

**Bylaw 18100
EPCOR Drainage Services Bylaw
Code of Practice**

**Operations and Regulatory Requirements for
De-Chlorinated Water Releases**

Commercial/Industrial Line Flushing

APPROVED:

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This Code of Practice, adopted by EPCOR Water Services Inc., contains written requirements, standards, specifications, procedures, protocols or guidelines that form part of the Drainage Services Guidelines and are binding on all Customers pursuant to Bylaw 18100.

Schedule 2, s. 2.3(d)

1.0 Application

1.1 Pursuant to Drainage Bylaw 18100, wastewater from line flushing activity may be released into Sanitary, Combined or Storm Sewers, if the line flushing activity is performed in accordance with this Code of Practice.

Schedule 2, s. 5.10(e) and 5.12 (c)

1.2 This Code of Practice applies only to the planned and controlled discharge of potable water or super-chlorinated water from the municipal distribution system released into Sanitary, Combined or Storm Sewers.

1.3 Activities exempt from this Code of Practice include the following;

- (a) emergency firefighting activities,
- (b) unplanned and uncontrolled emergency releases i.e. water main break,
- (c) drainage operations and maintenance governed and performed by EWSI, or
- (d) water operations and maintenance governed and performed by EWSI.

1.4 Nothing in this Code of Practice exempts a person from the requirements, penalties and/or liabilities within all applicable municipal, provincial, or federal legislation or standards.

1.5 Notwithstanding any terms, conditions or requirements of this Code of Practice, the release shall comply with all terms and provisions of Bylaw 18100.

1.6 Nothing in the Code of Practice in any way reduces the existing authority of the owner of the collection system or a municipal, provincial or federal legislator from prohibiting or placing additional conditions on the discharge.

2.0 Approval Process

2.1 No person may release other than permitted wastewater without prior written approval from EWSI. Questions regarding releases may be sent to drainagepermits@epcor.com.

2.2 Prior to any controlled releases of chlorinated water, notification must be given to EWSI through an email sent to drainagereleases@epcor.com. This notification must be received at least five business days in advance of the proposed discharge date, where, business day means a day that is not a Saturday, a Sunday, a provincial holiday or federal holiday.

2.3 Notification emails sent to EWSI will receive an automated email response indicating the proposed release request has been successfully delivered.

2.4 The following release information must be included in the notification e-mail to EWSI:

- (a) Company name (Releasing Party) and contact information,
- (b) Brief description of de-chlorination process including chemical used, de-chlorination equipment used, chlorine monitoring equipment and procedure,

- (c) Location of line flushing with map,
- (d) Collection system being used (i.e. Storm sewer),
- (e) Location and identification of drainage facility receiving the wastewater discharge ,
- (f) Proposed maximum flow rate,
- (g) Time and date of line flushing activity, and
- (h) Duration of line flushing activity.

2.5 Alternatively, a person may call 780-509-8067.

2.6 Upon review of the proposed line flushing activity, EWSI may, in its sole discretion, require the Releasing Party to apply for a formal permit to release. This is a fee-based service that must be applied for through an application form. This may occur due to complexity of the request.

2.7 In addition to any other requirements set out in this Code of Practice or Bylaw, EWSI reserves the right to add additional conditions on line flushing requirements including, but not limited to:

- (a) That the line flushing activity date be re-scheduled if the proposed date was to coincide with other activities in the Sewerage System;
- (b) That the maximum flow rate of the proposed discharge be set at a specified amount on the basis of pipe capacity or pumpwell operations.

2.8 EWSI may require any additional information up until the proposed line flushing activity date.

2.9 Any line flushing activity request may be denied due to unfavorable release conditions any time up until and including the scheduled date of the proposed activity date. This includes proposed line flushing activity requests that have received prior approval from EWSI.

3.0 Operations and Considerations

3.1 All line flushing activities must be performed in a safe manner in order to preserve public and worker safety as well as maintain infrastructure and environmental protection.

3.2 The discharge flow rate shall not exceed the flow rate stated to EWSI in the notification email. This flow rate shall be measured using a gauge, meter or experienced estimation.

3.3 If any changes are to be made to the proposed line flushing activity, whether before or after the initial notification has been submitted, notification for approval must be re-submitted to EWSI.

3.4 Proposed discharges shall not contain restricted wastes in concentrations that are above the limits set out in Appendix B for sanitary sewer releases and Appendix C for storm sewer/watercourses releases of the Drainage Bylaw 18100.

3.5 The release must be monitored at all times to ensure the discharge facility will not surcharge by filling beyond pipe full capacity. A representative of the Releasing Party shall be on site at all times during discharge.

3.6 While monitoring approved line flushing activities, the Releasing Party's representative must have a copy of all the discharge information set out in article 2.4 and any amendments issued by EWSI to ensure that the activity is carried out in accordance with the requirements.

- 3.7 All releases must be done in dry weather conditions: when it is not raining and there has not been any precipitation or seasonal melt for a preceding period of no less than two hours.
- 3.8 All releases must be done on business days between the hours of 07:00 – 16:00.
- 3.9 De-chlorinated wastewater shall be released through a natural flow into a manhole or catch basin through gravity flow at ambient pressure where possible. A person shall not release pressurized water directly into a sewer main.
- 3.10 The potable water shall not be used for any additional cleaning or washing processes not associated with the water distribution system.
- 3.11 From point of discharge to receiving facility, the Releasing Party shall ensure that the discharge flow does not cause any erosion of a land surface. If there is debris, oil/grease or the possibility of carrying suspended solids to the receiving facility, the Releasing Party shall take steps to mitigate the migration of such material into the receiving facility and subsequently the collection system.
- 3.12 Proper safety precautions at the receiving manhole/catch basin must be in place during the release to maintain public health and safety. The Releasing Party shall ensure safe practices at all times and in no way do these guidelines relieve the person(s) of following safety legislation and practices to ensure personal and public safety.

4.0 Approved Chemical for De-chlorination

- 4.1 All chemicals shall be used in adequate and appropriate quantities and shall not be permitted to under dose or over dose the water being discharged. The following chemicals may be used to de-chlorinate super-chlorinated or potable water:
 - (a) Sodium Sulfite (Na_2SO_3);
 - (b) Sodium Thiosulfate ($\text{Na}_2\text{S}_2\text{O}_3$);
 - (c) Sodium Bisulfite (NaHSO_3);
 - (d) Sodium Metabisulfite ($\text{Na}_2\text{S}_2\text{O}_5$); or
 - (e) Ascorbic Acid (Vitamin C) – This is the preferred chemical.
 - (f) Other environmentally safe and acceptable de-chlorination agents may be allowed upon approval from the City Manager.

5.0 Monitoring and Reporting

- 5.1 Determine flow rate by calculating, measuring or estimating. The release shall be monitored and required information recorded as indicated in TABLE 1. Testing shall be done using a properly calibrated field chlorine testing kit and field pH equipment.

TABLE 1. Wastewater Monitoring and Reporting

MONITORING		
PARAMETER	SAMPLE TYPE	FREQUENCY
Total Chlorine	Grab Sample (representative sample collected in less than 30 minutes)	Once before release
pH		Every 30 min during release to storm sewer for all activities.
Date, Time and Duration of Activities	N/A	Continuously
Maximum Flow Rate	N/A	Continuously

5.2 The information required by section 5.1 must be recorded in Monitoring and Reporting Log Sheet in a form similar to the form in Appendix I. All monitoring records must be retained for a period of two years and must be made available for review by EWSI upon request.

APPENDIX I

<u>Monitoring and Reporting Log Sheet</u>								
Time	Cl (mg/L)	pH	Time	Cl (mg/L)	pH	Time	Cl (mg/L)	pH

Date of Flushing Activity:

Start Time:

Duration of Activities:

Maximum Flow Rate

Monitored and recorded by:

Signature:
