**DEFINITIONS:**

**Backflow Prevention Assembly:** a mechanical device that prevents back-siphonage and/or back-pressure of a high or low hazard contaminant into the drinking water system.

**Low Hazard Contaminant:** anything that adversely affects the aesthetic qualities of the potable water system, such as, back-siphonage from a hot water heater that was not protected with a backflow prevention assembly.

**High Hazard Contaminant:** anything that impairs the quality of the potable water system, which creates an actual hazard to the public health through poisoning, or the spread of disease by sewage or other waste, such as, back-siphonage from a hose that was in a bucket of industrial cleaning solution.

**WHAT DO I NEED TO DO?**

If you have the need to alter the drinking water distribution system by relocating, replacing, or adding an appurtenance, such as a backflow prevention assembly, it must be done by contacting Freeport-McMoRan Morenci Inc. (Morenci) Contractor Management, Morenci Engineering or Morenci Water and Electric (MWE) to review and record the change in the records*.*

**WHY DO WE NEED TO HAVE BACKFLOW PREVENTION ASSEMBLIES?**

Backflow prevention assemblies prevent backflow of a low hazard or high hazard contaminant from entering the public water system that could cause sickness or death to someone drinking the water.

**WHAT TYPES OF BACKFLOW-PREVENTION ASSEMBLIES ARE THERE?**

The types of backflow prevention that may be required, listed in descending order according to the level of protection they provide:

|  |  |  |
| --- | --- | --- |
| **Non-Health Hazard** | **Health Hazard** | **SEWAGE** |
| *(Pollutant)* | *(Contaminant)* |  |
|   | **BACKSIPHONAGE** | **BACKPRESSURE** | **BACKSIPHONAGE** | **BACKPRESSURE** | **BACKSIPHONAGE** | **BACKPRESSURE** |
| AG | X | X | X | X | X | X |
| RP | X | X | X | X |  |  |
| DC | X | X |  |  |  |  |
| PVB | X |  | X |  |  |  |
| SVB | X |  | X |  |  |  |
| AVB | X |  | X |  |  |  |

**AG** – Air Gap **RP** - Reduce Pressure Principle Backflow Prevention Assembly **DC – Double Check**

**PVB** – Pressure Vacuum Breaker **SVB –** Spill Resistant Pressure Vacuum Breaker

**AVB** – Atmospheric Vacuum Breaker

**WHY DO WE NEED TO MANAGE BACKFLOW PREVENTION ASSEMBLIES**?

It is imperative that all assemblies on the property are recorded and located so they can be tested annually and maintained to work properly. Federal and State law requires water suppliers to protect their water systems from contaminants by cross-connections. To protect the system we need to maintain and test the backflow assemblies to limit the possibility of the public water system to be exposed to any hazard from backsiphonage or backpressure. Also, it is required by the Arizona Department of Environmental Quality (AZDEQ) that we keep testing and maintenance records of assemblies’ on-hand for up to three years.

**WHO CAN INSTALL BACKFLOW PREVENTION ASSEMBLIES?**

Any installation or relocation of a backflow prevention assembly must be done through Morenci Contractor Management, and Morenci Engineering Department. In the Morenci/Clifton town site Morenci Water & Electric must be notified. The assemblies that can be tested (RP, PVB, DC) must have been issued a certificate of approval by the University of Southern California Foundation for Cross-Connection control and Hydraulic Research (USC-FCCHR). The assembly must be installed in accordance to all manufacturers’ specifications and will not be altered in any way.

The individual or company that will be installing the assembly must follow chlorination requirements as stated in the **Environmental BMP No. 205 Potable Water Main & Storage Tank Disinfection.**

**WHO PERFORMS THE TEST AND WHAT ARE THE INTERVALS OF TESTING?**

All testable assemblies (RP, PVB, DC) will be tested once a year or when the assembly is relocated or repaired by a certified tester. The tester must be certified by the California-Nevada American Water Works Association (CAL-NEV AWWA), the Arizona State Environmental Technical Training (ASETT) Center, American Backflow Prevention Association (ABPA), or other certifying authority approved by Arizona Department of Environmental Quality (ADEQ). Also, the tester must register their certification identification number and test equipment through Morenci Contractor Management and Environmental Services In the Morenci/Clifton town site Morenci Water and Electric would need this documentation.

After testing the assembly, the *Backflow Prevention Assembly Test Form* along with the Morenci issued service order shall be sent to Morenci Environmental Services in order to review and approve the testing information and service order. Once approved copies of the Test Form & service order are made and housed in Environmental Services files. Approved paperwork is then forwarded to Contractor Management for processing.

If the backflow prevention assembly requires repair or is out of compliance, Morenci Contractor Management or MWE should be notified immediately of the length of time that service will be turned off for maintenance. The tester shall not put the water system back on-line until the assembly passes the test performed by the backflow assembly tester. If the tester cannot repair assembly Morenci Contractor Management or MWE must be contacted immediately.

**WHERE CAN YOU FIND MORE INFORMATION ABOUT BACKFLOW PREVENTION ASSEMBLIES?**

* Arizona Administrative Code Title 18, Chapter 4, Section 115
* Uniform Plumbing Code, 2000 edition
* Manual of Cross-Connection Control, USC, Ninth edition
* Arizona Department of Health Services Engineering Bulletin No. 8

**QUESTIONS OR NEED HELP? CONTACT:**

**Contractor Management Division Representatives**

**Plant Engineering Division Representatives**

**Morenci Water & Electric Division Representatives (928) 865-2229**

**Enviro Representatives Phone Extensions:**

 **Dee J Broadwell 865-6044**

 **Salvador Robles 865-7934**

**Enviro Representatives Cell Phones:**

 **Dee J Broadwell 965-3142**

 **Salvador Robles 965-7296**

**Environmental Services Office: 865-6000**