



# COPPER TUBING GAS LINE PRE-INSPECTION CHECKLIST

This checklist is designed to be generic in content and may not include all requirements for your particular installation. The manufacturer's installation instruction must be adhered to and available to the inspector at the time of the inspection. Be sure you can answer YES to all of the questions before calling for inspection. Failure of the inspection will require a reinspection fee to be paid.

REFERENCE		<u>COMPLIANCE</u>	
		Yes	No
3280.705(c)	<b>Piping design:</b>		
	1) Gas piping shall be designed for natural gas and acceptable for LP gas.	<input type="checkbox"/>	<input type="checkbox"/>
3280.705(b)	2) All materials used shall be new and free from defects and internal obstructions. Copper tubing shall be:		
	a) an annealed type, Grade K or L, conforming to the Standard specification for Seamless Copper water Tube (ASTM B88); or	<input type="checkbox"/>	<input type="checkbox"/>
	b) shall comply with the standard Specification for Seamless Copper Tube for Air Conditioning and Refrigeration Field Service (ASTM B280); and	<input type="checkbox"/>	<input type="checkbox"/>
	c) shall be internally tinned.	<input type="checkbox"/>	<input type="checkbox"/>
NFPA 54 3.6.1	3) <b>Bends shall be:</b>		
	a) made only with bending equipment and procedures especially intended for that purpose;	<input type="checkbox"/>	<input type="checkbox"/>
	b) smooth and free from buckling, cracks, or other evidence of mechanical damage;	<input type="checkbox"/>	<input type="checkbox"/>
	c) not bent through an arc of more than 90 degrees; and	<input type="checkbox"/>	<input type="checkbox"/>
	d) have an inside radius of not less than 6 times the outside diameter of the pipe.	<input type="checkbox"/>	<input type="checkbox"/>
3280.705(b)(2)	Fittings for copper tubing gas lines shall be of brass containing not more than 75 percent copper.	<input type="checkbox"/>	<input type="checkbox"/>
3280.705(d)	<b>Gas piping sizing:</b>		
	1) Gas piping shall be sized so that the pressure drop to any appliance inlet connection, when all appliances are in operation at maximum capacity, is not more than 0.5 inch water column based on a test or in accordance with table 3280.705(d).	<input type="checkbox"/>	<input type="checkbox"/>
3280.705(a)	2) The system shall be design for a pressure not exceeding 1/2 PSI and not less than 1/4 PSI.	<input type="checkbox"/>	<input type="checkbox"/>

3280.705(d)	<b>Supply connection:</b>		
	1) The natural gas supply connection shall be not less than the size of the gas piping and not smaller than 3/4 inch nominal pipe size.	<input type="checkbox"/>	<input type="checkbox"/>
3280.705(j)	2) Connections shall not be located beneath an exit door.	<input type="checkbox"/>	<input type="checkbox"/>
3280.705(l)(7)	3) Connection shall be rigidly anchored to a structural member within 6 inches of the supply connection.	<input type="checkbox"/>	<input type="checkbox"/>
3280.705(l)	Joints shall not be located in any floor, wall, partition or similar concealed space.	<input type="checkbox"/>	<input type="checkbox"/>
3280.705(l)(7)	Gas piping shall be supported by metal straps (not galvanized) that have the equivalent protection of galvanized metal straps or hangers at intervals of not more than 4 feet except where adequate support and protection is provided by structural members.	<input type="checkbox"/>	<input type="checkbox"/>
3280.705(a)	All penetrations into the home shall be sealed.	<input type="checkbox"/>	<input type="checkbox"/>
3280.705(c)	When piping is installed in more than one section, the crossover connection shall:		
3280.705(c)(1)	1) be readily accessible from the exterior of the home.	<input type="checkbox"/>	<input type="checkbox"/>
3280.705(c)(2) & (3)	2) be made by the use of either:		
	a) connector(s) listed for exterior use with a shutoff valve upstream of the connection;	<input type="checkbox"/>	<input type="checkbox"/>
	b) direct plumbing with a shutoff valve upstream of the connection;	<input type="checkbox"/>	<input type="checkbox"/>
	c) listed quick disconnect which shall be designed to provide a positive seal on the supply side.	<input type="checkbox"/>	<input type="checkbox"/>
3280.809(d)	<b>The gas line shall be bonded to the frame of the home by the use of:</b>		
	1) solderless type grounding terminal with a star washer bolted to the chassis;	<input type="checkbox"/>	<input type="checkbox"/>
	2) grounding strap attached to the gas piping; and	<input type="checkbox"/>	<input type="checkbox"/>
	3) a bonding conductor of #8 copper wire.	<input type="checkbox"/>	<input type="checkbox"/>
3280.705(l)	<b>Appliance connections shall:</b>		
	1) have a shutoff valve installed at each appliance upstream of the appliance connector, within 6 feet of a cooking appliance and within 3 feet of any other appliance;	<input type="checkbox"/>	<input type="checkbox"/>
	2) be made with either:		
	a) steel or wrought-iron pipe and a union;	<input type="checkbox"/>	<input type="checkbox"/>
	b) internally tinned annealed copper tubing, Grade K or L;	<input type="checkbox"/>	<input type="checkbox"/>
	c) steel tubing meeting ASTM A539-83; or	<input type="checkbox"/>	<input type="checkbox"/>
	d) a listed appliance connector. Listed appliance connectors shall be 6 feet or less in length for cooking appliances and all others shall be 3 feet or less in length.	<input type="checkbox"/>	<input type="checkbox"/>

3280.705(1)(8)

**Testing for leakage shall be performed as follows:**

1) Before appliances are connected, the system shall withstand a pressure of at least 3 PSI gauge for 10 minutes without losing pressure.

2) After appliances are connected, the piping system shall be pressurized to not less than 10 inches nor more than 14 inches water column and the appliance connections tested for leakage with soapy water or bubble solution.

A report shall be available showing that the gas line tests were completed successfully. Any of the following shall be acceptable to show that the tests were successfully completed"

1) A "Gas Piping Tests Affidavit"\* completed, or:

2) The gas piping tests shall be witnessed by a gas company representative who shall prepare a report, or:

3) Be witnessed by an L & I inspector.

**Note: Use of CSST** The use of Gastite, TracPipe and Pro-Flex is allowed if the installation is by a qualified installer and the installation meets the requirements of the manufacture.

**NOTE:** \* Gas piping affidavits can be found on the FAS "form" page at <http://www.lni.wa.gov/TradesLicensing/FAS/FormPub/forms> or contact the department for information on the affidavit format.