

7041.1500 MONITORING REQUIREMENTS.

Subpart 1. **Sampling of sewage sludge.** Representative samples of sewage sludge that is applied to the land must be collected and analyzed by the person who prepares the sewage sludge. The following minimum requirements apply for the sampling of parameters except pathogens and pathogen indicator organisms:

A. in the case of digesters and liquid storage tanks, a representative sample must be composed of at least four grab samples composited over a 24-hour period; and

B. in the case of lagoons, stockpiles, drying beds, and compost piles, a representative sample must be composed of at least ten grab samples composited from the sewage sludge prior to land application.

Subp. 2. **Analysis.** Sewage sludge must be analyzed according to the analytical procedures in part 7041.3200 or other EPA approved methods for the parameters in items A to F. All analytical values, except pH and total solids, must be recorded on a dry weight basis:

A. percentage of total solids;

B. volatile solids as percentage of total solids;

C. pH;

D. major plant nutrients, including the percentages of kjeldahl nitrogen, ammonia nitrogen, phosphorus, and potassium;

E. concentration of metals in milligrams per kilogram of zinc, copper, lead, nickel, cadmium, mercury, arsenic, molybdenum, and selenium; and

F. polychlorinated biphenyls (PCBs) if the sewage sludge is being removed from a wastewater treatment pond described in part 7041.0300, subpart 1.

Subp. 3. **Additional analysis or parameters.** If the commissioner concludes that additional analysis or monitoring for additional parameters is needed to protect the public health or the environment, the commissioner shall require this analysis based on considerations about the sewage sludge in question, including the age of the sewage sludge, the size of the treatment facility, the processes used to treat the sewage sludge, the methods of land application, and the characteristics of industrial discharges to the sewer system.

Subp. 4. **Frequency of monitoring.** The minimum monitoring frequency for the parameters listed in subpart 2, the pathogen or indicator organism density requirements in part 7041.1300, subparts 2 and 3, and the vector attraction reduction requirements in part 7041.1400, subpart 2, items A to D and F to H, shall be the frequency in this item.

MINIMUM SAMPLING FREQUENCIES

Sewage Sludge Applied¹ (metric tons/ 365-day period)	Sewage Sludge Applied¹ (tons/365-day period)	Frequency (times/ 365-day period)
>0 but <290	>0 but <320	1
≥290 but <1,500	≥320 but <1,650	4
≥1,500 but <15,000	≥1,650 but <16,500	6
≥15,000	≥16,500	12

¹Either the amount of bulk sewage sludge applied to the land or the amount of sewage sludge received by a person who prepares sewage sludge that is sold or given away in a bag or other container for application to the land (dry weight basis).

Subp. 5. **Greater frequency of sewage sludge monitoring and analysis.** Parameters exceeding concentrations in subpart 6, based on the average of all analyses made during the previous cropping year, must be analyzed for at least two times the minimum frequency given in subpart 4.

Subp. 6. **Greater frequency of sewage sludge sampling and analysis.**

GREATER FREQUENCY OF SAMPLING

Concentration Expressed in
Milligrams/Kilogram of Dry Weight

Parameter	2X Frequency
Arsenic	38
Cadmium	43
Copper	2150
Lead	420
Mercury	28
Molybdenum	38
Nickel	210
Selenium	50
Zinc	3750

Subp. 7. **Reduction in monitoring frequency.** After the sewage sludge has been monitored for two years at the frequency in subparts 4 and 6, the commissioner may reduce the frequency of monitoring for the parameters listed in subpart 2 and the pathogen density in part 7041.1300, subpart 2, item E, but in no case shall the frequency of monitoring be less than once per year when sewage sludge is applied to the land.

Statutory Authority: *MS s 116.07*

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