Per the Universal Plumbing Code, there shall not be valves downstream of ANY atmospheric vacuum breaker. Chemical dispensing units have built in shut off valves.

Further information on backflow prevention and cross connection control may be found at the following web sites:

- Washington Administrative Code: WAC

- EPA—US Environmental Protection Agency
  http://water.epa.gov/lawsregs/rulesregs/sdwa/index.cfm

Cross Connection Control
Backflow Prevention Program
E-mail: backflowtests@redmond.gov

Telephone: (425) 556-2847
Cross Connection Control

A cross connection is simply a connection between the drinking water system and anything that has the potential to degrade the water in any manner.

Backflow is the reversal of the normal flow of drinking water in a system. Any time pressure in the public drinking water drops to 0 psi or below, there is a possibility that contaminants may be drawn or forced into the drinking water system. This could be caused by a break in the water distribution line, by opening a fire hydrant, installation of high pressure equipment, or a number of other common occurrences.

Chemical Dispensing Systems

The requirement to prevent backflow is stated in the Chapter 6 of the Universal Plumbing Code. They supply lines and fittings for every plumbing fixture shall be installed so as to prevent backflow.

The drinking water system must also be protected from connection to chemical dispensing systems. A hose connection from a mop sink faucet to a chemical dispenser is not allowed.

Chemical dispensing units shall meet the requirements of ASSE Standard 1055 indicating the dispensing unit has a built in air gap.

Universal Plumbing Code

603.5.17 Special Equipment

Portable cleaning equipment, dental vacuum pumps, and chemical dispensers shall be protected from backflow by an air gap, an atmospheric vacuum breaker (AVB), a spill–resistant vacuum breaker (SVB), or a reduced pressure principle backflow preventer (RP).

NOTE: The AVB protects against backsiphonage only and for the AVB to function properly the following must be met:

⇒ Not under continuous pressure
⇒ Individual fixture/appliance
⇒ Valves or shut offs down stream are prohibited.

The waterline supply to the chemical dispenser must be either a designated line or can be connected behind the faucet (prior to the atmospheric vacuum breaker) that is currently being used.

If an SVB is used, the backflow preventer must be installed 12” above the dispenser. If an RP is used, the backflow preventer can be installed below the chemical dispenser.

Both backflow preventers (shown on the right) must be tested by a certified backflow tester at the time of installation and annually thereafter.

Chemical Dispenser Protection Options

RP — Reduced Pressure Principle Assembly

SVB — Spill Resistant Vacuum Breaker