

Guidance for Completing the Water System Information Form – Operating Licence Application Guideline –

PURPOSE

Manitoba has introduced new regulations for the approval, design and operation of drinking water systems under *The Drinking Water Safety Act*. The two new regulations are Manitoba Regulation 40/2007 Drinking Water Safety Regulation and 41/2007 Drinking Water Quality Standards Regulation. They can be viewed at: www.manitoba.ca/drinkingwater.

The new regulations set out requirements for public water systems including the need to apply for an operating licence to operate a water system

The Operating Licence Application is comprised of two forms: the Operating Licence Application Form and the Water System Information Form. The focus of this document is to provide guidance to water system owners/operators for completing the Water System Information Form.

TECHNICAL GUIDANCE

This guideline is not intended to address every item on the Water System Information Form. Technical guidance is provided for specific items where further clarification may be required by owners and operators completing the form.

General Information

- Other Water Systems: Some water plants provide water to other water systems outside their jurisdiction, for example, another town or a water cooperative. Identify these water systems in the space provided.
- Truck and Pail Fill Backflow Prevention: To limit the possibility of cross contamination events it is critical that truck fills and pail fills be furnished with appropriate backflow prevention devices. Examples of backflow prevention devices are: anti-siphon valves, siphon break hoses, double check valve assemblies, reduced pressure zone backflow preventors, and hose bib vacuum breakers. Note that the solenoid actuated valve on the drain line is not considered a backflow prevention device. If you are unsure of the type of valve installed on your truck fill or pail fill lines, consult a plumber.
- Average number of hours per day the treatment system operates: Most treatment plants do not operate 24 hours/day. In order to establish the full capacity of the water system, it is necessary to know how many hours per day the treatment process is actually producing water. It is not necessary to provide this information if your system just chlorinates and there is no further treatment.
- Description of backup power provisions: Include information related to generators and gas, natural gas or diesel fired pumps. Does the equipment start-up manually or automatically?

Water Supply Requirements

- Design requirements: Design requirements may be available in engineering reports associated with the system. If this information is not available, indicate N.A.

Groundwater Supply

- N/E coordinates: Latitude and Longitude coordinates from a GPS reading.

Surface Water Supply

- Location of Intake: Provide either the Latitude and Longitude coordinates from a GPS reading or a sketch of the location on a map or preferably both.
- Raw Water Pumps: For each raw water pump, describe the pump type (ex: vertical turbine, submersible) and capacity.
- Method of pump control: What triggers the pump to turn on and off (ex: pressure, reservoir level)?

Raw Water Storage

- Description: Open reservoir, dug-out, or none.

Treatment System

- Treatment process: Describe the process including major equipment and chemical feeds ex: potassium permanganate-greensand filtration-chlorination or alum-coagulation-polymer-flocculation-sedimentation-filtration-chlorination along with the dimensions, capacity, volume, retention time or other size indicator for each basin or filter.
- Equipment Redundancy: For critical components of a water treatment process such as filters or chlorinators, it is desirable to have redundancy built into the treatment train. Identify any redundancies that are in place ex: a backup chlorinator, dual filters.
- Method of Managing Wastewater: For each item listed describe where the wastewater goes: to sewer, holding tanks, landfill or to the environment (ex: directly to a lake, river, ditch).
- Dosage Control: For each chemical feed indicate whether the pump is adjusted manually, automatically (ex: chlorinator feed adjusted automatically based on continuous monitoring of residuals) or based on flow (ex: flow paced).

Treated Water Storage

- Total effective storage: Simply input the total treated water reservoir volume.

Distribution System

- Class of Fire Protection: The Class 1-3 specifications are based on the Manitoba Water Services Board's Fire protection classification system for communities serving up to 1200 people. If the community is less than 1200 people and you are unsure of the fire protection classification, or if the community is greater than 1200 people, simply input the fire flow capacity (L/s or gpm) and duration ex. 120 l/s for 2 hours. If you are unsure check the unknown box.
- Backflow Prevention Devices on service connections: On some public water supply service connections, particularly where private wells are being maintained for garden watering purposes, water system owners (ex: Rural Municipalities) have made it mandatory to have a backflow preventor incorporated into the service connection as a cross connection control measure. If used, identify the type backflow preventor incorporated into your system's service connection.
- Regional pumping stations: refers to pressure boosting stations. Indicate the type of pump, its capacity, and whether there is chlorine added at the booster station.

OFFICE OF DRINKING WATER CONTACT INFORMATION

Water system owners can contact their regional Drinking Water Officer with questions on completing operating licence application forms or to request forms.

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<http://www.gov.mb.ca/waterstewardship/odw/reg-contacts/index.html>