

Village of Athens
Cross Connection Control Program
Dated 6/22/2009 Revised:4/23/2012 Revised: 10/24/2022

INTRODUCTION

In accordance with the requirements set forth by the Wisconsin Department of Natural Resources in Wisconsin Administrative Code s. NR 810.15 and the Wisconsin Department of Commerce in Wisconsin Administrative Code s. SPS 382.4, the Village of Athens has officially adopted the State of Wisconsin cross connection control rules to protect the Athens public water supply system. Copies of these codes are included in the appendix.

The goal of implementing the Cross-Connection Control Program is to ensure the protection of the public water supply by minimizing the potential for contamination of the water system via cross connections. Cross-Connection is defined as any connection between two otherwise separate systems, one of which contains potable water from a public water system and the other water from a private source, water of unknown or questionable safety or steam, gases or chemicals, whereby there may be a flow from one system to the other, the direction of flow depending on the pressure differential between the two systems.

LOCAL ORDINANCE

The authority to carry out and enforce a local cross connection control program will be in accordance with the Village of Athens Code or Ordinances Chapter 440-33. A copy of the ordinance is included in the appendix.

TRAINING

Individuals responsible for carrying out the cross connection inspections and reinspections, other than waterworks operators or building inspectors, shall have obtained necessary training through any available manuals on cross connection prevention, including the Cross Connection Manual as published by the former Wisconsin Department of Industrial, Labor and Human Relations and repeated attendance at cross connection training sessions sponsored by the Wisconsin Rural Water Association, Wisconsin Technical Colleges or other recognized agencies. Additionally, these individuals shall be State Licensed Plumbers.

INSPECTIONS

Single Family, Duplex Residential Properties and Non-Residential Properties with Plumbing and Fixtures Similar to Residential: The water operator in charge and/or the designated agent shall be responsible for making the initial cross-connection inspection and needed reinspections to check for the presence of cross connections. Normal kitchen and bathroom fixtures including faucets, toilets, dishwashers, hand-held showerheads, icemakers will not be inspected. Other fixtures typical to a residence, such as point of use water treatment devices, laundry sinks with threaded faucets, hot water or steam boilers, and indoor/outdoor hose bibbs are not normal kitchen and bathroom fixtures and will be inspected during the cross-connection inspections. In general, the following procedures will be used:

1. Send letter to customer identifying the need for an inspection
2. Schedule inspection
3. Complete the inspection using a standard form (appendix)
 - Check box for acceptable, not acceptable, or not applicable

- Comment on location and type (ASSE #) of the backflow prevention device
 - Comment on the cross-connection control violation, if applicable
4. Discuss findings with property owner/tenant -
- Instruct customer to review low hazard area kitchen and bathroom fixtures exempt from inspection
 - Provide public education material
 - Provide vacuum breakers as needed
 - If the owner is not available at the time of the inspection, send letter with copy of report and public educational material

Non-Residential Properties with Plumbing More Complex than Typical Residential

Structures: The property owner shall provide a copy of a cross-connection inspection report to the Utility. The inspection shall be conducted by personnel meeting the training requirements listed above. The report shall be on Utility-provided forms (appendix) and shall be signed by the person conducting the inspection.

Utility staff will review each cross-connection inspection report for the following:

- Proper form
- Completeness
- Proper signature and credentials
- Confirm that there are no violations identified and if so that there is a timeframe for corrective action
- Confirm that the report is consistent with records showing testable assemblies and verification of an annual test
- Perform a general review of the devices and assemblies for appropriateness

Utility staff will also:

- Send initial letters to facilities identifying the date by which the inspection must be completed.
- Send reminder letters to facilities
- Track letters sent and completed inspections.
- Collect, review and filing of inspection reports – Note the review of the completed inspections is extremely important.
- Send response letters for incomplete or improper inspection reports

FREQUENCY OF INSPECTIONS

Single-Family, Duplex and Multi-Family Residential and Similar Customers shall be inspected at a minimum of once every 20 years.

Non-Residential Customers shall be inspected at a minimum of once every **two** years unless identified by the Utility and approved by the DNR as being on a 5 or 10 year inspection cycle. The Utility shall keep records with the inspection schedules on non-residential customers. Anytime a non-residential customer changes ownership, a survey shall be required to determine if any plumbing changes have occurred and any possible changes in inspection cycles.

DISTRIBUTION OF EDUCATIONAL INFORMATION TO CUSTOMERS

For inspections conducted by Utility staff, the Utility will provide an educational brochure in lieu inspections of fixtures within normal kitchen and bathroom facilities as follows: the Utility will hand the brochure to the owner/resident at the time of the inspection and will also mail the

brochure to all customers once every three years in the annual newsletter. The brochure will also be made available at the Village Clerk's office and posted on the Village's website.

PROTECTIVE DEVICES

The methods to protect against the hazards of cross connections as specified in s. SPS 382.41, Wis. Adm. Code and further detailed in the former DILHR publication Cross-Connection Control Manual are incorporated by reference into the Village of Athens' cross connection control program. Specific devices to be installed will have to have been listed in the WI Plumbing Products Register available online by WI Department of Safety and Professional Services (DSPS). Whenever any deviation from the recommended methods of protection is contemplated, approval from DSPS shall first be obtained. The appendix contains a listing of common devices that will be required to be installed for various cross connections.

COMPLIANCE TIME

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

- Cross connections which pose an eminent and extreme hazard shall be disconnected immediately as specified in Cross Connection Control Ordinance and so maintained until necessary protective devices or modifications are made.
- Cross connections which do not pose an extreme hazard to the water supply system, but nevertheless constitute a cross connection should be corrected within a reasonable period. The length of time allowed for correction will vary depending on the type of device necessary for protection. The Utility shall indicate to each customer where a cross connection is found to exist and the time allowed for compliance. Customers shall have 30 days to correct any necessary violations and either provide proof of compliance or call for re-inspection. Extensions to the 30 days may be granted on case-by-case basis depending on the type of device necessary for protection. In order to protect the health and safety of the other users of the water system, failure of the customer to comply with the cross-connection control ordinance in a timely manner will result in the Village of Athens enforcing the water service discontinuation Section of the Code of Ordinances.

If a follow-up reminder letter or scheduling letter is not acted on in 30 days, the Utility will send water service disconnection letter. Disconnection letter will state water will be shut off in 10 days if not compliant. If the premise has multiple tenants, each resident will be notified.

If no response to the disconnection letter, shut off procedures will be initiated.

TESTING

All cross-connection control devices shall be required to be maintained and tested in accordance with Ch. SPS 382, Wis. Adm. Code. All facilities that have devices requiring testing will need to keep copies of the latest testing records available at the facility.

RECORD KEEPING

The water utility shall maintain sufficient and accurate records of its local cross connection control program including individual inspection records. Copies of records to be kept are included in the appendix.

Reporting of cross connection control activities will be provided to the DNR annually to meet the requirements of s. NR 810.15(1)(f), Wis. Adm. Code. The standardized form is included in the appendix.

ATTACHMENTS

Municipal Code – Cross Connection Control Ordinance

Section NR 810.15, Wisconsin Administrative Code

Chapter SPS 382, Wis. Adm. Code

Public Educational Materials

Annual DNR Cross Connection Certification Form

Residential Inspection Form

Non-Residential Inspection Form

Initial letter to new facilities

Initial letter for inspections due

Reminder letters to facilities

Follow-up letter for failed inspection requiring corrective actions

Follow-up letter for incomplete or improper inspection reports for non-residential

Ordinance

<https://ecode360.com/30133315>

Section NR 810.15, Wis. Adm. Code

https://docs.legis.wisconsin.gov/code/admin_code/nr/800/810/l/15#:~:text=NR%20810.15%20Cross%20connections%20and,SPS%20382.41.

Chapter SPS 382, Wis. Adm. Code

https://docs.legis.wisconsin.gov/code/admin_code/sps/safety_and_buildings_and_environment/380_387/382

Did you know...

Your water can become contaminated if connections to your plumbing system are not properly protected!

The purpose of the local Cross-Connection Control Program, as required by State Plumbing Code and Regulations, is to ensure that everyone in the community has safe, clean drinking water.

Public Health & Safety....

To avoid contamination, backflow preventers are required by state plumbing codes wherever there is an actual or potential hazard for a cross-connection. The Wisconsin Department of Natural Resources requires all public water suppliers to maintain an on-going Cross-Connection Control Program involving public education, onsite inspections, and possible corrective actions by building owners if required.

More Information

WI Department of Safety and Professional Services (formerly DOC)
www.dsps.wi.gov



WI Department of Natural Resources
www.dnr.wi.gov



Environmental Protection Agency (EPA)
www.epa.gov



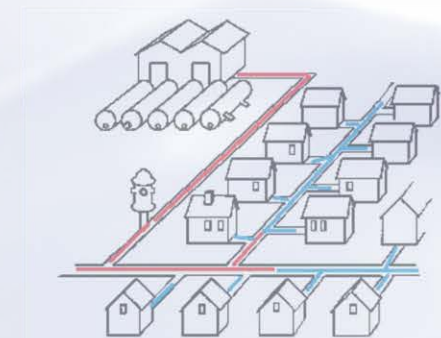
Cross-Connection Control / Backflow Prevention
www.hydrodesignsinc.com/wiccc.html

Drinking Water Information



Residential Water User Cross-Connection Hazards

Bathrooms & Kitchens



We're All Connected.....

Maintaining the integrity of your public drinking water system.

What is a Cross-Connection?

A cross-connection is an actual or potential connection between the safe drinking water (potable) supply and a source of contamination or pollution. State plumbing codes require approved backflow prevention methods to be installed at every point of potable water connection and use. Cross-Connections must be properly protected or eliminated.

How does contamination occur?

When you turn on your faucet, you expect the water to be as safe as when it left the treatment plant. However, certain hydraulic conditions left unprotected within your plumbing system may allow hazardous substances to contaminate your own drinking water or even the public water supply.

Water normally flows in one direction. However, under certain conditions, water can actually flow backwards; this is known as Backflow. There are two situations that can cause water to flow backward: back siphonage and backpressure.

Backsiphonage

May occur due to a loss of pressure in the municipal water system during a fire fighting emergency, a water main break or system repair. This creates a siphon in your plumbing system which can draw water out of a sink or bucket and back into your water or the public water system.

Backpressure

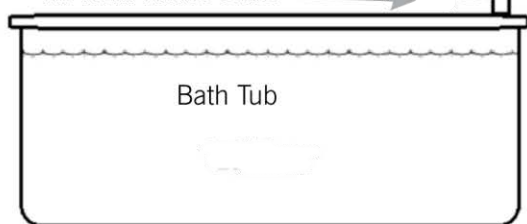
May be created when a source of pressure (such as a boiler) creates a pressure greater than the pressure supplied from the public water system. This may cause contaminated water to be pushed into your plumbing system through an unprotected cross-connection.

In the Bathroom - Hand Held Shower Fixture

The hand held shower fixture is compliant if:

- When shower head is hanging freely, it is at least 1" above top of the flood level rim of the receptor (tub)
- Complies with **ASSE#1014**
- Has the **ASME code 112.18.1** stamped on the handle

1" Minimum AIR GAP Above Tub From Fixture Outlet

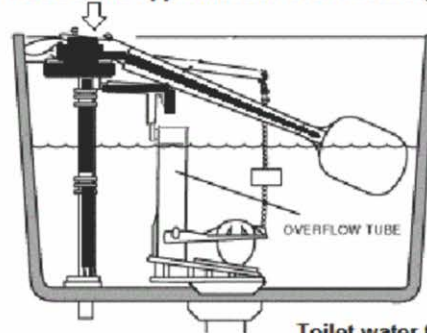


In the Bathroom - Toilet Tanks

There are many unapproved toilet tank fill valve products sold at common retailers which do not meet the state plumbing code requirements for backflow prevention.

- Look for the **ASSE #1002** Standard symbol on the device and packaging
- Replace any unapproved devices with an **ASSE #1002** approved anti siphon ball-cock assembly. Average cost is typically \$12 to \$22 at home improvement stores
- Verify overflow tube is one inch below critical level (CL) marking on the device

ASSE #1002 Approved Ball Cock Assembly



Insights to protect your drinking water

Do...

- Keep the ends of hoses clear of all possible contaminants.
- Make sure dishwashers are installed with a proper "air gap" device.
- Verify and install a simple hose bibb vacuum breaker on all threaded faucets around your home.
- Make sure water treatment devices such as water softeners have the proper "air gap", which is a minimum of one inch above any drain.

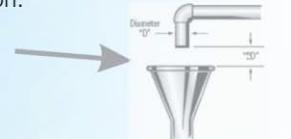
Hose bibb Vacuum Breaker



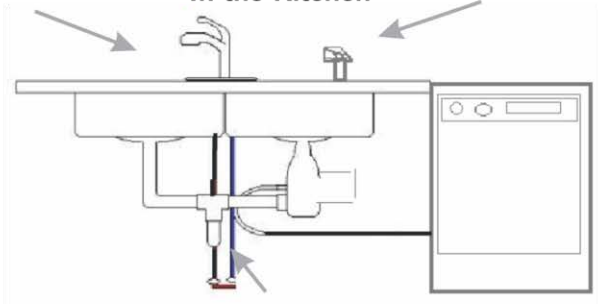
Don't...

- Submerge hoses in buckets, pools, tubs, sinks or ponds.
- Use spray attachments without a backflow prevention device.
- Connect waste pipes from water softeners or other treatment systems directly to the sewer or submerged drain pipe. Always be sure there is a one inch "air gap" separation.

Air Gap



In the Kitchen



Hoses and water treatment devices may create a potential backflow hazard if not properly isolated with backflow prevention methods.

202X WATER SUPPLY CROSS CONNECTION SURVEY SUMMARY REPORT

Section NR 810.15 Wisconsin Administrative Code requires municipal water systems to provide the department with an annual report including the total number of customers your system has in each category, and the total number of surveys completed in each category for that survey period. If used for annual reporting, this form must be submitted within 60 days of the survey period.

A Name of water system: Athens Waterworks PWSID: 73701496 County: Marathon

B Survey period during which inspections were completed: 1/1/202X-12/31/202X

C Has an alternative survey schedule been approved by the DNR? Yes/No Date Approved: _____

D Are you providing public education/partial surveys in lieu of full *residential* surveys? Yes Last Date Mailed: _____

E Are you providing public education/partial surveys in lieu of full *non-residential* surveys? No

F	G	H	I	J	K
<i>Customer Category</i>	<i>Survey Frequency</i>	<i>Customers in each Frequency Category</i>	<i>Customers Surveyed During Survey Period</i>	<i>Surveyed Customers Non-Compliant at End of Survey Period</i>	<i>Non-Compliant Customers Carried Over From Previous Years</i>
Residential	10 year				
Commercial	2 year				
	5 year				
	10 year				
Industrial	2 year				
	5 year				
	10 year				
Public Authority	2 year				
	5 year				
	10 year				

L Customer and survey numbers shown above are based on: Customer / Service Connection Other: _____

M Information submitted by: Name: _____ Title: _____ Date: _____

Residential Inspection Form

ATHENS RESIDENTIAL AND SIMILAR CROSS CONNECTION CONTROL INSPECTION FORM

Inspection Date: _____ Compliant: Y N Re-Inspection Date: _____ Compliant: Y N
 Account #: _____ Owner: _____ Occupant: _____
 Address: _____ Phone: _____
 Meter Size: _____ Meter Type: _____
 Utility Service Size: _____ Utility Service Size and Material: _____
 Customer Service Size: _____ Customer Service Size and Material: _____
 Well: Y N if yes, permit # _____ Premise Plumbing Material: _____
 Premises: Single Family Multiple Family # of Units _____ Apartment # of Units _____ Condominium # of Units _____

Bathroom/kitchen brochure provided? Y N

Type of Water Use	Present	Quantity/Location	Approved Device	Requirement(s) Device Type / ASSE
Water Softener	<input type="checkbox"/> Y <input type="checkbox"/> N	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Air Gap
Laundry Sink	<input type="checkbox"/> Y <input type="checkbox"/> N	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> HBVB/1011 <input type="checkbox"/> Remove Threads
Inside Hose Bibb	<input type="checkbox"/> Y <input type="checkbox"/> N	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> HBVB/1011 <input type="checkbox"/> Cap
Washing Machine	<input type="checkbox"/> Y <input type="checkbox"/> N	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Air Gap on Washing Machine
Heat Pump	<input type="checkbox"/> Y <input type="checkbox"/> N	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Vented DCV/1012 <input type="checkbox"/> RPBP/1013
Boiler	<input type="checkbox"/> Y <input type="checkbox"/> N	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Vented DCV/1012 <input type="checkbox"/> RPBP/1013
Humidifier	<input type="checkbox"/> Y <input type="checkbox"/> N	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> Vented DCV/1012 <input type="checkbox"/> RPBP/1013 <input type="checkbox"/> AG
Outside Hose Bibb(s)	<input type="checkbox"/> Y <input type="checkbox"/> N	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> FPHBVB/1019 <input type="checkbox"/> HBVB/1011 or 1052
Lawn Irrigation w/valves	<input type="checkbox"/> Y <input type="checkbox"/> N	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> PVB/1020 <input type="checkbox"/> SRVB/1056 <input type="checkbox"/> RPBP/1013
Lawn Irrigation w/o valves	<input type="checkbox"/> Y <input type="checkbox"/> N	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> AVB/1001
Fire Protection System	<input type="checkbox"/> Y <input type="checkbox"/> N	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> RPBP/1013 <input type="checkbox"/> DCV/1015
Boiler w/high pres or chem pot	<input type="checkbox"/> Y <input type="checkbox"/> N	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> RPBP/1013 <input type="checkbox"/> SVB/1056 <input type="checkbox"/> PVB/1020
Hot Tub / Whirlpool	<input type="checkbox"/> Y <input type="checkbox"/> N	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> RPBP/1013
Solar Hot Water	<input type="checkbox"/> Y <input type="checkbox"/> N	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> RPBP/1013
Swimming Pool	<input type="checkbox"/> Y <input type="checkbox"/> N	_____	<input type="checkbox"/> Y <input type="checkbox"/> N	<input type="checkbox"/> RPBP/1013 <input type="checkbox"/> SVB/1056 <input type="checkbox"/> DCV/1015

Additional Notes: _____

Customer Signature: _____

Inspected By: _____ Date: _____

All corrections must be completed and re-inspected. Inspections are done as required by Ordinance ***, Wisconsin Administrative Code NR 810 and SPS 382, by reference. Please call *** to make an appointment for re-inspection within 30 days of original inspection. Removal of installed items or failure to make required corrections and to schedule an appointment for re-inspection may result in penalties and/or discontinuance of water service.

Initial Letter to New Facilities



VILLAGE OF ATHENS
PO BOX 220
ATHENS, WI 54411
715-257-9170
athensclerk@villageofathens.com
www.athenswis.com

INSERT DATE

Dear Business/Property Owner:

The protection of the public water supply is a concern of both the Village of Athens and you, our customer. The Village of Athens has been given a directive by the Wisconsin Department of Natural Resources that a mandatory cross connection inspection is required.

The inspection is required by the Wisconsin Administrative Code NR 810.15 and the Village of Athens Ordinance. Inspections are required to be performed on all commercial, industrial and public authority properties every two to ten years (depending upon the potential for cross connection based on the fixtures installed). During the inspection, all plumbing items such as but not limited to, outside hose bibs, utility sinks, hot water heaters, fire protection systems, toilets, boilers, hand held showers and lawn irrigation systems need to be verified that they have State approved cross connection protection. After this initial inspection, it will be determined what reinspection cycle your business will be put on.

The enclosed inspection form (or a similar form provided by inspector) must be completed by a State Licensed Plumber who has obtained necessary cross connection training. The deadline for returning the inspection form to the Village Clerk's Office is Monday, INSERT DATE.

Your anticipated cooperation in this matter is appreciated. If you have any questions, please contact the Water Operator in Charge, Allen Belter or the Clerk's Office.

Listed Properties for inspection

Village of Athens Clerk's Office
715-257-9170

Water Operator in Charge
Allen Belter
715-257-9114

Initial Letters for Inspections Due



VILLAGE OF ATHENS
PO BOX 220
ATHENS, WI 54411
715-257-9170
athensclerk@villageofathens.com
www.athenswis.com

INSERT DATE

RE: X YEAR INSPECTIONS DUE

Dear Business/Property Owner:

The protection of the public water supply is a concern of both the Village of Athens and you, our customer. The Village of Athens has been given a directive by the Wisconsin Department of Natural Resources that a mandatory cross connection inspection is required.

The inspection is required by the Wisconsin Administrative Code NR 810.15 and the Village of Athens Ordinance. Inspections are required to be performed on all commercial, industrial and public authority properties containing high hazard fixtures with a high potential of cross connection once every XXX (X) years. During the inspection, all plumbing items such as but not limited to, outside hose bibs, utility sinks, hot water heaters, fire protection systems, toilets, boilers, hand held showers and lawn irrigation systems need to be verified that they have State approved cross connection protection.

The enclosed inspection form (or a similar form provided by inspector) must be completed by a State Licensed Plumber who has obtained necessary cross connection training. The deadline for returning the inspection form to the Village Clerk's Office is Monday, INSERT DATE.

Your anticipated cooperation in this matter is appreciated. If you have any questions, please contact the Water Operator in Charge, Allen Belter or the Clerk's Office.

Listed Properties for inspection

Village of Athens Clerk's Office
715-257-9170

Water Operator in Charge
Allen Belter
715-257-9114

Reminder Letters to Facilities



VILLAGE OF ATHENS

PO BOX 220

ATHENS, WI 54411

715-257-9170

athensclerk@villageofathens.com

www.athenswis.com

INSERT DATE

Dear Business/Property Owner:

The protection of the public water supply is a concern of both the Village of Athens and you, our customer. The Village of Athens has been given a directive by the Wisconsin Department of Natural Resources that a mandatory cross connection inspection is required.

The enclosed letter was sent on INSERT DATE and to date, we have not received verification of compliance. The enclosed inspection form (or a similar form provided by inspector) must be completed by a State licensed plumber who has obtained cross connection training. The final deadline for returning the inspection form (**and all non-compliances corrected**) to the Village Clerk's Office is INSERT DATE-30 DAYS FROM SENT. Failure to submit the required verification will result in non-compliance of the Cross Connection Ordinance with applicable fines and possible disconnection.

Your anticipated cooperation in this matter is appreciated. If you have any questions, please contact the Village Clerk's Office.

Listed Properties for inspection

Village of Athens
Clerk's Office
715-257-9170

Water and Sewer Operator in Charge
Allen Belter
715-257-9114

Follow-up Letter for Failed Inspection Requiring Corrective Actions



VILLAGE OF ATHENS
PO BOX 220
ATHENS, WI 54411
715-257-9170
athensclerk@villageofathens.com
www.athenswis.com

INSERT DATE

RE: CROSS CONNECTION DEFICIENCY COMPLIANCE

Dear Business/Property Owner:

Thank you for submitting your Cross Connection inspection report as required by Wisconsin Administrative Code NR 810.15. There were one or more cross connection deficiencies listed on the inspection report. I have enclosed a copy of the inspection report with the corrections that need to be completed highlighted. Please complete the corrections no later than INSERT DATE 30 DAYS. Failure to submit the required verification by this date will result in non-compliance of the Cross Connection Ordinance with applicable fines and possible disconnection.

When the corrections are complete, please submit a copy of the original inspection form indicating that the corrections have been made and signed by a State licensed plumber to the Village Clerk's office.

Sincerely,

Lisa Czech
Village Clerk
Village of Athens

Follow-up letter for Incomplete or Improper Inspection Reports for Non-Residential



VILLAGE OF ATHENS
PO BOX 220
ATHENS, WI 54411
715-257-9170
athensclerk@villageofathens.com
www.athenswis.com

INSERT DATE

RE: CROSS CONNECTION INCOMPLETE/IMPROPER INSPECTION REPORTS

Dear Business/Property Owner:

Thank you for submitting your Cross Connection inspection report as required by Wisconsin Administrative Code NR 810.15. Unfortunately, the form that was submitted was INSERT "INCOMPLETE" OR "NOT THE PROPER INSPECTION REPORT". I have enclosed a copy of what was submitted and have noted the corrections that need to be made. Please submit the correct information no later than INSERT DATE 30 DAYS. Failure to submit the required verification by this date will result in non-compliance of the Cross Connection Ordinance with applicable fines and possible disconnection.

When the corrections are complete, please submit a copy of the original inspection form indicating that the corrections have been made and signed by a State licensed plumber to the Village Clerk's office.

Sincerely,

Lisa Czech
Village Clerk
Village of Athens