



Alteration of Permit to Operate a Waterworks

PERMIT NO. 00055373-02-00

Issued Pursuant to Section 34(2)(e) of *The Environmental Management and Protection Act, (2002)*

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File: 21020-50/WW/OP/Valley Ridge

To: Valley Ridge Community Co-op (the Permittee), the person responsible for the waterworks located at **North ½ 25-16-27 W2nd**, in the Rural Municipality of Moose Jaw No. 161, in the Province of Saskatchewan, which must provide water for human consumptive use to the subscribers of the Valley Ridge Community Co-op water pipeline.

WHEREAS, the Minister is satisfied that it is in the public interest to alter the previous permit issued to the Permittee.

PURSUANT to section 34(2)(e) of *The Environmental Management and Protection Act, 2002*, Permit No.00055373-01-00, issued December 31st, 2012 is altered in accordance with the terms and conditions attached.

This alteration, hereinafter called **Permit No.00055373-02-00**, takes effect on the **1st day of January, 2015**.

Permit **No. 00055373-02-00** expires on the **1st day of January, 2020** unless cancelled or suspended before that date.

Issued

Greg Holovach, A.Sc.T.
Environment Officer
Water Security Agency
Environmental and Municipal Management Services Division
Moose Jaw Office

Terms and Conditions

Section One: Definitions

- 1.1 All words and phrases have the same definitions as set out in *The Environmental Management and Protection Act, 2002*, or *The Water Regulations, 2002*, as the case may be.
- 1.2 In this Permit:
 - (a) "Act" means *The Environmental Management and Protection Act, 2002*;
 - (b) "Regulations" means *The Water Regulations, 2002*;
 - (c) "Environmental and Municipal Management Services Division" means the Environmental and Municipal Management Services Division of the Water Security Agency;
 - (d) "Accredited" means attainment of the Standards Council of Canada, National Standards System, General Requirements for the Competence of Testing and Calibration Laboratories, (ISO/IEC 17025-1999) CAN-P-4D, March 2002, including but not limited to attaining the parameters necessary to undertake the reports required by Part V of the *Regulation* or by a permit to operate a Waterworks issued for the purposes of subsection 21(1) of the *Act*;
 - (e) "Positive Bacteriological Result" means a test result showing the presence of total coliforms, fecal coliforms, *Escherichia coli* or 200 or more organisms per 100 millilitres as an overgrowth of background bacteria.

Section Two: Effective Date and Expiry

- 2.1 This Permit takes effect on the date shown on the Permit.
- 2.2 This Permit expires on the date shown on the Permit.
- 2.3 The Permittee shall apply for renewal/alteration of this permit at least 60 days prior to its expiry.

Section Three: Operation

- 3.1 The Permittee shall comply with the *Act* and the *Regulations*, and the Terms and Conditions of this Permit.
- 3.2 In the event of an inconsistency between the *Act* and this Permit, or the *Regulations* and this Permit, the more stringent requirement shall apply.
- 3.3 The Permittee shall not extend or alter the Waterworks without a permit issued pursuant to section 23 of the *Act*.
- 3.4 The Permittee shall have a written quality assurance and quality control policy in place that is satisfactory to the Minister. The Permittee shall update its quality assurance and quality control policy from time to time to incorporate changes to the waterworks equipment, operational procedures, chemical use, or any other matter or thing which could affect the quality of the water produced by the waterworks. The Permittee shall:
 - (a) provide a copy of the policy to any employee, agent or contractor performing work or service in relation to the Waterworks; and
 - (b) inform the persons mentioned in 3.4(a) of the contents of the quality assurance and quality control policy.
- 3.5 Where all or part of a distribution system is new, extended, altered or repaired, the Permittee shall, before the commencement of its use, after completion of the new waterworks or the alteration, extension or repair:
 - (a) disinfect the portion of the distribution system that is new or has been extended, altered or repaired; and
 - (b) take water samples from the distribution system that is new or has been extended, altered or repaired, and have the samples analyzed for bacteria.
- 3.6 The Permittee shall ensure that the operation, repair and maintenance of the waterworks is under the direction of an operator who holds at least the corresponding certificate for the classification of the waterworks as set out in the Saskatchewan Water and Wastewater Works Operator Certification Standards, 2002.

Section Four: Sampling and Monitoring and Water Quality

- 4.1 The Permittee shall cause water samples to be taken from the Waterworks to test for bacteria, turbidity, chlorine, and for the other parameters listed in Appendix A, at the locations, times and frequency set out in Appendix A.
- 4.2 The Permittee shall ensure that the water provided to consumers does not exceed the limits set out in Appendix B for bacteria, turbidity, and the chemical parameters listed in that Appendix. The Permittee shall cause to be maintained the free chlorine residual and the total chlorine residual as set out in Appendix B.
- 4.3 Subject to 4.4, the Permittee shall have water samples analyzed by an accredited laboratory in accordance with the *Regulations*.
- 4.4 The Permittee may perform water sampling and analysis for chlorine and turbidity by means of on-site testing.
- 4.5 The Permittee shall take water samples in accordance with the instructions provided by the institution or laboratory which provides the sampling bottles or containers.

Section Five: Record keeping

- 5.1 The Permittee shall maintain records containing the following information:
- (a) total water pumped into the distribution system on a daily basis or the total raw water used;
 - (b) the types, dosages and total amounts of chemicals applied to the water for treatment;
 - (c) the locations from which samples for any tests conducted by the Permittee of the Waterworks were taken in accordance with this permit and the name of the person who conducted the sampling or testing and the results of those tests;
 - (d) any departures from normal operating procedures that may have occurred and the time and date that they occurred;
 - (e) any instructions that were given during operation of the Waterworks to depart from normal operating practices and the name of the person who gave the instructions;
 - (f) any upset condition or bypass condition, the time and date of the upset condition or bypass condition and measures taken to notify others and resolve the upset condition or bypass condition;
 - (g) any condition of low disinfectant levels, the time, date and location of occurrence and measures taken to restore disinfectant levels to required values;
 - (h) the dates and results of calibrating any metering equipment and testing instruments; and
 - (i) the dates and types of maintenance performed on equipment and any actions taken to ensure the normal operation of the Waterworks.
- 5.2 The Permittee shall cause the operational records or logs mentioned in 5.1 to be recorded and maintained in the following manner:
- (a) operational records or logs must be made in chronological order, with the dates, times and testing locations clearly indicated;
 - (b) entries in an operational record or log must only be made by the Permittee, which includes by definition any principal or agent of a Permittee;
 - (c) any person making an entry in an operational record or log must do so in a manner that allows the person to be unambiguously identified as the maker of the entry; operational records or logs must be maintained on a daily basis and retained for at least five years;
 - (d) any anomalies or instances of missing entries in an operational record or log must be accompanied by explanatory notes;
 - (e) operational records or logs must only contain data or information that is actually observed or produced;
 - (f) operational records or logs must not contain default values generated manually or by automated means;
 - (g) operational records or logs maintained pursuant to clause (d) must be made available promptly on request of the Water Security Agency.
- 5.3 The Permittee shall review the records and logs mentioned in 5.1 on a monthly basis to ensure that the operating parameters are being achieved and that the limits set out in Appendix B are not exceeded.
- 5.4 The Permittee shall report the findings to the Environmental and Municipal Management Services Division as soon as is reasonably practicable after each review required by 5.3 should the review of the records and logs indicate that the quality of water from the Waterworks has been adversely affected.

Section Six: Reporting and Consumer Reporting

- 6.1 The Permittee shall submit the results of water sampling analysis performed in accordance with this Permit to the Environmental and Municipal Management Services Division:
- (a) in the case of a positive bacteriological result, within 24 hours following completion of the sampling analysis;
 - (b) in the case of all other parameters, within 7 days following completion of the sampling analysis.
- 6.2 The Permittee shall direct the laboratory performing its water sampling analysis to submit the results within the timeframes mentioned in 6.1 directly to the Environmental and Municipal Management Services Division, in a format in accordance with Environmental and Municipal Management Services Division – Environmental Management System) Lab/-Operator (LAB-OPR) Data File Format, in addition to submitting the written results to the Permittee.
- 6.3 The Permittee shall report to the Environmental and Municipal Management Services Division any known or anticipated upset condition, bypass condition or events at or affecting a Waterworks that could adversely affect the quality of water produced by the Waterworks.
- 6.4 The Permittee shall immediately report to the Environmental and Municipal Management Services Division any instance where:
- (a) disinfection equipment fails;
 - (b) the level of disinfection identified in Appendix B is not achieved or is not anticipated to be achieved;
 - (c) any other parameter level identified in Appendix B is not achieved or is not anticipated to be achieved;
 - (d) there is a retirement, suspension, resignation, scheduled absence or termination of employment of any certified Waterworks distribution or Waterworks treatment operator, or any anticipated retirement, suspension, resignation or termination that results in the waterworks not being under the direction of a certified operator that holds at least the corresponding certificate for the classification of those works;
 - (e) a system depressurization has occurred.

- 6.5 The Permittee shall instruct its employees, agents and contractors performing work or service in relation to the Waterworks, of their obligation under section 37(1) of the *Regulations* and to report to the Environmental and Municipal Management Services Division any instance as described in 6.4 and any known or anticipated upset condition, bypass condition or events at or affecting a Waterworks that could adversely affect the quality of water produced by the Waterworks.
- 6.6 The Permittee shall as soon as reasonably practical report any of the events mentioned in 6.3 to the Environmental and Municipal Management Services Division.
- 6.7 The Permittee shall, once per calendar year, provide the consumers supplied by the Waterworks with a notification of:
- (a) the quality of water produced or supplied by the Waterworks in comparison with the levels set out in this permit;
 - (b) the Permittee's compliance with sample submission requirements described in this permit.
- 6.8 Within 30 days after providing consumer notification required by 6.7, the Permittee shall provide a written copy of the notification to the Environmental and Municipal Management Services Division.
- 6.9 The Permittee shall maintain records of on-site testing of free and total chlorine and turbidity and make them available to the Environmental and Municipal Management Services Division upon request. For all other parameters, the Permittee shall ensure that reporting is conducted in accordance with Section 39 of *The Water Regulations*.

Section Seven: Inspection

- 7.1 An Environment Officer may enter the Waterworks at any time to conduct an inspection to ensure that the Permittee is complying with this Permit, the *Act* or the *Regulations*.
- 7.2 Upon the request of an Environment Officer, the Permittee shall immediately provide any books, records, logs, graphs, papers, documents, or data, including any computer, digital or electronic records, logs, graphs, files or data maintained with respect to the Waterworks.

Section Eight: General

- 8.1 A copy of this Permit shall be posted in a conspicuous place at the Waterworks.
- 8.2 The Permittee shall provide each operator of the Waterworks with a copy of this Permit and the *Regulations*.
- 8.3 The Water Security Agency may cancel, alter or suspend this Permit for the reasons and in the manner set out in the *Act*.
- 8.4 In the event of any inconsistency between an Approval to Operate Works or a Minister's Order, and the Terms and Conditions of this Alteration of Permit to Operate a Waterworks, the Terms and Conditions of this Alteration prevail.
- 8.5 Where any notice or reporting is required to be given by the Permittee, it shall be provided to:

Water Security Agency
Environmental and Municipal Management Services Division
Moose Jaw, Saskatchewan
Fax: (306) 694-3105
Telephone: (306) 694-3586
After hours, weekends and holidays, the Agency can be contacted by calling the 1-800-667-7525
Spill Report Line.

Appendix A

File: 21020-50/WW/OP/ValleyRidge

Waterworks Monitoring Schedule Station No. SK05JG0197– Random Location in Water Distribution System

Parameter	Testing Required	Limit ¹ Applied	Treated Water Sampling Locations and Minimum Sampling Frequency
	Yes	Yes	
1. Bacteriological (samples to be submitted to an accredited laboratory)	X	X	Twice (2) every month from representative locations in the distribution system. Samples must be collected a minimum of fourteen (14) days apart. Repeat and Special samples resulting from follow-up to a contaminated regular sample are not considered as regular sample submissions.
2. Chlorine Residual (on-site testing)	X	X	At least once (1) per day for free and total residual in the water within the distribution system and at the same frequency and locations as for bacteriological sampling for free and total chlorine residual.
3. Trihalomethanes	X	X	Once (1) every quarter: (January to March, April to June, July to September, and October to December) from a representative location at the extremities of the distribution system.

¹. Limits for identified parameters are provided in Appendix B

Appendix B – Permit Limits

The following Water Quality limits apply where identified in Appendix A

Chlorine Residual

- (a) free residual of not less than 0.10 milligrams per litre in the water entering the distribution system; and
- (b) a total chlorine residual of not less than 0.5 milligrams per litre or a free chlorine residual of not less than 0.1 milligrams per litre in the water throughout the distribution system.

Bacteriological:

- (i) total coliform levels of zero organisms detectable per 100 millilitres;
- (ii) fecal coliform or Escherichia coli levels of zero organisms detectable per 100 millilitres;
- (iii) background bacteria levels on a total coliform or a fecal coliform membrane filtration plate of less than 200 organisms per 100 millilitres or no overgrowth; or
- (iv) In the case of presence/absence testing no presence of Total Coliform or Escherichia coli as determined by methods that meet specification 9223 in *Standard Methods for the Examination of Water and Wastewater*, 20th Edition, 1998 as issued by the American Public Health Association, as amended from time to time.

Chemical – Health Category:

MAC (Maximum Acceptable Concentration) – Parameter cannot exceed this value.

Guideline – Parameter should not exceed this value in order to maintain water quality.

Parameter	MAC (mg/L)	Guideline (mg/l)
Aluminum		0.1
Arsenic	0.025	
Barium	1.0	
Boron	5.0	
Cadmium	0.005	
Chromium	0.05	
Copper		1.0
Fluoride	1.5	
Iron		0.3
Lead	0.01	
Manganese		0.05
Nitrate	45.0	
Selenium	0.01	
Uranium	0.02	
Zinc		5.0

Chemical – Disinfection Byproducts:

Trihalomethane MAC based on an annual average of 4 seasonal samples.

Parameter	MAC (mg/L)	Guideline (mg/l)
Trihalomethanes	0.1	
Haloacetic Acids		0.080