

Title: Testing		Control Number: SLD 16b	
Revision: 2.0	Effective Date: Aug. 7, 2009	Section: SE and O&M	
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1.0 Purpose

The procedure describes the testing activities related to drinking water quality and process control.

2.0 Scope

This procedure applies to the testing activities for Waterworks, including that required by Ontario Regulation 170/03, related to process control and finished drinking water quality.

3.0 Definitions

- Ad-Hoc – special, not regular, not planned
- SE – Systems Engineering
- O&M – Operations and Maintenance
- SDWA – Safe Drinking Water Act

4.0 Procedure

- 4.1 Testing shall be performed as per requirements in O.Reg. 170/03.
- 4.2 Test results shall be interpreted and monitored as per the Monitoring procedure.

Accredited Laboratory Testing

- 4.3 Testing for microbiology, organics, inorganics, nitrite, nitrate, lead, sodium, fluoride and trihalomethanes shall be performed by an accredited laboratory.
- 4.4 An accredited Laboratory shall be used for testing.
- 4.5 An accredited back-up lab shall be sourced as required in the event that the contracted laboratory cannot be used.
- 4.6 The Waterworks Supervisor responsible for Water Quality (O&M) shall ensure the test results are picked up from the lab within two to three

weeks of testing. (Adverse water quality level test results will be reported by the lab immediately upon the test result is ready to the Water Quality Coordinator (SE), as required under legislation.)

- 4.7 Ad-Hoc test results and non regulatory test results shall be faxed by the lab to the Water Quality Coordinator (SE).
- 4.8 Test results shall be interpreted and monitored as per the Monitoring procedure.

On-Site Testing

- 4.9 Testing for combined chlorine, pH and temperature shall be performed on-site by the Operators as prescribed by written procedures and as planned in the Maintenance database.
- 4.10 Testing for combined chlorine shall be performed using the appropriate chlorine test kit, following the instructions in the associated test kit manual.
- 4.11 Testing for pH shall be performed using the appropriate pH probe, following the instructions in the associated probe manual.
- 4.12 Testing for temperature shall be performed using the appropriate thermometer, following the instructions in the associated thermometer manual.
- 4.13 Test results shall be recorded in the work order, which shall be returned to the Waterworks Supervisor responsible for Water Quality (O&M).
- 4.14 Test results shall be interpreted and monitored as per the Monitoring procedure.
- 4.15 Work orders shall be handled as per the **Maintenance SOP**.

Upstream Testing

- 4.16 The Region of York and the City of Toronto perform testing as required by SDWA and O. Reg. 170/03. Test results are not forwarded to the Waterworks unless adverse conditions are found. The **Response to Adverse Water Quality Test Result SOP** describes the adverse communication process.

5.0 Associated SOPs

- SOP – Maintenance
- SOP – Response to Adverse Water Quality Test Result

- SOP - Lead Testing Program

6.0 References

- DWQMS Element 16 – Sampling, Testing and Monitoring
- Region of York SOP 19 – Inter-municipal Communication Protocol in response to Operational and Water Quality Issues

7.0 Records

- Work Orders
- Laboratory Test Results

8.0 History of Changes

Revision	Date	Description	By
2.0	Jul. 22, 2009	Sections 4.6, 4.7, 4.8, 4.13, 4.16, 5.0, 6.0	H. Dutaud / E. Wu