



## 2021 IRC Inspection Checklist

### Fuel Gas Piping

This checklist is intended for use to prepare for an inspection. This is only a general list and is not intended to address all possible conditions. References are to the 2021 International Residential Code (IRC).

#### General

- Confirm that all new gas appliances are included on the permit. R106.1.1
- Main shutoff is accessible and ahead of the meter. G2420.2
- Pipe is supported per Table. G2424.1
- Gas piping is sized per methods in Section. G2413.3
- Pipe, fittings, valves or other materials shall not be used again unless they are free from foreign materials and have been ascertained to be adequate for the service intended. G2414.2
- Bends in plastic are per manufactures instructions. G2416.3
- Gas pipe does not run through air ducts, chimneys, vents, plenums, clothes shuts, dumbwaiters, elevator shafts or through adjoining townhouse party walls. G2415.3
- Under floor or outdoor piping is a minimum 3 ½ inches above ground or roof. G2415.9
- CSST piping requires electrical bonding per G4211.2 and shielding devices per manufacturer which extend 4 inches beyond the CSST. G2415.71
- Piping other than steel pipe requires nail plate protection if less than 1 and ½ inches from stud face. G2415.7.1
- Ferrous metal piping exposed in external locations is protected from corrosion in a manner satisfactory to the code official. G2414.7

#### Materials and installation

- Steel (galvanized) or black pipe is okay. G2414.3
- Cast iron pipe shall not be used for gas. G2414.3.1
- Except for black steel pipe, exposed piping is identified by a yellow label marked "Gas" in black letters. G2412.5

- LP gas must have piping/tubing dielectric fittings separating above ground/underground connections. G2415.10

### Joins in Pipe Tubing

- Ferrous pipe is threaded or welded. G2414.9.1
- Connections for copper tubing can be done by brazing (alloys with less than 0.05% phosphorous) or by approved gas tubing fittings complying with ANSI LC-4. G2414.9.2
- Flared joints okay in nonferrous pipe and tubing only. G2414.9.4
- PE or PB plastic piping are heat fused or mechanically connected per the manufacturer's instructions. Heat fused fittings are marked "ASTM D2513". G2415.5
- No unions or bushings at concealed locations. G2415.5

### Inspections and Tests

- LP gas tested at least 1 ½ times operating pressure but not less than 3 PSI for 10 minutes minimum. G2417.4.1
- Test with air, nitrogen, carbon dioxide or an inert gas. Oxygen not allowed. G2417.2
- Turn off or cap all outlets first before turning on gas. G2417.6.2
- Detect leaks with an approved type detector or soap suds. G2417.5.1
- Defective piping shall be replaced and not repaired.
- Testing is required only for new pipe and added to an existing system. G2417.1.3
- Equipment that is not to be included in the test is to be disconnected or isolated by blanks, blind flanges, or caps. G2417.3.2

### Underground

- Ferrous pipe must be protected from corrosion. G2415.9
- Underground pipe shall have factory applied, electrically insulating coating. Fittings and joints between sections of coated pipe shall be in accordance with the coating manufacturer's instructions. G2415.11.2
- Above grade metallic gas piping requires bonding. G2411.2.1
- Gas piping not used as a grounding electrode. Ferrous underground pipe connected to ferrous above ground requires a dielectric fitting. G2410.1
- Minimum burial depth is 12 inches. G2415.12
- Individual gas lines to lights, BBQ's, etc. may have 8 inches of cover if not susceptible to damage and approved by authority having jurisdiction. G2415.12.1
- 18 AWG yellow insulated copper tracer wire run with PE or PB piping. G2415.17.3
- PE or PB require ferrous riser before going vertical. G2415.17.1 Exception: May terminate outside above ground in accordance with manufacturer's instructions or above ground in a sleeved wall head adapter.

### **Gas Piping Under Building or Slab**

- Gas piping is not to be buried under or in a slab within the building. Exception: it is allowed below grade under a building if sleeved in schedule 40 steel, iron or plastic pipe conduit extending at least 4 inches to outside of building. G2415.14
- The interior end of the conduit enclosing the gas pipe is sealed. G2415.14.1
- The exterior end of the conduit is a minimum 4 inches outside of the building, vented above grade and installed so as to prevent the entrance of water and insects. G2415.14.1
- Conduit is protected from corrosion if not plastic. G2415.14
- Gas piping shall not penetrate foundation walls at any point below grade. G2415.6

### **Shutoff Valves**

- All shutoff valves are accessible. G2420.1.3
- Outdoor shutoff is required for all buildings. G2420.3
- All meters have a shutoff on the supply side. G2420.2
- Accessible shutoff required within 6 feet of an appliance and in the same room. G2420.5.1
- Shutoff valves installed inside firebox of fireplace are installed per manufacturer's instructions. G2420.5.1

### **Appliance Fuel Connectors**

- Connector is not concealed within or passes through walls, floors, partitions, ceilings or appliance housings. G2422.1.2.3
- Maximum length per manufacturer's instructions and may not exceed 6 feet. G2422.1.2.1
- Connectors are sized for the total demand of the appliance. G2422.1.2.2
- Connectors for external use are listed, labeled and installed in accordance with the manufacturer's installation instructions. G2422.1
- Pipe dope not allowed at flex connector flared connections. (per ANSI/manufacturer's regulations)