



Tentative Interim Amendment

NFPA 54

National Fuel Gas Code

2009 Edition

Reference: Table A.5.6

TIA 09-2

(SC 08-7-20/TIA Log #916)

Note: Text of the TIA issued and incorporated into the text of Table A.5.6 and therefore no separate publication is necessary.

1. Add a new Table A.5.6 to read as follows:

Table A.5.6 Pipe, Tube, Fittings, and Joints for Natural Gas and Liquefied Petroleum Gas Applications

Pipe		Metallic Pipe		
Material	Standard	Fitting Types	Joint Types	Other Requirements
<u>Black Steel</u> <u>Minimum</u> <u>Schedule 40</u>	<u>ASTM A106[†]</u>	<u>Steel</u> <u>Malleable Iron</u> <u>Steel Cast Iron</u> <u>ASME B16.1[†]</u>	<u>Threaded</u> <u>Flanged</u>	<u>Threads per ASME B1.20.1[†]</u> <u>Special fittings shall be appropriate for the application and acceptable to AHJ</u>
<u>Galvanized Steel</u> <u>minimum</u> <u>Schedule 40</u>	<u>ASTM A53[†]</u>	<u>Brass</u> <u>Bronze</u> <u>Special</u>		
<u>Wrought Iron</u> <u>Minimum</u> <u>Schedule 40</u> <u>Also known as</u> <u>low iron or</u> <u>wrought steel</u>	<u>ASTM B36.10M[†]</u>			
<u>Copper</u>	<u>None Specified</u>	<u>Cast Copper</u> <u>Alloy</u> <u>Bronze</u> <u>Brass</u> <u>Special</u>	<u>None Specified</u>	<u>Prohibited where the gas contains more than an average of 0.3 grains of hydrogen sulfide per 100 scf of gas (0.7 mg/100 L).</u> <u>Threads cannot form the joint seal</u> <u>Special fittings shall be appropriate for the application and acceptable to AHJ</u>
<u>Copper Alloy</u> <u>(Brass)</u>	<u>None Specified</u>			
<u>Aluminum</u>	<u>ASTM B241[†]</u>	<u>Aluminum</u> <u>Special</u>	<u>None Specified</u>	<u>Alloy 5456 is prohibited</u> <u>Threads cannot form the joint seal</u> <u>Coated to protect against external corrosion where it is in contact with masonry, plaster, or insulation, or is subject to repeated wettings by such liquids as water, detergents, or sewage.</u> <u>Aluminum alloy pipe shall not be used in exterior locations or underground.</u> <u>Special fittings shall be appropriate for the application and acceptable to AHJ</u>

Metallic Tubing				
<u>Pipe</u>		<u>Fitting Types</u>	<u>Joint Types</u>	<u>Other Requirements</u>
<u>Material</u>	<u>Standard</u>			
<u>Copper</u>	<u>ASTM B88[†]</u> <u>ASTM B280[†]</u>	<u>Cast Copper Alloy</u> <u>Wrought Copper</u> <u>Press fittings meeting ANSI LC4[†]</u> <u>Forged Copper Alloy</u> <u>Special</u>	<u>Brazed</u> <u>Flanged/Brazed</u> <u>Brazed</u> <u>Mechanically Pressed (Crimped)</u> <u>Flared</u>	<u>Prohibited where the gas contains more than an average of 0.3 grains of hydrogen sulfide per 100 scf of gas (0.7 mg/100 L).</u> <u>Brazed joints fabricated with alloys having a melting temperature greater than 1000° F</u> <u>Brazing alloys contain less than 0.05% Phosphorous</u> <u>Minimum melting temperature greater than 1000° F</u> <u>Brazing alloys contain less than 0.05% Phosphorous</u> <u>Flares, SAE J533 for single 45° flares</u> <u>Special fittings shall be appropriate for the application and acceptable to AHJ</u>
<u>CSST</u>	<u>ANSI LC 1 / CSA 6.26[†]</u>	<u>ANSI LC 1 / CSA 6.26[†]</u>	<u>Manufacturer's installation instructions</u>	<u>Installation in accordance with the manufacturer's installation instructions.</u>
<u>Aluminum</u>	<u>ASTM B 210[†]</u> <u>ASTM B 241[†]</u>	<u>Copper Alloy (Brass)</u> <u>Special</u>	<u>Compression</u>	<u>Coated to protect against external corrosion where it is in contact with masonry, plaster, or insulation or is subject to repeated wettings by such liquids as water, detergent, or sewage.</u> <u>Aluminum-alloy tubing shall not be used in exterior locations or underground.</u> <u>Special fittings shall be appropriate for the application and acceptable to AHJ</u>
<u>Steel</u>	<u>ASTM A 539[†]</u> <u>ASTM A 254[†]</u>	<u>Special</u>		<u>Special fittings shall be appropriate for the application and acceptable to AHJ</u>
Non-Metallic Pipe & Tube				
<u>Pipe</u>		<u>Fitting Type</u>	<u>Joint Types</u>	<u>Other Requirements</u>
<u>Material</u>	<u>Standard</u>			
<u>Polyethylene (PE)</u>	<u>ASTM D 2513[†]</u>	<u>Polyethylene (PE)</u> <u>ASTM D 2513[†]</u> <u>(Heat fusion)</u> <u>Service head adapters meeting Category I of ASTM D 2513[†]</u> <u>Connections to Metallic Pipe meeting ASTM D 2513[†], ASTM F 1973[†], or ASTM F 2509[†]</u>	<u>Manufacturer's instructions</u> <u>Compression-type mechanical joints</u> <u>Heat Fusion</u>	<u>Pipe and tubing installed outdoors underground only</u> <u>Pipe shall be marked "gas" and "ASTM D 2513</u> <u>Plastic pipe, tubing, fittings and joints in undiluted liquefied petroleum gas piping systems shall be in accordance with NFPA 58[†]</u>
<u>PVC</u>	<u>UL 651[†]</u> <u>Schedule 40 or 80</u>	<u>PVC UL 651[†]</u> <u>Schedule 40 or 80</u>	<u>Manufacturer's instructions</u>	<u>Regulator vents only</u> <u>Outdoor installation only</u>

[†]Required standard. See Chapter 5 for standard title.