

**THE CORPORATION OF THE TOWN OF MIDLAND**

**BY-LAW NO. 2005-20**

**A By-law to regulate Cross Connection and Backflow Prevention on plumbing systems as required to protect the Town of Midland Drinking Water Supply and Distribution System from Contaminations**

**WHEREAS** Section 11 of the Safe Drinking Water Act requires that municipalities ensure that their respective drinking water system meets prescribed drinking water standards to the point where the system is connected to a users plumbing system;

**AND WHEREAS** Part 7 of the Ontario Building Code requires potable water systems to be protected from contamination, but limited to specific building uses;

**AND WHEREAS** under Section 130 of the Municipal Act a municipality may regulate matters not specifically provided for by the Act or any other Act for purposes related to the health, safety and well-being of the inhabitants of the municipality;

**AND WHEREAS** the Town of Midland have developed regulations for Cross Connection and Backflow Prevention on plumbing systems as required to protect the Town of Midland Drinking Water Supply and Distribution System from Contaminations;

**NOW THEREFORE THE MUNICIPAL COUNCIL OF THE CORPORATION OF THE TOWN OF MIDLAND ENACTS AND BE IT ENACTED AS FOLLOWS:**

1. That The Corporation of the Town of Midland's Regulations for Cross Connection and Backflow Prevention on plumbing systems as required to protect the Town of Midland Drinking Water Supply and Distribution System from Contaminations, attached hereto as Appendix "A" and forming part of this by-law, is herein adopted;
2. That this By-law shall come into full force and effect immediately upon final passage.

By-law read a first, second and third time and finally passed at a meeting of the Open Council held this twenty eight day of November, 2005.

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Mayor

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Clerk

## APPENDIX “A” TO BYLAW 2005-20

### The Corporation of the Town of Midland Drinking Water System Cross Connection and Backflow Prevention Regulations

#### 1. Definitions

For the purposes of this Schedule, the following terms shall have the corresponding meanings:

“*backflow*” means the flowing back of or reversal of the normal direction of flow of water;

“*backflow prevention device*” means a device that prevents backflow, as further defined in Section 7.2.10.10 of the Ontario Building Code (O.Reg 403/97) and CAN/CSA references therein;

“*building*” shall have the same meaning as set out in the Building Code Act, S.O. 1992, c23, as amended, or any successor thereof;

“*cross-connection*” means any actual or potential connection between a potable water supply or system and any source of pollution or contamination and includes any by-pass, jumper connection, removable section of pipe, swivel or changeover device and any other temporary or permanent connection arrangement through which backflow may occur;

“*Municipality*” means the Corporation of the Town of Midland and includes its employees, servants and agents;

“*person*” means any person, firm or corporation having control over property to which this regulation applies and includes the owner registered on the title of the property and any occupant of any building located on such property;

“*plumbing system*” shall mean the potable water system of connected piping, fittings, valves, equipment, fixtures and appurtenances contained in plumbing that begins, is located and is connected immediately after the water meter.

“*potable water*” means water that is safe for human consumption;

“*premises*” shall mean any house, tenement, building, lot, or part of a lot, or both, in, through, or past which water service pipes run.

“*premise isolation*” means isolation of the water plumbing system within a building or structure from the Town’s water supply;

“*water distribution system*” shall mean water mains with connections to feeder mains, feeder mains within municipal road allowances or easements, private mains, services, fire hydrants, and shut-off valves and all other appurtenances thereto.

## **2. Protection from Contamination and Backflow Prevention**

- 2.1 No person, shall connect, cause to be connected, or allow to remain connected to the plumbing system or water distribution system any piping, fixture, fitting, container or appliance, in a manner which under any circumstances, may allow, untreated water, waste water, any source of pollution or any other liquid, chemical or substance to enter the water plumbing system or water distribution system.

## **3. Cross Connection Inspection Reports**

- 3.1 Person(s) responsible for any buildings billed for water as a “General Service Account”, being Institutional, Commercial, Industrial (I.C.I.) or high density residential use building, shall retain a Qualified Person as indicated in Section 10, to prepare a Cross-Connections Inspection Report in the form prescribed in Appendix “B”.
- 3.2 A Cross Connection Inspection Report of the plumbing system of all existing industrial, commercial, institutional and high density residential buildings, except buildings of residential occupancies within the scope of Part 9 of the Ontario Building Code shall be completed by a Qualified Person at the owners expense.
- 3.3 The Cross Connection Inspection Report shall be submitted to the Municipality before the date stated in Section 8. The Cross Connection Inspection Report shall include existing backflow prevention devices, cross connections discovered, corrective measures, recommendations and a schedule of work to be completed. The method of cross connection control or selection and installation of backflow prevention devices shall be in accordance with the Ontario Building Code.
- 3.4 A Cross Connection Inspection Report shall be completed at a frequency of every 5 years from the date of the first report that was requested and completed as required by the municipality.
- 3.5 Notwithstanding the obligations for persons to undertake a Cross Connection Inspection Report, the Municipality shall be allowed access, with reasonable notice, to any premises that are connected to the water distribution system for the purpose of performing inspections to locate possible cross connections. The municipality may require a routine cross connection inspection of the premises (at the owner’s expense) to be performed by a Qualified Person.
- 3.6 Where the access is not provided, a written notice by the municipality may be issued providing the time frame to allow access. If access is not provided within this time frame, the municipality may, at their discretion, shut off the supply of water to the premises until such time as the access is provided.
- 3.7 If a condition is found to exist which is contrary to Section 2 of this By-law, the municipality may issue such notices to the person as the case may be, as may be required to obtain compliance with these regulations.

#### **4. Premise Isolation**

- 4.1.1 Where, in the opinion of the Municipality, a risk of possible contamination of the water distribution system exists, a person on notice from the municipality shall install premise isolation within the building in addition to any other source of protection devices on the premise.
- 4.1.2 Premise isolation shall be installed:
- (a) in buildings of high or severe hazard in accordance with premise isolation requirements as stated in the Ontario Building Code Part 7 Plumbing; or
  - (b) as specified by the municipality.

#### **5. Cross Connection Compliance (Including Premise Isolation)**

- 5.1 The municipality shall review the submitted report and issue a 'Compliance Notice' that may support the recommendations contained in the Cross Connection Inspection Report and may contain additional or alternative requirements deemed by the Municipality as required under these regulations.
- 5.2 The person receiving the 'Compliance Notice' shall retain a Qualified Person(s) to undertake the stated works before the date stated in 'Compliance Notice' and advise the municipality in writing of completion of the work.
- 5.3 If the person to whom the municipality has issued a notice fails to comply with the 'Compliance Notice', the municipality, at their discretion, may:
- (a) Give notice to person to correct the fault at their expense within a specified time period and if the notice is not complied with, the municipality may then shut off the water service or services; or
  - (b) Issue an unsafe order under unsafe requirements in accordance with the Ontario Building Code Act. In a condition that could be hazardous to the health or safety of persons in the normal use of the building, persons outside the building or persons who access to the building has not been reasonably prevented; or
  - (c) Without notice to the consumer, shut off water service, where the Municipality has determined, in it's sole discretion, that an immediate threat of contamination to the water system exists that may endanger public safety or health.

#### **6. Maintenance and Field-Testing of Backflow Prevention Devices**

- 6.1 Person(s) responsible for buildings shall retain a Qualified Person, per Section 10, to annually inspect and test, at the expense of the person, to demonstrate that the device is in good working condition. All equipment used to test backflow preventers shall be verified or calibrated for accuracy, as described in CAN/CSA B64.10.

- 6.2 When the results of a test show that a back flow prevention device is not in good working condition, the person shall make repairs or replace the device within 5 days.
- 6.3 If a person does not make the appropriate repairs or replace the defective device within the 5 days, the municipality may shut the water service or services off.
- 6.4 If a person fails to have a backflow prevention device tested, the municipality may notify the person that the back flow prevention device must be tested within a specified time.
- 6.5 If a person fails to have a backflow prevention device tested within the specified time of the notice, when requested by the municipality, the municipality may shut off the water service or water services until the backflow prevention device has been tested and approved.

## **7. Removal of Backflow Prevention Devices Prohibited**

- 7.1 No person shall remove a backflow prevention device or part thereof after it has been installed, and no owner of a building or structure in which a backflow prevention device is installed shall cause or permit the removal of such device, unless such removal is:
  - (a) To facilitate the repair of the device and such device is replaced immediately after such repair is carried out.
  - (b) To replace the device with another device that meets or exceeds the provisions of this By-law.

## **8. Inspection Report, Implementation and Retesting Schedule**

- 8.1 The requirements under this regulation shall be undertaken as follows;
  - (a) **General Service Water Accounts (Institutional, Commercial, Industrial and High Density Residential Buildings);**
    - (i) Submission of Cross Connection and Backflow Prevention Inspection Report; July 28, 2006
    - (ii) Implementation of Report Recommendation: as determined by the Municipality, but not to exceed one (1) year from Report submission
    - (iii) Cross Connection and Backflow Prevention Reinspection Report: every five (5) years
    - (iv) Testing of Back Flow Prevention Devices: annually
  - (b) **Residential Accounts:**

All new dwelling units must have a back flow device installed, at the property owners cost, prior to connection to the Midland Drinking Water System. Inspection Reports and scheduled testing of back flow prevention devices shall not be required for residential units. The Town shall install back flow prevention devices in existing residential units where practical and in conjunction with water meter replacements. The installed backflow prevention devices shall become the responsibility of the owner of the dwelling unit.

**9. Annual Status Report**

- 9.1 The General Manager of Public Works, or designated Public Works Water Section Personnel, shall prepare and submit to Council an Annual Status Report with respect to implementation. The report shall list by name of owner, municipal address, building use description and classification of all General Service Water Account Customers indicating whether cross connections have been identified and corrected and, if required, backflow prevention devices have been installed. Annual Status Reports shall be submitted until such time as all buildings required to submit a Cross Connection Inspection Report, pursuant to Clause 8.1(a) herein, have completed the recommendation(s).

**10. Qualified Persons**

10.1 Only those persons listed in the following List of Qualified Persons shall carry out the corresponding functions set out in such list.

**LIST OF QUALIFIED PERSONS**

ITEM	FUNCTION	Professional Engineer with Tester's License	*Certified Engineering Technologist with Tester's License	Licensed Master Plumber with Contractor and Tester's License	**Journeyman Plumber with Tester's License	***Apprentice Plumber with Tester's License	Fire System Sprinkler Fitter with a Tester's License	Lawn Irrigation Installer with Tester's License
1	Carry out Cross Connection Report	√	√	√	√			
2	Install, Relocate or Replace Backflow Prevention Device			√	√	√		
3	Repair of Backflow Prevention Device	√	√	√	√	√		
4	Test Backflow Prevention Device	√	√	√	√	√		√
5	Items 1,2,3, & 4 above in respect of Fire Protection Systems	√	√	√	√	√	√	
6	Item 3 & 4 above in respect of Lawn Sprinkler Systems	√	√	√	√	√		

\* **Required to be under the direction of a Professional Engineer**

\*\* **Required to be employed by a Licensed Plumbing Contractor**

\*\*\* **Required to be employed by a Licensed Plumbing Contractor and under the direct supervision of a Journeyman Plumber or Master Plumber.**