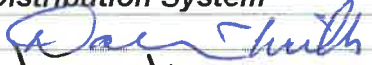





Title:	Critical Control Procedure for Low Chlorine in the Distribution System		
Document #	PW-DW-SOP-018-001	Created by:	
Status of Document:	Final	Approved by:	
Issue/ Revision Date:	May 2017	Start of Next Review Period:	As required
Revision #:	2	No. of Pages	2

1.0 PURPOSE

To document the procedure used to correct low chlorine residual readings in our system. This procedure is a preventative measure to avoid an adverse water quality incident for chlorine residual. Also, the Risk Assessment lists 0.10 mg/L as a critical control limit for free chlorine residuals.

2.0 SCOPE

This procedure applies to both the Niagara-on-the-Lake and Bevan Heights Drinking-water systems.

3.0 DEFINITIONS

Low Chlorine	Free chlorine residuals at or below 0.10 mg/L are considered low chlorine residuals
Critical Control limit	The point at which a critical control point response procedure is initiated
DWS	Drinking water system
DWS Operator	Person who conducts operational checks or who adjusts, tests or evaluates a process that controls the effectiveness or efficiency of a drinking water system, including the flow, pressure or quality of water within the drinking water system.
Grab Sample	A discrete, single sample of water collected at a particular time and place that represents the composition of the water only at that time and place.
Water/Wastewater Operator & Water Quality Analyst	Conduct sampling in accordance with applicable regulations, the requirements of this procedure and other relevant SOPs, and/or as directed by the Supervisor of Environmental Services.

4.0 RESPONSIBILITIES

Not applicable

5.0 PROCEDURE

- 5.1 Ensure that all regulatory samples are collected by licensed operators or licensed water quality analysts.



- 5.2 Licensed operators or licensed water quality analysts are to follow the standard operating procedure "Water Sampling of the Water Distribution Systems" when collecting regulatory samples.
- 5.3 When testing and monitoring free chlorine residuals within the Distribution Systems, a water/wastewater operator or water quality analyst should follow the following procedure if a free chlorine residual reading is at or below 0.10 mg/L.
1. Call the ORO immediately.
 2. Immediately flush the system until residuals are above 0.20 mg/L, sampling at 15 minutes intervals. If after 2 samples the free chlorine residuals are not about 0.20 mg/L, alter the sampling frequency to every 30 minutes until a free chlorine residual greater than 0.20 mg/L is achieved . *Note: Only licensed DWS Operators are allowed to flush the DWS.*
 3. Record all samples results and flushing activity in the Operators Log Book.

6.0 ASSOCIATED DOCUMENTS

Water Sampling of the Water Distribution Systems – PW-DW-SOP-012-001

7.0 REVISION HISTORY

Previous Revision No.:	1
Date of Last Revision:	July 2014
Last Approval Date:	July 2014
Reason for Change(s):	Annual Internal Audit and Corporate structure changes
Summary of Change(s):	Changed next review date to "as required", removed Water/Wastewater Supervisor title and added Supervisor of Environmental Services title.