

Basic Cross Connection Control Seminar

February 2022

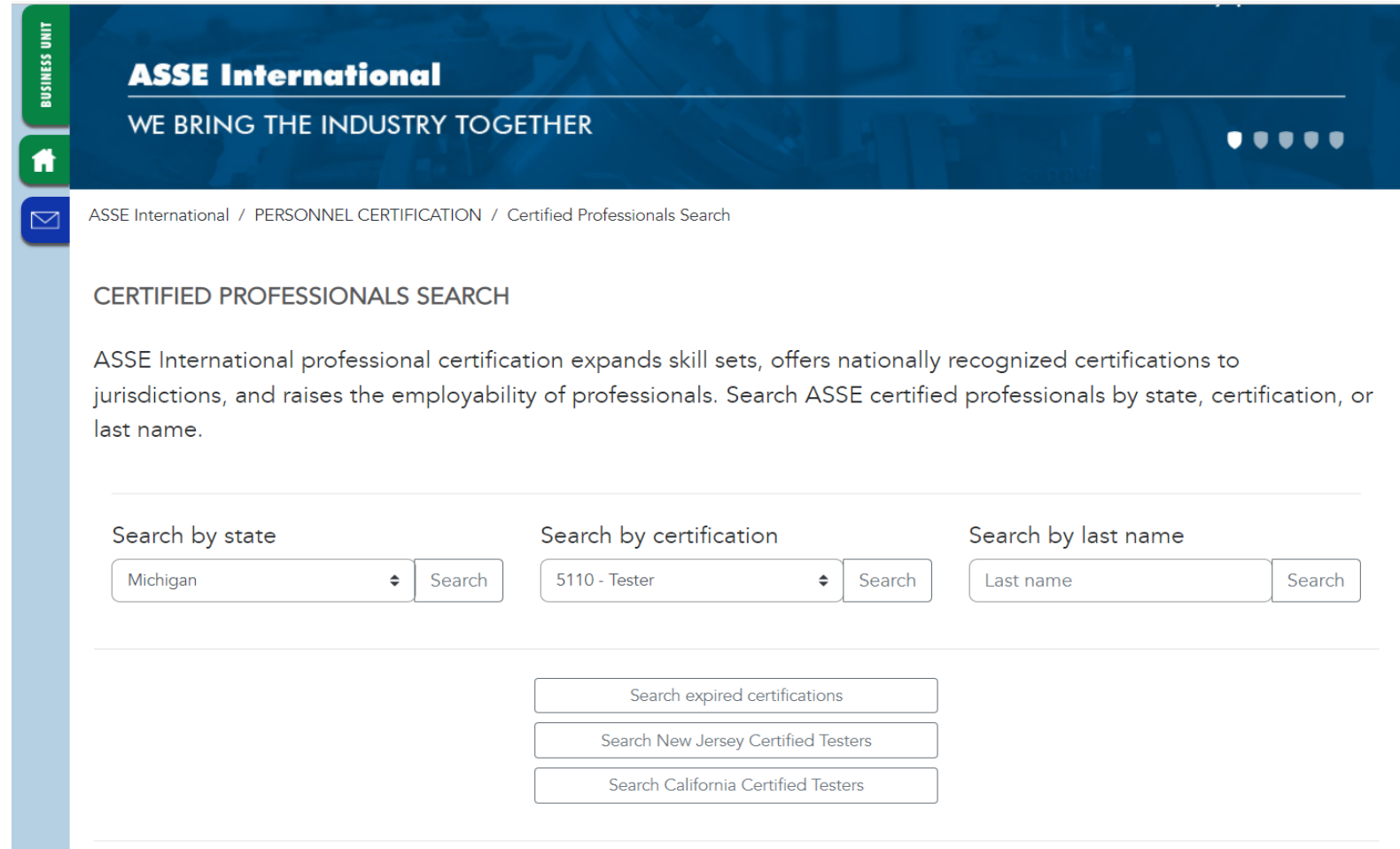
Commonly Asked Cross Connection Questions

When should backflow preventers be tested?

- Testable Devices must be tested:
 - At installation
 - After a repair
 - At a frequency required by the Local Water Utility Cross Connection Control Program
 - Devices used to prevent backflow on high hazard accounts should be tested annually

Who can test backflow preventers?

- Tester must be ASSE 5110 Certified!
- Searchable database on website
 - [ASSE International \(iapmo.org\)](http://iapmo.org)
- Find:
 - Testers
 - Repairers
 - Many more!



The screenshot shows the ASSE International website's search interface. The header includes the ASSE International logo and tagline 'WE BRING THE INDUSTRY TOGETHER'. The page title is 'Certified Professionals Search'. The main heading is 'CERTIFIED PROFESSIONALS SEARCH'. Below this is a descriptive paragraph: 'ASSE International professional certification expands skill sets, offers nationally recognized certifications to jurisdictions, and raises the employability of professionals. Search ASSE certified professionals by state, certification, or last name.' The search section contains three input fields: 'Search by state' (with a dropdown menu showing 'Michigan'), 'Search by certification' (with a dropdown menu showing '5110 - Tester'), and 'Search by last name' (with a text input field). Each field has a 'Search' button. Below these fields are three additional buttons: 'Search expired certifications', 'Search New Jersey Certified Testers', and 'Search California Certified Testers'.

Who can install or repair backflow preventers?

- To install or repair a device, a plumbing permit must be obtained from the local or state permitting authority
 - This includes residential!
- For commercial/industrial buildings, licensed plumbers are required to install or repair any preventer (checked through permitting process)
- For 1-2 family dwellings, a homeowner can install or repair preventers themselves if a valid plumbing permit is obtained

What test forms are allowed?

- Each water utility should decide what forms they want testers to use
 - Some utilities will accept any generic form
 - Some utilities will only accept a specific form or certain styles
 - Whatever you choose, it should suit your particular needs for your water system

Am I required to conduct inspections in residential accounts?

- Yes! A cross connection is a cross connection; it doesn't matter if it's in a commercial building or a home.
- Water utilities should place highest priority on high hazard accounts. Usually this includes industrial and commercial, but the following residential connections can also be considered high hazard.
 - Homes with lawn sprinkler systems
 - Homes with private wells
 - Homes with pools or whirlpools
 - Homes with solar power panels

Am I required to inspect the entire home?

- No
 - Reasonable expectation of privacy is acceptable
 - Common cross connections are external and in the basement
 - Educational materials should be provided for other possibilities such as sinks, toilets, etc.

Is containment or isolation the preferred method of eliminating cross connections?

- Isolation is always preferred since it not only protects the public water system, but the building occupants.
- Containment is allowed but should only be done when interior plumbing is difficult to trace or is frequently changed.
 - If containment is done, the building owner should be notified that interior plumbing is not protected

What is classified as High Hazard?

- High Hazard is best classified as a backflow condition that could immediately jeopardize public health
 - Chemically treated boilers
 - Car washes
 - Sewage treatment plants
 - Any facility where chemicals are used

What is classified as Low Hazard?

- Low Hazard is best classified as a backflow condition that will not immediately jeopardize public health
 - Strips malls
 - Small office buildings
 - Most homes
 - Other buildings with minor internal piping

Is the water utility required to inspect and test backflow preventers in their own buildings?

- Absolutely! Make sure your “own house” is in order
- Inspect all municipally owned buildings and eliminate all cross connections by providing isolation, not containment
- Have all devices tested at the frequency stated in your approved program. (Annually would set a great example!)
- Includes water and wastewater plants, booster stations, lift stations, cemeteries, parks, etc.

How often do I need to update my cross-connection control ordinance and/or program?

- Whenever you think it needs to be!
- Most ordinances/programs were approved by EGGLE in the late 1970's, so utilities are encouraged to update these items if they haven't done so recently.
- If you cannot find your local ordinance or program, it needs to be updated!

When do I need to install an RPZ instead of a PVB on an irrigation system?

- Whenever a risk of backpressure is present:
 - This includes
 - If downstream piping is not at least 12” below the PVB at any point
 - If there are any chemical injection pumps

Is it 6" or 12" of separation?

- PVB: Must be at least 12" above the highest downstream point
 - Continuous pressure allowed, but not appropriate with backpressure
- AVB: Must be at least 6" above the highest downstream point
 - Cannot be under continuous pressure for longer than 12 hours
- 6" versus 12" will not be an exam question

My sink has an overflow – Isn't that an air gap?

- No!
 - When determining the flood rim, an overflow like this is not considered
- Why?
 - Too complex of a hydraulic calculation (rate of onflow vs outflow)
 - Must be able to show it empties faster than it fills

Can I install meters with check valves and “be done” with Cross Connection requirements?

- No!
 - Depending on the check valve, it may not be a sufficient level of protection for the system (contaminant/high risk)
 - May not be ASSE approved
 - Protection of customer’s health is a priority
 - Could negatively impact plumbing (fire suppression needs and/or thermal expansion tank)

Do I need to review Backflow Test reports?

- Yes!
 - Don't assume an ASSE 5110 tester is perfect.
 - People make mistakes; equipment fails.
 - Gain confidence in tester's abilities by reviewing the forms closely

Why is testing required?

- Mechanical devices WILL fail over time
- Ensures functionality
- A tested (and working) backflow preventer is an integral part of a safe water system

Commonly Asked Cross Connection Questions

Questions?

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