

Hydronic/Radiant Heating Pipe Installation

The purpose of this bulletin is to provide owners and builders with new information regarding the City of Burnaby's requirements for hydronic heating installations.

Background

For several years now the City has been requiring contractors to apply for and obtain heating system permits for the installation of hydronic heating systems in single and two-family dwellings and multi-family units, condominiums and townhouses, with individual, self-contained heating systems. During this time the controversial subject of oxygen permeation through certain types of plastic piping had been investigated. The conclusion of this investigation indicates that only pipes with an oxygen barrier provide total elimination of the problem. In light of this fact, and acting in conjunction with the recommendation of the Residential Hot Water Heating Association, the City of Burnaby now intends to inspect all installations to ensure that non-corrosive materials and equipment have been used and that provisions have been taken to eliminate possible oxygen permeation.

Effective immediately

All new and replacement hot water heating equipment must comply with the Residential Hot Water Heating Guidelines (RHWHA). The City inspectors will be looking at all heating installations in order to ensure compliance with the guidelines which in part read as follows:

"CORROSION":

- The material and equipment used in the HRF panel system shall be selected to significantly reduce or eliminate corrosion caused by oxygen permeation. One of the following methods shall be used to protect against system component corrosion:

- a) **Use tubing with an oxygen barrier.** The rate of oxygen permeation recommended for tubing shall be the European DIN Standard 4726: 0.1grams/m³/Day at 50°C.
- b) **Use a stainless steel or copper heat exchanger** to isolate the radiant panel system from the boiler system.
- c) **Use all non-ferrous components** in the heating/panel system.

Further Information

Further information can be obtained from the Burnaby Building Department at 294-7130.

RHWHA Hydronic System Design Course information can be obtained from B.C.I.T.Part-time Studies Department or from the RHWHA office at 251-2122.