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DEMYSTIFYING CROSS-CONNECTIONS

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Published on 2016-03-31

Why do-we need to protect ourselves against risky cross-connections in a building?

Cross-connections can be found in all buildings, including schools, hospitals, factories, office buildings, condominium and even in a single-family residence. Cross-connections are the cause of contamination of drinking water inside a building.

CSA B64.10-17 dictates the measures to be taken to prevent the contamination of drinking water. According to this standard, a cross-connection is an "existing or potential connection connecting a drinking water distribution system to a source of pollution or contamination."

All applications that connect to the potable water distribution system and use, for example, chemicals or disinfectants generate cross-connections that could corrupt the water to varying degrees. A hose connected to a faucet and immersed in a boiler containing toxic products thus becomes a potentially risky cross-connection. Common applications in institutional, commercial, and industrial settings include:

- Water softener,
- Detergent dispenser,
- Humidifier,
- Coffee machine,
- Ice machine,
- Washing machine,
- Steam cleaner,

- Heating and cooling network,
- Fire network,
- Irrigation system.

Contamination occurs when there is a reversal of the direction of water flow in the drinking water distribution system, which is called backflow. When there is a backflow, toxic elements can then end up in the drinking water and affect the health of the users of the building, or even other buildings in the area. For this reason, building owners are required by law to protect any risky cross-connections, for example, by installing backflow prevention devices.

Only a professional can identify risky cross-connections on a potable water distribution network. The engineering of cross connections is a very advanced discipline that comes under the mechanics of the building, and which aim is to preserve drinking water. Contact our experts for a cross-connection engineering analysis in your buildings.