

Appendix 6
Cross Connection Control Suggested Program and Model Ordinance

The following pages are excerpted from the Cross Connection Rules Manual, Fourth Edition, October 2008, Appendices A through C. This excerpt contains:

Appendix A Suggested Model Ordinance

Suggested Model Ordinance (for public owned water systems)

Appendix B Cross Connection Control Program (CCCP) Guidance Outline

Appendix C Model Cross Connection Control Programs

Example No. 1 – Basic Program (publicly owned water systems)

Example No. 2 – Recommended Program (publicly owned water systems)

Example No. 3 – Cross Connection Control Program for Privately Owned Water Systems

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Appendix A

Suggested Model Ordinance

SUGGESTED MODEL ORDINANCE
(for publicly owned water systems)

An ordinance regulating cross connections with the public water supply system, i.e., a connection or arrangement of piping or appurtenances through which water of questionable quality, wastes or other contaminants can enter the public water supply system.

Be it ordained by (the council of the city or the village, township board, or other legislative body operating a public water supply), State of Michigan:

Section 1. That the (city, village, or township) adopts by reference the Water Supply Cross Connection Rules of the Michigan Department of Environmental Quality being R 325.11401 to R 325.11407 of the Michigan Administrative Code.

Section 2. That it shall be the duty of the (name of local agency) to cause inspections to be made of all properties served by the public water supply where cross connections with the public water supply is deemed possible. The frequency of inspections and reinspections based on potential health hazards involved shall be as established by the (name of water utility) and as approved by the Michigan Department of Environmental Quality.

Section 3. That the representative of the (name of local inspection agency) shall have the right to enter at any reasonable time any property served by a connection to the public water supply system of (city, village, or township) for the purpose of inspecting the piping system or systems thereof for cross connections. On request, the owner, lessees, or occupants of any property so served shall furnish to the inspection agency any pertinent information regarding the piping system or systems on such property. The refusal of such information or refusal of access, when requested, shall be deemed evidence of the presence of cross connection.

Section 4. That the (name of water utility) is hereby authorized and directed to discontinue water service after reasonable notice to any property wherein any connection in violation of this ordinance exists and to take such other precautionary measures deemed necessary to eliminate any danger of contamination of the public water supply system. Water service to such property shall not be restored until the cross connection(s) has been eliminated in compliance with the provisions of this ordinance.

Section 5. That all testable backflow prevention assemblies shall be tested at the time of installation or relocation and after any repair. Subsequent testing of devices shall be conducted at a time interval specified by (name of local agency) and in accordance with Michigan Department of Environmental Quality requirements. Only individuals that hold a valid Michigan plumbing

license and have successfully passed an approved backflow testing class shall perform such testing. Each tester shall also be approved by the (name of the local agency). Individual(s) performing assembly testing shall certify the results of his/her testing.

Section 6. That the potable water supply made available on the properties served by the public water supply shall be protected from possible contamination as specified by this ordinance and by the state and (city, village, or township) plumbing code. Any water outlet which could be used for potable or domestic purposes and which is not supplied by the potable system must be labeled in a conspicuous manner as:

WATER UNSAFE
FOR DRINKING

Section 7. That this ordinance does not supersede the state plumbing code and (city, village, or township plumbing ordinance No.____), but is supplementary to them.

Section 8. That any person or customer found guilty of violating any of the provisions of this ordinance or any written order of the (name of inspection agency or name of water utility), in pursuance thereof, shall be deemed guilty of a misdemeanor and upon conviction thereof shall be punished by a fine of not less than (\$) nor more than (\$) for each violation. Each day upon which a violation of the provisions of this act shall occur shall be deemed a separate and additional violation for the purpose of this ordinance.

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Appendix B

Cross Connection Control Program (CCCP) Guidance Outline

CROSS CONNECTION CONTROL PROGRAM (CCCP) GUIDANCE OUTLINE

- 1) Objective
 - a) Protect Public Health
 - b) Comply with the Michigan Safe Drinking Water Act
 - c) Prevent Contamination of Water Supply by Eliminating Cross Connections
- 2) Authority
 - a) Local Ordinance
 - b) Part 14 of the Michigan Safe Drinking Water Act, Act 399
 - c) Michigan Plumbing Code
- 3) Intent
 - a) Comprehensive in Scope
 - b) Effective in Meeting Objectives
 - c) Professional and Fair Treatment of Customers
- 4) Method/Approach
- 5) Program Summary Checklist

Introduction

To determine if you need to update your cross connection control program consider these questions:

- Does your community have a comprehensive written CCCP?
- Are you familiar with the document?
- Has the CCCP been updated recently?
- Do you have an **organized** approach to your CCCP?
- Do you have **complete** records of your CCCP activities?
- Do you currently have customers that you are uncertain whether they comply with your CCCP?
- Does your staff have adequate time and training to carry out the program?
- Are your annual site inspection and assembly testing requirements normally met?
- Is achieving customer compliance usually a smooth process?

If the answer to any of these questions is “no”, then it is probably time to update your program. Follow these initial steps to get started:

- Review your current CCCP and determine if the **written** plan has been approved by the DEQ.

- If you do not have a written program contact your DEQ district engineer to get started.
- Review your working program and determine if it is effective in meeting DEQ requirements. Sometimes a utility's working program is satisfactory, but their written program needs to be updated.
- Step 1 is to get a comprehensive program down on paper and approved by the DEQ.
- The program or plan should serve as a guide in implementing the requirements.

The following is a guide to help you prepare your own cross connection control program. It will focus on the methodology and approach to carrying out a CCCP.

A. Inspections

Inspection of water customers for the presence of cross connections is the backbone of a CCCP. The purpose of inspections is to initially survey all customers to identify cross connections in need of corrective action. The purpose of reinspections is to verify through visual inspection that corrective actions are complete and all backflow preventers are in place and working properly. The first step is to complete inspections of all customers in order to develop an inventory of the cross connection accounts that exist. The highest priority for inspections will be placed on facilities that pose a high degree of hazard, that have a high probability that back flow will occur, or are known/suspected to have cross connections. Inspections consist of entering a facility from the point where water service enters the facility (usually the meter) and tracing the piping to each end point of use.

Detailed inspection records will be developed from the data gathered on site including

- Standard inspection form (see example)
- Narrative description of location and concern associated with each potential cross connection
- Classification of hazard
- Subject to backpressure, backsiphonage, or both?
- List of all backflow preventers, including testable assemblies and non-testable devices
- Photos or sketches if available

Maintain good customer service

- Call in advance to schedule inspections when appropriate
- Minimize interruptions in business or operation of the facility
- Explain findings of the inspection to the site contact
- Provide options when corrective action is needed

- Share any creative cost saving ideas to comply with requirements
- Wear utility uniform and provide identification

Inspection personnel must have adequate administrative support including

- Safety
- Proper equipment
- Training

Determination of required corrective actions will be based on:

- Inspection results
- MDEQ Cross Connection Rules Manual
- MI Plumbing Code

It is recommended that cross connection control program personnel keep copies of these documents in their vehicles in case the utility's authority is challenged while on site.

Once initial inspections of all accounts are complete, then a reinspection frequency should be determined for each account based on the degree of hazard and potential for backflow. Accounts that pose a high hazard or have a high potential for back flow to occur, must be reinspected annually. All other accounts should be reinspected once every 1-5 years. After the initial wave of cross connection inspections is complete a comprehensive list of all testable assemblies should be available.

B. Backflow Preventer Assembly Testing

Based on the associated degree of hazard and probability of backflow, each assembly should be assigned a testing frequency. Assemblies in place on high hazard connections must be tested annually. All other accounts must be tested once every 1-3 years. Other factors such as new construction, a water quality complaint, or an anomaly in customer billing, may prompt an immediate inspection.

- All testable assemblies must be routinely tested on a frequency prescribed in your program based on degree of hazard.
- All assemblies must be tested immediately following installation and repair. Test forms must be received and kept on record for each required test.
- Following the initial wave of inspections and subsequent classification of accounts (e.g. assigning a degree of hazard), assembly testing notices will be sent to customers each year. These notices will:
 - Clearly identify assemblies requiring testing (size, make, model, location, etc.)
 - Stipulate the date by which the assembly must be tested
 - Indicate that it must be completed by a certified tester. A list of approved testers may be provided. Updated lists may be obtained by contacting the DEQ.

- Enclose a standard test form (optional)
- When assembly testing reports are received by the utility, they will be checked for the following:
 - All the necessary information was provided
 - Name and certification number of the tester is provided
 - The test results seem valid
 - The assembly tested matches the assembly requiring testing
 - The assembly is ASSE certified
- Cross connection control program staff will follow up with owner or tester on questionable test forms

C. Record Keeping

- A system of cross connection record keeping is imperative. Most likely this will consist of both hard copy records and computer data. Special software specifically for cross connections is recommended as it can enable:
 - Efficient record searches
 - Easy reporting
 - Simple updating
 - Automatic letter generation
 - Automatic deadline notification

Sufficient file space may also be necessary for filing hard copy records as well.
- All testable assemblies must be in the records including
 - Location of the assembly
 - Name and contact information of owner
 - Make, model, and size of assembly
 - ASSE standard number
 - Degree of hazard classification
 - Required testing frequency and basis
 - Seasonal or permanent status
- All cross connections accounts including
 - Address and location
 - Owner name and contact information
 - List of testable assemblies
 - Description of other cross connections within the facility
 - Air gaps
 - Non-testable devices
 - Degree of hazard classification
 - Required re-inspection frequency
 - Photos or sketches if available
- Tracking changes in water use or tracking new customers is a critical part of a cross connection program. Making sure cross connections are eliminated at installation is an excellent way to

ensure future compliance. Cooperation with the local plumbing inspector can make this task much easier.

- Maintaining a history of each account's compliance is helpful. This should include
 - Past assembly testing forms
 - Correspondence
 - Inspection forms
 - Enforcement actions
- Standard letter, form, and report templates may be used to simplify the program requirements including
 - Inspection forms
 - Assembly testing forms
 - Inspection and/or assembly testing notification letters
 - Non compliance letters
 - Water service termination notice
 - Hydrant use authorization forms
- Copies of the written cross connection control program, ordinance, and DEQ approval letter should be kept on file.

D. Customer Notification – Since this portion of the program consists of producing and sending out mailings, suitable administrative support may be necessary.

- Generally advance notice will be given for routine XC inspections. In the case of a suspected violation or when public health is at risk, little or no notice may be appropriate.
- Following an inspection, formal notification in the form of a letter will be given either indicating compliance or summarizing the necessary corrective actions and deadline. If an account is in compliance, formal notification may be in the form of a verbal notice and updating cross connection records.
- Assembly testing requirements should be announced in a formal notice.
- Follow up notice will be issued to unacceptable test reports and delinquent test reports
- Notice will be provided prior to certain enforcement actions such as shutting off the water service
- If containment of a customer is necessary, the owner should be made aware, preferably in writing that the safety of the water in their facility cannot be guaranteed. Furthermore, they are required by the state sanitation code (MIOSHA 4201) to provide safe drinking water to employees.
- At times it may be necessary to request a pertinent piping schematic to assist in an inspection or review of cross connections. As it may take some time to produce these schematics, a notice should be provided to the customer.

E. Enforcement

- The local ordinance must provide authority to properly carry out the program including the ability to:
 - Inspect facilities
 - Terminate water service
 - Assess fines
- A system for bringing customers back into compliance will be established
 - The system of compliance should be fair and consistent
 - Compliance time should be based primarily on degree of hazard. However, the complexity and cost of corrective actions should also be considered.
 - An initial corrective action letter with a deadline followed by warning letters are appropriate steps leading to enforcement
 - Proper documentation must be available before pursuing enforcement
- If a water shut off is necessary, the following agencies may need to be notified:
 - Local health department
 - Fire department
 - Local law enforcement
 - Community officials (i.e. city manager)
- A formal system of allowing authorized fire hydrant use should be established, such as:
 - User provides a formal request
 - Utility ensures that user will provide proper backflow prevention
 - The use of a meter is recommended
 - A policy for enforcing unauthorized use is necessary that may incorporate the following:
 - Fines
 - Charge for water use
 - Charge for infrastructure damages (hydrant, water hammer problems, red water, etc)
 - Charge for time and materials for any necessary repairs
- A statement on containment vs. isolation including an emphasis on why isolation is preferred.
- A statement on water customers with private wells is recommended
 - Verify it is physically disconnected
 - Make sure local health department is aware
 - Establish a reinspection frequency

F. Education

- The cross connection control program staff must have a good understanding of the program. Therefore, the following should be required of program staff
 - Field training
 - Classroom education of terminology, assemblies, devices, regulations, hydraulic concepts, etc.
 - Continuing education is critical to get updates on
 - New backflow prevention assemblies and devices
 - Regulation changes (i.e. plumbing code)
 - New water use appurtenances that pose cross connection concerns (soap dispensers)
- Prevention of new cross connections can be greatly reduced by educating the public. The following methods of educating the public may be implemented.
 - Distributing pamphlets on common residential cross connections
 - School visits
 - Onsite education of facility management and maintenance staff during routine inspections
 - Condominium association meetings
 - Newspaper announcements
- Carrying out the program can be made much easier by gaining the support of the local community through education of key community officials and employees.
 - The local plumbing inspector should be made aware of cross connection program needs. The local inspector can be a great ally in preventing and eliminating cross connections.
 - City, village, county, or township management should also be educated as their support is necessary to execute and enforce the program. This effort may need to be repeated periodically, as turnover in personnel is common in these positions.
 - Since other community employees may oversee facilities which contain potential cross connections, educating other public works staff is recommended
 - Parks and cemetery staff
 - Water treatment, wastewater treatment, and power plant operators
 - Fire department
 - General maintenance staff

G. Annual Report

- Act 399 requires that each community report the status of their program to the MDEQ annually.
- The report summarizes testing, inspection, and corrective action efforts
- Cross connection records must be on file to document each number on the report
- The annual report form must be filled out completely and if there is uncertainty how to fill out the form contact the DEQ.
- Complete and submit form by deadline.
- A narrative description should be included explaining any unusual numbers or significant events such as
 - The addition or loss of a cross connection staff person
 - Expanded/contracted number of cross connection accounts
 - Status of accounts not currently in compliance

Program Summary Checklist:

An approved program will include and/or consider each of the following:

- ✓ Is an ordinance or legal means to effectively enforce your program in place?
- ✓ Has the staff assigned to conducting cross connection inspections been properly trained?
- ✓ Has each cross connection account in the system been inspected?
- ✓ Has a sufficient record keeping system been developed?
- ✓ Have complete records of each account been developed based on the inspection results?
- ✓ Has each account been classified by degree of hazard?
- ✓ Has each account been assigned a reinspection frequency?
- ✓ Has an inventory of all testable assemblies and non-testable devices at each account been established?
- ✓ Has a testing frequency been assigned to each testable assembly?
- ✓ Has a system of notifying customers of testing requirements and reviewing completed testing forms been developed?
- ✓ Has a system of tracking new water users and changes in existing water uses been developed?
- ✓ Have standard template letters and forms been developed?
- ✓ Have standard policies on common cross connection issues been established such as hydrant use, private wells, and containment/isolation?
- ✓ Has a system of educating utility staff, key community officials, and the public been organized?
- ✓ Do the cross connection staff understand how to correctly fill out the annual DEQ report form?
- ✓ Will the program effectively eliminate and prevent cross connections?

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Appendix C

Model Cross Connection Control Programs

Contains 3 different examples of cross connection control programs. Water systems should choose the one that best fits their needs.

EXAMPLE No.1 – BASIC PROGRAM
MODEL CROSS CONNECTION CONTROL PROGRAM
FOR PUBLICLY OWNED WATER SYSTEMS

Cross Connection Control Program for the
(village, city, township, water authority) of _____

I. Introduction

In accordance with the requirements set forth by the Michigan Department of Environmental Quality (DEQ), the (village, city, township) of _____ has officially adopted the state of Michigan cross connection control rules to protect the _____ public water supply system. “Cross Connection” is defined as a connection or arrangement of piping or appurtenances through which a backflow could occur. “Backflow” means water of questionable quality, waste, or other contaminants entering a public water supply system due to a reversal of flow. The cross connection control program will take effect immediately upon approval of the DEQ.

II. Local Ordinance

The authority to carry out and enforce a local cross connection control program will be in accordance with (village, city, township) ordinance No. _____, a copy of which is included in the program.

III. Local Inspection

The water superintendent and/or his designated agent shall be responsible for making the initial cross connection inspections and reinspections to check for the presence of cross connections with the municipal water supply system. Individuals responsible for carrying out the cross connection inspections and reinspections shall have obtained necessary training through any available manuals on cross connection prevention, including the Cross Connection Rules Manual as published by the DEQ and attendance of any cross connection training sessions sponsored by the DEQ or other recognized agencies.

IV. The schedule for inspections shall be in accordance with the following general outline:

1. Known or suspected secondary water supply cross connections shall be inspected first (surface water, private wells and storage tanks, recirculated water, etc.).
2. Known or suspected submerged inlet cross connections will be inspected next.

All suspected high hazard establishments, including all industrial, commercial and municipal buildings will be inspected first, typically within

6 months following the approval of this program. All other buildings and water system connections, including residential accounts, shall be inspected in a logical sequence as time permits.

V. Schedule for Reinspection

In order to ensure against the hazards of cross connections, it will be necessary to periodically and systematically reinspect for the presence of cross connections. The schedule for reinspection shall be in accordance with the schedule as noted in the Cross Connection Rules Manual. Whenever it is suspected or known that modifications have taken place with piping systems serving a particular water customer, reinspections of the premise will be made.

VI. Protective Devices

The methods to protect against hazards of cross connections as outlined in the Cross Connection Rules Manual will be incorporated into the (village, city, township) cross connection control program.

VII. Compliance Time

The time allowed for correction or elimination of any cross connection found shall be as follows:

1. Cross connections which pose an imminent and extreme hazard shall be disconnected immediately and so maintained until necessary protective devices or modifications are made.
2. Other cross connections which do not pose an extreme hazard to the water supply system should be corrected as soon as possible. The length of time allowed for correction should be reasonable and may vary depending on the type of device necessary for protection. The water utility shall indicate to each customer the time period allowed for compliance.

VIII. All testable backflow prevention assemblies shall be tested at the time of installation or relocation and after any repair. In addition, all high hazard and reduced pressure principle backflow preventers shall be tested annually. All other assemblies shall be tested at least once every three years. Records of test results shall be maintained by the water utility. Only individuals that hold a valid Michigan plumbing license and have successfully passed an approved backflow testing class shall perform such testing. Each tester shall also be approved by the (name of the local agency). Individual(s) performing assembly testing shall certify the results of his/her testing.

IX. The water utility shall maintain sufficient and accurate records of its local cross connection control program and report annually on the status of the program to the DEQ on a form provided by the department.

EXAMPLE No.2 – RECOMMENDED PROGRAM
MODEL CROSS CONNECTION CONTROL PROGRAM
FOR PUBLICLY OWNED WATER SYSTEMS

Cross Connection Control Program for the
(village, city, township, water authority) of _____

Village, City, Township of [_____]

I. Introduction

In accordance to the requirements set forth by the Michigan Department of Environmental Quality (MDEQ), the Village, City, Township of [_____] has officially adopted the state of Michigan cross connection rules to protect the public water supply system. A cross connection is defined as a connection or arrangement of piping or appurtenances through which a backflow could occur. Backflow is defined as the undesirable reversal of flow of water of questionable quality, wastes or other contaminants into a public water supply. The purpose of this program is to avoid contamination of the public water supply by preventing and eliminating cross connections. It is the Village, City, Township of [_____]'s intent to carry out a comprehensive and effective cross connection control program (CCCP) to ensure public health is protected and the requirements of the Michigan Safe Drinking Water Act are complied with.

II. Authority

The authority to carry out and enforce the local CCCP is provided from local ordinance _____ (see Appendix A), the Michigan Safe Drinking Water Act (Act 399), the MDEQ, Water Bureau Cross Connection Rules Manual, and the Michigan Plumbing Code.

III. Program Approach

The objectives of this program will be met primarily by:

- Routinely inspecting water customers for cross connections or potential cross connections.
- Requiring water customers to test backflow prevention assemblies.
- Maintaining cross connection control records.
- Actively enforcing violations of the program.
- Providing public education.
- Reporting the status of the program to the MDEQ.

The Village, City, Township of [_____] shall ensure that there are adequate personnel and resources to carryout the necessary field and administrative requirements for this program. The Village, City, Township of [_____] adopts the MDEQ, Water Bureau Cross Connection Rules Manual as a guide to prevent and eliminate cross connections.

IV. Inspections

The water connections and plumbing systems of all water customers or accounts shall be initially inspected for the presence of cross connections. As a result of the initial inspection, a detailed record of each account shall be established (see Section VI). A representative of the water utility or their designated agent shall be responsible for inspections. Individuals responsible for conducting inspections shall have obtained sufficient training on cross connection rules, identification, and corrective actions.

Inspections shall consist of entering a facility from the point where water service enters the facility (usually the meter) and tracing the piping to each end point of use. Using the inspection forms in Appendix _____, the inspector shall identify and note the location and nature of any direct and potential cross connections, location and details of backflow prevention devices, and other pertinent information. Inspectors having proper identification, shall be permitted to enter the building/premises at reasonable times for the purpose of cross connection inspections. If the inspector is refused proper access or if customer plumbing is untraceable, the Village, City, Township of [_____] will assume a cross connection is present and take the necessary action to ensure the public water supply is protected.

The highest priority for inspections shall be placed on facilities that pose a high degree of hazard, that have a high probability that back flow will occur, or are known/suspected to have cross connections.

Once initial inspections of all accounts are complete, then a re-inspection frequency shall be determined for each account based on the degree of hazard and potential for backflow. The MDEQ Cross Connection Rules Manual will be a guide in classifying the degree of hazard of each account. However, in general, situations in which backflow could cause illness or death shall be considered high hazard. Accounts that pose a high hazard or have a high potential for back flow to occur, must be re-inspected at least once per year. All other accounts must be re-inspected once every 1-5 years based on the degree of risk. Other factors such as new construction, water quality complaints, or anomalies in customer billing, may prompt an immediate re-inspection. After initial cross connection inspections are complete, a comprehensive list or inventory of all backflow prevention devices shall be on record including all pertinent data.

Following an inspection, the Village, City, Township of [_____] shall inform the customer of their compliance status with the cross connection rules. Template notices in Appendix _____ may be used to inform customers of upcoming inspections, required corrective actions, compliance status, etc.

V. Testing Backflow Prevention Assemblies

When all initial inspections have been completed, a comprehensive list of backflow preventors installed on customer plumbing systems will be on record. The backflow preventors that are testable assemblies shall be placed on a routine testing schedule. Based on the associated degree of hazard and probability of backflow, each assembly will be assigned a testing frequency. Assemblies in place on high hazard connections must be tested annually. All other accounts must be tested once every 1-5 years. In addition, all assemblies must be tested immediately following installation and repair.

Upon notice from the Village, City, Township of [____], it shall be the responsibility of the water customer to arrange for the assembly to be tested and submit the completed test form.

Following the initial cross connection inspections and subsequent classification of accounts (e.g. assigning a degree of hazard), assembly testing notices shall be sent to customers each year. The notices shall be sent out in a timely manner in order to provide adequate time for customers to comply, and the timing will consider seasonal assemblies. Template notices in Appendix _____ may be used to inform customers of testing requirements. These notices will:

- Clearly identify the assembly requiring testing (size, make, model, location, etc.)
- Stipulate the date by which the assembly must be tested.
- Indicate that tests must be completed by a certified tester. A list of approved testers may be provided and updated lists may be obtained from the DEQ.
- Enclose a standard test form (see Appendix_____).

When assembly testing reports are received by the utility, they will be checked for the following:

- All the necessary information was provided
- Name and certification number of the tester is provided
- The test results appear valid
- The assembly tested matches the assembly requiring testing (Make, Model, etc.)
- The assembly is ASSE certified

Cross connection control program staff will follow up with owner or tester on questionable test forms. A customer may be asked to have an assembly re-tested if the original test results do not appear valid. Test forms must be received and kept on record for each required test.

VI. Record Keeping

A system of cross connection record keeping shall be maintained. Special software specifically for cross connections may be used for:

- Efficient record searches
- Easy reporting
- Simple updating
- Automatic letter generation
- Automatic deadline notification

All cross connections account information must be in the records including:

- Address and location
- Owner name and contact information
- List of testable assemblies
- Description of other cross connections within the facility
 - Air gaps
 - Non-testable assemblies
- Degree of hazard classification and basis
- Required re-inspection frequency
- Photos or sketches if available

All testable assemblies must be in the records including:

- Location of the assembly
- Name and contact information of assembly owner
- Make, model, and size of assembly
- ASSE standard number
- Degree of hazard classification
- Required testing frequency and basis
- Seasonal or permanent status

Tracking changes in water use or tracking new customers is a critical part of the cross connection program. The Village, City, Township of [_____] shall make every attempt to prevent/eliminate cross connections at installation to ensure future compliance. An effort shall be made to cooperate and communicate with the local plumbing code inspector to better accomplish this goal.

Standard letter, form, and report templates may be used to simplify the program requirements including:

- Inspection forms
- Assembly testing forms
- Inspection and/or assembly testing notification letters
- Non compliance letters
- Water service termination notice
- Hydrant use authorization forms

Copies of the written cross connection control program, ordinance, and DEQ approval letter should be kept on file. Copies of the MDEQ annual reports shall be kept for a minimum of 10 years.

VII. Enforcement

To protect public health, water customers found to be in violation of the cross connection rules will be brought into compliance in a timely manner or lose their privilege to be connected to the public water system. To properly enforce these rules the Village, City, Township of [_____] ordinance provides authority to inspect facilities, terminate water service, and assess fines.

Following an inspection the customer will be sent either a compliance notice or a non-compliance notice. The timeframe to complete the necessary corrective actions is at the discretion of the utility and will be based primarily on the degree of risk posed by the violation but should also consider the complexity/cost of the necessary corrective actions. Cross connections that pose an imminent and extreme hazard shall be disconnected immediately and so maintained until proper protection is in place. Cross connections that do not pose an extreme hazard are generally expected to be eliminated within 30-60 days. The necessary corrective action and deadline shall be described in the non-compliance notice to the customer.

Failure to perform a required backflow prevention assembly test or pass a test constitutes a cross connection and must be corrected.

If a water shut off is necessary to protect the public water system, the local health department, fire department, local law enforcement, and [village, city, township] manager may need to be notified.

VIII. Public Education

The cross connection control program staff must have a good understanding of the program. The Village, City, Township of [_____] shall ensure their cross connection control staff receives proper in-the-field training as well as classroom education focusing on terminology, back flow prevention devices, regulations, and hydraulic concepts. In addition, cross connection control staff will be encouraged to receive continuing education to be made aware of new backflow prevention devices, regulation changes (i.e. plumbing code updates), new water use devices that pose cross connection concerns, etc.

Furthermore, attempts to educate the public about cross connections will be made by distributing pamphlets on common residential cross connections, visiting schools, providing onsite education of facility management and maintenance staff during routine inspections, speaking at condominium association meetings, showing videos on local access channels, or posting newspaper announcements.

Cross connection staff shall also be available upon request to provide backflow prevention education to pertinent community officials and [village, city, township] employees.

IX. Annual Report

Part 14 of the Michigan Safe Drinking Water Act requires that each community report the status of their program to the MDEQ annually. The report summarizes testing, inspection, and corrective action efforts. Cross connection records shall be on file to document each number on the report. The annual report form shall be filled out completely and submitted by the deadline. A narrative description shall be included explaining any unusual numbers or significant events such as:

- The addition or loss of a cross connection staff person
- Greatly expanded/contracted number of cross connection accounts
- Status of accounts not currently in compliance

EXAMPLE No.3
CROSS CONNECTION CONTROL PROGRAM
FOR PRIVATELY OWNED WATER SYSTEMS

Cross Connection Control Program for the
(enter name) Water Supply
_____ County
WSSN: _____

In accordance with the requirements set forth by the Michigan Department of Environmental Quality (DEQ), the (water system name) water system agrees to implement the state of Michigan cross connection control rules to protect the (water system name) water supply system from cross connections. "Cross Connection" is defined as a connection or arrangement of piping or appurtenances through which a backflow could occur. "Backflow" means water of questionable quality, waste, or other contaminants entering a public water supply system due to a reversal of flow. The cross connection control program will take effect immediately upon approval of the DEQ.

I, (insert name) the (owner, association president, designated agent, or other title) of the (water system name) water supply system, hereby stipulate to develop a comprehensive program for the elimination and prevention of all cross connections by the following actions:

1. Comply with the Water Supply Cross Connection Rules of the Michigan Department of Environmental Quality being R 325.11401 to R 325.11407 of the Michigan Administrative Code and the DEQ Cross Connection Rules Manual.
2. Be the duty of the (name of person or inspection agency) to inspect all properties served by the public water supply where cross connections with the public water supply are deemed possible. Individuals responsible for carrying out the cross connection inspections and reinspections shall have obtained necessary training through any available manuals on cross connection prevention, including the Cross Connection Rules Manual as published by the DEQ, and attendance at cross connection training sessions sponsored by the DEQ or other recognized agencies
3. Initially survey each building and periodically conduct reinspections based upon the degree of plumbing hazards associated with their drinking water plumbing.
4. Eliminate any potential and/or existing cross connections in compliance with all applicable codes and rules.
5. Be the duty of the (name of person or inspection agency) to establish the time frame for compliance with any order for the installation of backflow prevention devices, assemblies, or re-plumbing.

6. Accept only the methods outlined in Chapter 4 of the Cross Connection Rules Manual to protect against the hazards of cross connections.

7. Reinspections shall be in accordance with the schedule as noted in Chapter 13 of the Cross Connection Rules Manual, which is annually for high hazard accounts and 1-4 years for low hazard accounts. Reinspections shall be based upon the complexity of the building's internal plumbing, plumbing change frequency and the potential for backflow of contaminants/pollutants into the potable water supply. Reinspections of the premise will be made whenever it is suspected or known that modifications have taken place with piping systems serving a particular water customer.

8. All testable backflow prevention assemblies shall be tested at the time of installation or relocation and after any repair. In addition, all testable assemblies shall be tested at least once every three years. Records of test results shall be maintained by the water system owner. Only individuals that hold a valid Michigan plumbing license and have successfully passed an approved backflow testing class shall perform such testing.

9. The water system owner shall maintain sufficient and accurate records of its local cross connection control program and report annually on the status of the program to the DEQ on a form provided by the department.

OWNERS CERTIFICATION

By signing below, I hereby certify to implement and maintain an active cross connection control program in accordance with the provisions listed in this document.

Signature of Water System Owner or Designated Representative

Typed or Printed Name of Water System Owner or Designated Representative

Date

This cross connection control program will take effect immediately upon approval of the Michigan Department of Environmental Quality.