

Middlesex Water Company Cross Connection Control Program

Policy

The return (or potential for return) of any water to the potable water system after the water has been used for any purpose on the customer's premise or within the customer's piping system is unacceptable.

Purpose

The purpose of the cross connection control program is to protect the potable water system from the hazards originating on or in the customer's premise, through permanent or temporary connections, that may impair or alter the water quality in the potable water system.

Authority

In accordance with the New Jersey Safe Drinking Water Act, N.J.A.C. 7:10 Subchapter 10, the water utility owner and the Licensed Operator have the authority to require cross connection control by containment.

In accordance with the New Jersey Board of Public Utilities approved tariff, the customer shall be responsible for the installation, maintenance and testing of cross connection control devices.

Scope

The Company shall differentiate between premises (i.e. customers) by category depending on the authority administering the cross connection control requirement. All category I, II and III premises shall be so designated in CC&B and GIS.

Category I: Incorporates all premises with a valid NJDEP issued physical connection permit. The cross connection control device shall be as specified in the physical connection permit. Refer to Appendix A for a listing by address of the Category I premises.

Category II: Incorporates all premises with cross connection control as required by the Company in accordance with this Plan. The cross connection control device shall be determined by this Plan or the Distribution System Licensed Operator for applications not specifically addressed by the Plan. Refer to Appendix B for a listing by address of the Category II premises.

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Category III: Incorporates all known cross connection control devices installed/tested/maintained in accordance with and as required by State/local building/construction code and regulation/ordinance; for the sole purpose of protecting the potable water system. This category does not apply to devices installed within a premise that only afford protection for the occupants of the premise.

The Distribution System Licensed Operator can waive the requirement for cross connection control under this Plan when the following conditions are deemed to have been met by the device.

- a) Records reflect that the device in question **meets or exceeds that required by the Company under this Plan;**
- b) Records demonstrate that the device has been maintained/tested reliably and consistently by an appropriately certified individual on behalf of the owner of the premise;
- c) The device in question is in close proximity (within 100') to the curb stop/valve;
- d) There is no more than 5 linear feet of service pipe between the wall where the service pipe enters the premise and the water meter;
- e) Where the potential for customer installed connections between the curb stop/valve and the device is non-existent or very unlikely to occur in the opinion of the Distribution System Licensed Operator. Refer to Appendix C for a listing by address of the Category III premises.

Applicability

Customer premises that coincide with the types of facilities listed in Appendix A of N.J.A.C. 7:10-10 shall be required to install a reduced pressure principle backflow preventer (RPPBP) also referred to as a reduced pressure zone (RPZ) backflow preventer, except as provided for within this Plan. Said facilities include:

1. Medical Facilities
 - Hospitals
 - Clinics
 - Laboratories
 - Veterinary
 - Nursing/convalescent
 - Physical therapy/radiographic
 - Morgues/mortuaries/autopsy/embalming
2. Treatment Plants/Pump Stations
 - Municipal/Industrial/Storm

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3. Commercial Manufacturing/Storage
 - Automotive/aircraft/watercraft
 - Breweries/distilleries/beverage bottling
 - Chemical (manufacturing, use, storage, treatment, disposal)
 - Car wash facilities (self-serve and automatic)
 - Dairies and cold storage
 - Metals manufacturing/handling (cleaning, processing, refining, fabricating, plating)
 - Paper and paper products
 - Petroleum or gas processing/storage
 - Photographic film processing
 - Power plants/facilities
 - Radioactive materials/substance (processing/handling/treatment/disposal)
 - Rubber plants (natural and synthetic)
 - Sand, gravel, concrete and asphalt plants/facilities
 - Technical schools, colleges, universities
 - Solar heating systems (direct and auxiliary)
 - Temporary services or hydrant use (street cleaning, tank trucks, all infrastructure testing/flushing not associated with the potable water system)
 - Waterfront facilities (docks, marinas, etc.)
 - Food processing(manufacturing, canning, packaging)
 - Waterparks

4. Buildings
 - With sewage ejectors/pumps
 - With water booster pumps and/or water storage tanks
 - Supermarkets/grocery (wholesale/retail)
 - Restaurants
 - Schools, research facilities, any building with a laboratory
 - Buildings with dedicated/combined fire service with fire pumps, storage tanks, private hydrants and fire department connections (FDCs) *
 - Warehouses used for the storage of hazardous materials
 - Factories
 - Shopping malls

*A double check valve assembly shall be installed in lieu of an RPPBP for premises with a fire service that does not include any of the fire system appurtenances referenced above **and** when the premise is not one of the types listed above. Double check valve assemblies shall be installed in an above-ground, heated enclosure to avoid the need for confined space entry when performing service/inspection/repair.

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Applicable customer premises shall be required to upgrade their service pipe to incorporate cross connection control when (1) the Distribution System Licensed Operator determines that an existing premise poses an immediate risk to the potable water system, (2) at the time of construction for new customers, (3) at the time an existing customer is performing work that directly or indirectly impacts the customer's service pipe including but not limited to modifying/altering/repairing/relocating/replacing the service pipe.

Installation/Construction

Backflow prevention devices shall be installed after (downstream of) the water meter and in an area that is well-lit, safe and readily accessible. The area shall allow a minimum of 36" of clear space in all directions (360 degrees) around the device for personnel to conduct maintenance/testing/witnessing.

The area around the backflow prevention device shall not expose maintenance/testing/witnessing personnel to other safety hazards, both general in nature and specific depending on the type of facility.

Backflow prevention devices shall be constructed/installed such that the device is no less than 12" from the finish floor and no more than 30" from the finished floor.

RPPBP devices installed with a spill capture pipe shall maintain a 2" minimum air-gap between the spill port of the device and the overflow of the spill capture pipe.

Vertical installation of backflow prevention devices is not permitted.

Training/Certification

In accordance with NJAC 7:10-10.8, MWC personnel will obtain and maintain certification from the New England Water Works Association in backflow prevention device inspection/testing.

Testing

Testing shall only be conducted by certified individuals.

Premises in each category shall be required to test the applicable device(s) in accordance with the established schedule below.

Premises shall submit test records and a copy of their certificate for each test performed to the Superintendent of Distribution Service at MWC.

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Category I premises that fail to comply with NJDEP permit renewal requirements (includes but is not limited to testing, reporting and payment of fees) shall be provided written notice of impending service termination. Failure of the premise to respond affirmatively within 10 days of the date of the impending service termination notice shall result in termination of service. Service shall be restored upon compliance with the applicable NJDEP permit requirement(s).

Category II and III premises that fail to test their device, fail to have it tested by a certified individual, fail to submit the test records or fail to test the device according to schedule shall be provided written notice of impending service termination. Failure of the premise to respond affirmatively within 10 days of the date of the impending service termination notice shall result in termination of service. Service shall be restored upon compliance with the applicable testing requirement(s).

Testing of devices shall be as follows.

Category I: testing as required in accordance with the NJDEP permit.

Category II: Annual testing required (does not apply to double check valve assemblies)

Category III: Annual testing required (does not apply to double check valve assemblies)

Certified MWC personnel will witness random selected Category I and II tests and verify the certified tester's credentials with the issuing agency/authority at the time of each test.

The Superintendent of Distribution Service will schedule one random inspection per week for the coming year, monitor inspection progress and report inspection progress on the Department scorecard monthly.

Testing for publicly owned premises (municipal/county) may be conducted by certified MWC personnel during work-hours.

Certified MWC personnel may NOT conduct testing for privately owned premises within the MWC retail service area.

Certified MWC personnel conducting testing for premises not in the MWC retail service area shall NOT affiliate themselves or the services they provide with MWC.

Recordkeeping

The Superintendent of Distribution Service shall maintain a master list of all applicable premises, organized by category and including the respective test records.