

Cross Connection Control Program

Overview

The Village of Random Lake delivers drinking water to our residents every day. To continue to protect the public health and keep the water system safe from contaminants and pollutants, we are required by the Wisconsin Department of Natural Resources, Wisconsin Department of Safety & Professional Services, and the Village of Random Lake Municipal Code to develop and implement a Cross Connection Control Program.

Employees of the Village of Random Lake Utility will perform inspections of residential, commercial and industrial buildings throughout the community to detect actual and potential cross connections and make recommendations for the installation of backflow prevention devices or assemblies where necessary. This will help ensure that contaminated or polluted water cannot backflow into the Utility's clean drinking water.

What is a Cross Connection?

A cross connection is a direct or potential connection between any part of the public water supply system and a source of contamination or pollution. The most common form of cross connection is a garden hose, which is easily connected to the public water supply system and can be used to apply a variety of potentially dangerous substances, including chemicals and fertilizer. Other common cross connections include dishwashers, laundry tubs, toilets, pressure washers, boilers, pools, and lawn irrigation systems.

How Does Contamination Occur?

Water normally flows in one direction, from the public water system through the customer's cold or hot water plumbing system to a faucet or other plumbing fixture. Under certain conditions, water can flow in the reverse direction. This is known as backflow, and it occurs when back siphonage or backpressure is created in a water line.

- **Back Siphonage** may occur when there is a drop in the supply pressure of the water distribution system. This can be caused by a water line break, water main repair, or during a rapid withdrawal of water from a fire hydrant. This creates a vacuum, which may pull or siphon contaminants or pollutants into the drinking water supply.
- **Back Pressure** may be created when a source of pressure, such as a pump or boiler, creates a pressure greater than that in the water distribution system. This higher pressure in the customer's plumbing may force potentially contaminated water out into the public water supply.

What is a Cross Connection Control Program?

WI DNR 810.15 requires that the supplier of water for every municipal water system shall develop and implement a comprehensive control program for the elimination of all existing cross connections and prevention of all future cross connections. The law also requires that a record of the cross connection control program shall be kept current and available for annual review by the department. The Village of Random Lake Utility Cross Connection Control Program includes the following elements:

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- **Cross Connection Control Ordinance** – A Village of Random Lake Ordinance currently prohibits any direct or potential cross connection to the public drinking water supply. The ordinance authorizes performance of periodic onsite surveys and disconnection of the water supply to any facility if needed to remove or isolate a cross connection hazard.
- **Public Education** - The Village of Random Lake will inform customers through newsletters, and other information sent out via mail. Additional information and resources are available on the following web sites:
 - <http://backflownews.com/>
 - <http://water.epa.gov/infrastructure/drinkingwater/pws/index.cfm>
 - https://docs.legis.wisconsin.gov/code/admin_code/nr/800/810/I/15
 - https://docs.legis.wisconsin.gov/code/admin_code/sps/safety_and_buildings_and_environment/380_387/382/IV/41
- **Notices to Owners** – The Village of Random Lake Utility will notify customers of a scheduled inspection date and any required connection action.
- **Cross Connection Survey** – As required by WI DNR NR 810.15, all residential and nonresidential facility plumbing systems which are connected to the public water supply will be inspected to determine if a cross connection exists.
- **Installation of Protective Devices** – As required by Department of Safety & Professional Services SPS 382.41, a backflow prevention device or assembly will be required to be installed at the owner's expense as needed to prevent potential cross connection contamination.

What is a Cross Connection Survey?

The cross connection survey is the first step in our cross connection control program. Wisconsin Department of Natural Resources regulations in NR 810.15 recommend that all industrial, commercial, and institutional facilities be surveyed for cross connections regularly (every two to six years, depending on the degree of hazard within the facility). A survey is a walk-through of the water system piping in a building or property, starting at the water meter and ending at the last free-flowing tap. At the end of the survey, a report will be produced describing any plumbing violations or discrepancies found, as well as a timeframe for bringing the facility into compliance. The first round of inspections will include city-owned buildings, public school facilities, medical facilities, car washes, and industrial/manufacturing facilities. **Inspection notices will be mailed to water customers approximately two weeks before the scheduled inspection date. A customer representative should be available during the inspection to answer questions and provide access.**

Questions?

Cross connection control program questions can be directed to:

- Village of Random Lake Water Utility (920) 994-4852
- Director of Public Works (920) 980-0598