

15A NCAC 02T .1107 VECTOR ATTRACTION REDUCTION REQUIREMENTS

(a) Biological residuals shall not be applied to the land unless the requirements of one of the vector attraction reduction alternatives have been met. Programs involving the land application of biological residuals generated by wastewater treatment facilities treating industrial wastewater only that are operational at the time of this Rule's effective date shall comply with the requirements stipulated in this Rule no later than five years from the effective date of this Rule unless the Permittee is adhering to an established schedule in an individual permit, settlement agreement, special order pursuant to G.S. 143-215.2, or other similar document that establishes a later deadline. The vector attraction reduction alternatives shall be as follows:

- (1) 38-Percent Volatile Solids Reduction. The mass of the volatile solids in the biological residuals shall be reduced by a minimum of 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 (i.e., 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. Mixing of the biological residuals with other materials shall not be used to meet this alternative.
- (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. Mixing of the biological residuals with other materials shall not be used to meet this alternative.
- (9) Injection.
 - (A) Biological residuals shall be injected below the surface of the land in accordance with 40 CFR 503.33(b)(9)(ii).
 - (B) If Class A with respect to pathogens, the biological residuals shall be injected below the land surface within eight hours after being discharged from the pathogen treatment process.
- (10) Incorporation.
 - (A) If Class B with respect to pathogens, the biological residuals shall be incorporated into the soil within six hours after application to the land.
 - (B) If Class A with respect to pathogens, the biological residuals shall be applied to the land 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.
- (2) Daily Cover. Biological residuals shall be covered with soil or other material at the end of each operating day.

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