

Appendix 23: Repairing and Disinfecting Water Lines

In the event a water line breaks, the following procedures must be followed for repairing and disinfecting the line:

Proper procedure for repairing leaks:

1. Isolate the break by shutting all valves necessary to stop the flow of water
2. If the excavation is going to be over 5 feet deep, make sure that the proper shoring equipment is available or that the trench is adequately sloped according to OSHA guidelines. The area around the leak should be large enough to work comfortably, usually one foot on either side of the pipe. A sump hole is dug at one end of the trench to allow the water to flow away from the leak and be pumped or dipped out.
3. The type of repair clamp or coupling is selected once the line has been uncovered. The replacement part should be of equal or superior quality.
4. Refill the line by carefully cracking the shut off valve and opening any nearby hydrant to vent out air as it fills. Do not fill the line quickly or water hammer could occur when the water finally fills the pipe.
5. Backfilling the excavation should be done by hand at first preferably with sand or gravel. This should be tamped carefully to avoid damaging the clamps and couplings. Prior to putting the line back in service, it should be disinfected and have BAC-T samples taken.

Proper procedure for disinfecting a water line after fixing a water leak:

1. Flush the line.
2. Disinfect the line. Enough chlorine should be added to create a dosage of 50mg/L with a residual of 5mg/L after 24 hours. In some instances a higher chlorine dosage can be used and the contact time can then be reduced. If the dosage is 200 mg/L the contact time is only 2 hours.
3. After the appropriate contact time has been achieved, flush the line again.
4. After the line is flushed and the free chlorine residual is below 2.0mg/l, collect a BAC-T sample from the line. If negative results come back, the line is ready to be put into service.