BACKFLOW BASICS

"*Complying with Backflow Regulations in Ohio*"

Face To Face: OEPA-B88316822-OM (0.75 hours)

WEBINAR: OEPA-B88601061-OM (0.75 hours)

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Backflow Prevention

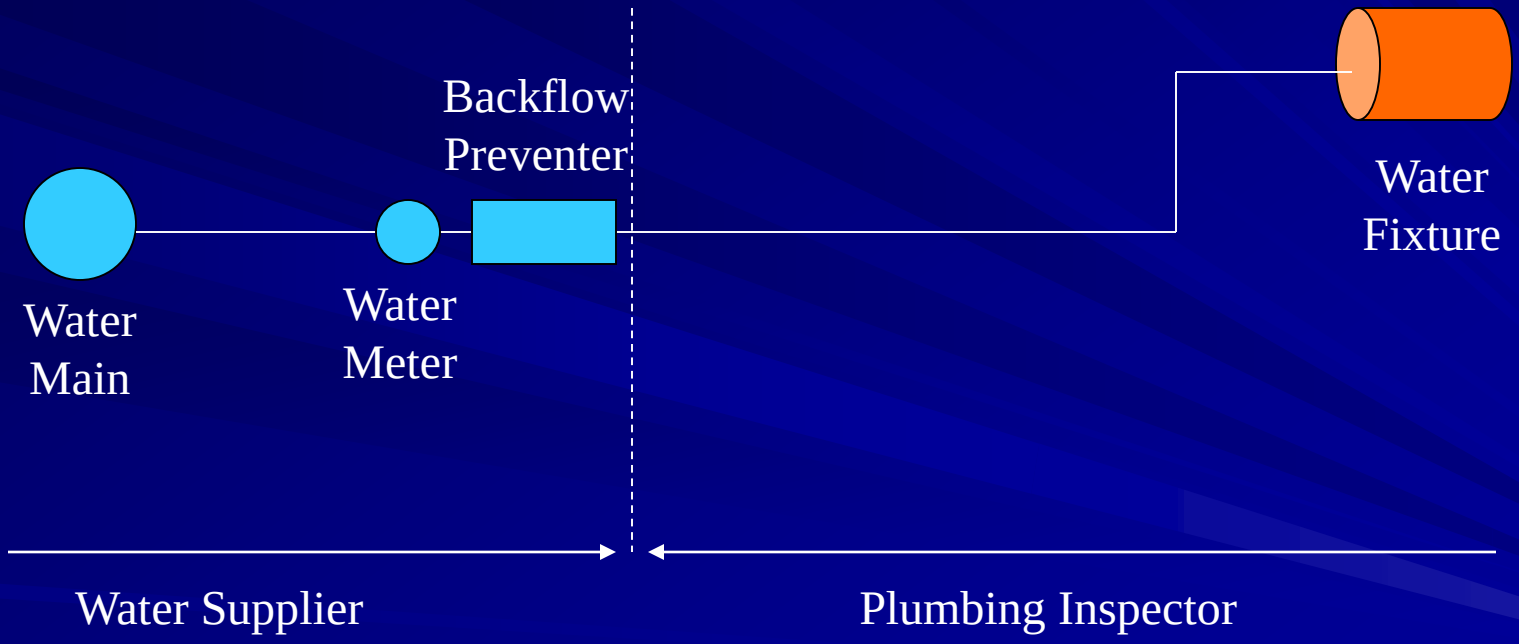
Ohio Administrative Code 3745-95

OAC 3745-95

- Severe Health Hazard
  - Can cause death or significant morbidity
- Health Hazard
  - Is a threat to the consumers' health
- System Hazard
  - Is a threat to the physical piping
- Pollution Hazard
  - Is aesthetically objectionable

OAC 3745-95

Responsibility for Water Quality



OAC 3745-95

- Severe Health – approved air-gap separation
- Health – reduced pressure assembly
- System – reduced pressure assembly
- Pollution – double check valve assembly

OAC 3745-95

- Water Supplier has Four Primary Responsibilities

Conduct Surveys	3745-95-03 (A)
Determine Required Protection	3745-95-04 (A)
Follow-Up on Installation	3745-95-06 (B)
Ensure Tests are Completed	3745-95-06 (C)

Auxiliary Water 3745-95-04

- Auxiliary in Building & Interconnection Desired
  - RPZ on City Service & Interchangeable Connector
- Auxiliary in Building & Interconnection Possible
  - RPZ on City Service
- Auxiliary Not in Building & Interconnection Improbable as Determined by Water Supplier
  - Need for RPZ Determined by Water Supplier
  - Water Supplier Assumes Other Liabilities

Booster Pumps 3745-95-07

- A low suction pressure cut off device is required on a domestic booster pump taking direct suction from the service connection

Low-Suction Cut Off 3745-95-07

- Any Fire Protection Booster Pump Taking Direct Suction From Public Water Main Must be Prevented from Creating Backsiphonage
- Low-Suction Pressure Cut-Off Controller Requirement is Rescinded on Fire Pumps
- A Minimum Pressure Sustaining Valve Will Now be Required

Yard Hydrants 3745-95-09

- Yard Hydrants with Weep Holes are Prohibited
- Sanitary Yard Hydrants that Meet ASSE Standard 1057 are Not Prohibited

Checklist for a Good Backflow Prevention Program

- In order to ensure a public water system has and maintains an adequate backflow prevention program, the following components will be addressed during a systems sanitary survey by the field office staff of Ohio EPA. A public water system must have these components addressed and ready to discuss them at the time of a survey.

Checklist for a Good Backflow Prevention Program

- Does the water system have a cross connection control ordinance or other legal mechanisms that are used to control cross connections?
  - A. Ordinances
  - B. Service Contract
  - C. Rental Agreement?
  - D. By-Laws?
  - E. Other?

Checklist for a Good Backflow Prevention Program

- Does the cross connection control program include the following:
  - A. Require installation and operation of appropriate type of approved backflow preventer?
  - B. Provide right of entry for inspection?
  - C. Conducts inspections/tests for all installed backflow preventers every 12 months?
  - D. Enforces discountinuance of service to any facility where suitable or operational backflow preventers have not been provided?

Checklist for a Good Backflow Prevention Program

- E. Require appropriate protection and inspection of all other booster pump installations?
- F. Ensure that the customers with auxiliary water systems (i.e. private wells) halve the appropriate backflow protection and inspection?

Service connections must have a physical separation between the PWS and the auxiliary water system AND a proper backflow preventer unless the PWS follows requirements of OAC 3745-95-04 (C)(2)

Checklist for a Good Backflow Prevention Program

- Who does the water system accept to perform the every 12 month inspection on the backflow prevention assemblies?
  - A. DOC Certified Tester
  - B. OTCO Certified Tester
  - C. Licensed Plumber
  - D. PWS personnel
  - E. Other

Checklist for a Good Backflow Prevention Program

- Have all existing customers required to have backflow prevention identified?

  Not just industrial, institutional, and larger commercial users, but also small commercial users, rural customers with auxiliary water systems or yard hydrants and residential users with underground irrigation systems or booster pumps must be surveyed.

Checklist for a Good Backflow Prevention Program

- Is there a mechanism to identify the need for backflow prevention on new service connections?
  - PWS should have construction inspection completed prior to connecting initial tap.

Checklist for a Good Backflow Prevention Program

- Does the system periodically resurvey all customers to ensure that all cross connections have been identified?
  - Service connection must be re-surveyed with an on-site investigation or other approved documented mythology to determine current water use practices and changes which may warrant additional protection.

Checklist for a Good Backflow Prevention Program

- Are backflow preventers at treatment plants and other facilities owned by the water system/municipality tested every 12 months?
  - The installed assemblies/air gaps have to be inspected and tested at least once every 12 months. The most recent inspection/test report must be made available.

Checklist for a Good Backflow Prevention Program

- Are air gaps provided on all bulk water sale stations?
  - All bulk water stations have to be equipped with air gaps which cannot be compromised.

Checklist for a Good Backflow Prevention Program

- Who in the organization is trained in cross-connection control?
  - The whole public water system staff needs to be trained in cross-connection control in order to be able to run a good program. It takes more than just the chief operator to get the work done.