

Annual Drinking Water Quality and Compliance Report 2009

Ministry of Government Services Regina Correctional Centre Regina, Saskatchewan

Introduction

The Ministry of Environment requires that at least once each year waterworks owners provide notification to consumers of the quality of water produced and supplied as well as information on the performance of the waterworks in submitting samples as required by a ***Minister's Order or Permit to Operate*** a waterworks. The following is a summary of the ***Regina Correctional Centre*** water quality and sample submission compliance record for the ***January 1, 2009 to December 31, 2009*** time period.

For more information on minimum sample submission requirements and the meaning of type of sample, please refer to "***Municipal Drinking Water Quality Monitoring Guidelines, November 2002, EPB 202***". Permit requirements for a specific waterworks may require more sampling than outlined in the monitoring guidelines. If consumers need more information on the nature and significance of specific water tests, for example, "***what is the significance of Selenium in a water supply***", more detailed information is available from:
<http://www.hc-sc.gc.ca/hecs-sesc/water/dwqsup.htm>.

The documentation in this report is based on site log books, Saskatchewan Provincial Laboratory and SRC Analytical Laboratories testing. Copies of all records are available on site or the contact information at the end of this report.

This report was completed on ***March 31, 2010***.

Water Quality Standards

Bacteriological Quality:

Parameter/Location	Limit	Regular Samples Required	Regular Samples Submitted	# of Positive Regular Submitted (%)
Total Coliform	0 Organisms/100 mL	52	52(100%)	1 (<2%)
Background Bacteria	Less than 200/100 mL			

Water Disinfection

Chlorine Residual in Distribution System for Test Results Submitted with Bacteriological Samples

Parameter	Minimum Limit	Free Chlorine Residual Range	Total Chlorine Residual Range	Average Free Chlorine (mg/L)	Average Total Chlorine (mg/L)
Chlorine (%)					
Chlorine Residual	0.1 mg/L free 0.5 mg/L total	0.16 > 1.02	0.17 > 1.13	0.52	0.77

Water Disinfection - Free Chlorine Residual for Water Entering Distribution System from Waterworks Records-From Water Treatment Plant Records

Parameter	Limit (mg/L)	Test Level Range	# Tests Performed	# Tests Not Meeting Requirements
Free Chlorine Residual	> 0.1	0.28 > 1.33	366	0

A minimum of 0.1 milligrams per litre (mg/L) free chlorine residual is required for water entering the distribution system. Tests are normally performed on a daily basis by the waterworks operator and are to be recorded in operation records. This data includes the number of free chlorine residual tests performed, the overall range of free chlorine residual (highest and lowest recorded values) and the number of tests and percentage of results not meeting the minimum requirement of 0.1 mg/L free chlorine residual.

Chemical Analysis

Health Category

All waterworks serving less than 5000 persons are required to submit water samples for Chemical Health category **once every two (2) years**. The Chemical Health category includes analysis for arsenic, barium, boron, cadmium, chromium, fluoride, lead, nitrate, selenium and uranium.

This waterworks receives treated water via a pipeline from the City of Regina. A Chemical analysis in the Health Category is not required to be performed on site. The Health Category analysis is performed by the City of Regina as per their **Permit to Operate a Waterworks**.

For further information please refer to the **City of Regina Annual Drinking Water Quality & Compliance Report**.

Chemical -Trihalomethanes

Parameter	Limit IMAC (ug/L)	Sample Result (average)	# Samples Required	# Sample Submitted
Trihalomethanes (THMs)	100	74/72/38/58 (61)	4	4

THMs are generated during the water disinfection process as a by-product of reactions between chlorine and organic material. THMs are generally found only in drinking water obtained from surface water supplies. THMs are to be monitored on a quarterly basis and the IMAC result is expressed as an average of 4 quarterly samples. Only water supplies derived from surface water or groundwater under the influence of surface water are required to monitor for THMs.

General Category

All waterworks serving less than 5000 persons are required to submit water samples for General Chemical category ***once every two (2) years*** if a ground water source. The General Chemical category includes analysis for alkalinity, bicarbonate, calcium, carbonate, chloride, conductivity, hardness (as CaCO₃), magnesium, sodium, sulphate and total dissolved solids.

This waterworks receives treated water via a pipeline from the City of Regina. A Chemical analysis in the General Category is not required to be performed on site. The General Category analysis is performed by the City of Regina as per their ***Permit to Operate a Waterworks***.

For further information please refer to the ***City of Regina Annual Drinking Water Quality & Compliance Report***.

More information on the water quality and sample submission performance may be obtained from:

**Ministry of Government Services
2430 7th Avenue
Regina, Saskatchewan S4P 3V7
(306) 787-6332**

Copies of this report are available at:

<https://watermon.spm.gov.sk.ca/>