) Monitoring data or process control data as needed to demonstrate compliance with pathogen reduction and vector attraction reduction standards.
(5) The biosolids generator's OCP.

c. The amended Permittee Source List will become part of the BSMP.

E. NOTIFICATIONS

1. 100 Day Notification – At least 100 days prior to commencing the first land application of biosolids at a permitted site, the permittee shall deliver or cause to be delivered written notification to the chief executive officer or designee for the local government where the site is located. This requirement may be satisfied by DEQ's notice to the local government at the time of receiving the permit application if all necessary information is included in the notice or by providing a list of available permitted sites in the locality at least 100 days prior to commencing the application at any site on the list. If the site is located in more than one county, the information shall be provided to all jurisdictions where the site is located.

2. 14 Day Notification – At least 14 days prior to commencing land application of biosolids/WTP residuals at a permitted site, the permittee shall deliver or cause to be delivered written notification to DEQ and the chief executive officer or designee for the local government where the site is located unless they request in writing not to receive the notice. The notice shall identify the location of the permitted site and the expected sources of the biosolids/WTP residuals to be applied to the site.

3. Sign Posting – At least five business days prior to delivery of biosolids for land application on any site permitted for application under this permit, the permittee shall post signs at the site that comply with this section, are visible and legible from the public right-of-way in both directions of travel, and conform to the specifications herein. The sign shall remain in place and be maintained by the permittee for at least five business days after land application has been completed at the site, and the permittee shall not remove the signs until at least 30 days after land application has been completed at the site.

   The sign shall be posted at or near the intersection of the public right-of-way and the main site access road or driveway to the site used by the biosolids transport vehicles. In addition, if the field is located adjacent to a public right-of-way, at least one sign shall be posted along each public road frontage beside the field to which biosolids are to be land applied.

   The sign shall be made of weather-resistant materials and shall be sturdily mounted so as to be capable of remaining in place and legible throughout the period that the sign is required at the site. Signs required by this section shall be temporary, nonilluminated, and four square feet or more in area, and only contain the following information:
   a. A statement that biosolids are being land-applied at the site;
   b. The name of the permittee;
   c. The telephone number of an individual designated by the permittee to respond to complaints and inquiries; and
   d. Contact information for DEQ, including a telephone number for complaints and inquiries.

   From the time of posting until five business days after land application has been completed, the permittee shall make a good faith effort to replace or repair any sign that has been removed from a land application site or that has been damaged so as to render any of its required information illegible.

4. Notification of Sign Posting – Not more than 24 hours after posting signs at the land application site as required in Part I.E.3, the permittee shall deliver or cause to be delivered written notification to DEQ–Piedmont Regional Office and the chief executive officer or designee for the local government where the site is located, unless they request in writing not to receive the notice. Notice shall include the following:
   a. The name of the permittee, the name of a representative of the permittee knowledgeable about the permit and the telephone number of the permittee;
   b. The location where the land application will take place, including the tax map number and the DEQ Control ID for sites on which land application is to take place;
   c. The name or title and telephone number of at least one individual designated by the permittee to respond to questions and complaints related to the land application project, if not the permittee identified in Part I.E.4.a;
   d. The approximate dates on which land application is to begin and end at the site; and
   e. The name, address and telephone number of the wastewater treatment facility, or facilities, from which the biosolids will originate, including the name or title of a representative of the treatment facility that is knowledgeable about the land application operation.

5. 24 Hour Notification – Not more than 24 hours prior to commencing land application activities, including delivery of biosolids at a permitted site, the permittee shall notify in writing DEQ and the chief executive officer or designee for the local government where the site is located, unless they request in writing not to receive the notice. This notification shall include identification of the biosolids/WTP residuals source and shall include only sites where land application activities will commence within 24 hours or where biosolids will be staged within 24 hours.

6. Site Operator Notification and Information – The permittee shall provide to the operator of the land application site that receives biosolids notification and information as required by 9VAC25-32-313.I. The notification shall include at minimum:
   a. A statement that biosolids land applied meet Class B pathogen reduction; and
      (1) VAR requirements 1 through 8; or
      (2) VAR requirements 9 or 10, requiring incorporation or injection;
   b. A statement that metals concentrations in the biosolids applied to the site were below the pollution concentration or that they are CPLR biosolids and loading will be tracked;
   c. When the biosolids molybdenum concentration is 40 mg/kg or higher, a notice which includes the molybdenum concentration and a statement that research suggests that a monthly average molybdenum concentration below 40 mg/kg may be appropriate to reduce the risk of copper deficiency in grazing animals; and
   d. The list of site access restrictions required for Class B biosolids.

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

F. TRANSPORT

1. Transport routes should follow primary highways, shall avoid residential areas when possible, and shall comply with all Virginia Department of Transportation requirements and standards.

2. Transport vehicles shall be sufficiently sealed to prevent leakage and spillage of biosolids/WTP residuals. For biosolids/WTP residuals with a solids content of less than 15%, totally closed watertight transport vehicles with rigid tops shall be provided to prevent spillage unless adequate justification is provided to DEQ demonstrating that such controls are unnecessary prior to transport. DEQ may also require certain dewatered biosolids/WTP residuals exceeding 15% solids content to be handled as liquid biosolids/WTP residuals.

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

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

5. The permittee shall promptly report offsite spills to DEQ, the chief executive officer or designee for the local government jurisdiction in which the spill occurred and the owner of the facility generating the biosolids/WTP residuals. The report shall be made verbally as soon as possible, but no later than 24 hours after the discovery of the spill. After business hours notification may be provided by voicemail, facsimile or email.
   A written report, which shall include a description of measures taken in response to the spill, shall be submitted by the permittee to DEQ, the chief executive officer or designee for the local government and the owner of the facility generating the biosolids/WTP residuals within five working days of the spill. The report may be sent by first class mail, facsimile or email, or it may be hand delivered.

G. STAGING

Biosolids may be staged in preparation for commencing land application or during an ongoing application. Biosolids shall be staged within the land application area of the permitted field or an adjacent permitted field. Staging is not considered storage and shall not take the place of storage.

1. Staging of biosolids shall not commence unless the field meets the requirements for land application in accordance with Part IX of 9VAC25-32 and field conditions are favorable for land application.

2. Biosolids may be staged for up to seven days, including the first day biosolids are offloaded onto the staging area, with the following exceptions. Biosolids shall be land applied by the end of the business day when offloaded at a permitted land application field:
   a. In areas of Karst topography;
   b. In areas identified in the U.S. Department of Agriculture - Natural Resources Conservation Service (USDA-NRCS) soil survey as frequently flooded; or
   c. On sites that have on-site storage.

3. If staged biosolids cannot be spread by the end of the seventh day of staging, the permittee shall take the following actions:
   a. Biosolids shall be covered to prevent contact with precipitation;
   b. The permittee shall notify DEQ in writing within 24-hours of determining that the biosolids will not be spread by the end of day 7, and no later than the close of business on Day 7. Notification shall include the biosolids source or sources and amounts, location of the site and reason for staging biosolids longer than seven days; and
   c. Biosolids which have been staged for greater than seven days shall be spread or removed from the field as soon as field conditions that prohibit access to the field by loaders and spreaders no longer exist.

4. Staging shall be limited to the amount of biosolids specified in the NMP to be applied at the intended field.

5. Biosolids will be staged within the land application area of the field in which the biosolids will be applied or in a permitted field adjacent to the subject field, in a location selected to prevent runoff to waterways and drainage ditches.

6. Biosolids shall not be staged in the setback areas.

7. Biosolids shall not be staged overnight within 400 feet of an occupied dwelling unless the setback is reduced or waived with the written consent of the dwelling occupant and landowner.

8. Biosolids shall not be staged overnight within 200 feet of a property line unless the setback is reduced or waived with the written consent of the landowner.

9. Management practices, as described in the BSMP, shall be utilized as appropriate to prevent pollution of state waters by staged biosolids.

10. Staged biosolids are to be inspected by the certified land applier daily. After precipitation events of 0.1 inches or greater inspections shall ensure that runoff controls are in good working order. Observed excessive slumping, erosion, or movement of biosolids is to be corrected within 24 hours. Any ponding at the site is to be eliminated and any malodor shall be addressed in accordance with the OCP. The certified land applier shall maintain documentation of the inspections of staged biosolids.

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

H. ON-SITE STORAGE

1. On-site Storage – Biosolids may be stored for up to 45 days on a constructed surface at a location preapproved by DEQ. These stored biosolids shall be applied only to sites under the operational control of the same owner or operator of the site where the on-site storage is located.

2. Operational requirements for on-site storage include the following:
   a. The certified land applier shall notify DEQ within the same working day whenever it is necessary to implement on-site storage. Notification shall include the source(s), location, and amount(s) of biosolids to be stored;

b. Storage shall be limited to the amount of biosolids specified in the NMP to be applied at sites under the operational control of the same owner or operator of the site where the on-site storage is located;
c. If malodors related to the stored biosolids are verified by DEQ at any occupied dwelling on surrounding property, the problem shall be corrected within 48 hours following DEQ's notification to the permittee, or the biosolids must be removed from the storage site;
d. All biosolids stored on the on-site storage pad shall be land applied by the 45th day, including the first day of on-site storage;
e. Best management practices shall be utilized as appropriate to prevent contact of the biosolids with storm water run on or runoff;
f. The certified land applier shall inspect the stored biosolids at least every seven days and after precipitation events of 0.1 inches or greater to ensure that runoff controls are in good working order. The certified land applier shall maintain documentation of inspections of stored biosolids;
g. Observed excessive slumping, erosion, or movement of biosolids is to be corrected within 24 hours. Any ponding or malodor at the storage site is to be eliminated and any malodor shall be addressed in accordance with the OCP. The certified land applier shall maintain documentation of the conditions observed and the corrective actions taken;
h. Storage of biosolids shall be managed so as to prevent adverse impacts to water quality public or health.

3. Construction requirements for on-site storage include the following:
   a. Existing on-site storage shall comply with the requirements of this section by September 1, 2014;
   b. An on-site storage "pad" shall be constructed within a site approved for land application;
   c. On-site storage shall be located to provide minimum visibility of the biosolids from adjacent properties;
   d. The surface shall be constructed with sufficient strength to support operational equipment and with a maximum permeability of 10^{-7} cm/sec;
   e. In areas of Karst topography and environmentally sensitive sites, on-site storage may be prohibited or require additional restrictions.

I. FIELD OPERATIONS

1. Infrequent Application – If biosolids are applied to a field only once in a three-year period, biosolids may be applied such that the total crop needs for nitrogen is not exceeded during a one-year crop rotation period including the production and harvesting of two crops in succession within a consecutive 12-month growing season.

   The NMP shall account for all sources of nutrients applied to the site, including existing residuals from prior nutrient applications.

   An infrequent application at full agronomic rate will be restricted to provide no more than 10% of the CPLR for cadmium and lead in Part I.A.1.b per application.

2. Depth to Bedrock or Restrictive Layers – Biosolids/WTP residuals shall not be land applied where the depth from the ground surface to bedrock or restrictive layers is less than 18 inches.

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

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

b. Soil pH < 5.5 S.U. – When soil test pH is less than 5.5 S.U. the land shall be supplemented with lime at the recommended agronomic rate prior to or during biosolids/WTP residuals application if the biosolids/WTP residuals to be land applied have not been alkaline stabilized.

5. Soil Potassium < 38 ppm – When soil test potassium levels are less than 38 parts per million (Mehlich I analytical procedure or equivalent) the land shall be supplemented with potash at the recommended agronomic rate prior to or during biosolids/WTP residuals application.

6. Equipment Calibration – Application equipment shall be routinely calibrated as described in the BSMP.

7. Liquid biosolids/WTP residuals – Liquid biosolids/WTP residuals shall not be applied at rates exceeding 14,000 gallons per acre, per application. Sufficient drying times shall be allowed between subsequent applications. Application vehicles shall be designed for use on agricultural land.

8. Grass Height – Pasture and hay fields shall be grazed or clipped prior to land application, such that forage height is approximately six inches at the time of biosolids application.

9. Uniform Application – Biosolids/WTP residuals shall be applied such that uniform application is achieved. If application methods do not result in a uniform distribution of biosolids/WTP residuals, additional operational methods shall be employed following application such as dragging with a pasture harrow, followed by clipping if required, to achieve a uniform distribution of the applied biosolids/WTP residuals.

10. Odor Control by Incorporation – Surface incorporation may be required on cropland by DEQ, or the local monitor with approval of DEQ, to mitigate malodors when incorporation is practicable and compatible with a soil conservation plan or contract meeting the standards and specifications of the USDA-NRCS.

11. Slope Restrictions – Biosolids/WTP residuals application timing and slope restrictions shall conform to criteria contained in regulations promulgated pursuant to § 10.1-104.2 of the Code of Virginia. Biosolids/WTP residuals shall not be applied to site slopes exceeding 15%, except where a specific slope was identified in the BSMP and the slope has been approved by DEQ to receive biosolids/WTP residuals.

12. Snow Covered Ground – Biosolids/WTP residuals may only be applied to snow-covered ground if the snow cover does not exceed one inch and the snow and biosolids/WTP residuals are incorporated within 24 hours of application. If snow melts during biosolids/WTP residuals application, incorporation is not necessary.

13. Setbacks
    a. The land application of biosolids/WTP residuals shall not occur within the following minimum setback distance requirements:

MINIMUM SETBACK DISTANCE REQUIREMENTS (1)	
Adjacent Feature	Minimum Setback Distance (Feet) to Land Application Area
Occupied dwelling	200 (2), (3), (4)
Odor sensitive receptors (without injection or same day incorporation)	400 (4)
Odor sensitive receptors (with injection or same day incorporation)	200
Property lines	100 (3), (5)
Property lines of publicly accessible sites (6)	200
Water supply wells or springs	100
Public water supply reservoirs	400
All segments of streams and tributaries designated as a Public Water Supply under the Board's Water Quality Standards	100
Surface waters without a vegetated buffer	100

Surface waters with a 35-foot vegetated buffer	35
Agricultural drainage ditches	10
All improved roadways	10
Rock outcrops	25
Open sinkholes	100
Limestone rock outcrops and closed sinkholes (7)	50

(1) In cases where more than one setback distance is involved, the most restrictive distance governs.
(2) The setback distance to occupied dwellings may be reduced or waived with the written consent of the occupant and landowner of the dwelling.
(3) DEQ shall grant to any landowner or resident in the vicinity of a biosolids land application site an extended setback of up to 200 feet from their property line and up to 400 feet from their occupied dwelling upon request from their physician based on medical reasons. In order for an extended setback request to be granted, the request must be submitted to DEQ in writing on a form provided by DEQ. A request must be received by DEQ no later than 48 hours before land application commences on the field affected by the extended setback, and communicated by DEQ staff to the permittee no later than 24 hours before land application commences on the field affected by the extended setback. DEQ may extend a setback distance within 48 hours of land application if requested by the Virginia Department of Health in connection with the landowner or resident's physician.
(4) Setback distances may be extended beyond 400 feet where an evaluation by the Virginia Department of Health determines that a setback in excess of 400 feet is necessary to prevent specific and immediate injury to the health of an individual.
(5) The setback distance to property lines may be reduced or waived upon written consent of the landowner.
(6) Publicly accessible sites are open to the general public and routinely accommodate pedestrians and include, but are not limited to, schools, churches, hospitals, parks, nature trails, businesses open to the public and sidewalks. Temporary structures, public roads or similar thoroughfares are not considered publicly accessible.
(7) A closed sinkhole does not have an open conduit to groundwater. The setback from a closed sinkhole may be reduced or waived by DEQ upon evaluation by a professional soil scientist.

b. Increased setback distances may be required based on site specific features, such as agricultural drainage features and site slopes.
c. Waivers from adjacent property residents and landowners may only be used to reduce setback distances from occupied private residences and property lines. The setback from an odor sensitive receptor or a publicly accessible site may not be waived.
d. Voluntary extensions of setback distances – If a permittee negotiates a voluntary agreement with a landowner or resident to extend setback distances or add other more restrictive criteria than required by this regulation, the permittee shall document the agreement in writing and provide the agreement to the DEQ–Piedmont Regional Office. Voluntary setback increases or other management criteria will not become an enforceable part of the land application permit unless the permittee modifies the BSMP to include the additional restriction.

14. Site Access Restrictions

TIME RESTRICTIONS FOLLOWING COMPLETION OF BIOSOLIDS APPLICATION ASSOCIATED WITH CLASS B PATHOGEN REDUCTION		
	Type of Application	
	Surface (1)	Injection or Incorporation (2)
Control of access to sites with high potential for public contact	12 months	12 months
Control of access to sites with low potential for public contact	30 days	30 days
Time lapse required before above ground food crops with harvested parts that touch the biosolids/soil mixture can be harvested	14 months	14 months

Time lapse before food crops with harvested parts below the land surface can be harvested	20 months	38 months
Harvesting food crops, feed crops and fiber crops	30 days	30 days
Harvesting feed crops for lactating dairy animals	60 days	60 days
Grazing by farm animals	30 days	30 days
Grazing by lactating dairy animals	60 days	60 days
Harvesting turf for placement on land with a high potential for public exposure or a lawn	12 months	12 months
(1) Remains on land surface for four months or longer prior to incorporation. (2) Remains on land surface for less than four months prior to incorporation.		

15. Forestland (Silviculture)
    a. The soil pH shall be managed at the natural soil pH for the types of trees growing in the area to which biosolids/WTP residuals are to be applied;
    b. The soil test potassium level is not required to be at a minimum level at the time of biosolids application on silviculture sites;
    c. Biosolids/WTP residuals application rates shall be in accordance with the BSMP, which shall include information provided by the Virginia Department of Forestry;
    d. High pressure spray shall not be utilized if public activity is occurring within 1,500 feet downwind of the application site;
    e. Biosolids/WTP residuals application vehicles shall have adequate ground clearance to be suitable for silvicultural field use;
    f. Application scheduling included in the BSMP shall take into account rainfall and periods of freezing conditions; and
    g. Monitoring requirements shall be site specific and may include groundwater, surface water or soils, for frequent application sites.

16. CPLR Biosolids
    a. Before bulk biosolids subject to the CPLRs in Part I.A.1.b are applied to the land, the person who proposes to apply the bulk biosolids shall contact DEQ to determine whether bulk biosolids subject to the CPLRs in 9VAC25-32-356 [Table 3] have been applied to the site since July 20, 1993.
        (1) If bulk biosolids subject to the CPLRs in 9VAC25-32-356 has not been applied to the site since July 20, 1993, the cumulative amount of each pollutant listed in Part I.A.1.b may be applied to the site, in accordance with the limits in Part I.A.1.b.
        (2) If bulk biosolids subject to the CPLRs in 9VAC25-32-356 has been applied to the site since July 20, 1993, and the cumulative amount of each pollutant applied to the site in the bulk biosolids since that date is known, the cumulative amount of each pollutant applied to the site shall be used to determine the additional amount of each pollutant that can be applied to the site in accordance with the limits in Part I.A.1.b.
        (3) If bulk biosolids subject to the CPLRs in 9VAC25-31-356 has been applied to the site since July 20, 1993, and the cumulative amount of each pollutant applied to the site in the bulk biosolids since that date is not known, no additional biosolids containing the pollutants listed in Part I.A.1.b shall be applied to the site.
    b. Any person who proposes to apply bulk biosolids subject to the CPLRs in Part I.A.1.b to the land shall provide written notice, prior to the initial application of bulk biosolids to the land application site by the applier, to DEQ and DEQ shall retain the notice. The notice shall include:
        (1) The location, by either street address or latitude and longitude, of the land application site; and
        (2) The name, address, telephone number of the permittee applying the bulk biosolids, and Virginia Pollution Abatement permit number.

J. OTHER SPECIAL CONDITIONS

1. Biosolids/WTP residuals Sources – Only biosolids/WTP residuals from sources approved by the DEQ and identified in the BSMP may be land applied.

2. Land Application Sites – Biosolids/WTP residuals shall be applied only at the sites identified in Attachment A.

3. The permit holder must have and maintain pollution liability and general liability coverage in the amount of $2 million per occurrence with an annual aggregate of at least $2 million, exclusive of legal defense costs. The permit holder or applicant may demonstrate the required liability coverage by using one of the mechanisms specified below:
   a. A pollution liability policy as well as a general liability policy that covers all activities associated with the "Transport, Storage, and Land Application" of biosolids as specified in 9VAC25-32-790;
   b. Passing a corporate financial test as specified in 9VAC25-32-800 or using the corporate guarantee for liability coverage as specified in 9VAC25-32-810;
   c. Passing a local government financial test as specified in 9VAC25-32-820 or using the local government guarantee for liability coverage as specified in 9VAC25-32-830;
   d. Obtaining a letter of credit for liability coverage as specified in 9VAC25-32-840; or
   e. Obtaining a trust fund for liability coverage as specified in 9VAC25-32-850.

4. Alteration of Biosolids Composition – No person shall alter the composition of biosolids at a site approved for land application of biosolids under a Virginia Pollution Abatement Permit. The addition of lime or deodorants to biosolids that have been treated to meet standards for land application as required by Part IX of the VPA Permit Regulation (9VAC25-32-303 et seq.) shall not constitute alteration of the composition of biosolids.

5. Site Specific Application Rates – Site specific application rates shall not exceed the CPLR Limitations in Part I.A.1.b or the rates established in the NMP.

6. Landowner Consent –
   a. The Permittee shall maintain valid landowner consent forms for all sites identified in Attachment A of this permit and prevent from improper concurrent use of the land application site. In order for a landowner consent form to be valid:
      (1) It must be on *Form D, Part D-VI Land Application Agreement – Biosolids and Industrial Residuals*;
      (2) The agreement must be signed using the current approved form at the time the form is signed. (The landowner agreement is *Part VI* of the *VPA Permit Application, Form D, Municipal Effluent and Biosolids*); and
      (3) The form must be complete, accurate and properly signed.
   b. If upon the modification date of this permit any landowner agreement required by this permit is signed by the landowner on a form other than *Form D, Part D-VI Land Application Agreement – Biosolids and Industrial Residuals*, revision 9/14/2012, then within 60 days of the modification date, the permittee shall notify such landowner by certified letter of the requirement to sign and submit a new landowner agreement. The letter shall *instruct the landowner to sign and return the new landowner agreement, and shall advise the* landowner that the permittee's receipt of such new landowner agreement is required prior to any future application of biosolids to the landowner's property. Attached with the letter, the permittee shall include *Form D, Part D-VI Land Application Agreement – Biosolids and Industrial Residuals*, revision 9/14/2012, the instructions for completing the landowner agreement and a DEQ Fact Sheet.

      After modification date + 60 days, no biosolids shall be land applied to land application sites for which a *Form D, Part D-VI Land Application Agreement – Biosolids and Industrial Residuals*, revision 9/14/2012 has not been completed and signed.

      If the current Landowner Agreement(s) held between the Permittee and the landowner(s) was signed using *Form D, Part D-VI Land Application Agreement – Biosolids and Industrial Residuals*, revision 9/14/2012 prior to the modification date, such notice does not need to be sent to that landowner(s).
   c. New landowner agreements using the most current form provided by the Board shall be submitted to DEQ for proposed land application sites identified in each application for modification of this permit to add land application sites.
   d. In the event of change of landownership, the permittee is responsible for obtaining and maintaining valid landowner agreements prior to further land application. The updated landowner agreement must be submitted to DEQ prior to land application or on site at the time of land application.

7. Threatened and Endangered Species Protection – No person shall apply bulk biosolids/WTP residuals to the land if it is likely to adversely affect a threatened or endangered species listed in 4VAC15-20-130 and § 4 of the Endangered Species Act (16 USC § 1533) or if the land application is likely to adversely affect its designated critical habitat.

8. Certified Land Applicator Requirement –
   a. The permittee shall ensure that no biosolids land application activities occur unless a Certified Land Applicator (9VAC25-32-690 – 760) is onsite at all times during such land application. Certified Land Applicators may be

considered to be onsite if they are at the site permitted for land application and, if it is necessary to leave the site, they are available within 30 minutes to return to the site to verify and ensure that land application of biosolids is in compliance with the permit.

b. Certified Land Applicators shall possess the site-specific permit information necessary to conduct land application on the site in accordance with the issued permit and make available at the land application site proper identification, including their certificate number issued by DEQ.

c. The Certified Land Applicator shall maintain an operator field log to document at minimum:
   (1) site location;
   (2) arrival and departure times;
   (3) inspectors or any visitors to the site;
   (4) complaints received; and
   (5) any unusual condition or event at the application site.

   The field log shall be available for inspection by DEQ.

d. The Certified Land Applicator(s) shall provide a signed statement(s) to be submitted with the monthly report in accordance with 9VAC25-32-690.A. The statement shall include:
   (1) The name and certificate number of the Certified Land Applicators responsible for the application activity; and
   (2) The following statement attesting that they were onsite at the times of the reported operations and that those operations were in compliance with the permit:

   I hereby confirm that I was onsite at the reported times of operations for which I was the Certified Land Applicator in charge. All land application activities and onsite operations conducted under VPA Permit # VPA00836 were in compliance with the permit [with the following exception(s):____]. I attest that the above statement is true and valid to the best of my knowledge.

9. The Board will modify or, alternatively, revoke and reissue this permit as appropriate and necessary to incorporate changes to any applicable standard or requirement for the use or disposal of biosolids, industrial wastewater sludge, or septage promulgated under Section 405(d) of the Clean Water Act, the State Water Control Law, or 9VAC 25-32-10, *et seq.*, of the Virginia Pollutant Abatement Permit Regulation.

10. All pollutant management activities covered under this permit shall maintain no point source discharge of pollutants to surface waters except in the case of a storm event greater than the 25-year, 24-hour storm. The operation of the facilities of the owner permitted herein shall not contravene the Water Quality Standards, as adopted and amended by the Board, or any provision of the Water Control Law.

11. Any and all product, materials, industrial wastes, and/or other wastes resulting from the purchase, sale, mining, extraction, transport, preparation, and/or storage of raw or intermediate materials, final product, by-product or wastes, shall be handled, disposed of, and/or stored in such a manner so as not to permit a discharge of such product, materials, industrial wastes, and/or other wastes to State waters, except as expressly authorized.

CONDITIONS APPLICABLE TO ALL VPA PERMITS

A. Monitoring.

1. Samples and measurements taken as required by this permit shall be representative of the monitored activity.
2. Monitoring shall be conducted according to procedures listed under Title 40 Code of Federal Regulations Part 136, unless other procedures have been specified in this permit.
3. The permittee shall periodically calibrate and perform maintenance procedures on all monitoring and analytical instrumentation at intervals that will insure accuracy of measurements.
4. Samples taken as required by this permit shall be analyzed in accordance with 1VAC30-45, Certification for Noncommercial Environmental Laboratories, or 1VAC30-46, Accreditation for Commercial Environmental Laboratories except for the following:
   a. Field sample testing and measurements performed at the site where the sample is taken, are not subject to the requirements of 1VAC30-45 or 1VAC30-46; and
   b. Tests, analyses, measurements or monitoring, using protocols established pursuant to §10.1-104.2 to determine soil fertility, animal manure nutrient content, or plant tissue nutrient uptake for the purposes of nutrient management.

B. Records.

1. Records of monitoring information shall include:
   a. The date, exact place, and time of sampling or measurements;
   b. The name of the individual(s) who performed the sampling or measurements;
   c. The date(s) and time(s) analyses were performed;
   d. The name of the individual(s) who performed the analyses;
   e. The analytical techniques or methods used, with supporting information such as observations, readings, calculations and bench data; and
   f. The results of such analyses.
2. The permittee shall retain records:
   a. 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 or in the case of activities regulated under Part IX of the Virginia Pollution Abatement Permit Regulation (9VAC25-32-10 et seq.), at least five years from the date of the sample, measurement, report or application. This period of retention may be extended by request of the Board at any time.
   b. Related to biosolids data and information specified in agreements between generator, owner, agents, landowners and farmers. These records shall be described and maintained for a minimum period of five years or the duration of the permit or subsequent revisions if longer than five years.

C. Reporting Monitoring Results.

1. The permittee shall submit the results of the monitoring required by this permit not later than the 10th day of the month after the monitoring takes place, unless another reporting schedule is specified elsewhere in this permit. Monitoring results shall be submitted to:

   Piedmont Regional Office
   4949- A Cox Road
   Glen Allen, VA 23060

2. Monitoring results shall be reported on forms provided or specified by the Department.
3. If the permittee monitors the pollutant management activity, at a sampling location specified in this permit, for any pollutant more frequently than required by the permit using approved analytical methods, the permittee shall report the results of this monitoring on the monitoring report.
4. If the permittee monitors the pollutant management activity, at a sampling location specified in this permit, for any pollutant that is not required to be monitored by the permit, and uses approved analytical methods, the permittee shall report the results with the monitoring report.
5. Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in this permit.

D. Duty to Provide Information.

The permittee shall furnish to the Department, within a reasonable time, any information which the Board may request to determine whether cause exists for modifying, revoking and reissuing, terminating 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 the permittee. Plans, specifications, maps, conceptual reports and other relevant information shall be submitted as requested by the Board prior to commencing construction.

E. Compliance Schedule Reports.

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 schedule date.

F. Unauthorized Discharges.

Except in compliance with this permit, or another permit issued by the Board, it shall be unlawful for any person to:

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

G. Reports of Unauthorized Discharges.

Any permittee who discharges or causes or allows a discharge of sewage, industrial waste, other wastes or any noxious or deleterious substance into or upon state waters in violation of Part II F; or who discharges or causes or allows a discharge that may reasonably be expected to enter state waters in violation of Part II F, shall notify the Department of the discharge immediately upon discovery of the discharge, but in no case later than 24 hours after said discovery. A written report of the unauthorized discharge shall be submitted to the Department, within five days of discovery of the discharge. The written report shall contain:

1. A description of the nature and location of the discharge;
2. The cause of the discharge;
3. The date on which the discharge occurred;
4. The length of time that the discharge continued;
5. The volume of the discharge;
6. If the discharge is continuing, how long it is expected to continue;
7. If the discharge is continuing, what the expected total volume of the discharge will be; and
8. Any steps planned or taken to reduce, eliminate and prevent a recurrence of the present discharge or any future discharges not authorized by this permit.

Discharges reportable to the Department under the immediate reporting requirements of other regulations are exempted from this requirement.

H. Reports of Unusual or Extraordinary Discharges.

If any unusual or extraordinary discharge including a bypass or upset should occur from a treatment works and the discharge enters or could be expected to enter state waters, the permittee shall promptly notify, in no case later than 24 hours, the Department by telephone after the discovery of the discharge. This notification shall provide all available details of the incident, including any adverse affects on aquatic life and the known number of fish killed. The permittee shall reduce the report to writing and shall submit it to the Department within five days of discovery of the discharge in accordance with Part II I 2. Unusual and extraordinary discharges include but are not limited to any discharge resulting from:

1. Unusual spillage of materials resulting directly or indirectly from processing operations;
2. Breakdown of processing or accessory equipment;
3. Failure or taking out of service some or all of the treatment works; and
4. Flooding or other acts of nature.

I. Reports of Noncompliance

The permittee shall report any noncompliance which may adversely affect state waters or may endanger public health.

1. An oral report shall be provided within 24 hours from the time the permittee becomes aware of the circumstances. The following shall be included as information which shall be reported within 24 hours under this paragraph:
   a. Any unanticipated bypass; and
   b. Any upset which causes a discharge to surface waters.
2. A written report shall be submitted within 5 days and shall contain:
   a. A description of the noncompliance and its cause;
   b. 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
   c. Steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

The Board may waive the written report on a case-by-case basis for reports of noncompliance under Part II I if the oral report has been received within 24 hours and no adverse impact on state waters has been reported.

3. The permittee shall report all instances of noncompliance not reported under Parts II I 1 or 2, in writing, at the time the next monitoring reports are submitted. The reports shall contain the information listed in Part II I 2.

NOTE: The immediate (within 24 hours) reports required in Parts II G , H and I may be made to the Department's Piedmont Regional Office at (804) 527-5020 (voice) or (804) 527-5106 (fax). For reports outside normal working hours, leave a message and this shall fulfill the immediate reporting requirement. For emergencies, the Virginia Department of Emergency Services maintains a 24 hour telephone service at 1-800-468-8892.

J. Notice of Planned Changes.

1. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the design or operation of the pollutant management activity.
2. The permittee shall give at least 10 days advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.

K. Signatory Requirements.

1. Applications. All permit applications shall be signed as follows:
   a. For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (i) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation, or (ii) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures;
   b. For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
   c. For a municipality, state, federal, or other public agency: By either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a public agency includes: (i) The chief executive officer of the agency, or (ii) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency.
2. Reports, etc. All reports required by permits, and other information requested by the Board shall be signed by a person described in Part II K 1, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
   a. The authorization is made in writing by a person described in Part II K 1;
   b. 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. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
   c. The written authorization is submitted to the Department.
3. Changes to authorization. If an authorization under Part II K 2 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 2 shall be submitted to the Department prior to or together with any reports, or information to be signed by an authorized representative.
4. Certification. Any person signing a document under Parts II K 1 or 2 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."

L. Duty to Comply.

The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the State Water Control Law. Permit noncompliance is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Compliance with a permit during its term constitutes compliance, for purposes of enforcement, with the State Water Control Law.

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

N. Effect of a Permit.
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 invasion of personal rights, or any infringement of federal, state or local law or regulations.

O. State Law.
Nothing in this permit shall be construed to preclude the institution of any legal action under, or relieve the permittee from any responsibilities, liabilities, or penalties established pursuant to any other state law or regulation or under authority preserved by Section 510 of the Clean Water Act. Except as provided in permit conditions on "bypassing" (Part II U), and "upset" (Part II V) nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

P. 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 Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

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

R. Disposal of solids or sludges.
Solids, sludges or other pollutants removed in the course of treatment or management of pollutants shall be disposed of in a manner so as to prevent any pollutant from such materials from entering state waters.

S. Duty to Mitigate.
The permittee shall take all reasonable steps to minimize or prevent any pollutant management activity in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

T. 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.

U. Bypass.
1. Prohibition - Bypass means intentional diversion of waste streams from any portion of a treatment works. A bypass of the treatment works is prohibited except as provided herein.
2. Anticipated Bypass - If the permittee knows in advance of the need for a bypass, he shall notify the Department promptly at least 10 days prior to the bypass. After considering its adverse effects the Board may approve an anticipated bypass if:
   a. The bypass will be unavoidable to prevent loss of human life, personal injury, or severe property damage ("Severe Property Damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production); and
   b. There are no feasible alternatives to bypass such as the use of auxiliary treatment facilities, retention of untreated waste, or maintenance during normal periods of equipment downtime. However, if bypass occurs during normal periods of equipment downtime or preventive maintenance and in the exercise of reasonable engineering judgment the permittee could have installed adequate backup equipment to prevent such bypass, this exclusion shall not apply as a defense.

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

V. Upset.

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

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

W. Inspection and Entry.

Upon presentation of credentials, any duly authorized agent of the Board may, at reasonable times and under reasonable circumstances:

1. Enter upon any permittee's property, public or private and have access to records required by this permit;
2. Have access to, inspect and copy any records that must be kept as part of permit conditions;
3. Inspect any facility's equipment (including monitoring and control equipment) practices or operations regulated or required under the permit; and
4. Sample or monitor any substances or parameters at any locations for the purpose of assuring permit compliance or as otherwise authorized by the State Water Control Law.

For purposes of this section, the time for inspection shall be deemed reasonable during regular business hours, and whenever the facility is involved in managing pollutants. Nothing contained herein shall make an inspection unreasonable during an emergency.

X. Permit Actions.

Permits may be modified, revoked and reissued, or terminated for cause upon the request of the permittee or interested persons, or upon the Board's initiative. If a permittee files a request for a permit modification, revocation, or termination, or files a notification of planned changes, or anticipated noncompliance, the permit terms and conditions shall remain effective until the request is acted upon by the Board. This provision shall not be used to extend the expiration date of the effective VPA permit.

Y. Transfer of Permits.

1. Permits are not transferable to any person except after notice to the Department. The Board may require modification or revocation and reissuance of the permit to change the name of the permittee and to incorporate such other requirements as may be necessary. Except as provided in Part II Y 2, a permit may be transferred by the permittee to a new owner or operator only if the permit has been modified to reflect the transfer or has been revoked and reissued to the new owner or operator.
2. As an alternative to transfers under Part II Y 1, this permit shall be automatically transferred to a new permittee if:
   a. The current permittee notifies the Department at least 30 days in advance of the proposed transfer of the title to the facility or property;
   b. The notice includes a written agreement between the existing and new permittees containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
   c. The Board does not, within the 30-day time period, notify the existing permittee and the proposed new permittee of its intent to modify or revoke and reissue the permit.

Z. Severability.

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