

Protection of Copper Piping

Copper piping is generally utilized on underground storage systems for small heating oil tanks with capacities of 1,000 gallons or less. The piping is used to connect the tank to the heating unit, usually a boiler or furnace. Even though copper is less reactive than steel, copper pipe will corrode as it comes in contact with compounds that are in the ground. Corrosion will accelerate in high chloride or nitrate soils. Maryland regulation 26.10.03.02 requires that "piping in contact with the ground shall be properly designed, constructed, and protected from corrosion."

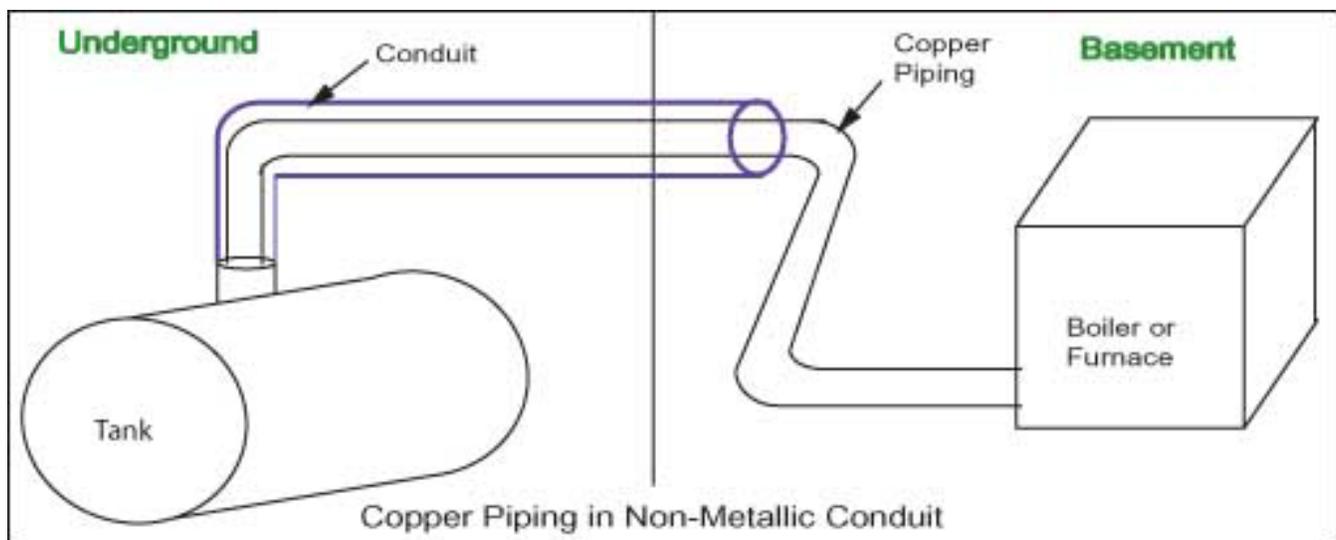
Methods of Copper Piping Protection

Cathodic Protection

- Coated or wrapped copper pipes
- Sacrificial anodes – choose magnesium or zinc anodes depending on soil resistivity
- Testing required annually – corrosion expert must use a "100 millivolt polarized shift" test rather than the "negative .85 volt criteria" test that does not apply to copper

Sleeving

- Sleeve copper piping in non-metallic conduit
- Or purchase copper piping manufactured encased in a protective cover which can be directly buried without additional protection
- End of the conduit (or cover) must be open to the atmosphere (i.e. manhole, basement, crawlspace, or sump pump) to allow detection of a release and air exchange to prevent excessive moisture buildup (see figure below)



If you have any questions, please contact:

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