

Operational Guideline for Manitoba Water Suppliers

Understanding Bacteriological Compliance

PURPOSE

This guideline has been established to ensure that public and semi-public drinking water suppliers throughout the Province of Manitoba meet their regulatory requirements with regard to meeting bacteriological standards.

Legislation

Section 26.1 of the [Drinking Water Safety Regulation \(MR 40/2007\)](#) states that all water suppliers must collect samples for bacteriological analysis by an accredited laboratory.

Sampling frequency and number of samples required within the distribution system is depended upon the type of water system [ODW-OG-08 Types of Water Systems, Schedule A MR 40/2007](#).

All public water systems are required to test the **raw water** at the source prior to any treatment; **treated water** immediately after treatment and disinfection and before the water enters the distribution system; and within the **distribution system** at locations established by the drinking water officer.

Semi-public water systems that disinfect are required to test the raw water at the source prior to any treatment and the treated water immediately after treatment and disinfection and before the water enters the distribution system. Testing within the distribution system is required as specified in the operating licence.

Semi-public water systems that are exempt from disinfection must sample the **drinking water** at a location established by the drinking water officer.

The [Drinking Water Quality Standards Regulation \(MR 41/2007\)](#) Section 3 states that every public and semi-public water

supplier must ensure that all treated and distributed water meet the bacteriological standard:

- less than one (<1) *E.coli* (EC) detectable per 100 mL; and
- less than one (<1) total coliform (TC) detectable per 100 mL

If any treated or distributed water sample does not meet the TC standard, but no EC, high readings (TC >10) or multiple positives have been detected, the water supplier can undertake corrective actions as outlined in [ODW-OG-05 Schedule A MR 41/2007](#).

Operating Licence

Table 1: Water Quality/Treatment Standards states the bacteriological standards that are associated with the water system.

Table 2: Monitoring Schedule specifies the number of samples required, sampling locations and the frequency of monitoring that is associated with the water system.

Interpreting Compliance

When a water supplier submits all water samples, from all locations, at the frequency specified in the licence and there are no bacteriological positives, the system is in compliance with the standard and the monitoring frequency.

A water supplier does not meet the Standard when:

- EC, high TC (>10 TC) readings or multiple positives have been detected in the treated, distributed or drinking water sample(s)
- TC has been detected in the treated, distributed or drinking water sample(s) and corrective actions have failed
- TC has been detected in the treated, distributed or drinking water sample(s) and corrective actions were not taken as per Schedule A MR 41/2007



- water samples did not make it to the laboratory within the 48hrs holding time
- a location or sampling frequency is missed

If a water supplier sends samples to the laboratory but they do not arrive in time, the water supplier is deemed to have complied with the sampling frequency but because the samples could not be properly analyzed the standard is not met. Water samples must be immediately resubmitted.

Compliance Reporting

Water suppliers are responsible for ensuring that the regional drinking water officer receives all bacteriological sampling results. This is particularly important in instances where samples are sent to a laboratory that does not hold the current provincial contract for subsidized bacteriological analysis of samples from public and semi-public water systems.

Emergency Reporting Conditions

For emergency reporting conditions in response to bacterial positives, see [ODW-OG-04 Emergency Reporting](#).

Office of Drinking Water

[Regional Drinking Water Officers](#) are available for operational and monitoring advice and to provide technical assistance.

After hours, please call the Environmental Emergency Response line at 204-944-4888 and ask for the on-call drinking water officer

For more information related to Manitoba's drinking water and how it is regulated visit: www.manitoba.ca/drinkingwater.