

15A NCAC 02T .1107 VECTOR ATTRACTION REDUCTION REQUIREMENTS

(a) Biological residuals shall not be land applied unless the requirements of one of the following vector attraction reduction alternatives have been met:

- (1) 38-Percent Volatile Solids Reduction. The mass of the volatile solids in the biological residuals shall be reduced by 38 percent between the time that the biological residuals enter the digestion process and the time it is land applied;
- (2) 40-Day Bench Scale Test. A portion of previously anaerobically-digested biological residuals shall be further anaerobically-digested in the laboratory in a bench-scale unit for 40 additional days at a temperature between 30 and 37 degrees Celsius. The volatile solids in the biological residuals shall be reduced by less than 17 percent as measured from the beginning to the end of the test;
- (3) 30-Day Bench Scale Test. A portion of previously aerobically-digested biological residuals shall be further aerobically-digested in the laboratory in a bench-scale unit for 30 additional days at a temperature of 20 degrees Celsius. The previously aerobically-digested biological residuals shall either have a concentration of two percent total solids or less or shall be diluted with effluent down to two percent total solids at the start of the test. The volatile solids in the biological residuals shall be reduced by less than 15 percent as measured from the beginning to the end of the test;
- (4) Specific Oxygen Uptake Rate Test. The specific oxygen uptake rate (SOUR) for biological residuals treated in an aerobic process shall be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids on a dry weight basis corrected to a temperature of 20 degrees Celsius;
- (5) 14-Day Aerobic Processes. The biological residuals shall be treated in an aerobic process for 14 days or longer. During that time the temperature of the biological residuals shall be higher than 40 degrees Celsius, and the average temperature of the biological residuals shall be higher than 45 degrees Celsius;
- (6) Alkaline Stabilization. The pH of the biological residuals shall be raised to 12 or higher by alkali addition and, without the addition of more alkali, shall remain at 12 or higher for two hours and then at 11.5 or higher for an additional 22 hours;
- (7) Drying of Stabilized Residuals. The biological residuals shall be dried to 75 percent total solids if the biological residuals contain no unstabilized solids from a primary wastewater treatment process. The biological residuals shall not be mixed with other materials to meet this requirement;
- (8) Drying of Unstabilized Residuals. The biological residuals shall be dried to 90 percent total solids if the biological residuals contain unstabilized solids from a primary wastewater treatment process. The biological residuals shall not be mixed with other materials to meet this requirement;
- (9) Injection.
 - (A) Class B biological residuals shall be injected below the land surface in accordance with 40 CFR 503.33(b)(9)(ii); and
 - (B) Class A biological residuals shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process; or
- (10) Incorporation.
 - (A) Class B biological residuals shall be incorporated into the soil within six hours after land application; and
 - (B) Class A biological residuals shall be land applied within eight hours after being discharged from the pathogen treatment process.

(b) Biological residuals shall not be placed in a surface disposal unit unless one of the following vector attraction reduction alternatives have been met:

- (1) Any alternative stipulated in Paragraph (a) of this Rule; or
- (2) Daily Cover. Biological residuals shall be covered with soil or Division-approved material at the end of each operating day.

(c) For biological residuals generated by wastewater treatment facilities treating industrial wastewater only, the vector attraction reduction requirements in Paragraph (a) of this Rule shall be met unless the permittee demonstrates that the residuals are pathogen free or meet the pathogen requirements in Rule .1106(b)(2) of this Section.

*History Note: Authority G.S. 143-215.1; 143-215.3(a);
Eff. September 1, 2006;
Readopted Eff. September 1, 2018.*

