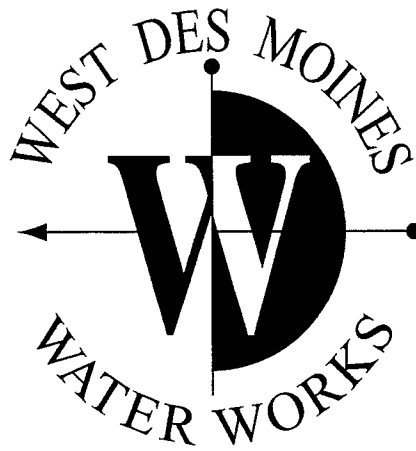


STANDARDS FOR PROTECTIVE DEVICES

1. This brochure supplements the Plumbing Code of the City of West Des Moines by setting out standards for the installation of protective devices when such devices are required because a cross connection exists.
2. The City's Plumbing Code (Code of Ordinances Title 8, Chapter 2, Article C, Plumbing Code), is based on the current edition of the International Plumbing Code. The City's Plumbing Code provides regulations for installation of protective devices for isolation.
3. Another of the City's codes (Title 8, Chapter 2, Article G, Cross-Connection Control; Containment Provisions), contains regulations for installation of protective devices for containment. Refer to this code for definitions of the terms used in this brochure.
4. This brochure provides examples of the types of facilities or uses of water which present various levels of hazard to the drinking water supply. The list should not be construed as being complete. Contact the West Des Moines Water Works for requirements for facilities or uses of water not shown in the list.
5. Containment is a method of backflow prevention which requires the installation of a backflow prevention assembly at the water service entrance.
6. Isolation is a method of backflow prevention in which a backflow prevention assembly is located at the cross-connection, rather than at the water service entrance.



MISSION

The mission of the West Des Moines Water Works is to provide adequate quantities of water at reasonable pressures and at the lowest possible cost to our customers, while meeting or bettering all governmental water quality standards.

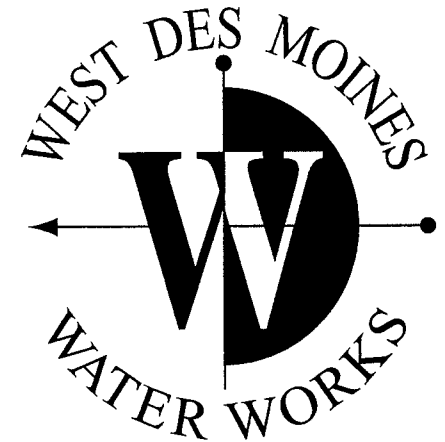
OUR VALUES

We, the employees of the West Des Moines Water Works, through teamwork and cooperation, are committed to provide the highest quality of service with honesty and integrity to the community we serve.

We take pride in providing effective, dependable services while striving to achieve excellence through vision and innovation.

Cross Connection Control Program

Standards for Protective Devices for Containment



West Des Moines:
A City of
Tradition - Vision - Opportunity

DEGREE OF HAZARD

The Degree of Hazard is the rating of a cross-connection or water service which indicates if it has the potential to cause contamination or pollution. The codes referred to in this brochure define two degrees of hazard, as follows:

Low Hazard Cross-Connection: A cross connection which may cause an impairment of the quality of potable water to a degree which does not create a hazard to the public health, but which does adversely and unreasonably affect the aesthetic qualities of such potable waters for domestic use.

High Hazard Cross-Connection: A cross-connection which may cause an impairment of the quality of the potable water by creating an actual hazard to the public health, through an poisoning or through the spread of disease by sewage, industrial fluids or waste.

EXAMPLES OF FACILITIES FOR WHICH BACKFLOW PREVENTION DEVICES FOR CONTAINMENT ARE REQUIRED

In this list:

“**RP**” means a Reduced Pressure Principle Backflow Preventer. This type of device is used for high hazard cross-connections.

“**DCVA**” means a Double Check Valve Assembly Backflow Preventer. This type of device is used for low hazard cross-connections.

Types of Facilities
Assisted care facilities, if medical care is given RP
Beverage services using carbonators RP
Buildings over three stories RP

Protection
Required

<u>Types of Facilities</u> Breweries, distilleries and bottling plants	RP
Car washes with recycling and/or wax eductors	RP
Chemical processing plants	RP
Dairies	RP
Dental offices with operatories	RP
Dye works	RP
Fertilizer plants	RP
Film laboratories or processing facilities	RP
Fire protection systems	DCVA
Most systems	RP
Systems containing anti-freeze (See ordinance for additional requirements)	RP
Food processing plants	RP
Funeral homes	RP
Hospitals, medical clinics	RP
Medical offices where patients are seen	RP
Irrigation systems	RP
Laboratories	RP
Laundries and dry cleaning plants	RP
Machine tool plants	RP
Meat packing plants	RP
Metal processing plants	RP
Metal plating plants	RP
Morgues	RP
Nursing homes	RP
Paper products plants	RP
Pesticide manufacturing plants or handling facilities	RP
Petroleum processing plants or storage facilities	RP
Pharmaceutical or cosmetics manufacturing facilities	RP
Piers or docks	RP
Power generating plants	RP
Rendering plants	RP
Radioactive material plants	RP

Protection
Required

<u>Types of Facilities</u> Restaurants with soap eductors	RP
Rubber plants	RP
Sand and gravel processing plants	RP
Schools	RP
Swimming pools with piped fill lines	RP
Sanitary or storm sewage handling facilities	Air gap only
Veterinary medical facilities	RP

In addition to the examples shown in the list above, an approved backflow prevention device shall be installed on each domestic water service connection containing any real or potential hazard to drinking water quality. Some examples of these situations are:

Types of Facilities
Protection
Required

Premises having an auxiliary water which is not connected to a public water supply	RP
Premises having water storage tanks, reservoirs, ponds (when piped to a water system)	RP
Premises heated by steam or hot water	RP
Premises cooled with chemically conditioned water	RP
Premises having self-draining yard hydrants, fountains, hose boxes or similar devices	RP

An air gap may be substituted for any mechanical protective device.

West Des Moines Water Works will be glad to answer your questions. Write to us at P. O. Box 656110, West Des Moines, IA 50265-0610 or waterworks@wdm-ia.com or call us at (515) 222-3465.