**Section 604.1405 Installation of Water Mains**

a) Except as provided in 35 Ill. Adm. Code 602.200, a permit from the Agency is required before the installation of a water main.

b) Bedding

1) A continuous and uniform bedding must be provided in the trench for all buried pipe.

2) Backfill material must be tamped in layers around the pipe and to a sufficient height above the pipe to adequately support and protect the pipe.

3) Stones found in the trench must be removed for a depth of at least six inches below the bottom of the pipe.

c) Water mains must be placed at a sufficient depth, or covered with sufficient earth or other insulation, to prevent freezing.

d) All tees, bends, plugs and hydrants must be provided with reaction blocking (thrust blocks), tie rods or joints designed to prevent pipe failure.

e) Installed pipe must be pressure and leak tested.

f) New, cleaned and repaired water mains must be disinfected in accordance with 35 Ill. Adm. Code 602.310 and AWWA C651, incorporated by reference in 35 Ill. Adm. Code 601.115.

g) External Corrosion

1) In areas where aggressive soil conditions are suspected, the community water supply must perform analyses to determine the actual aggressiveness of the soil unless protections in subsection (g)(2) are provided.

2) If soils are found or known to be aggressive, the community water supply must protect the water main, by methods including encasement of the water main in polyethylene, provision of cathodic protection (in very severe instances), or using corrosion resistant water main materials.