

1.0 INTRODUCTION

It is a requirement under the Occupational Health and Safety Regulations that the drinking water provided to our employees meet the New Brunswick Drinking Water Guidelines.

This standard establishes minimum safe practices and water testing requirements to help ensure a safe supply of drinking water.

2.0 SCOPE

This standard applies to water used or available for consumption at all locations, including generating station domestic water supplies, wells and locations using municipal or bottled water.

3.0 REFERENCES

Health Canada Guidelines for Canadian Drinking Water Quality, Technical Documents, Health Canada.	Guidelines for Canadian Drinking Water Quality, Summary Table, Federal-Provincial Committee on Drinking Water
New Brunswick Drinking Water Guidelines	Guidelines for safe water in New Brunswick as directed by the Office of the Chief Medical Officer of Health.
New Brunswick Regulation 91-191, section 4.	General Regulation Under the Occupational Health and Safety Act
Provincial document	

4.0 TERMS AND DEFINITIONS

Carboy	A large bottle used to contain liquids. In the case of bottled water carboys usually contain 18 or 20 liters
Consumption	Water used for drinking; preparing food, hot and cold beverages, and ice cubes; washing fruits and vegetables; and dental hygiene
Bottled Water	Drinking water packaged in glass or plastic bottles.
Domestic Water	Water intended for typical household-like applications such as drinking, cooking, washing, and flushing.
Potable Water	water at a point of consumption that is being supplied from a well, public water supply system or water supply system and is intended to be used for cooking or drinking by humans
Surface Water Supply	An exposed body of water, such as a lake, river or reservoir used as a water supply.
Water Cooler	A free-standing refrigerated cooler for dispensing water, usually with an inverted carboy on top to supply water.
Water Test	Water can be tested for many contaminants. The most common test is for Escherichia coli, (E. coli) and total coliforms, which serves as an indicator of contamination in drinking water. Tests can be performed for many other contaminants of concern such as lead, arsenic, etc. Each test may have unique ways and times to collect the samples. Consult with RPC or Industrial Hygiene prior to

	planning and taking water samples.
Point of entry water treatment system	Located where the water enters the premise, water is treated and then delivered through the rest of the system
Point of use water treatment system	Located at a specific point of use (e.g., filter on a tap).

5.0 ROLES AND RESPONSIBILITIES

5.1 Employer

- Ensure work locations are provided with sufficient drinking water that complies with the New Brunswick Drinking Water Guidelines.
- If water is available but the quality (permanently or temporarily) does not meet the NB Drinking Water Guidelines, ensure all access points are labelled as “do not consume” and alternative sources of drinking water are provided.

5.2 Facilities and Asset Owners (Generation, Nuclear, Transmission, etc):

For their respective areas of responsibility:

- Ensure drinking water systems at NB Power owned facilities meet the NB Drinking Water Guidelines.
- Ensure point of use water treatment systems, point of entry water treatment systems and water coolers used for drinking water are maintained.
- Ensure proper signage is posted when water quality does not meet acceptable standards and is available for consumption.
- Ensure all aspects of this standard are followed.

5.3 Employee

- Report any changes in water quality, appearance, taste, or odor to your supervisor.
- Only consume drinking water where it is safe to do so.

5.4 Total Health and Safety

- Support the business with expertise on drinking water questions and concerns.
- Monitor and communicate regulatory changes that could impact this standard.

6.0 STANDARD

6.1 General

Drinking water supplied at NB Power work locations shall meet the Maximum Acceptable Concentration (MAC) levels specified in the New Brunswick Drinking

Water Guidelines. Where reasonably practicable to do so the water shall also meet the Aesthetic Objectives (AO) listed in the Guidelines.

6.2 Testing Requirements for Potable Water System

In New Brunswick water samples must be sent to a laboratory operated by the Research and Productivity Council (RPC) or other laboratories as approved by the Minister of Health. The types of tests performed at a given location will be dependent on the source of the drinking water and any past testing history. Tests shall be selected to assess those hazards most likely to be present in the water supply.

1. Municipal Water Supplies and Water Distribution Systems

Consult with the Industrial Hygiene Department where there is reason to believe the water quality has changed, changes have been made to the plumbing system or where changes in usage have occurred. The nature of the concern and the urgency will determine who performs the sample collection.

2. Wells

Well water shall be tested at least twice yearly basis for total and coliform bacteria.

Tests should be performed in the spring and fall when the well is at greatest risk of contamination.

Testing for inorganic metals shall be performed once every 2 years.

Hydrocarbons and other chemicals may be tested where there is reason to suspect contamination. More frequent testing may be required where problems have previously been identified or at the direction of a Public Health Officer.

Well water shall be tested immediately after any noticeable change in appearance or quality.

Testing can be performed under direction of RPC or Industrial Hygiene

3. Bottled Water

Testing of water coolers or bottled water supplies may be arranged on request but need not be done on routine basis. Water testing may be arranged on request to the Industrial Hygiene department.

As required, Total Health and Safety will provide contractual language for the purchase of safe bottled water.

4. Treated Surface Water Supplies

The treated water, when used for consumption, shall be tested for coliform bacteria on a monthly basis. On an annual basis the treated water shall be tested for metals.

Testing can be performed under direction of RPC or Industrial Hygiene.

5. Chlorination

Because of the importance of chlorination, continuous chlorinating systems shall be used at those sites requiring the use of chlorine. Chlorination may be done by the use of either gaseous chlorine or sodium hypochlorite. Chlorine shall be added at rates appropriate for the system and conditions in effect and suitable chlorine rates shall be determined and documented. When the chlorination system is out of service and the chlorine residual cannot be restored within an hour the drinking water shall be posted as not for consumption until the problem is corrected.

Where chlorination systems are in use a continuous monitoring system shall be used to ensure that adequate chlorine levels are being maintained. The monitor shall have an alarm system in the event that improper chlorine levels occur.

6. New Brunswick Water Quality

In some cases the drinking water in a geographical region does not meet the AOs in the Guidelines due to taste or appearance parameters and does not present a health risk. In these circumstances it will be a local management decision, in consultation with the site Joint Health and Safety Committee as to whether or not an alternative water supply is necessary.

6.3 Potable Water That Does Not Meet the Guidelines

Where the Guidelines are not met after any testing, the following actions shall be taken.

- Immediate resampling shall be done along with the following actions:
- notify site personnel and post warning signs at all applicable drinking water points of consumption to ensure the water is not inadvertently consumed
- provide an alternate water supply (if needed)

Unless directed by public health, water that is unfit for consumption can still be used for bathing, showers, washing hands and dishes.

- Consumption can resume once testing confirms that the water quality again meets the Guidelines. The requirements of testing will vary depending on the source of the disruption.
 - On completion of successful testing, notify site personnel and return the water supply to service.
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6.4 Maintaining Good Water Quality

1. Sinks and Fountains

Contaminants can build up in plumbing systems. To ensure the best water quality uses only the cold-water supply for consumption, allow the water to run long enough to purge standing water from the pipes before consuming the water.

Where filters and other point of delivery water treatment systems are used, they shall be on rigorous preventative maintenance schedule.

Where non-potable water is supplied, all delivery points shall be sign posted that the water is not for consumption. Total Health and Safety maintains a stock of permanent signs. If a temporary sign is needed the sample in Appendix A may be printed.

2. Water Coolers

Store water bottles in a clean, cool location out of direct sunlight and off the floor.

Wash your hands carefully before changing water bottles on coolers. Wipe off the top of the cooler being very careful not to brush dirt into the reservoir. Carefully wipe off the top of the bottle with a sanitizing wipe. Invert the bottle into the reservoir. Clean up any spilled water. Empty and clean the drip tray.

Water coolers shall be cleaned and sanitized at least every six months. All water coolers shall have a tag or sticker indicating the date of last cleaning and the due date for the next required cleaning.

6.5 Records

Records of any water testing results shall be maintained at the tested location for a period of at least five years. The record shall clearly indicate the specific sample location.

7.0 APPENDIX

Appendix A

Sign – Do not Consume Water

R. Condon

Acting Director of
Total Health &

DOCUMENT APPROVAL/REVISION RECORD

Revision #	Date yyyy/mm/dd	Revision Summary	Author	Reviewed By	Approved By
New	2019/01/30	New Standard	Ian Case	Nancy Allen Melinda Mallery Shelley Parker Kim Gordon	Robin Condon
1	2021/12/02	Update to new format Revised to meet NB Drinking Water Guidelines instead of Health Canada Guidelines. Added roles and responsibilities. Added definitions. Added testing requirements for wells. Added water cooler cleaning requirements.	Matt MacFarlane	Hercules Georgiadis	Robin Condon

Appendix A – Do not Consume Sign

