Gas Piping Installation  
(2012 IRC Chapter 24)

The following is a list of guidelines to be adhered to at the time of installation of gas piping in conjunction with converting from all electric to gas or from liquid petroleum (LPG) to natural gas:

1. A permit application shall be filed, including a plot plan. The plot plan shall include the location of the gas meter or LPG tank, the location of the gas yard line trench and all structures on the property. The plot plan need not be drawn to scale.

2. The permit application shall include all new appliances to be installed (water heater, furnace, etc.). If these are not included in the original permit application, a separate permit shall be required for the installation of the equipment.

Permits for new gas service or conversion are over the counter permits with a standard fee of $102.50 for work valued at $5,000.00 or less with fees adjust appropriately for valuation above $5,000.00

3. Underground gas piping shall be installed using approved materials including factory-coated iron or steel pipe and approved plastic piping. All fittings used in conjunction with steel or iron piping shall be primed and spirally wrapped with a minimum 10 mil PVC tape to a thickness of 40 mils (2 wraps half lapped of 10 mil tape or 1 wrap half lapped of 20 mil tape) to a distance of six (6”) inches beyond the fitting ends and the primer must be visible beyond the ends of the tape. Thread protectors supplied with coated steel pipe are not approved couplings and should not be used as such in gas piping systems. Any abrasions in the coating of the piping should also be primed and taped to prevent corrosion of the pipe.

4. Underground gas piping shall be located a minimum of twelve (12”) inches below grade. All gas piping shall be firmly supported for its entire length with clean, rock free (fine) material. All trenches must remain open for visual inspection until after tested, inspected and approved. Plastic underground piping requires an 18 AWG yellow insulated tracer wire be installed in the trench with the piping.

5. At a point, a minimum of six (6”) inches above grade, where the underground yard line connects to the building gas line, an approved electrical isolation fitting (dialectic union) shall be installed. For natural gas service where the meter is located at the building the dialectic union is not required. Manufactured homes must also be supplied with an approved flex connector where the gas line enters the underside of the home. A shut off valve must also be provided at the exterior of all buildings prior to the gas line entering the building. It does not matter is the shut off is before or after the dialectic union.

6. The gas line shall be tested at 10 psi for one-stage gas systems with not greater than a 30-pound maximum gage size with 1-pound increments. If using a two-stage system (regulators at the tank
and the house) the required test is 60 pounds. The permit holder must provide the test and the test will be verified by the Building Inspector. If there are unusual circumstances the Building Inspector may require a second pressure test after the trench has been backfilled.

7. All interior gas lines are required to be bonded in accordance with the 2005 National Electric Code Article 250-104(b) with a minimum #6 awg bare or insulated copper ground wire and an approved bond clamp. The bond wire must run continuously to the ground bar of the main electric service panel.

If you have any further questions regarding your specific project, please contact a building inspector at either the Prescott office or the Cottonwood office at the phone numbers listed at the top of the previous page.