7083.4060 BACTERIOLOGICAL REDUCTION.

Subpart 1. **Scope.** This part establishes the requirements for registering bacteriological reduction processes.

Subp. 2. **Verification.** Manufacturers shall, for the purpose of product registration as described in parts 7083.4000 to 7083.4040 for meeting treatment level A or B, verify bacteriological reduction performance by sampling and testing for fecal coliform.

Subp. 3. **Testing process.** All test data submitted for product registration must be produced by a qualified, third-party testing organization. Bacteriological reduction performance requirements must be determined while the treatment product or sequence is tested according to the NSF Standard 40 testing protocol, or other equivalent commissioner-approved testing protocol. The tester must:

A. collect samples from both the influent and effluent streams and identify the treatment performance achieved by the full treatment process, component, or sequence;

B. obtain influent characteristics within the range of 10^6 - 10^8 fecal coliform/100 mL calculated as 30-day geometric means during the test;

C. test the influent to any disinfection unit and report flow rate, pH, temperature, and turbidity at each occasion of sampling performed in item D;

D. obtain samples for fecal coliform analysis during both design loading and stress loading periods, as follows:

(1) grab samples shall be collected and analyzed from both the influent and effluent on three separate days of the week; and

(2) each set of influent and effluent grab samples must be taken from a different dosing time frame (morning, afternoon, or evening) so that samples have been taken from each dosing time frame by the end of the week;

E. conduct analyses for fecal coliform according to Standard Methods for the Examination of Water and Wastewater, prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Environment Federation (1998). The standard methods are incorporated by reference, are available through the Minitex interlibrary loan system, and are subject to frequent change;

F. report the geometric mean of fecal coliform test results from all samples taken within 30-day or monthly calendar periods;

G. report the individual results of all samples taken throughout the test period for design loading and stress loading; and

H. report all maintenance and servicing conducted during the testing period, such as instances of cleaning an ultraviolet lamp or replenishment of chlorine chemicals.

Subp. 4. **Disinfection.** Manufacturers are allowed to register products that:

A. meet the bacteriological testing requirements alone, without the need for a separate disinfection device to meet treatment level A or B;

B. meet the bacteriological testing requirements when tested with a compatible secondary disinfection device as a component of the process to meet treatment level A or B; or

C. meet the bacteriological testing requirements when coupled with a compatible secondary disinfection device that meets bacteriological requirements of this part as a component of the process to meet treatment level A or B.

Statutory Authority: *MS s 115.03; 115.55*

History: *32 SR 1420; 35 SR 1353*

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