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ENGINEERING BULLETIN 2011 - 03  
POTABLE WATER HEAT EXCHANGERS

To Contractors/Plumbers/Inspectors:

The Waterworks Bylaw 4848, Part III, Section 14 regulates the prevention of contamination caused by any wastewater, harmful liquid or foreign substance from entering the city's water system. It is Engineering Services position that double walled heat exchangers with visible leak path provide superior protection from potential water contamination in the event of a failure of the heat exchanger.

- (1) Except as provided in Sentence (2), all Industrial, Commercial, Institutional, *or* Residential heat exchangers shall be double walled with an integrated leak path, regardless of the composition of the heat transfer medium.
- (2) Where it is not practical to install a double walled heat exchanger with visible leak path *and* the following conditions exist:
  - (i) residential property *and*
  - (ii) a maximum service connection size of 40mm *and*
  - (iii) the heat exchanger transfer medium is potable water or essentially non-toxic fluid, *then*

the heat exchanger shall be single walled with a backflow preventer installed on the upstream potable water connection(s). The backflow preventer shall conform to CAN/CSA - B64.3 *or* B64.4.

Heat exchangers must be designed and tested for use in potable water systems in conformance with the International Association Plumbing and Mechanical Officials (IAPMO) Material and Property Standard IAPMO PS 92-2010.

Engineering Services may require supporting documentation to demonstrate conformance with this Bulletin.

(Signed Original on File)

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