Inspecting and Testing Limitations
Les O'Brien
Mar 2, 2016

- Building Inspector
- Plumbing Inspector
- Codes Enforcement Official
- Health Department Official
- Fire Department Inspector
- CCC Supervisor
- Any employee so directed by the water authority

Who can inspect?

Where can you inspect?

- Health Official (County)
  - Restaurants
  - Public Schools
  - Swimming Pools

Water Purveyor Employee

- Inspect Any Water Customer?
  
  Without permission or with an Inspection Warrant?
Properties to inspect:

- Industrial
- Commercial
- Institutional
- Residential

County owned property:

- Court House
- Public Schools
- Health Department
- County Administrative Offices

State owned property:

- Prisons
- Universities
- State Administrative Offices

Federal Property

- Prisons
- Post Office
- Court House
- Military Bases
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Inspection of Water Customers

- The Water Purveyor may not be able to inspect every water customer
- Special permission may need to be obtained
- The inspector may need an escort
- Make an appointment

Testing Limitations

- Licensing and Permits
- Qualifications (Who can test?)
- Equipment and Procedures
- Safe Access (OSHA)

How Do Backflow Prevention Programs Vary Throughout North America?

Pittsburgh 2014

Members who helped collect the data

- Tony Ippolito - MA
- Fred Baird - TX
- Jack Poole - KS
- Ron Chapman - MI
- Randy Engle -
- Paul Bladdick - MI
- Carl James - SC
- Bruce Rathburn - TX
- Peter McLaughlin - RI
- Mark Witt - IA, SD
- Ken Goergen - FL
- Richard Yoo - BC
- Kathy Riley - SC
- Mark Krouse - NC
- Darren Chitwood - MO
- Tina Dolan - OR
Nine Questions

1. Who owns the assemblies?
2. Who is allowed to test the assemblies for the customer?
3. Who is allowed to repair the assemblies for the customer?
4. What is the average charge for an annual field test?
5. Is the tester required to also be a licensed plumber?
6. Does the customer pay the tester directly or is the charge spread out over 12 months in their water bill?

Nine Questions

7. How does the tester submit the test and maintenance reports?
8. Does the water purveyor supply public education?
9. Does the water purveyor conduct an on-site inspections of all plumbing on a customers’ property?
10. other thoughts?
1. Who owns the assemblies?

Twenty-nine responses indicated that the customer owns the assemblies.

One water purveyor indicated that they own the assemblies.

2. Who is allowed to test the assemblies for the customer?

- Certified or Approved Tester 13
- Utility Approved Tester 4
- Licensed Plumber 6
- State Certified or Licensed 5
- No Requirement 1
- ABPA Certified 1
- ABPA or ASSE Certified 1
- CA/NV Certified 1

3. Who is allowed to repair the assemblies for the customer?

- Licensed Plumber 15
- Certified Tester 6
- Licensed Individual 2
- Anyone 2
- Varies by County 1
- Qualified Person 2
- Certified Utility Employee 1
- None Required under $5000 2

4. What is the average charge for an annual field test?

- CA - $30 to $100
- CO - $45 to $125
- DC - $75 to $300
- HI - $75
- IA - $35 to $150
- IL - $45 to $300
- KS - $65
- MA - $35 to $125
- MI - About $100
- SD - $80 to $150
4. What is the average charge for an annual field test?

- SC - $75 to $85
- SC - $50
- NC - $65
- MO - $40
- WSSC - $125 to $200
- MD - $100 to $185
- RI - $60 to $250
- SA TX - $40 to $150
- TX - $40 to $95
- UT - $50 to $140

5. Is the tester required to also be a licensed plumber?

- 15 States say NO
- 5 States say YES
- 2 States say Varies

5. Is the tester required to also be a licensed plumber?

<table>
<thead>
<tr>
<th>State</th>
<th>Requirement</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA</td>
<td>No</td>
</tr>
<tr>
<td>CO</td>
<td>No, ABPA or ASSE</td>
</tr>
<tr>
<td>DC</td>
<td>Not on Gov. Prop</td>
</tr>
<tr>
<td>FL</td>
<td>Varies</td>
</tr>
<tr>
<td>HI</td>
<td>No</td>
</tr>
<tr>
<td>IA</td>
<td>No</td>
</tr>
<tr>
<td>IL</td>
<td>Yes</td>
</tr>
<tr>
<td>KS</td>
<td>No</td>
</tr>
<tr>
<td>MA</td>
<td>No</td>
</tr>
<tr>
<td>MI</td>
<td>Varies</td>
</tr>
<tr>
<td>MO</td>
<td>Not by the State</td>
</tr>
<tr>
<td>NC</td>
<td>No</td>
</tr>
<tr>
<td>ON</td>
<td>No</td>
</tr>
<tr>
<td>MD</td>
<td>Yes</td>
</tr>
<tr>
<td>RI</td>
<td>No</td>
</tr>
<tr>
<td>SC</td>
<td>No</td>
</tr>
<tr>
<td>SD</td>
<td>Yes except Sioux Falls</td>
</tr>
<tr>
<td>TX</td>
<td>No</td>
</tr>
<tr>
<td>UT</td>
<td>No</td>
</tr>
<tr>
<td>VA</td>
<td>Yes</td>
</tr>
<tr>
<td>WA</td>
<td>No</td>
</tr>
</tbody>
</table>

6. Does the customer pay the tester directly or is the charge spread out over 12 months in their water bill?

- Customer pays directly to tester 25
- Customer pays to water Department 1
- Customer pays in water bill bi-monthly 1
- Unknown 1
7. How does the tester submit the test and maintenance reports?

- Mail, FAX, or E-mail: 11
- Customer submits to PWS: 3
- Mail in: 3
- FAX or E-mail: 2
- Varies: 2
- Decided by Utility: 2
- Paper Copy: 5
- Electronically: 1
- Loaded by Employees: 1

8. Does the water purveyor supply public education?

- Yes: 10
- No: 8
- Limited: 3
- Low Priority: 1
- Through Website: 1
- Initially: 1
- Not sure: 6

9. Does the water purveyor conduct an on-site inspections of all plumbing on a customers’ property?

- Yes: 6
- No: 9
- As needed: 5
- Unknown: 3
- Surveyed when account changes: 1
- Only if permit pulled: 1
- Only have a survey form: 1
- During annual field test: 1
- MA & CT – yes: 1

State Examination for License or Certification

<table>
<thead>
<tr>
<th>STATE</th>
<th>State Exam?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arkansas</td>
<td>Yes</td>
</tr>
<tr>
<td>Nebraska</td>
<td>Yes</td>
</tr>
<tr>
<td>Ohio</td>
<td>Yes, only UA &amp; ASSE</td>
</tr>
<tr>
<td>South Carolina</td>
<td>Yes</td>
</tr>
<tr>
<td>Utah</td>
<td>Yes</td>
</tr>
<tr>
<td>Virginia</td>
<td>Yes</td>
</tr>
</tbody>
</table>
**State Examination for License or Certification**

<table>
<thead>
<tr>
<th>STATE</th>
<th>Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Massachusetts</td>
<td>ABC for written. Hands-on by Purveyor. The State certifies training providers not testers</td>
</tr>
</tbody>
</table>

**State Examination by Third Party**

<table>
<thead>
<tr>
<th>STATE</th>
<th>Third Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>Georgia</td>
<td>GAWP</td>
</tr>
<tr>
<td>Illinois</td>
<td>Yes</td>
</tr>
<tr>
<td>Texas</td>
<td>Approved Providers</td>
</tr>
<tr>
<td>Washington</td>
<td>Yes</td>
</tr>
</tbody>
</table>

**State Approves Training Provider or Accepts Certification**

<table>
<thead>
<tr>
<th>STATE</th>
<th>Provider</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indiana</td>
<td>IRWA ?</td>
</tr>
<tr>
<td>Missouri</td>
<td>ASSE or ABPA</td>
</tr>
<tr>
<td>New York</td>
<td>ABPA</td>
</tr>
<tr>
<td>Oregon</td>
<td></td>
</tr>
<tr>
<td>Texas</td>
<td></td>
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**State Approves Training Provider**

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<tbody>
<tr>
<td>Idaho</td>
<td>ABC for written. State approved instructors for practical. State accepts ABPA to apply for license.</td>
</tr>
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</table>
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Typical Installations

Fire Protection and Domestic Services

Typical Installations

Old Regulation

PROPERTY LINE

PUBLIC WATER SUPPLY

FIRE LINE

FIRE PROTECTION CONTRACTOR'S RESPONSIBILITY

TAP VALVE

NEW REGULATION

PROPERTY LINE

PUBLIC WATER SUPPLY

FIRE LINE

FIRE PROTECTION CONTRACTOR'S RESPONSIBILITY
Public water supply

RP or DC

FIRE LINE

LOCATION OF BFP

at the Property Line

Outside of Building

Inside Building

Typical Installation

Beginning of State licensed Fire Sprinkler Contractor’s responsibility

8” supply

6” fire line

WATER METER
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Typical Installation

Utility Company area of responsibility

Some officials require a RP be located on main supply line.

Wrong!

Some officials require a RP be located on main supply line.

This location protects the public water supply. How are the workers in the facility protected from contaminated fluid back-flowing from the fire protection system?
The AWWA Research Foundation study shows that up to 25 percent or 100 gallons of contaminated fire water can backflow from the fire protection system. This water contains extremely high levels of heavy metals.

A Better Installation
This installation protects the workers and the public visiting this facility.

The Best Installation
This installation protects the public water supply and also protects the workers and the public visiting this facility.

What does your CCC Program Have?
- Testers sign Code of Conduct
- Testers have Business Licenses
- Testers have Insurance
- Required Tagging of Assemblies
- Regular Meetings
- Current list of Assemblies
- Public Education Materials
- Staff or Paper Tiger?
Why do some water purveyors mandate additional costs to their customers?

Example: Annual Field Testing

1. Some water purveyors require the buffer value be 3.0 psi or above.
   If below 3.0 psi they will consider the RP assembly as failing.

2. Some water purveyors require the differential pressure for Check Valve #2 be at least 1.0 psi.
   If below 1.0 psi they will consider the RP assembly as failing.
3. Some water purveyors demand the shut-off valves be leak tight. They claim if a shut-off valve is leaking then the assembly fails.

These three items are not required in order for the assembly to pass. These demands will unnecessarily increase the cost to the customer.

Additionally some water purveyors require a permit fee for each annual field test.

REALLY?