

# BACKFLOW CODE OF PRACTICE

And

## ISSUES FACING THE INDUSTRY



# OBJECTIVES

To prescribe industry “good practice” for the protection of water supplies from contamination

# PRINCIPLES

## WATER SUPPLIER

- Monitor containment devices
- Ensure deliberate and accidental action have no adverse effect
- Pro actively determine which customer poses a significant risk
- Have a clear policy on Backflow prevention.

# PRINCIPLES

## Regulatory agent

- Actions determined by the NZ Building Act and Building Code G12 (G12:3:5)
- The principles of Backflow of both codes are very similar

# PRINCIPLES

This is a Code and not a Standard

The contents of the code do not take precedence over any Legislative requirements



# CURRENT LEGISLATION

- ❖ Building Act 2004 and Building Regulations 1992
- ❖ Local Government Act 2002
- ❖ H and S Act 1992
- ❖ Food Act 1981
- ❖ RMA 1991
- ❖ Health Act 1956 (Now amended)
- ❖ Health (Water Supply) amendment Act 2007
- ❖ Water Supply Protection Regulations 1961 (To be repealed 1.08.08)
  
- ❖ Many more

# ADMINISTRATION

The NZWWA Administration of the Code.

Review at periodic intervals as deemed appropriate by the Special Interest Group



# DETERMINATION OF RISK

- ❖ New Health Act requires TA's to have a Public Health Risk Management Plan
  - Identify Risk
  - Mitigate Hazard
  - G12 provides good examples of definitions

# BACKFLOW PROGRAM

(Should include)

- Potential Risk
- Elimination where possible
- Install Containment device
- Ensure there is an accurate database
- Testing program

# CONTAINMENT

- Water supplier is responsible for the selection, design and installation
- Bylaws must identify the “Point of Supply”
- This protects the Water Supply
- Consultation not required for devices connected to Fire Systems

# ASSET MANAGEMENT AND RECORDS

- ❖ Adequate records must be kept
- ❖ Register can include both containment and internal devices
- ❖ Water supplier to have a clear policy of upgrading non-compliant devices to meet their PHRMP

# ASSET MANAGEMENT AND RECORDS

**Water Backflow Assembly Test**

Inspection #  Work Order #  Activity   
Backflow ID

Started  :  Crew   
Completed  :  Tester   
Comp By   Failed  
Project

Initial Test Time <input type="text"/> : <input type="text"/>	Check Valve #1 Held At <input type="text" value="71"/> KPa <input type="checkbox"/> Leaked	Check Valve #2 Held At <input type="text" value="0"/> KPa <input checked="" type="checkbox"/> Leaked <input type="checkbox"/> Closed Tight	Pressure Relief Valve Opened At <input type="text" value="0"/> KPa <input type="checkbox"/> Did Not Open	PVB/SVB Air Inlet Opened At <input type="text" value="0"/> KPa <input type="checkbox"/> Did Not Open Check Valve Held At <input type="text" value="0"/> KPa <input type="checkbox"/> Leaked
Final Test Time <input type="text"/> : <input type="text"/>	Held At <input type="text" value="0"/> KPa	Held At <input type="text" value="0"/> KPa <input type="checkbox"/> Closed Tight	Opened At <input type="text" value="0"/> KPa	Air Inlet Opened At <input type="text" value="0"/> KPa Check Valve Held At <input type="text" value="0"/> KPa

Inspection Data **Repairs & Materials** Comments

# ASSET MANAGEMENT AND RECORDS

**Water Backflow Assembly Test**

Inspection #  Work Order #  Activity   
Backflow ID

Started  : Crew   
Completed  : Tester   
Comp By   Failed  
Project

Initial Test Time <input type="text"/>	Check Valve #1 Held At <input type="text" value="64"/> KPa <input type="checkbox"/> Leaked	Check Valve #2 Held At <input type="text" value="0"/> KPa <input type="checkbox"/> Leaked <input checked="" type="checkbox"/> Closed Tight	Pressure Relief Valve Opened At <input type="text" value="18"/> KPa <input type="checkbox"/> Did Not Open	PVB/SVB Air Inlet Opened At <input type="text" value="0"/> KPa <input type="checkbox"/> Did Not Open Check Valve Held At <input type="text" value="0"/> KPa <input type="checkbox"/> Leaked
Final Test Time <input type="text"/>	Held At <input type="text" value="0"/> KPa	Held At <input type="text" value="0"/> KPa <input type="checkbox"/> Closed Tight	Opened At <input type="text" value="0"/> KPa	Air Inlet Opened At <input type="text" value="0"/> KPa Check Valve Held At <input type="text" value="0"/> KPa

Inspection Data **Repairs & Materials** Comments

# TESTING

- ❖ Water Supplier to have testing program in place
- ❖ If owner responsible to carry out the annual test then the Water Supplier will advise them when required
- ❖ Have a robust system in place to highlight and act upon results not received by due date
- ❖ Note: Only devices which can be easily maintained in line shall be installed

# BACKFLOW POLICY

- ❖ Water Supplier shall have a clear and easily obtained policy in place
- ❖ This policy shall clearly and simply address the issue of ownership and responsibilities for:
  - ✓ Approval
  - ✓ Installation
  - ✓ Ongoing maintenance
  - ✓ Annual Testing
  - ✓ Other matters associated with containment backflow

# CONTINGENCY PLAN

- ❖ Water Supplier shall have an incident response plan
  - ✓ To be reviewed annually.
  - ✓ To be exercised from time to time

# STAFF TRAINING

- All persons approving devices are qualified ABT – “Survey”
- All persons testing devices are qualified ABT – “Tester”
- Water Supplier should have at least one staff who is qualified

# ABT TRAINING

- ❖ ABT must have completed 40 min education
- ❖ Up skill every 3 years.
- ❖ Minimum \$1m insurance
- ❖ NZQA Recognition unit standard
  - 23847 – Test and inspect
  - 23848 – Install, Test and Identify Fault

# NATIONAL REGISTER

- ❖ Been developed and now live on line with NZWWA.
- ❖ Min ABT training – 40 Hour syllabus
- ❖ \$25.00 per year (Current members)
  
- ❖ Major issue
  - Current approximate cost to test throughout NZ
  - \$ 1865.00 three yearly (621.00 per year)\_
  - Level of competency
  - Beer and B-B-Q course still being accepted by most authorities

# DEDICATED FIRE SYSTEMS

- Health (Water Supply) amendment Act now addresses devices on dedicated fire systems.
- Authorities to consider Double Detector Check Valves
- Consultation with owner regarding possible pressure drop

# DAMAGE AND TAMPERING

- Only persons authorised should work on Containment devices
- Licensing system should be considered
- Containment devices cannot be tampered with by the owner
- Private containment devices to be maintained by Registered plumber with ABT registration

# ISSUES

- ❖ Individual Local Authority registration system
- ❖ Code of Ethics.
- ❖ Future training
- ❖ Buy in by regulatory sections of Local Authorities
- ❖ Non acceptance of a test certificate on the grounds of non-registration
- ❖ Approval of device by those with no expertise