

**NC Department of Insurance
Office of the State Fire Marshal - Engineering Division
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Copper Tubing Underground

Code: 2018 NC Fuel Gas Code

Date: August 26, 2019

Section: NCFGC 404.11

Code: NC Residential Code

Section: G2415.11

Question:

Is direct-bury copper gas piping always required to have added corrosion prevention means if it is used for fuel gas piping?

Answer:

No.

Although the installation of copper piping used for fuel gas in properly prepared direct-burial situations is not automatically exempted from the protection requirements of NC FGC Section 404.9, the inherent corrosion resistance properties of copper in direct burial situations has been demonstrated to be acceptable in most situations. The primary metal being called out in NC FGC Section 404.9 is steel. Steel and galvanized steel have been shown to be inadequate for direct-burial situations.

Therefore, unless the area in question has soils with high chloride content, cinders, ammonia (animal urine is high in ammonia) or there are known soil contaminants aggressive to copper, it is not a code violation to direct bury copper for fuel gas use.

Refer to NFPA 54-2012 7.1.3, A.7.1.3, and

<http://www.copper.org/resources/properties/protection/underground.html> for further information

Keywords:

Backfill,

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